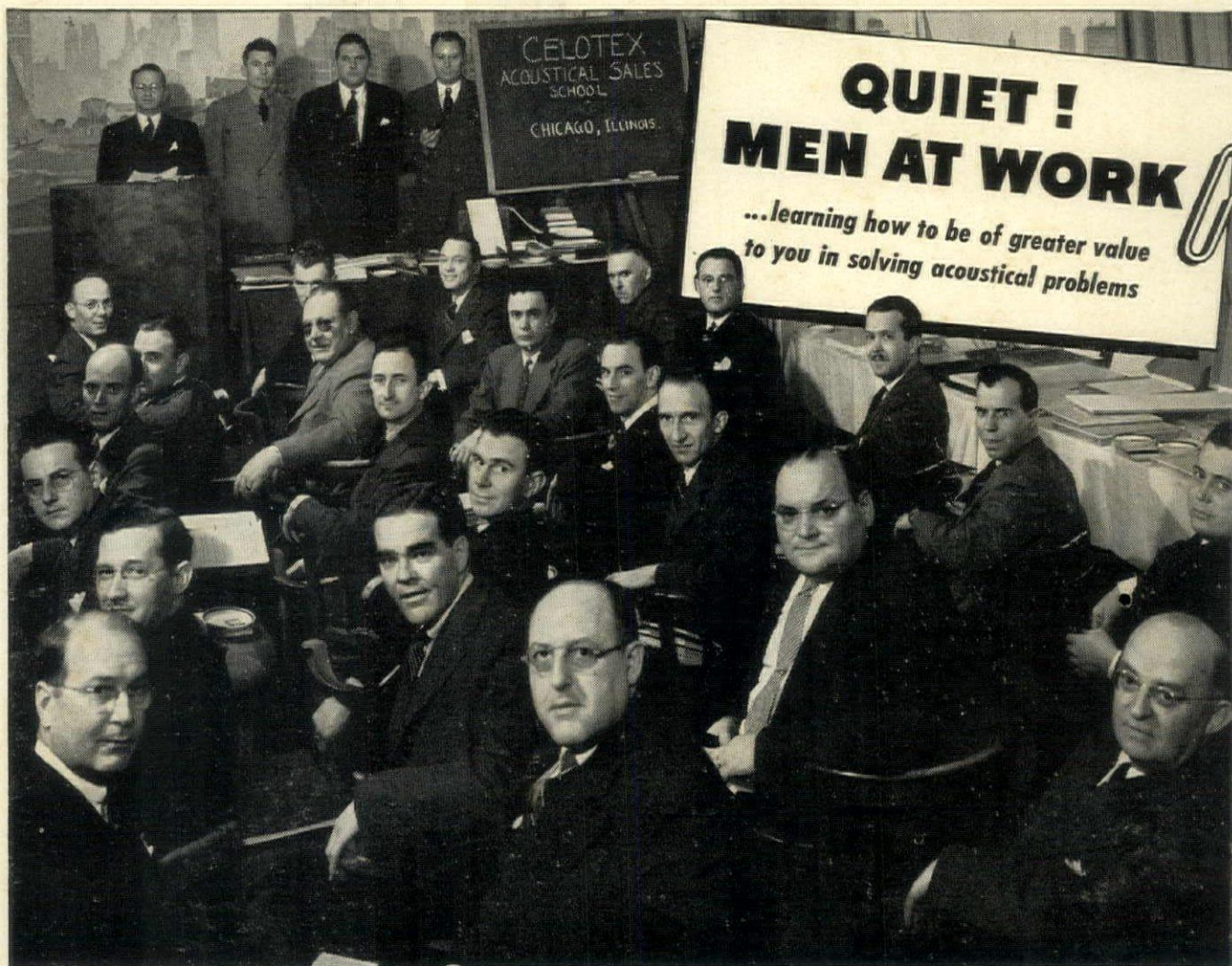


THE ARCHITECTURAL  
FORUM

SEPTEMBER 1944





## Another Reason Why Leading Architects Specify Acousti-Celotex

**S**OUND CONDITIONING experts are *made*—not born! That is why the sales engineers on the staffs of Acousti-Celotex\* distributors attend a practical acoustical seminar like the one pictured above, at frequent intervals.

To experienced Sound Conditioning experts this school is a valuable "refresher" course which strengthens their broad understanding of your acoustical problems. To newer sales engineers it is a complete course in all important phases of acoustical installations.

To *both* the seminar is an opportunity to develop more fully their ability to help analyze and solve *your* acoustical problems. As such, it typifies the *thoroughness* of Acousti-Celotex service to architects!

Long years of experience in the manufacture of

Acousti-Celotex are responsible for this famous perforated tile's undisputed position as the world's most widely used acoustical material. The combination of this time-tested product and a competent Sound Conditioning expert is your assurance of acoustical installations which offer both the performance and appearance you demand.

The sales engineer on the staff of the Acousti-Celotex distributor in your city is ready and willing at all times to offer his counsel and recommendations. Feel free to call upon him—*without* obligation. The distributor whom he represents is a member of the world's most experienced acoustical organization... and *he guarantees results!* If you cannot locate him, a note to us will bring his Sound Conditioning expert to your desk. Write: The Celotex Corporation, Dept. AF-9, Chicago 3, Illinois.



*Sound Conditioning with*  
**ACOUSTI-CELOTEX**  
*\* Perforated Fibre Tile* REG. U. S. PAT. OFF.  
SINCE 1923.

Sold by Acousti-Celotex Distributors Everywhere • In Canada: Dominion Sound Equipments, Ltd.



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Linda Vista, Calif., gets the first application of the "grass on Main Street" idea; a fine group of stores surrounding a generous landscaped area with organized service and parking facilities.

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**NEXT MONTH:** A special issue on commercial remodeling . . . shops, stores, offices, theaters and restaurants . . . completed jobs and projected designs for postwar execution.

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

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

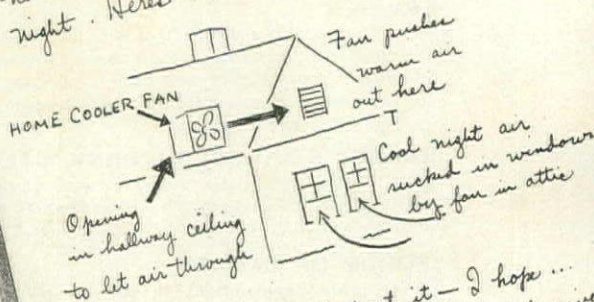
*Managing Editors,* George Nelson, Henry Wright; *Art Director,* Paul Grotz; *Associates,* Louise Cooper, Christopher Tunnard; *Assistants,* Eleanor Bitterman, Ruth Feierabend, Mary Jane Lightbown, Mary Mix, Mary Sanders, Charlotte Speight, Dorothy Oshlag, Richard E. Saunders.  
*Publisher,* Howard Myers; *General Manager,* Ruth Goodhue; *Advertising Manager,* George P. Shutt.

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JHS

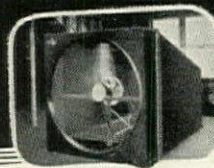
Dearest John -  
So glad you agree with my ideas about the arrangement of our "Dream Manor". Writing about it makes it seem so real I can hardly wait. You wanted to know more about the well Emerson-Electric home cooler fan you have in her home - the one that keeps it so cool at night. Here's how it works -



Now you know all about it - I hope... If you don't, the enclosed folder will give the kind of information a technical Sergeant like you would want and

T/Sgt. John  
Hqs. Tr  
APC

### EMERSON-ELECTRIC HOME COOLER FANS



#### AFTER VICTORY Cool Your Home This Low-Cost Way

Breezeless, humid, sleepless summer night... you fighting fatigue, nerves edgy, clothes wilted, your temper sizzling... Cool off with a powerful Emerson-Electric home cooler fan installed in the attic! Then, with a click of the switch, you can drive out the heat of day... draw in fresh night air... make every room as cool as a sleeping porch.

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SAINT LOUIS 3, MO.  
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New York • Chicago • Detroit • Los Angeles • Vancouver

This Full-Page Advertisement  
Appears in July  
**Better Homes  
& Gardens**

When the war is won, Emerson-Electric attic ventilators, kitchen ventilators, and portable fans will again be available for making America's homes more comfortable. Today, Emerson-Electric power-operated gun motors and electric motors for aircraft are in active service on all battle fronts of the world.

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**EMERSON** **EMERSON ELECTRIC** **ELECTRIC**  
MOTORS • FANS APPLIANCES

"For Making America's Homes More Comfortable"... Include Emerson-Electric Home Cooler Fans and Kitchen Ventilators in your plans. Send for Catalog giving full information... The Emerson Electric Mfg. Co., St. Louis 3, Mo.





## TO PLAN MORE ROOM FOR

## HAPPY LIVING

**W**AR-CRAMPED families will want more room for happier living in their homes of tomorrow. Surveys indicate that recreation rooms will be much in demand—as well as more livable, more convenient bedrooms, dining rooms and kitchens.

With windows, doors and woodwork of Ponderosa Pine, you can fully satisfy these urgent needs. Bays, corner windows, and window groups of Ponderosa Pine can help you achieve effects of greater spaciousness and charm . . . yet meet the need for fuel economy, since these windows are pre-fit and pre-assembled for true weathertightness. Ponderosa Pine doors and woodwork will help you add to convenience and increase storage space. Whatever type of home you design or build, durable, toxic-treated woodwork of Ponderosa Pine is available in styles to fit your plans. To give homeowners more value in the homes you plan, watch woodwork!

## WATCH WOODWORK!



### FREE BOOK SHOWS HOW

Ideas for increasing beauty, livability and convenience in every room of the house are contained in this free idea book, "The New Open House"—one of today's most useful guides to postwar planning. Mail the coupon for your copy—there's no cost or obligation.



**Ponderosa Pine**  
**WOODWORK**

THE BEST IS YOURS . . . WITH PINE

PONDEROSA PINE WOODWORK  
Dept. ZAF-9, 111 West Washington Street  
Chicago 2, Illinois  
Please send me a free copy of "The New Open House."

Name .....

Address .....

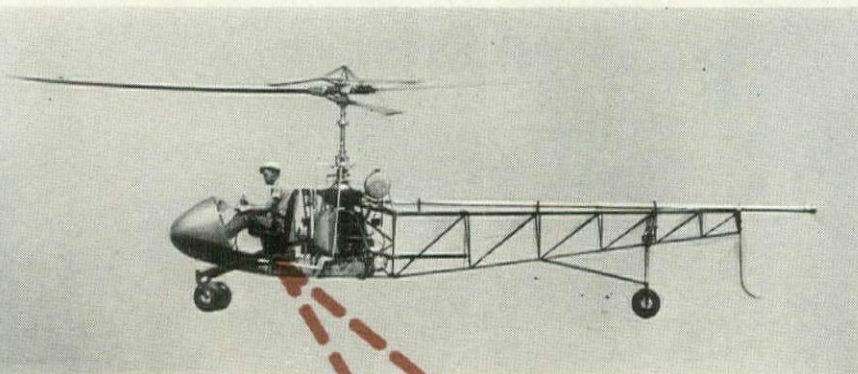
City .....

State .....



# FORUM OF EVENTS

Ford's Model T was once a dream: experiments point to the family helicopter as its sky-going successor



PASSENGER SPACE OCCUPIES ONLY A SMALL PART OF THE BODY



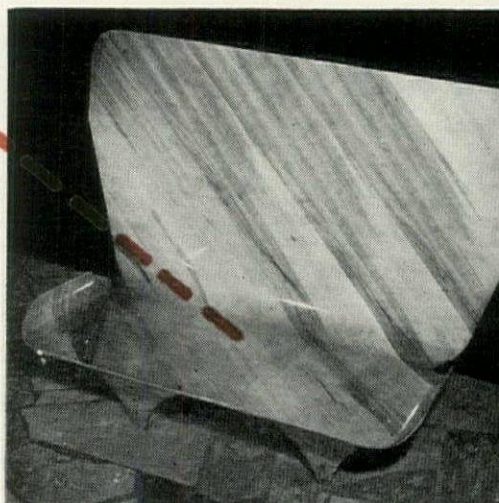
STREAMLINED METAL BODY

For the past few years the number one hobby of leading aircraft manufacturers has been the helicopter. Despite the proven possibilities of this type of craft, engineers warn that it may be five years before just anyone will be able to buzz off, across country, in the family plane for cocktails or some equally frivolous occasion. Controls are still too complex for the average person and at this stage of development an extraordinary degree of skill and technical knowledge is needed to handle them. One of the most interesting contributions yet to be made is that of Arthur M. Young, inventor of the Bell helicopter (above). It consists of a stabilizing system which renders the rotor independent of the mast so that it tends to remain in a horizontal plane. Working with Mr. Young on body construction and interiors is designer C. Coggeshall who developed a molded plywood seat (right) for use in the experimental models. Manufactured from  $\frac{1}{4}$  in. plywood, the sharp curvature at the rear of the seat is reinforced with extra layers built up to an approximate  $\frac{3}{4}$  in. thickness. The back flares at the top to conform to the general egg-shape of the helicopter. The seat is bolted directly to the metal-rod frame of the plane and does not utilize the supports shown in the photographs.

During its current experimental phase the contour of the helicopter seems to change as unpredictably as the sky in which it flies. It is not unlikely that a year from now its 1944 countenance may appear as outdated as the old jalopy.



ANGLE IS REINFORCED BY FOUR EXTRA L

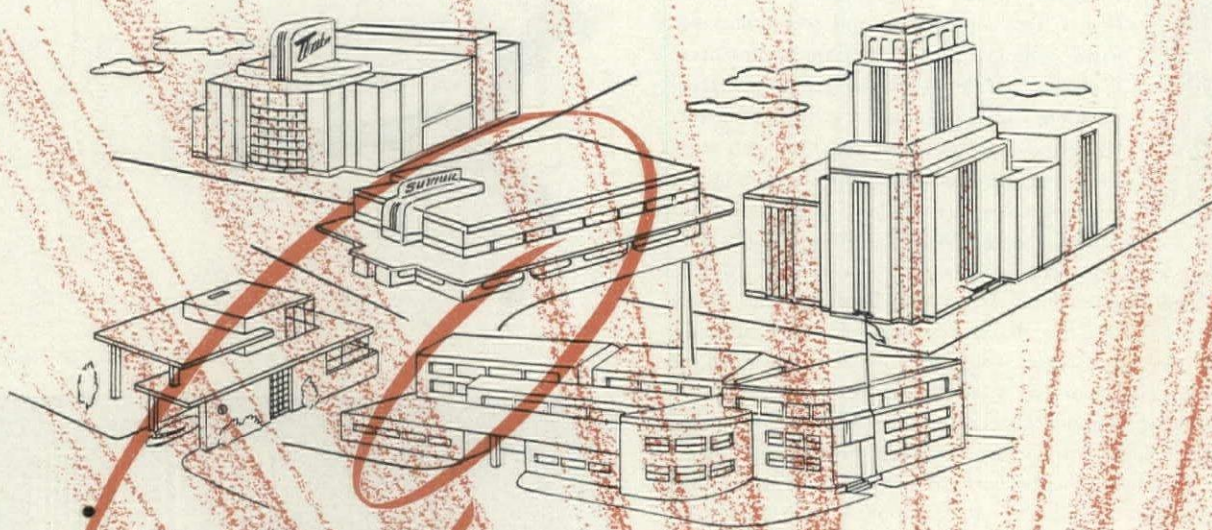


SEAT BELT PASSES THROUGH NOTCHED



BACK AND SEAT CUSHIONS ARE EASILY RE





## *Capture* THE COMING SUNRISE!

**I**N preparation for the coming sunrise of peace Formica research chemists have developed Formica laminated plastics in still more harmonious and suitable colors, tints, shades, patterns, and "Realwood" actual wood grains.

Research has truly captured the fleeting colors of the sunrise and held them fast. The colors do not fade. Soap and water, even strong solvents, in no way injure them.

And these new colors are more amply protected by tougher deeper plastic films, and will be many times as durable as before-the-war Formica which was the most durable of all finishing materials.

This is the modern surfacing material for wainscot, column covering, doors, counters, table tops, show window backs and lobby paneling.

Specific data on methods of application are available to assist you in writing specifications.

Formica has met with enthusiastic approval of leading architects and interior decorators for use in the finest ships, trains, hotels, stores and public buildings. It will be available immediately when our war contracts have been cut back.



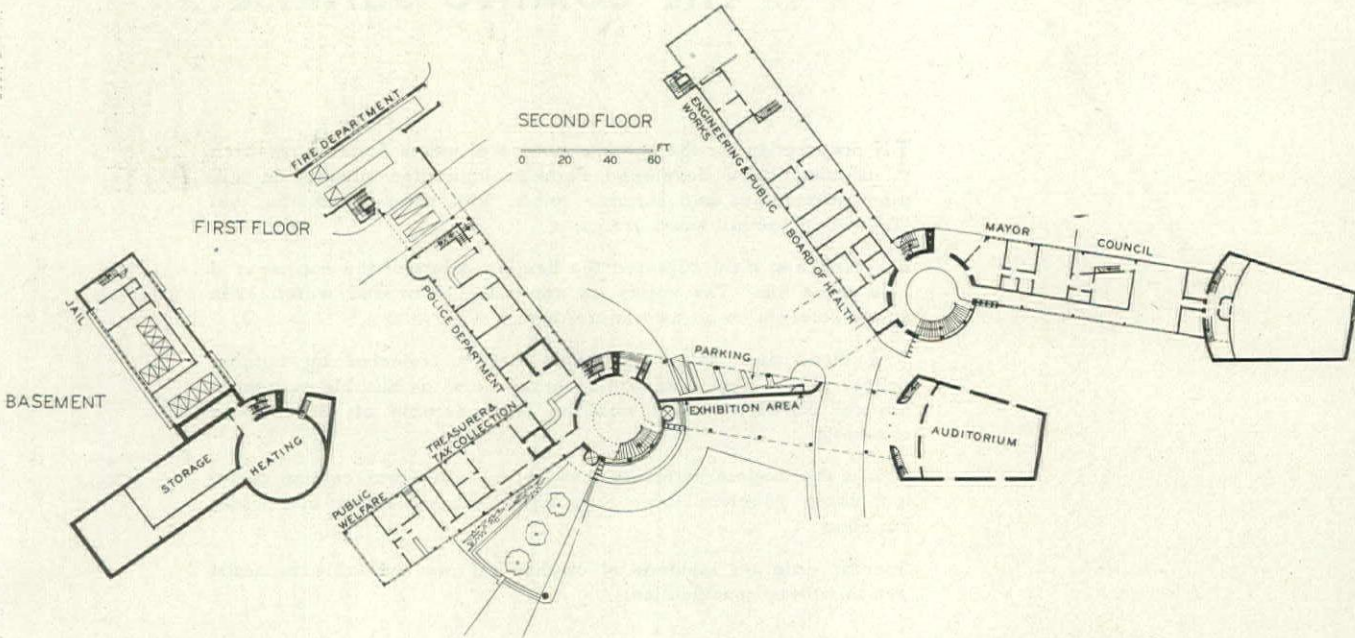
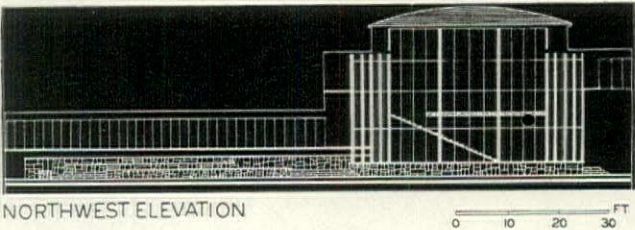
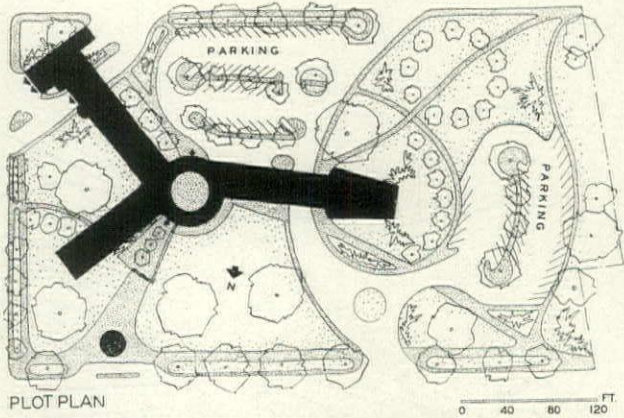
THE FORMICA INSULATION CO., 4620 SPRING GROVE AVE., CINCINNATI 23, OHIO



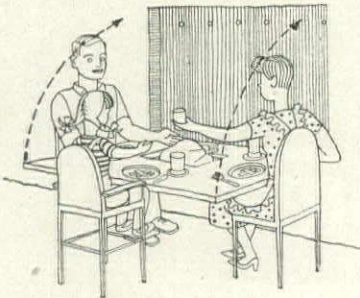
FORUM OF EVENTS



**J. S. SUDLER**, architectural student at Princeton University, recently won the Beaux Arts competition and accompanying prize offered by THE ARCHITECTURAL FORUM. Students were given a "free problem" of designing a civic center for an actual town of about 20,000 population. The program was limited to a minimum of stipulations so that students might interpret requirements in terms of specific local conditions and sites. After studying existing civic facilities in Princeton, N. J., Mr. Sudler proposed a civic center which would include the offices of the borough hall, a fire department and a police station. The site was treated as a park since none exists in the town at present, and provides parking space for visitors and shoppers at the neighboring commercial center. The building replaces an outmoded elementary school on the main street of the town. To acquire an adequate site necessitates the purchase of a few old, non-historic buildings. Its location is approximately at the center of population and is bordered on the east by the business section.



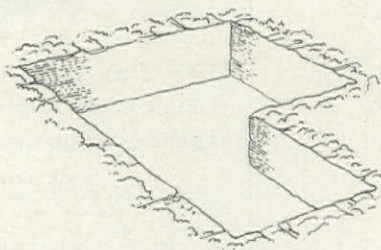
POSTWAR DESIGN OF THE MONTH



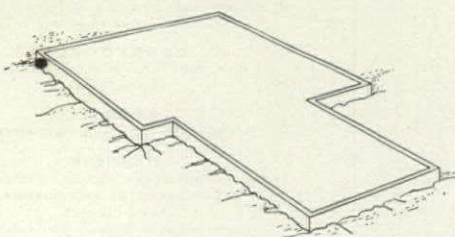
Unimpressed by the virtues of disposable plates and eating utensils, inventor W. B. Stout has struck out on a tangent of his own. It consists of a table with built-in dishes which folds up into the wall. By pressing a button, soap and water is turned on within the wall, washing the table and dishes at once. Any loose objects, including table scraps and stray pieces of silver, plummet down a hole and into an incinerator. Inventor Stout visualizes a mirror on the reverse side of the table as a decorative motif. A dart board seems more to the point since it would provide the empty-handed family with amusement between the courses.



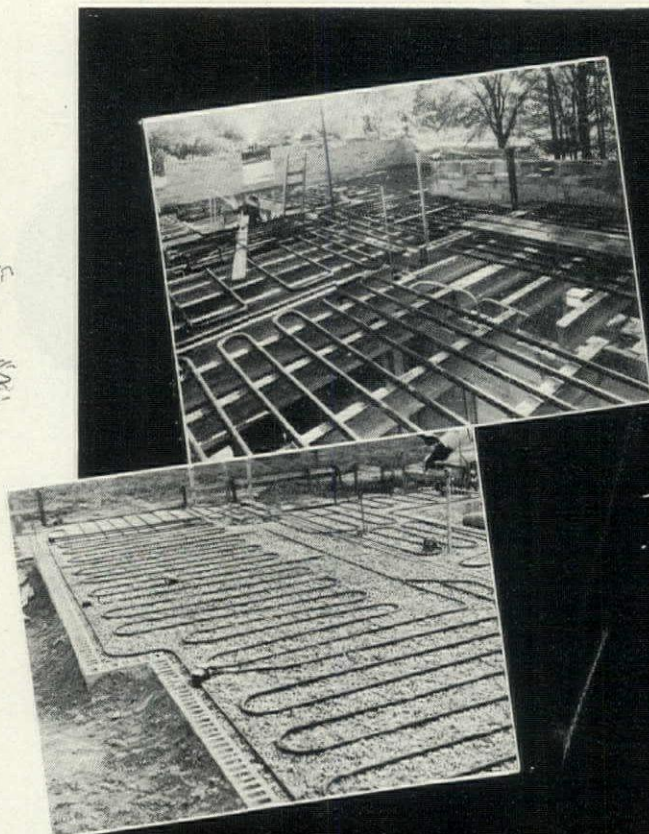
*Building homes  
with basements?*



*Building homes  
without basements?*



**No matter which—**  
*you can still use*



**BYERS RADIANT HEATING**

Any attempt to generalize about basements vs. no basements in the homes of tomorrow is probably a waste of breath. In some cases, cost and convenience will recommend floor-slab construction, with everything above grade. In others, space requirements, ground contours or just plain prejudice will dictate excavation. The important thing to bear in mind is that the final selection does not in any way limit the use of Byers Radiant Heating. It can be installed with equal ease, and used with equal satisfaction, in either instance.

The methods involve nothing new or unusual. They are merely common-sense ways of installing heating coils underneath floors that would suggest themselves to you if you were called on to solve the problem yourself.

In buildings with basements where wood floors are used the coils can be laid on the joists, with sleepers to support the finished floor. Or the coils can be placed on the sub-floor, again with sleepers on which the finished floor is laid. A third variation is to fasten the coils to the bottom of the joists and lay the floor on top in the regular way. In each method, insulation should be placed below, to properly influence the heat flow. If any form of monolithic floor is installed, the coils may be cast right into it.

In buildings without basements, where wood floors are used, the coils can be placed right on top of the concrete. Sleepers (which can be placed before the slab is poured) provide support and a nailing surface for the finished floor. When the floor itself is to be concrete, with or without mastic

and linoleum, or other similar topping, coils can be cast right into the slab.

It is well to remember that radiant heating is the most practical way to assure warm floors in basementless construction. In any installation where air is the medium used to distribute heat, there will always be a substantial difference between the temperature of the floor surface, and of the air directly above it—which is of course the coolest air in the room. This is due to "film-effect," and may be confirmed by an elementary temperature-drop calculation.

Basement or no basement, the unusual combination of advantages offered by Byers Wrought Iron helps to simplify the job, and assure continued satisfaction.

Byers Wrought Iron can be readily formed and welded into strong, durable units. It has excellent heat emission qualities. It expands and contracts at practically identical rates with concrete and plaster. And its corrosion resistance has been proven in countless applications.

If you do not have our bulletin, "Byers Wrought Iron for Radiant Heating Installations," let us send you a copy. You'll find it helpful and interesting.

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

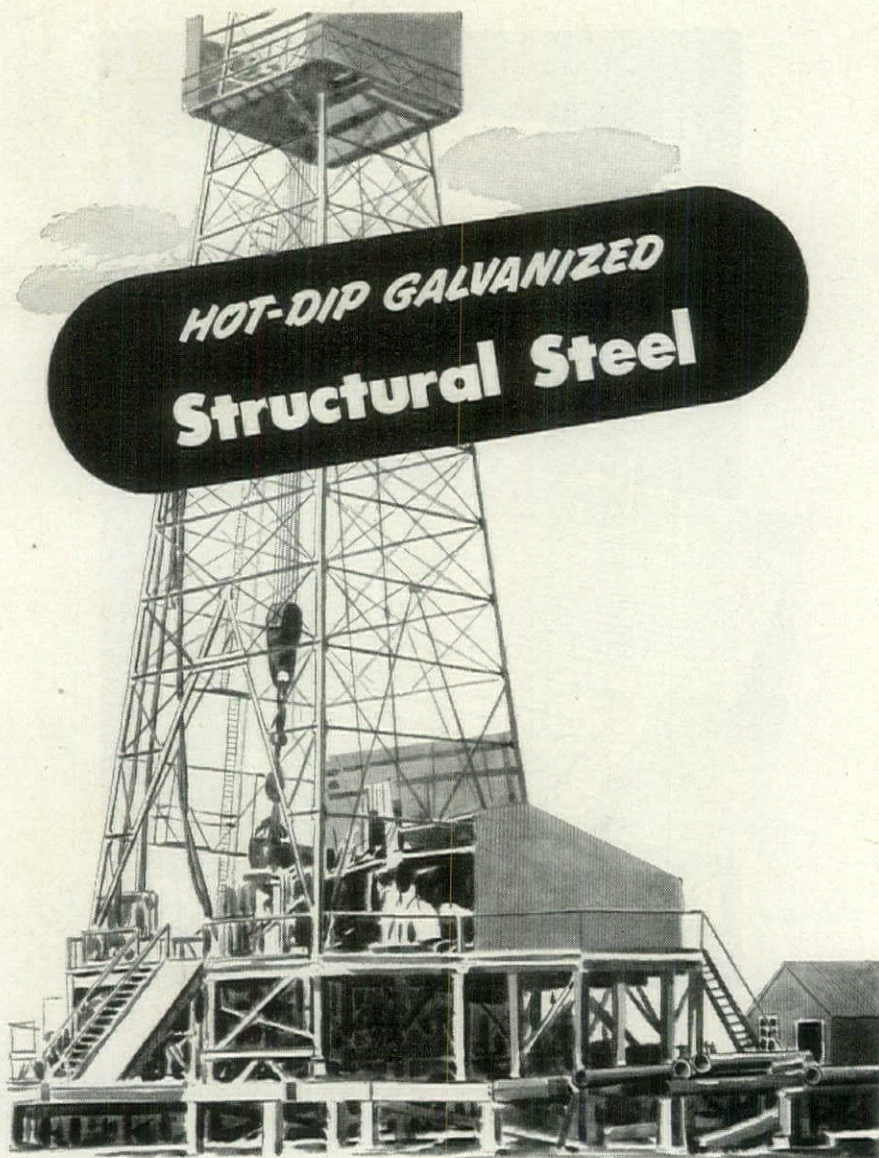
**BYERS WROUGHT IRON**

*FOR EXTRA SERVICE*

*IN CORROSIVE APPLICATIONS*

CORROSION COSTS YOU MORE THAN WROUGHT IRON





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ECONOMY in your original installation is measured by its lasting quality and service . . . Time after time this has been proven in the case of structural steel where installations are constantly exposed to the elements.

The protection of the thickest possible coating of zinc is provided only by Hot-Dip Galvanizing. This method has always paid dividends by eliminating costs for

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Where rust prevention is of primary importance, you can be fully assured of the galvanizing job being—"a job well done"—when it is in accordance with the Association's rigid standards.

American Hot Dip Galvanizers Association, Inc., First National Bank Building, Pittsburgh 22, Pa.

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



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Not just Galvanizing

but

hot-dip GALVANIZING



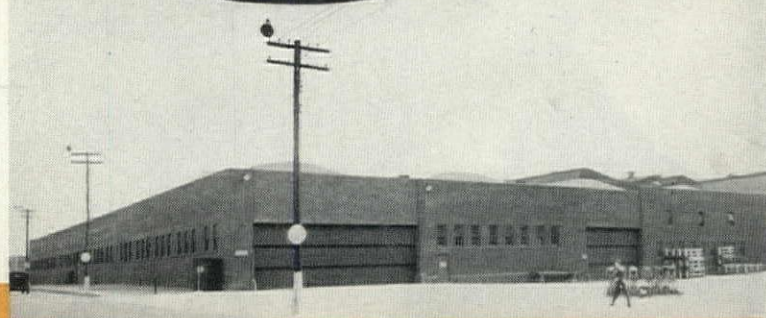
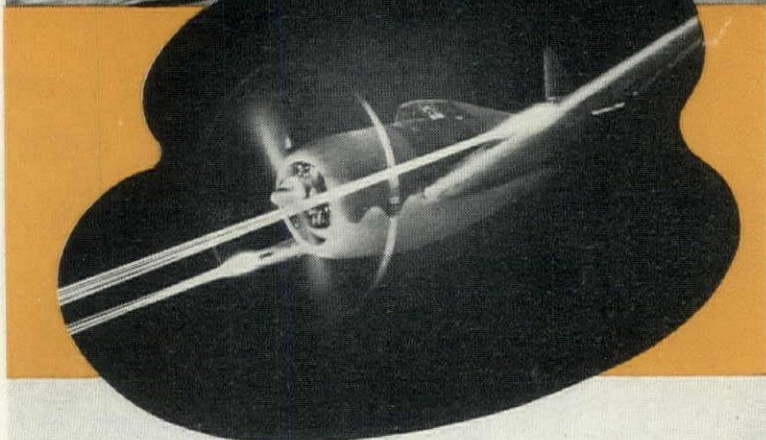
# ELJER PLUMBING FIXTURES

Republic Aviation Corporation, specialists in high-speed, high-altitude aircraft and makers of the famous Republic P-47 Thunderbolt, recently completed a series of new buildings at their plant at Farmingdale, Long Island, N. Y. We are illustrating some of the fine ELJER plumbing fixtures which were selected for installation in these buildings.

ELJER CO. is proud that their products were chosen to participate in the construction of the mighty Thunderbolt fighter plane. It is real proof that these products satisfy discriminating specifications.

An architect can specify ELJER with confidence; a builder or contractor can install ELJER equipment and be assured of the user's satisfaction. Write us for complete information on fine plumbing fixtures for any installation.

**ELJER CO.**  
FORD CITY • PENNA.



Architect & Engineer: Francisco & Jacobus  
Builder: Foley Bros.  
Plumbing Contractor: Charles Argast, Inc.



B-8200 Pedestal Urinal



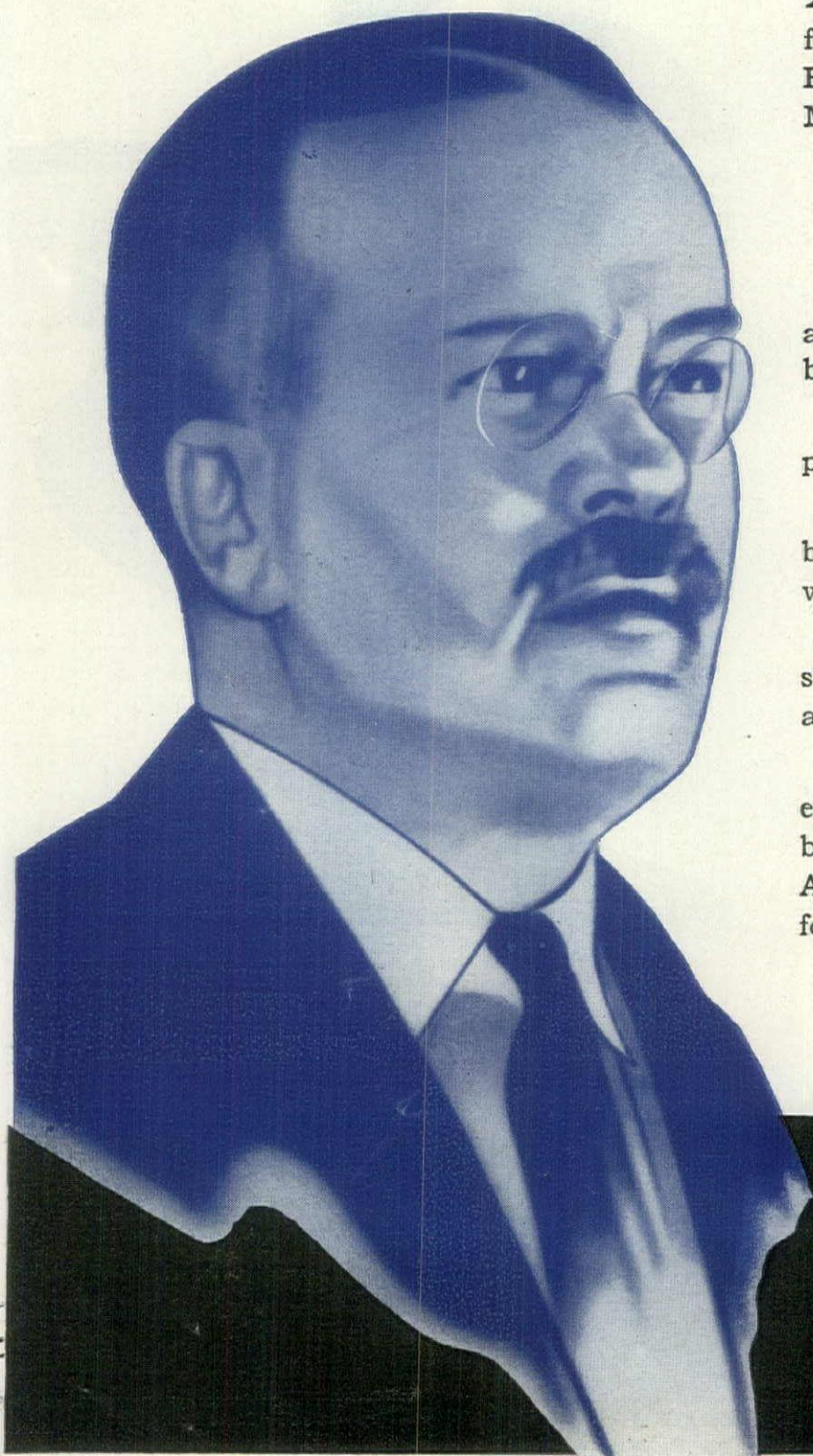
B-4144 Delta Lavatory



B-7010 Sanus Bowl



*Then he said to himself*  
**"BEGINNINGS HAVE BEEN MADE!"**



IN April when the Red Army had backed the Nazis beyond Soviet frontiers for the first time—Russia's Foreign Commissar Viacheslav Molotov announced:

"In the full re-establishment of the Soviet frontier . . . beginnings have been made."

We now see the magnitude of affairs stemming from these simple beginnings.

Well he knew that the principal part of any project is the beginning.

Well he knew that an improved beginning symbolizes an improved whole.

Well he knew that from such successful beginnings comes the ardor of pursuit.

This ardor of pursuit, well exemplified in Russian fields, symbolizes the beginnings of many American factories now preparing for the postwar invasion of markets.



# "Beginnings Have Been Made"... he says

**Look, Commissar,** how a simple beginning can achieve a substantial ending in the field of engineering construction.

## KNOWLEDGE OF STRUCTURAL WELDING

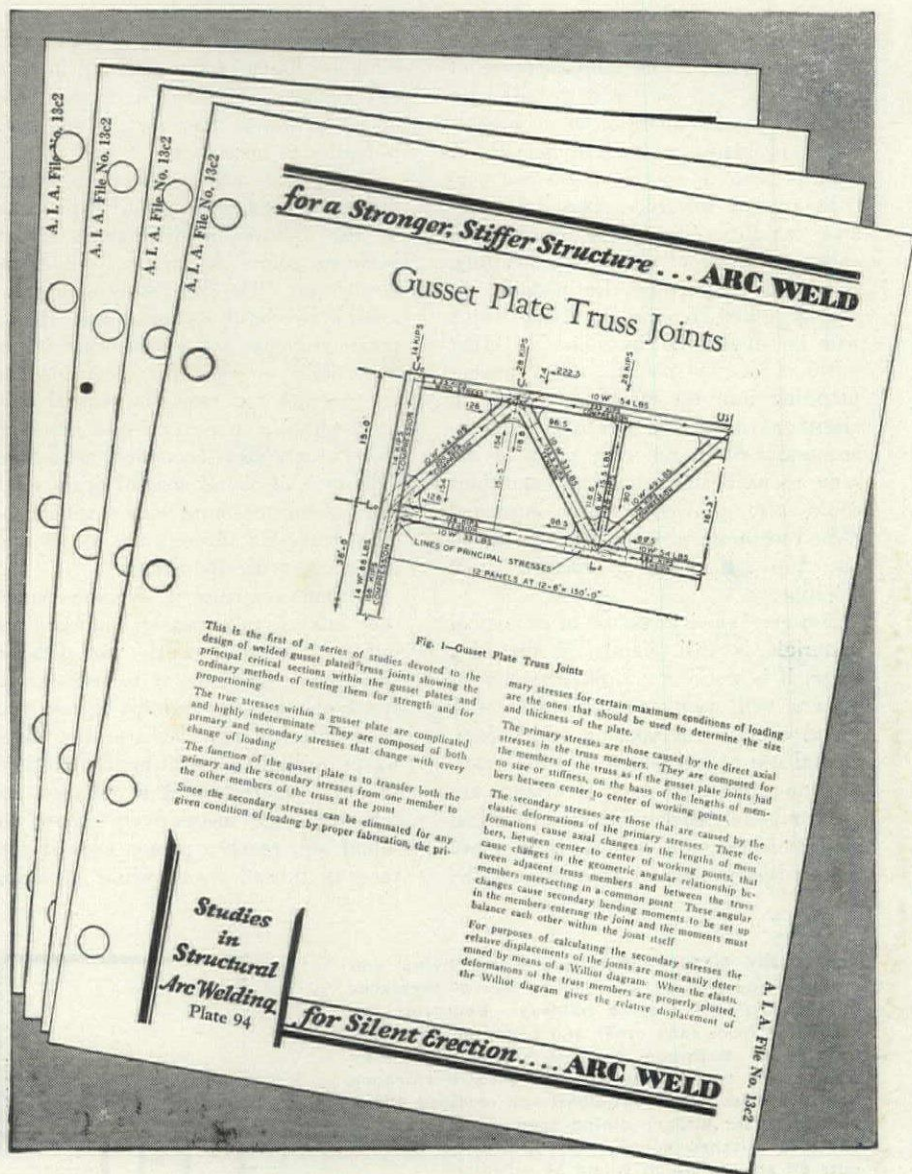
to keep you abreast of  
this advancing method

**H**OW to design and build welded truss joints, rigid frames, beam-to-column connections, and other structural details, is the subject matter of this series of authoritative Lincoln Studies in Structural Arc Welding.

These studies, published regularly, contain design information which is prepared for engineers by engineers. Knowledge gained from these studies can help you take advantage of the many benefits of arc-welded construction . . . proved by use in ships, ordnance, aircraft and all kinds of structures during the war.

Sent **FREE** to architects, engineers, fabricators and contractors. Simply write us on your business letterhead and ask to be placed on the mailing list for "S.S.A.W. plates."

**ALSO AVAILABLE:** The "Procedure Handbook of Arc Welding"; total 1308 pages; 282 pages on structural design, containing previous studies over a 15-year period; price \$1.50 C. O. D.



**THE LINCOLN ELECTRIC COMPANY**  
Dept. AA CLEVELAND 1, OHIO

*America's greatest natural recourse*  
**ARC WELDING**



# PRODUCTS AND PRACTICE

**SOUND CONDITIONING** may be as important as air conditioning in the postwar home. New ideas in effective sound control, developed for non-residential applications, are already being adapted to home use.

With present advances in the science of acoustics, sound conditioning should at last get its share of attention in the planning of modern homes. Segregation of sound to provide quiet areas in different parts of the house, reduction of clatter within a room and acoustical treatment for accurate sound reception would add much to family comfort and should be considered while design of a house is in progress.

Sound conditioning has already been applied with brilliant success to non-residential interiors such as theaters, broadcasting studios, restaurants and hospitals—wherever noise reduction is a problem of prime importance. Sound control has become so accurate that acoustical engineers now can produce any desired auditory effect. The first attempts toward acoustical improvement by haphazard use of sound-absorptive materials have given way to architectural understanding of the problem, with quality and liveness of tone the paramount objective.

This may be observed in broadcasting studios which have gradually developed from conventional rectangular rooms equipped with sound absorbent material on the ceiling alone. Today studio walls are tilted, never parallel, and broken surfaces jut into the room. Acoustical material is used sparingly on certain walls while others are paneled with plywood to reflect sound and afford resonance.

Sound-absorbing materials have also been used effectively in commercial spaces where the noise of typewriting or telephoning formerly reduced efficiency of workers. Under the pressure of war, factories, too, have found that sound conditioning boosts production and cuts down absenteeism.

Because of this increase in the use of sound control, a great variety of good-looking and inexpensive acoustical materials are now on the market. They are the opening wedge for further expansion of sound conditioning. Although non-residential applications have been phenomenally successful, few people have ever thought of using acoustical tile, plaster, metal panels or wall-board in the home. Here noise is often only a minor annoyance, but it can have a direct effect on the nervous system, and it is always the unwanted noise which we hear. In the future this situ-

ation will undoubtedly become more acute, because of the increased use of open plans, and the trend toward bare furnishings and no rugs which creates sound problems in modern homes. A definite plan to control noise can contribute much toward increased comfort and livability in postwar construction and remodeling of the family dwelling. It should be possible, for instance, to provide quiet areas in the home which will be unaffected by noise in other portions of the house. With proper planning and the wise use of sound absorbent materials, this may even be accomplished in different parts of the same room. Better acoustical conditions could also provide greatly improved radio reception, whether for an inexpensive \$50 set or for a sensitive \$500 machine.

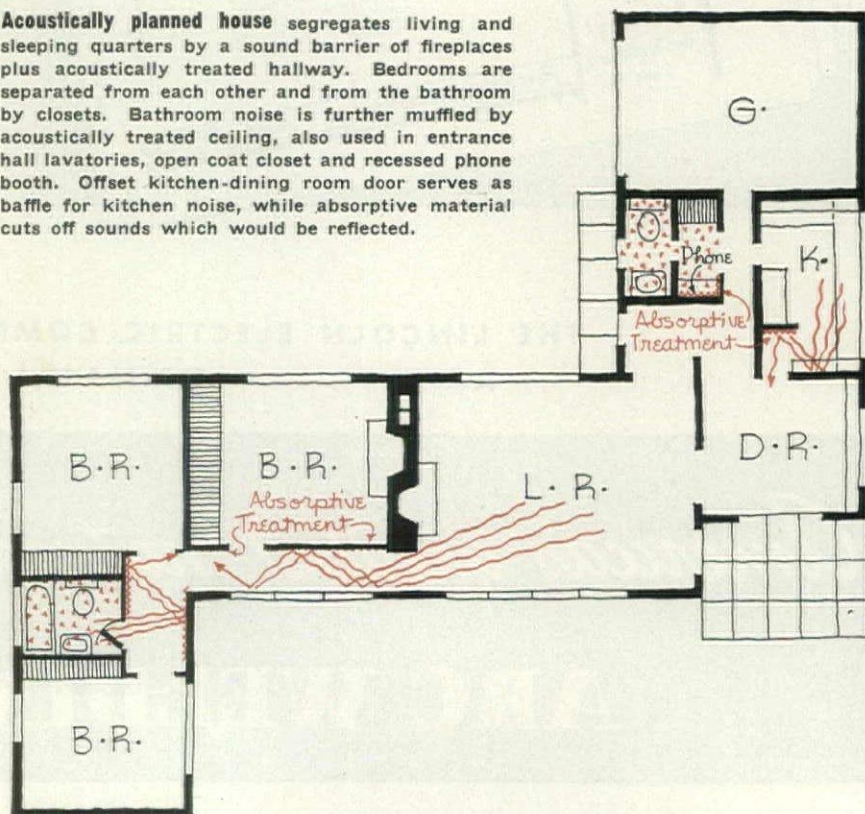
However, since home use of acoustical materials is still mainly in the idea stage, it is not yet certain what homeowners will want to accomplish with sound control. A sparing and experimental use of the materials will constitute no great loss even if results are not completely successful, for acoustical wall finishes cost only a little more than ordinary ones. A knowledge of the

principles of sound transmission will eliminate much of the guessing in these experiments. To better understand how acoustics work, therefore, a brief explanation is necessary.

There has always been a certain amount of confusion in this field because of the failure to distinguish clearly between sound insulation and sound absorption. The first deals with transmission of both airborne and impact noises from one space to another. Sound absorption on the other hand is concerned with reducing the general noise level within a space, and with providing more nearly ideal acoustical conditions. This type of sound control deals solely with airborne sound waves which, besides traveling through the air, bounce from any reflective surface.

Without realizing it, everyone knows that talking to a person outdoors and indoors are acoustically two different situations. Outdoors it is necessary to speak at a person, perhaps to turn your head toward him because the sound waves, unlimited, go off in all directions. Indoors, where sound is trapped and reflected you instinctively know the sound will reach a person even if your face is turned away while speaking.

**Acoustically planned house** segregates living and sleeping quarters by a sound barrier of fireplaces plus acoustically treated hallway. Bedrooms are separated from each other and from the bathroom by closets. Bathroom noise is further muffled by acoustically treated ceiling, also used in entrance hall lavatories, open coat closet and recessed phone booth. Offset kitchen-dining room door serves as baffle for kitchen noise, while absorptive material cuts off sounds which would be reflected.







**Living room** of Sherman Fairchild's Manhattan town house with accompanying acoustical diagram. Built for faithful sound reproduction of his elaborate radio set and two pianos, it provides both a highly reflective and an absorbent wall surface, plus a sound deadening ceiling. Tilted, glazed panel at the end of the room reflects sound in the proper direction.

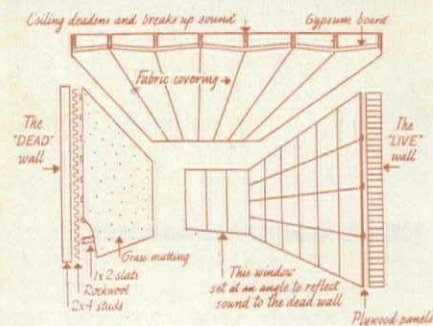
When sound absorbent material is used on a ceiling the acoustical result is almost as though the ceiling had been removed. If this sort of material is also used on walls, it might absorb too much sound, giving the uncomfortable (because unaccustomed) sensation that you are out of doors.

Too great reflection of sound waves, however, produces a booming effect during conversation. This is easily seen in the contrast between a furnished room and an unfurnished one. In an empty apartment, sound reverberates because the waves bounce back and forth reflected by the bare walls, ceiling and floor. Upholstered furniture and rugs act as sound absorbers and produce the tones we are accustomed to hear.

In sound insulation, which combats the transmission of noise from space to space, it must be remembered that airborne sounds can enter through windows, cracks under doors, flaws in

masonry or plastering, cracks around ventilating ducts, even pipes and conduits. Careful workmanship, the elimination of cracks and use of acoustical duct filters will help this situation.

In addition, airborne sounds may be transmitted directly through a building structure which acts as a diaphragm set in motion by the sound waves. This motion is translated back into sound on the other side of the structure. It can be most effectively reduced by heavy construction such as 4 in. to 6 in. masonry walls, non-homogenous walls and by walls or ceiling of two or more layers with a sound-absorbing filler like mineral wool. According to tests conducted by the Bureau of Standards, a wall constructed of  $\frac{1}{2}$  in. insulating board and plaster on each side of 2x4 in. studs reduces noise better than walls made with either gypsum or wood lath as the plaster base. However, a heavy masonry wall is still better and is less expensive than double construction,



floating floors and ceilings and similar devices.

Impact noises, a completely different type of sound transmission, must also be considered if sound insulation is to be effective. They are caused by structural vibrations from one portion of a building to another. Walking, moving furniture, rattling of water pipes are all examples of impact sounds. They can be effectively reduced at the source by covering the floor with rugs or resilient floor tile, and by proper mounting of pipes and conduits.

Sound absorptive material, used mainly to reduce noise within a space, can be applied to the problem of sound transmission in certain cases. A hallway down which sound travels from a



## PRODUCTS AND PRACTICE

living room to a bedroom may be treated in this way. Absorptive materials may also be used to reduce noise transmission from one part of an irregularly-shaped room to another.

With the distinction clearly made between sound insulation and sound absorption, acoustical treatment of a house boils down to three objectives: preventing the passage of sound from one room to another, absorption of noise at the source and sound control within rooms. To accomplish these ends, elaborate and expensive devices are unnecessary. Careful thought and the use of certain new design ideas make sound conditioning a relatively simple matter. Houses may be planned to maintain areas of complete quiet, or to accomplish at least a great reduction in sounds which travel from a noisy part of the house to quiet parts. For instance, houses may be planned and built in such a way that children will be able to sleep in the bedroom portion while their parents play the radio or have a party in another part of the house.

In a one-story home, this can be accomplished by planning for sound control at the design stage. A bank of fireplaces and chimney flues installed between living room and bedrooms makes an excellent sound barrier for this purpose. If the fireplace is not wanted a masonry wall may be used, finished in the ordinary way or left unfinished as a functional decoration suitable for both modern and traditional homes. Another excellent barrier device is a double row of closets, one row opening into the living room and hall, the other into the bedroom. Closets are particularly effective since clothes are exceptional sound absorbers. If, in

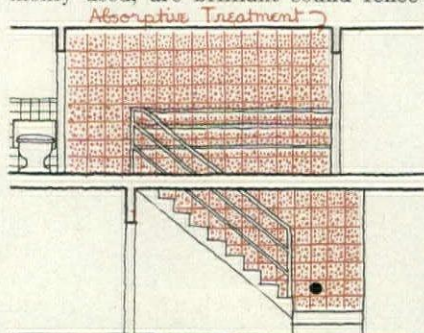
addition to the creation of an effective sound barrier, the hall connecting living room and bedrooms is treated with acoustical material, airborne sounds traveling through the corridor will be absorbed and considerable noise control achieved even when doors are left open.

In a two-story house this separation is more difficult because ordinary floor and ceiling construction does not constitute a good sound barrier. Nevertheless, treatment of the side wall of the stairway with sound absorbent material would partially isolate living and sleeping quarters. Living room noises would be prevented from going up and upstairs noise, such as bathroom sounds, could not come down. Actually the noise would not be eliminated, but the substantial reduction in sound flow resulting from this treatment would probably make it worthwhile.

Sound insulation can be used to prevent bathroom noise from reaching other parts of the house, but it is best to attack this problem first at the source. Since the bowl of the toilet acts like a horn, projecting sounds against the ceiling, an acoustical ceiling treatment is a good start. The use of sound-absorbent tile on the upper part of the walls will tend to reduce noise still further, and sheet rubber or linoleum which are water repellant but also resilient could be used on walls near the shower. To prevent escape of the remaining muffled sounds from the room, a heavy door (most bathrooms have thin ones) should be used. It might even be equipped with weatherstripping if a crucial location made complete sound control desirable. The annoyance of vibration noise could be reduced by keeping plumbing equipment free from

the building structure—pipes away from studs and wrapped in insulating material.

Similar to the bathroom problem is sound control within a kitchen. Both these rooms are particularly subject to reverberation because, unlike other parts of the house, they do not have sound absorbent furnishings. Tile, metal and plaster, the materials most commonly used, are brilliant sound reflectors.



**Acoustical treatment** of a stairway wall reduces sound traveling both upstairs and down—an aid in eliminating bathroom noise.

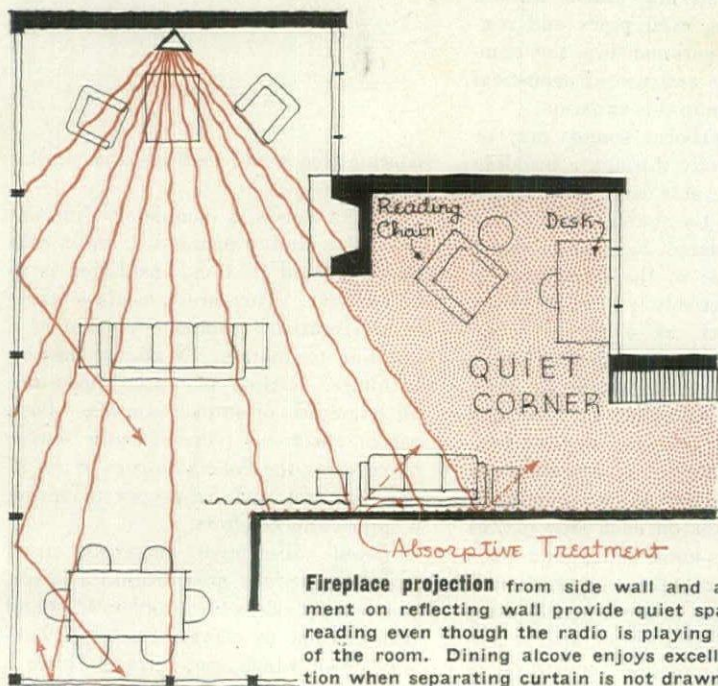
tors. The clatter of dishes is therefore intensified and easily penetrates into the dining room as an unpleasant background to dinner. Harsh noises are also an annoyance to the housewife who spends much of her time in the kitchen.

Again the basic treatment should be the absorbing of sound at the source. An acoustical ceiling and resilient floor covering deadens the noise, but additional reduction can be accomplished by the use of wooden or linoleum work surfaces instead of enameled metal drainboards and tables.

To prevent the transmission of sound from kitchen to dining room a pantry or utility space between the two rooms may be used as a barrier. This still leaves the problem of noise entering through the door. If the door is placed next to the pantry, and the small section of wall leading into the dining room treated with sound absorbent material, this problem should be considerably reduced. Sound waves must be reflected from that particular section of wall to go around such a barrier, and when they hit the acoustical material they are in the main absorbed.

Conflicting activities in the same room or same part of the house is another problem which can be solved by a moderate use of acoustical material and wit. One of the most annoying sidelights to family living is the problem of using the telephone when everyone else is around. For convenience, the phone is usually located in a central spot. It can be answered quickly, but a conversation cannot be carried on unless other members of the family stop talking and

(Continued on page 198)





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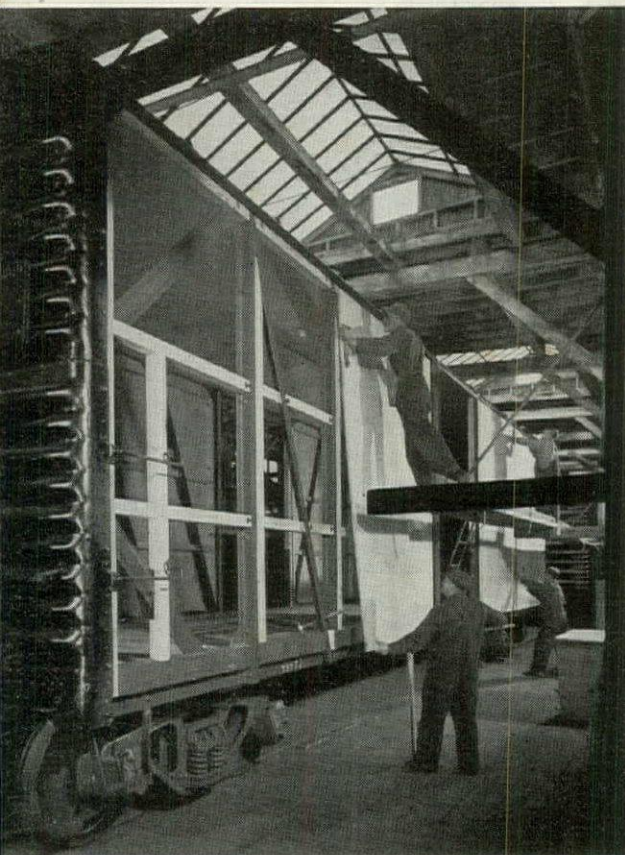
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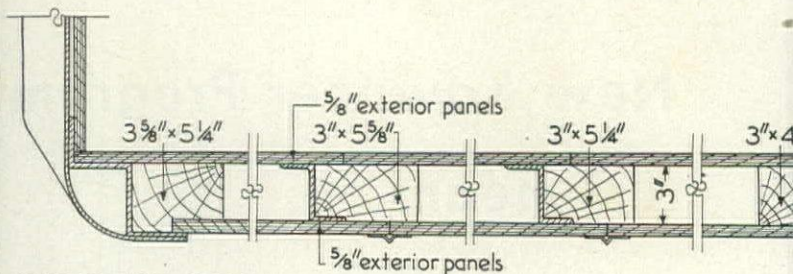
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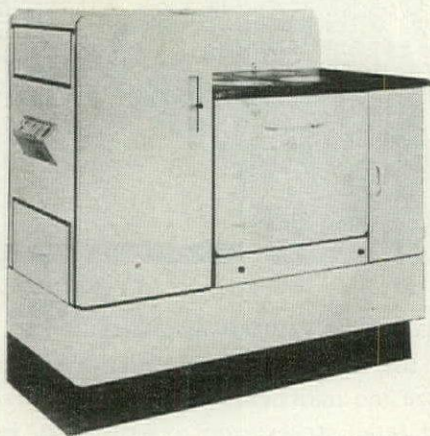
ATTACHING PLYWOOD PANELS TO A LUMBER AND STEEL SUPERSTRUCTURE



HORIZONTAL SECTION



**BOXCARS** constructed of plywood combined with steel, prove in tests to be as sturdy as conventional boxcars, but are 2 tons lighter in weight. They are now being produced by the Great Northern Railway at the rate of six a day. Both the outside and inside sheathings of these 50 ton cars are made of  $\frac{5}{8}$  in. Douglas Fir plywood of the Exterior waterproof type. On the outside of the cars 4x10 ft. sheets are placed vertically and extend in one piece from the bottom to the top of the car. The vertical joints between the panels are covered by thin metal strips and bolted through to lumber studding. At horizontal points panels are riveted through to lumber stiffeners. On interior walls, panels of  $\frac{5}{8}$  in. thickness are installed horizontally, thinner panels of  $\frac{5}{16}$  in. are used on the ceiling. In finishing the interior plywood, panels are first dipped in a clear resin sealer during production and are then sprayed with final coats of varnish. Doors of the car are plywood combined with steel, two panels being fastened together with a glued spline at the joint to form one large panel that is slipped into the metal frame. The cars are equipped with special high-speed trucks, non-harmonic springs, wrought steel wheels, steel ends and roofs.



**SMOKELESS COAL STOVES** which operate on a system of air supply similar to that provided by the air jets now being applied successfully to steam locomotives, have been developed by the Bituminous Coal Research, Inc. The scientifically-proved principle of stove combustion combines three factors—an ample supply of air at the right points, a series of high-temperature refractory flues, and a path of travel for the gases which causes the latter to burn away. This method not only eliminates smoke

but effectively recovers a higher percentage of the heating value of the coal. Gases, smoke and carbon, formerly lost, are burned, thus reducing the coal bill. One type is a unit capable of heating comfortably a four or five room dwelling. It will be available as soon as critical materials are released. Coal capacity will be 100 lbs., and it is expected to sell for about \$60. A streamlined, modern kitchen range, incorporating the same principles of design and operation has also been developed.



## NEW PRODUCTS

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(Continued on page 204)



The promise of plastics in architecture is not disputed. But the type and extent of applications is a stimulating challenge.

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Such cooperation has already led to the rise of Dow plastics in a variety of applications—depending upon their particular characteristics.

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Saran, on the other hand, possesses great ductility as well as amazing resistance to chemicals. It is formed into tubing and pipe; it is woven into beautiful drapery and upholstery fabrics that are

## THE PROMISE OF PLASTICS IN ARCHITECTURE

not affected by tough wear, dirt, or liquids; it is made into weather resisting window screens that outlast copper.

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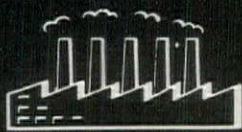
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ONE lesson war has taught is that greater efficiency results when management gets right down behind the production line. Hence, today, office quarters often are required in plant areas. Such offices should be capable of rapid and economical alterations and expansion. They should be easily erected, movable—yet retain all the elements of permanence, durability and architectural design. They should be adaptable to the latest developments in noise-quieting, lighting, and air-conditioning.

This objective can be achieved at modest cost with the Johns-Manville System of Unit Office Construction. This system consists of:

...Movable walls, easily erected and relocated using same materials.

...Acoustical ceilings which have the added advantage of allowing for flush-type fluorescent lighting.

...Resilient floors, made of units which permit easy office alterations.

These three Johns-Manville Building Materials, combined as a complete unit, offer a wide variety of colors and decorative effects. They are long-wearing, easy to clean—important factors in any office. And you write only one specification—you gain one manufacturer's responsibility.

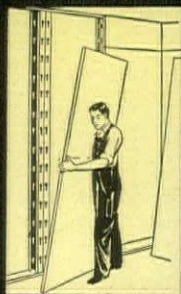
A new brochure, showing the many and varied uses of the J-M Unit Office System for *all* types of offices, is available to architects and engineers upon request. Write Johns-Manville, 22 East 40th Street, New York 16, N. Y.



## Johns-Manville Unit Office Construction

### THE FACTORY OFFICES ILLUSTRATED

are erected right in the plant area for more economical and efficient supervision of manufacturing processes. Note their durable and permanent appearance—yet they can be rearranged or relocated almost overnight, using the same materials. Note also the fluorescent lighting troffers combined with the acoustical ceiling.



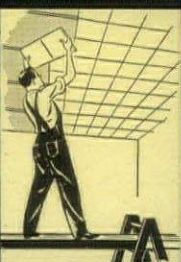
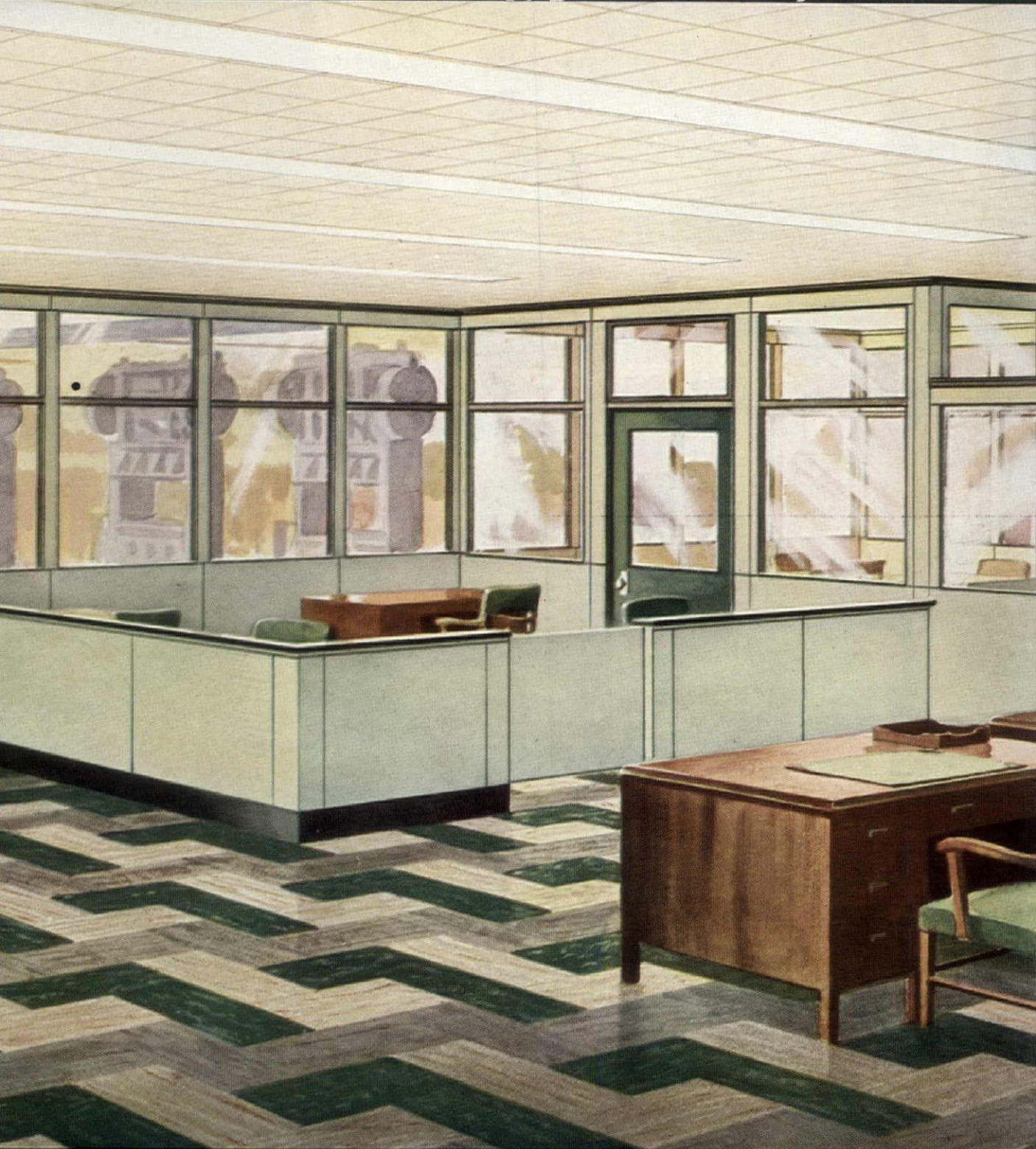
J-M Transite Walls are fireproof. Last indefinitely. May be left in original gray finish, painted or decorated.



**Movable Walls.** J-M Transite Walls are strong, sturdy, durable. They provide a complete system of dry-wall construction—are even used to finish the interior of the outside building walls. Can be taken down and relocated almost overnight with complete salvage. Available for any height—even for low railings and counters. Made of asbestos and cement, they have a smooth, hard surface.



# *in Factory Efficiency*



**Acoustical Ceilings.** Ceilings of the J-M Unit Office System are sound-absorbing, demountable, acoustical units which permit hung ceiling construction, concealing air-conditioning ducts, overhead conduit, etc., yet making this service equipment readily accessible. J-M acoustical units

are easy to clean, easy to maintain, have high light reflection coefficient. Exclusive method of construction allows use of flush-type fluorescent lighting.



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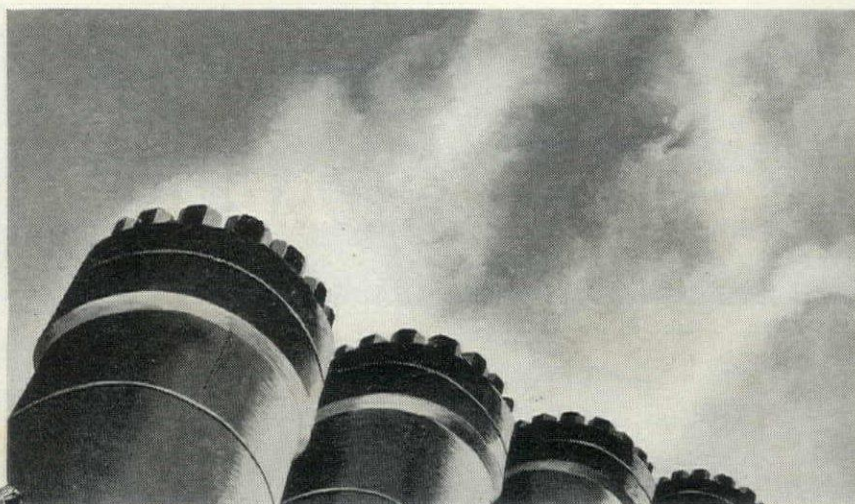
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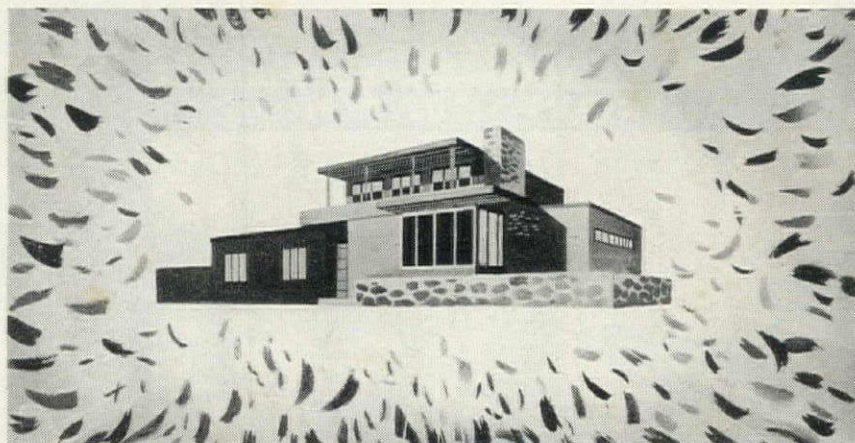
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These  
**"BIG GUNS"**  
 are loaded with logs!



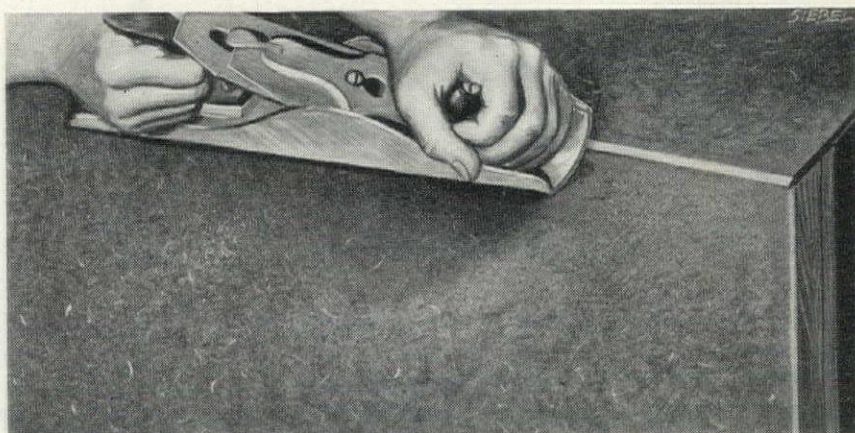
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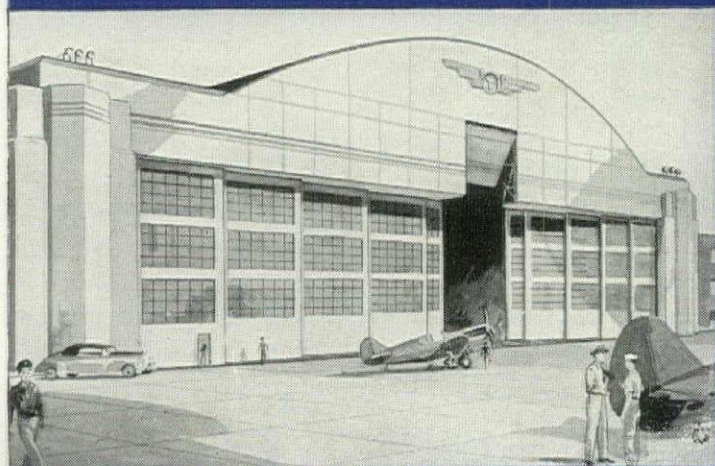
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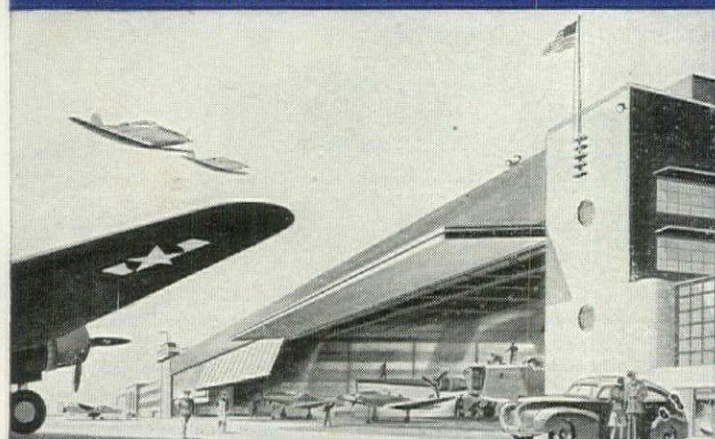
\*Trade-mark Reg. U. S. Pat. Off.



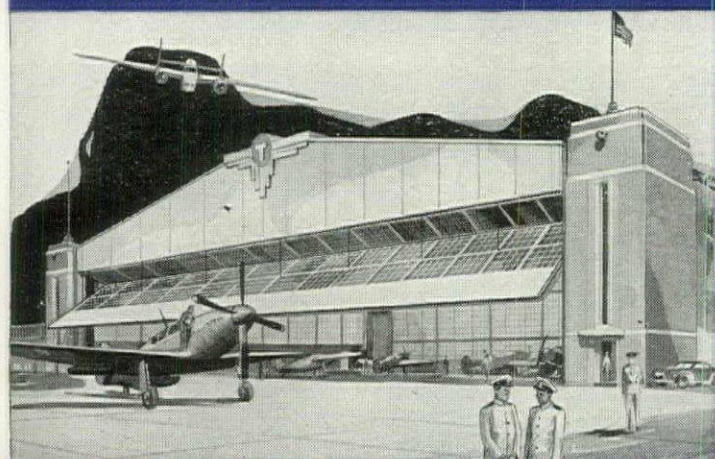
# NOW AVAILABLE... STEEL HANGAR DOORS



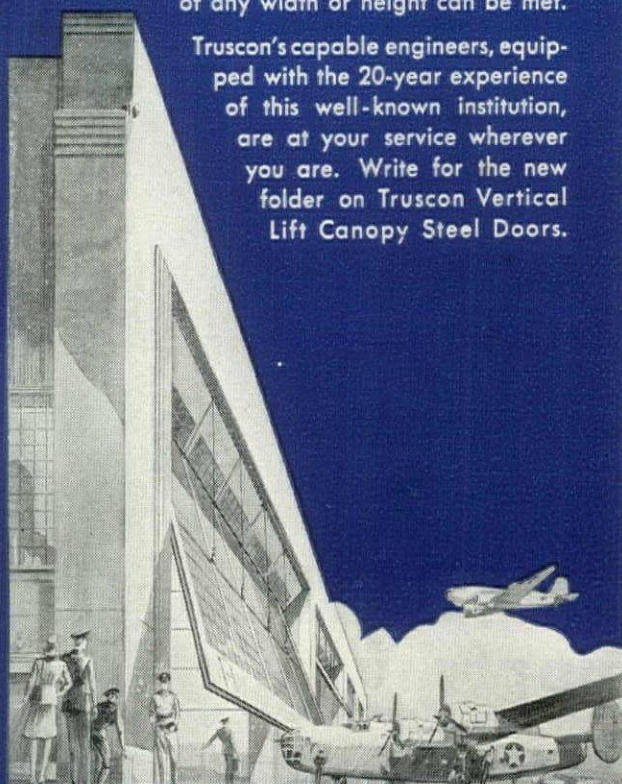
**STRAIGHT SLIDE TYPE**



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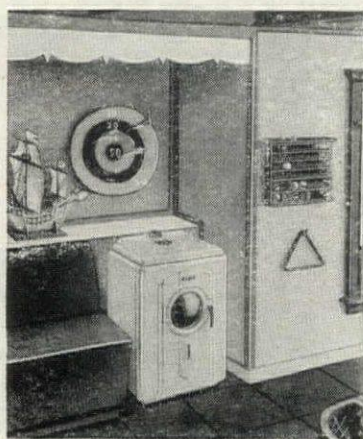
STRAIGHT-SLIDE, ROUND-THE-CORNER, VERTICAL LIFT CANOPY, UNBRACED CANOPY, BRACED CANOPY, BIFOLD CANOPY AND VERTICAL LIFT TYPE STEEL HANGAR DOORS.







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26" wide, 38"  
high, 22 3/4" deep.

STANDARD  
MODEL  
25 1/2" wide, 35"  
high, 22 3/4" deep.



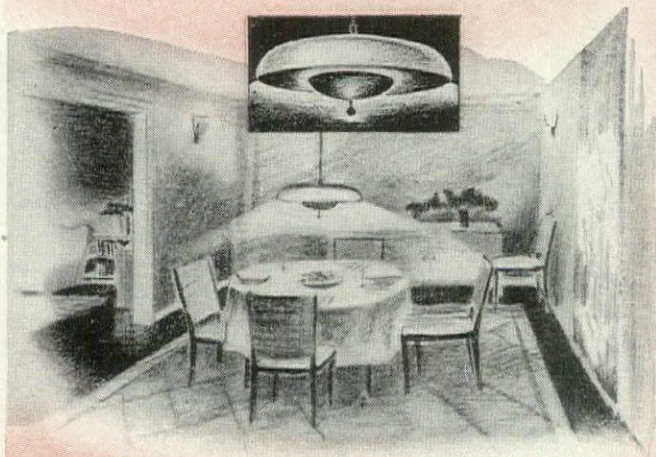
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- ☆ **UTILITY ROOM** . . . A perfect addition here and anywhere.

# BENDIX<sup>automatic</sup> Home Laundry

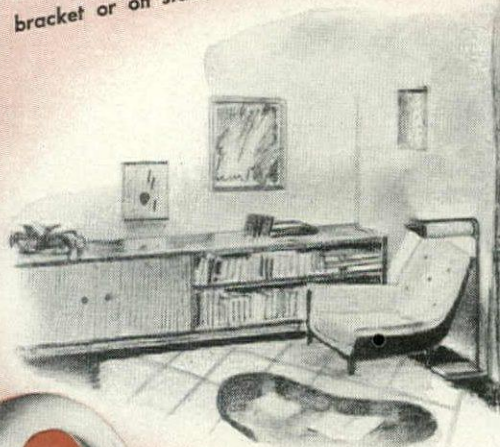
BENDIX PIONEERED AND PERFECTED THE AUTOMATIC "WASHER"





For general room illumination . . . a ceiling fixture using circular fluorescent lamps or filament lamps. Wall brackets to add spots of warmth.

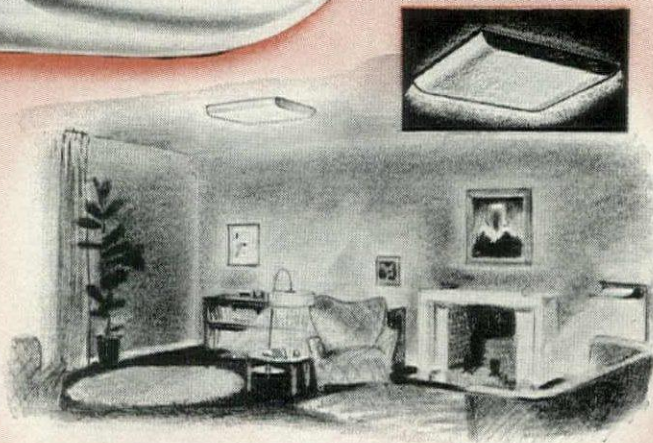
A modern unit with curved textured plastic shield utilizing fluorescent lamps. Can be used as wall bracket or on standard as portable lamp.



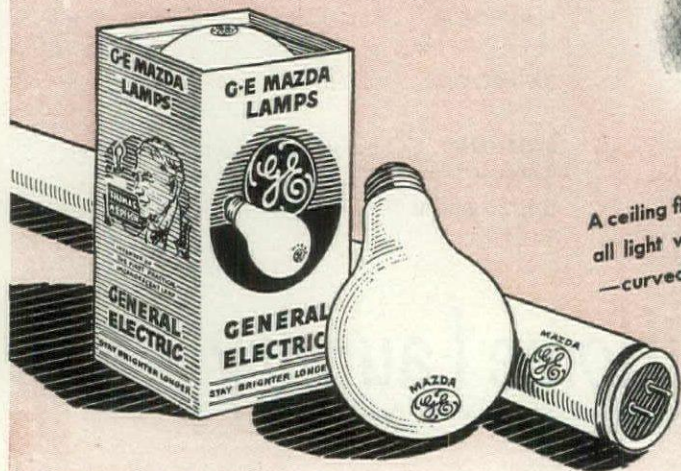
Postwar

HOME LIGHTING

No investigation has been made by General Electric Company regarding the patent situation on these design or construction suggestions.



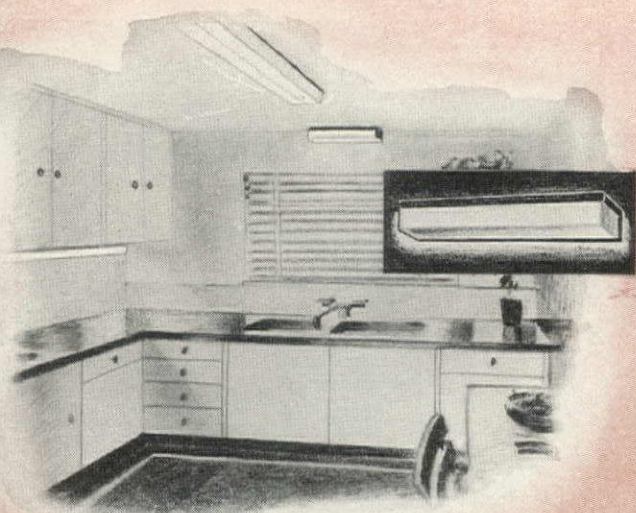
A ceiling fixture of unobtrusive appearance for over-all light when desired. Floor lamps take new form — curved plastic shield, shallow circular shade.



THE AIM OF GENERAL ELECTRIC LAMP RESEARCH IS TO MAKE G-E LAMPS

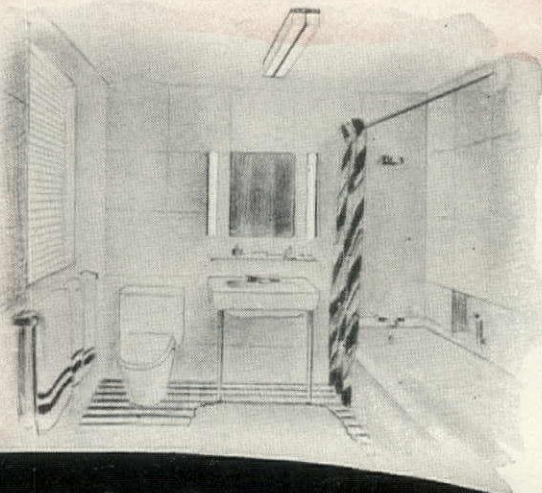
*Stay Brighter Longer*





A basic unit. Can be assembled to any length by placing end-to-end. Here, used singly over counters and back-to-back on ceiling.

More applications of basic fluorescent unit. Singly along medicine cabinet, double units on ceiling. Other uses . . . over mirrors, over garage doors.



## from an Architect's Sketch Book . . .

GENERAL ELECTRIC presents another in its series of lighting perspectives for tomorrow . . . by outstanding designers and architects. Here you see some of the interesting new lighting forms suggested by Helmuth Bartsch, architect and designer of Holabird & Root, Chicago.

### *Writes Mr. Bartsch:*

"For our lighting suggestions for the medium priced home, we started with certain basic ideas. We felt that simple, inconspicuous fixtures would be more restful to live with and would harmonize readily with any color or style of furniture.

"Also it seemed to us that in rooms for recreation and rest, soft light with interesting variations was preferable; while purely functional rooms like bathroom or

kitchen should have all the light possible.

"In the accompanying sketches, you will see how those ideas have been developed to help stimulate the creation of new, simple, practical lighting units for tomorrow's home."

A COLORFUL NEW BOOKLET, "From an Architect's Sketch-book", pictures more fully the new shapes and materials suggested by Mr. Bartsch for lighting units in tomorrow's home. To get your copy, write General Electric, Div. 166-AF-9, Nela Park, Cleveland 12, Ohio.



**G-E MAZDA LAMPS**

**GENERAL  ELECTRIC**

BUY MORE WAR BONDS AND HOLD THEM

for the General Electric radio programs: "The G-E All-Girl Orchestra", Sunday 10 p.m. EWT, NBC; "The World Today" news, every weekday 6:45 p.m. EWT, CBS.



THE RANGE IS THE HEART OF THE HOME



The Range  
that's **FIRST**  
in the

**H E A R T S**

of America's  
homemakers is

*Magic Chef*



There are two simple reasons why it's good business to specify Magic Chef gas ranges. First because there is a greater demand for Magic Chef than for any other brand. Second because you can depend on their quality and performance to confirm your judgment. For the leadership of Magic Chef in public favor is firmly based on satisfied customers.

Public preference makes Magic Chef a magic *name* that will be a potent force in selling postwar homes. A sustained and extensive national advertising campaign is at work maintaining this preference. This advertising

is appearing in such leading publications as Saturday Evening Post, Good Housekeeping, Woman's Home Companion, Better Homes & Gardens and Parents' Magazine. These publications have an average total of 45,265,474 readers.

Inquiries are invited. Just phone or write your nearest American Stove Company office.

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Magic Chef  
CP Gas Range



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RED WHEEL GAS RANGES AND HEAVY DUTY GAS COOKING EQUIPMENT



Awarded to  
Quick Meal Stove Co.  
Division of American  
Stove Co.

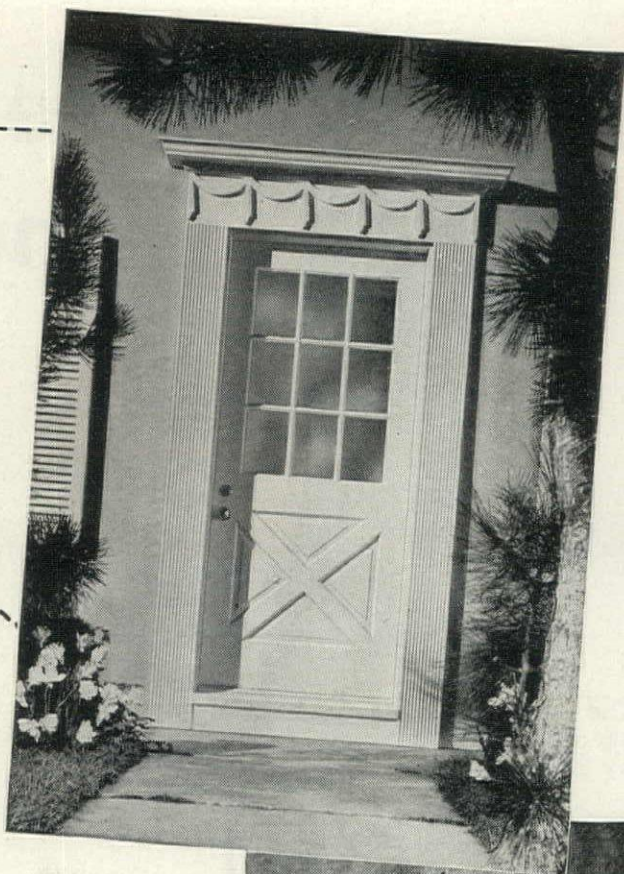




## Why so many of Tomorrow's plans will include CURTIS ARCHITECTURAL WOODWORK

Why are so many architects and builders, from coast to coast, planning to select Curtis Architectural Stock Woodwork for the homes of tomorrow?

First, because Curtis Stock Woodwork has the architectural correctness of design which adds distinction to any dwelling—reflects credit on the designer. Curtis has pioneered authentic styling in woodwork, and many Curtis designs have been created by famous architects. Second, Curtis offers such woodwork in wide variety for every size and type of home. And third, Curtis quality—since 1866—has assured lasting satisfaction.



Your plans may include a Curtis kitchen, too. These stock wood cabinets fit any practical space—may be decorated as desired.

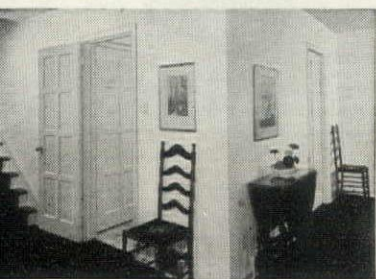


There is dignity and beauty in this Curtis stairway, assembled from Curtis stock parts of Ponderosa Pine.



Built-in china cases are a "must" in the plans of many postwar home builders. This is one of several Curtis styles.

From any point of view—economy—correct style—ease of installation and lasting value—Curtis stock woodwork is an ideal choice for new construction or remodeling in the postwar period. Mail coupon for information.



Nothing can add more good taste to a room than well designed interior doors. This is only one of many popular Curtis doors.



A Curtis mantel of traditional style will add an atmosphere of gracious living to any home. Designed by outstanding architects.



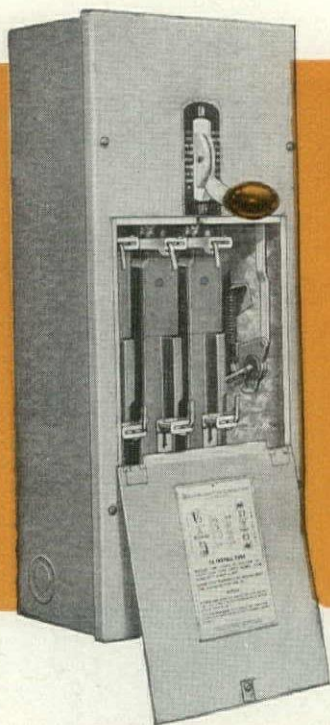
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Dept. PP-9W, Clinton, Iowa  
Gentlemen: Please send me information on Curtis Stock Woodwork for postwar homes.

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Address.....

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





# Current "ON"— hands "OFF" live contacts

The switch must be OFF before the door can be opened. Thus, protection against live parts is assured by the Type A



## SHUTLBRAK SWITCH

These switches may be used singly — banked in groups — assembled in well-designed switchboards or panelboards — or installed as plug-in units on FA Busduct ... On motor circuits — at service entrance — or on installations requiring an operating switch — they give efficient dependable service.

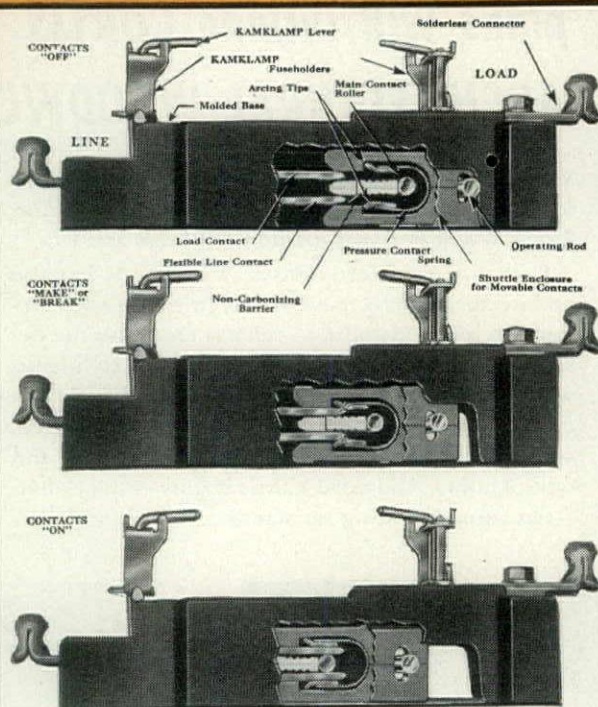
The FA Shutlbrak Switch is unique in that the contacts are *shuttled* on and off — with the roller type main contact and the auxiliary contacts enclosed in an insulated shuttle. This shuttle assembly, in turn, is entirely surrounded by insulating material.

FA Kamklamp (pressure type) Fuseholders take either ferrule or knife-blade types of fuse terminals. The new FA Solderless type Pressure Connectors assure perfect contacts.

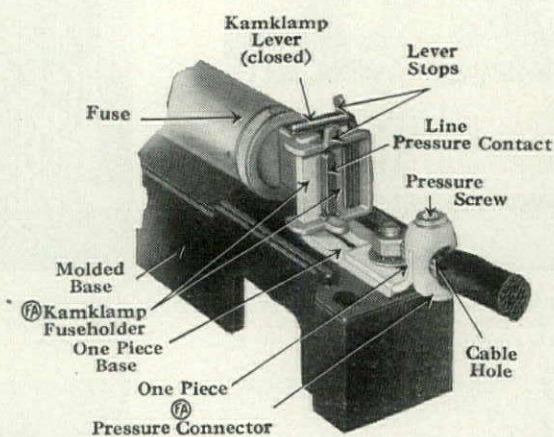
Capacities: 30 to 1200 amperes, inclusive, for 250 volts AC or DC, and 575 volts AC, in 2, 3 and 4 pole types ... Approved by Underwriters' Laboratories, Inc.

### For detailed information

and suggested specifications for FA Shutlbrak Switches, Switchboards and Panelboards, write for illustrated Bulletin 70 ... Frank Adam Electric Company, Box 357, St. Louis (3), Mo.



The above cuts show details of shuttle assembly, contact design, and FA Kamklamp Fuseholders.



Details of FA Kamklamp Fuseholders and FA Solderless Type Pressure Connector.

**Frank Adam**  
ELECTRIC COMPANY  
ST. LOUIS



# 1818 HOPE'S 1944

STEEL  
RESIDENCE  
CASEMENTS  
POSTWAR  
TYPES AND SIZES  
AS APPROVED BY  
MEMBERS OF THE  
METAL WINDOW  
INSTITUTE



TYPES MARKED \*  
WILL BE AVAIL-  
ABLE AS PACKAGE  
WINDOWS WHEN  
SPECIFIED.

HOPE'S ARE AT PRESENT  
ENGAGED 100% ON WAR  
WORK. AFTER VICTORY THESE  
NEW TYPES AND SIZES WILL BE  
AVAILABLE. THEY ARE RELEASED  
AT THIS TIME SO THAT YOU MAY  
USE THEM IN YOUR POSTWAR  
PLANNING.

GLASS SIZES		
	WIDE	HIGH
a	16"	12"
b	16"	11 5/16"
c	14"	12"
d	14"	11 5/16"
e	14"	10"
f	14"	9 5/16"
g	14 5/8"	11 1/2"
h	17 1/2"	12"
i	16 3/4"	11 1/2"
j	18"	11 1/2"
k	17 1/4"	11 1/2"
l	16"	11 1/2"

ELEVATIONS OF WINDOWS ARE AS VIEWED FROM OUTSIDE. SIZES  
SHOWN ARE EXACT STEEL SIZES. STATIONARY UNITS WILL BE  
AVAILABLE WHEN REQUIRED IN ANY SIZE SHOWN HEREON. OUR NEAREST  
REPRESENTATIVE WILL GLADLY FURNISH ANY INFORMATION REQUIRED.

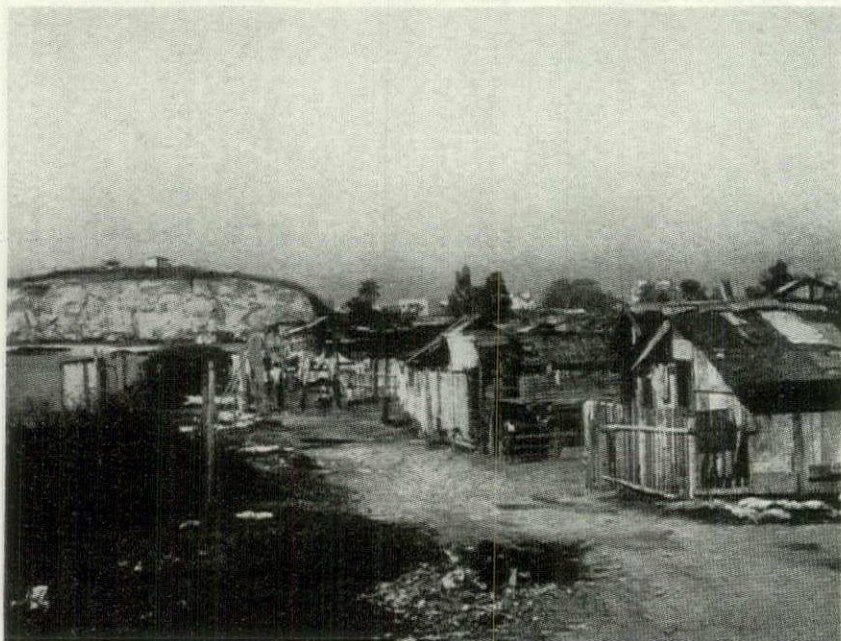
**HOPE'S WINDOWS, INC., Jamestown, N. Y.**

**BACK THE ATTACK \*\*\* BUY WAR BOND**

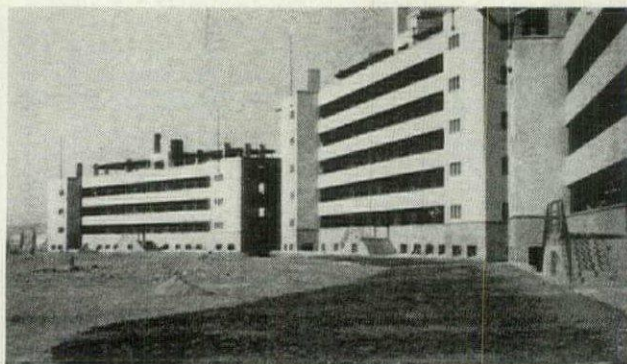


# BOOKS

A city planner's broad and sympathetic study of urban, suburban and rural Latin America today.



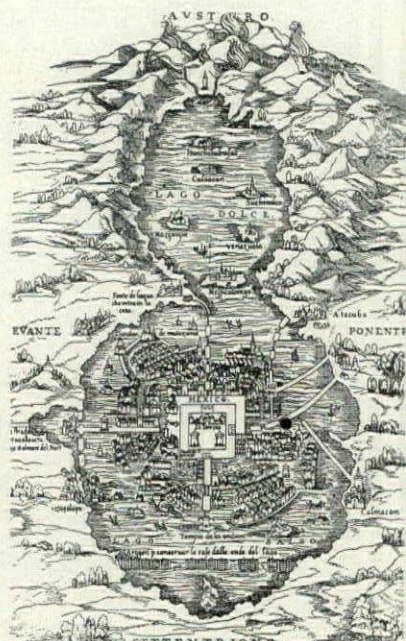
RIO'S NOISOME SLUMS CONTRAST WITH SANTIAGO APARTMENTS (BELOW)



**CITIES OF LATIN AMERICA**, Planning and Housing to the South. By Francis Violich. Reinhold Publishing Corp., New York. 223 pp. Illustrated. 6 x 9. \$3.50.

In his attempt to further a brotherly understanding among the planners of the western hemisphere, Mr. Violich presents a work which would do credit to the most expert cementer of Inter-American relations. If anything, the book might be criticized for its rather self-conscious benignancy toward all things Latin-American. It is true that with a world at peace growing daily more tangible, the importance of hemisphere stability and progress cannot be overemphasized. However, Washington's recent and fevered wooing of our sister continent has left little room in the public taste for further enforced ardor.

Mr. Violich's book, intended primarily as a survey of urban, suburban and rural Latin America, is, from the professional viewpoint, a top ranking work. Despite the Herculean efforts of the Co-ordinator of Inter-American Affairs and Philip Goodwin's recent literary contribution, very little is known about housing and building south of the Rio Grande. If a single volume can be called an antidote for such limitless



COLONIAL MEXICO, SET ON A LAKE

ignorance, *Cities of Latin America* is it. The author, himself an architect and planner, speaks fluently and authoritatively on the physical aspects of Central and South American civilization. In regard to city planning, he concludes that in spite of the U. S. technical achievements in city buildings, we have, relatively speaking, done less for our cities than the Latin Americans have done for theirs; that their administration of housing programs compares favorably with ours; that planners to the south far outrank our own in visualizing the physical requirements for uncongested living.

While it is popularly assumed that Latin America lacks skilled technicians, Mr. Violich offers some statistics on this score which bring home the full import of the handicap under which the various democracies must work: excluding Paraguay, the southern continent has only 1,823 architects; the 21 nations, among them, boast only three landscape architects; Chile and Uruguay share a total of twelve forestry experts. Regardless of Mr. Violich's great affinity for our neighbors, it is obvious that any progress achieved under such conditions is worthy of the highest praise.

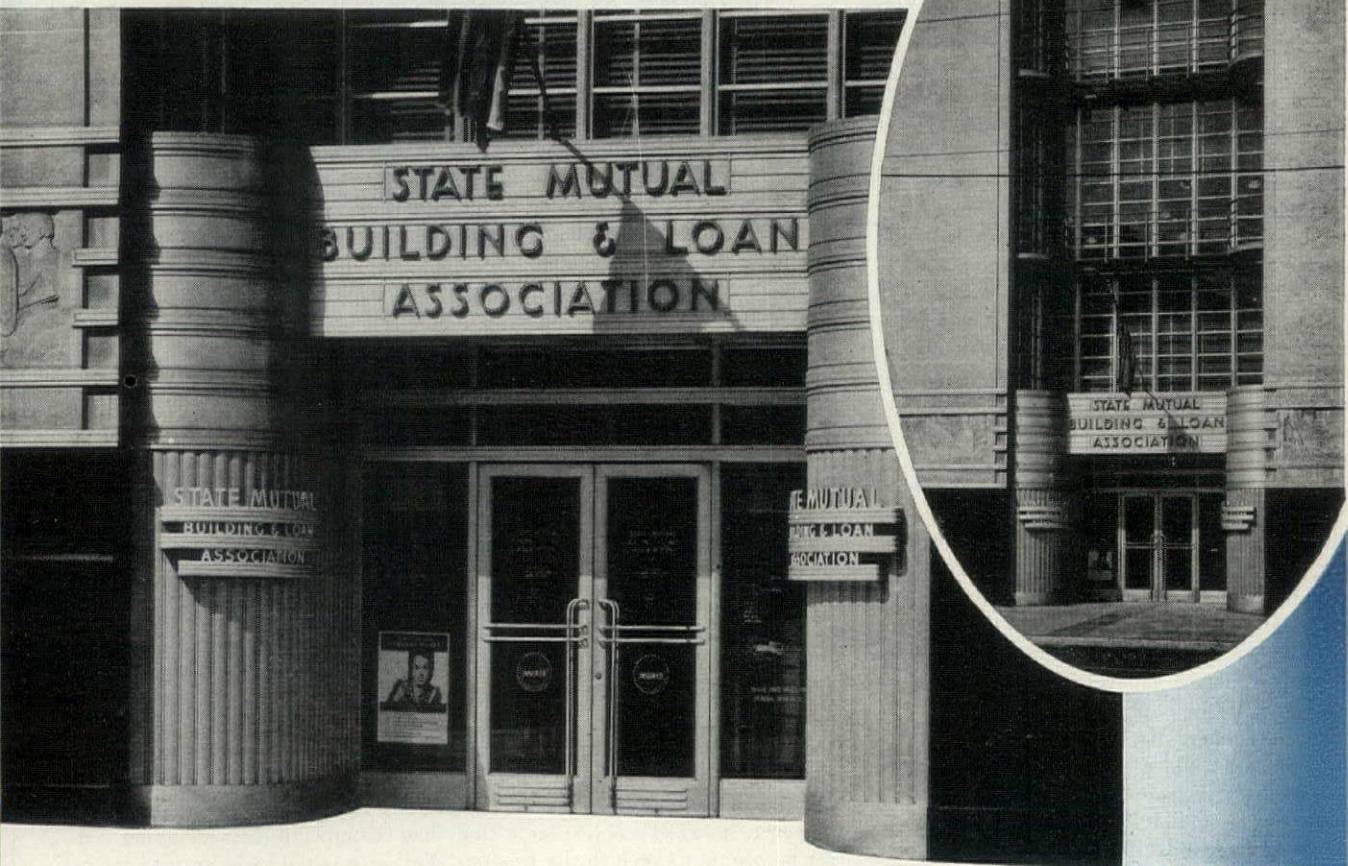
Along with his professional analysis of South American planning and housing, the author includes some rather sketchy information on the political, social and economic structures of the various countries which serves at once to broaden and weaken his thesis. These aspects are not subordinated to planning, but represent major themes. Since they are neither as thorough nor as accurate as Mr. Violich's observations in the building field, the net value of the work consequently suffers. Much of the emphasis seems misplaced, and the inaccuracy stems more from what is left unsaid than from what is asserted. Negligible importance is attached to a handful of immense fortunes that actually not only sway the political

(Continued on page 28)



Let's Look at the Record

State Mutual Building, Los Angeles, California  
Architect—William Richards, Los Angeles



## From Los Angeles comes this word, “CONDITION OF ALUMINUM... EXCELLENT”

The designer called on most of the Alcoa Aluminum family of products to achieve the interesting and attractive effect you see here. He employed aluminum extruded shapes and castings, sheet, bar and tubing. The wisdom of his choice is evidenced by the fact that, after being on the job since 1931, the aluminum is reported in excellent condition today.

Note the well-kept appearance of this building, after these thirteen years of service. Very little labor was expended in keeping it looking that way.

Before the war, Alcoa Aluminum had earned an enviable reputation as a means of obtaining a great variety of effects. And architects were using it for its utility properties, giving building operators and homeowners the benefits of its long life and ease of maintenance. This wartime interlude, with manpower unavailable for proper upkeep, is serving as an excellent proving period. Alcoa Aluminum is coming through with flying colors. Gain these advantages by including Alcoa Aluminum in the structures you are now planning. ALUMINUM COMPANY OF AMERICA, 2167 Gulf Building, Pittsburgh 19, Pa.

*The Window  
of the  
Future is  
Aluminum*

# ALCOA ALUMINUM



Reg. U. S.

Pat. Off.



and economic destinies of more than one Latin American republic, but which also enforce a rigid and primitive feudal system. Mr. Violich readily admits the appalling prevalence of squalor and poverty among two thirds of Latin America's inhabitants but neglects to include a satisfactory picture of the social caste system as it is exercised today. It also seems strange that, as an architect, he attaches no importance to Great Britain's prewar control of building materials imported by the Latin American countries. Rapprochement with our good neighbors is all very well but its duration and validity depend upon a sound knowledge of facts as they exist.

The author's apparent lack of realism may be due in part to the organization of the subject matter. While he points out that the various countries differ widely in geography, society and economics, they are not dealt with individually but are broken down under general headings such as housing, city planning, foreign policy, etc. As a result, the picture is jumbled and leaves no particularly vivid national impressions. The interdependent factors which go to make up strongly individualistic countries become separated and meaningless.

As a planner, Mr. Violich is at his best when he addresses himself to the members of his profession. His greatest mistake was in not limiting himself to such an audience. However, his much needed contribution to a better knowledge of Latin American building practice must not be underestimated.

**AMERICAN HOUSING:** Problems and Prospects. The factual findings by Miles Colean. The program by the Housing Committee. The Twentieth Century Fund, New York. 488 pp. 5 x 9. \$3.00.

When the Twentieth Century Fund poked its first inquiring finger into the ailing housebuilding industry back in 1939, not even the most acute prognosis would have been likely to include what turned out to be the dominant facts-of-life for the industry during the next five years. No prophet was on hand to point out that war demand would step up Building's metabolism to a \$13½ billion output in 1942. Nobody could foresee that, with the government as customer, prefabricators would get their first chance at a more than piddling market. Nobody could tell that a dozen factors would combine to force about 75 per cent of prewar housebuilders out of business—or that 25 per cent would hang on by achieving mass-production techniques unlike anything seen in the

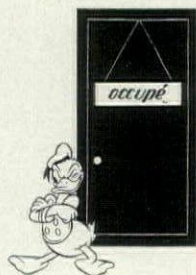
(Continued on page 180)

## IN THE FORUM

Walt Disney has consistently betrayed a respect for fundamental facts of life not popularly supposed to be within the ken of the

creative artist. It can, therefore, chip no enamel from the lustrous Disney legend to note that the father of Mickey Mouse has a more than average preoccupation with plumbing. This minor fetish burst into full flower in his new Burbank plant (p. 123) which can boast more toilets than any other building its size in the country. This major plank in Walt's architectural program stems from the problem of massed standees in his earlier building—a situation conducive neither to inspiration nor production. In his new studios the best possible use is made of all available space with the result that 150 people can be handled in a rush. According to Walt's publicity agent there are "no delays . . . no waiting . . . seats at all times without admission charge."

Copyright Walt Disney Productions Inc.

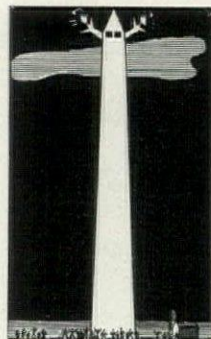


It is more than likely that during Konrad Wachsmann's pre-natal days he was frightened by a Chinese puzzle. How else explain why he took this approach to prefabrication? The joints of his panels (p. 97) fit together in every conceivable manner—vertically, horizontally and longitudinally. We wonder if this mosaic of three-way conundrums does not leave Wachsmann feeling as though he might, without warning, become demountable himself.

When we discovered the non-stop Linda Vista shopping set-up with back door parking and center restricted to pedestrians, excitement tore through the office like a high wind. We hastily dragged out a thumbworn copy of the August 1943 FORUM where this idea was first presented by the Editors. Inquiry of collaborating architects Whitney R. Smith and Earl Giberson, however, smashed our illusion—they had thought up their shopping center before they saw it in the FORUM. Well, it was too good an idea for us to think up alone, anyway. But our excitement remains undiminished. Take a look for yourself. (p. 81.)

Prefabrication schemes of plastic, aluminum and what have you are a dime a dozen these days, so it's quite a pleasure to hear of someone still playing around with the old two by fours and building lumber of our childhood. Before architect Victor Hornbein became a member of the Army Air Forces he had a chance to experiment with the interesting structural experiment described on p. 120. The result was an architectural innovation. Its inventor called on us a few years ago to explain what he wanted to do. We liked both him and his idea and are glad of the opportunity to show you the finished product in this issue. When the owners unexpectedly had to move to another state, they sold the house a month later, proving it pleased others as well.

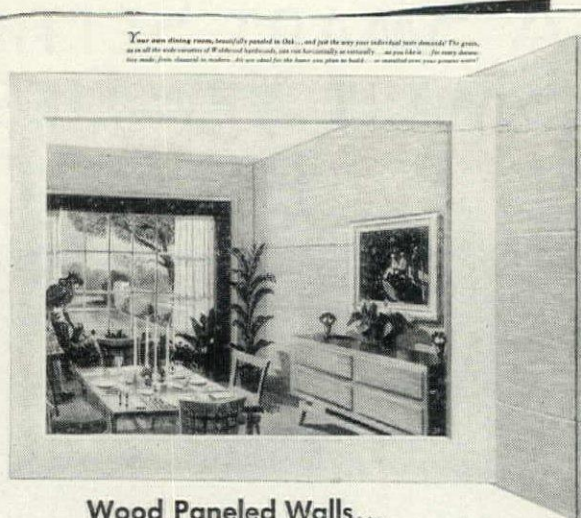
Two famed and thoughtful interpreters of what is good for the people clash in a debate on war memorials (p. 106). Clash is perhaps too strong a word—in fact "team up" seems more precise. You would be baffled were you to attempt to find two more scholarly and provocative statements than those by Archibald MacLeish (Librarian of Congress, poet and former FORTUNE Editor) and Charles D. Maginnis (One-time president of the American Institute of Architects). Others will have more to say about this subject in forthcoming issues.





## PREPARING YOUR CLIENTS FOR TOMORROW'S

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### Wood Paneled Walls...

promise modern loveliness for post-war living

Think of it! Genuine hardwood paneled rooms for your own home!

And with all the appealing loveliness you've always admired... and dreamed of having for your own!

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Expense? Not at all! For while the cost will vary with local and current conditions, and with the wood selected, prices will be in a modest budget. You'll have your choice among real oak, warm walnut, rich mahogany, knotty pine, gum and other fine hardwoods, as well as Weldtex, the textured panel.

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For durable construction, walls of Weldwood Plywood Paneling bring in no damage; resistant to warp your windows, doors and moldings.

And they're ideal for remodeling the rooms you love!

Weldwood Panels, quickly installed over old walls, can replace damaged with warm-hearted charm... almost overnight!

For those walls you intend to paper

or paint, Weldwood Utility Panels provide an ideal, crack-proof under-surface.

Faced with unadorned hardwood gum, they are permanently smooth to your eye and to your touch. They're hard to dent. And they won't crack.

Ask your architect or builder about the many advantages of Weldwood Plywood Paneling and Weldwood Utility Panels. Ask your lumber dealer about actual samples.

### WELDWOOD PLYWOOD

Principal Weldwood, as marked, is bonded with phenol formaldehyde synthetic resin. (This type of bonding gives Weldwood its remarkable resistance to moisture and warping.) Back of this Weldwood Plywood Paneling are unadorned gum and a variety of Plywood construction and insulation. Available also are the very special, bonded self-adhesive papers, cloths and wall moldings.



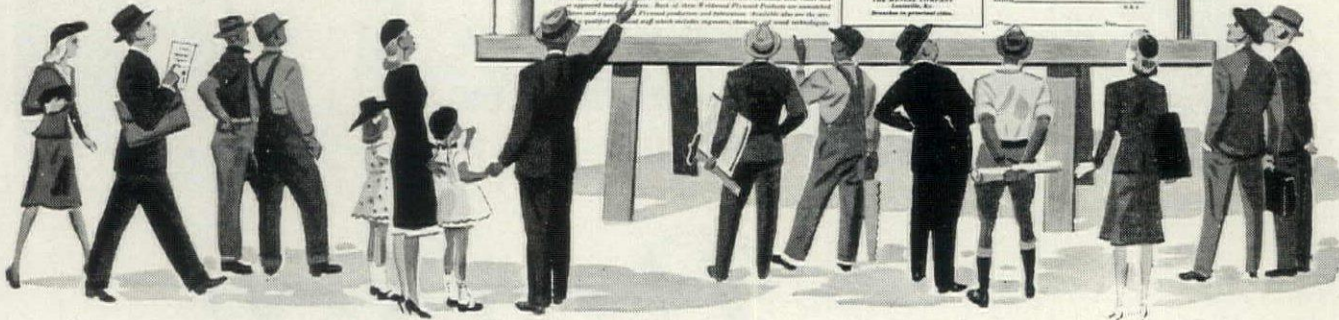
Also send for FREE illustrated booklet showing many ideas in full color for beautiful hardwood paneled rooms. (This booklet is yours absolutely free.) 100 West Main Street, New York 10, N.Y.

Please send me a free copy of "Weldwood Wood for Beautiful Homes."

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Weldwood's consumer advertising is telling them how easily, quickly, economically these handsome panels can be installed.

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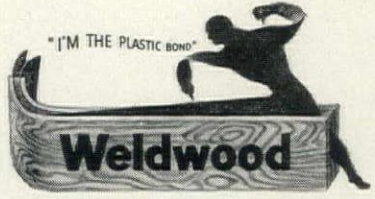
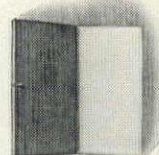
Today Weldwood's advertising cam-

paign is acquainting your clients with these advantages... creating acceptance for your future designs of plywood paneled homes.

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### "Airlok" Grid Core

... trim to the eye, light to the touch, won't warp or crack



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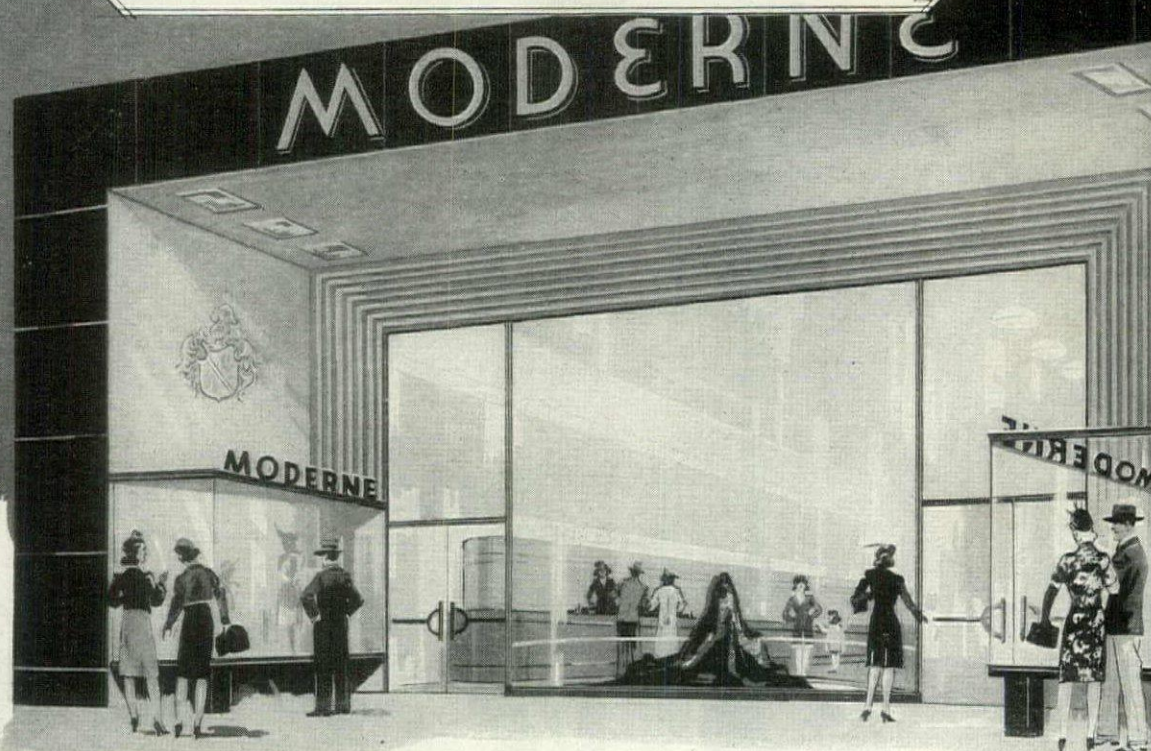
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SMART NEW DESIGNS..  
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Out-of-the-ordinary store front designs require more than ordinary store front construction to translate their beauty into living metal.

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These members have been developed and matured by experience—over thirty years of it. The soundly engineered, powerfully built, heavy-gauged units provide positive protection against time and the elements, preserve the smooth, original beauty of your designs.

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ARCHITECTS SAY:

**"This book  
will help you"**  
*-and it's Free!*



● Nothing will take the place of an architect's professional advice in actually building that postwar home of yours. But now, while you have the time, get all those dreams and ideas organized...be ready when you call on him.

Here's a booklet that gives practical help on the things that are apt to get overlooked until it's too late—such basic problems as "Fitting the House to the Lot and Family," "Original Cost and Upkeep," "Resale Value," and last and most important, "Working With Your Architect."

Changing methods and materials, greater demand than supply...these are conditions you can expect after the war. An architect's services, even more than before, will be a necessity in building a successful home. Get your copy of this free booklet now, it explains how you two can best work together.

**30,000  
JOBS FOR  
ARCHITECTS!**

● Over 30,000 home planners have written for this booklet—and the Edwards campaign is still going on! It's an attractive, easy-to-read booklet that will be kept—meaty, informative, written by an authority, and endorsed by the American Institute of Architects. The people who read it are the people who plan to build as soon as the war is over—and this book gives them convincing reasons for including an architect in their plans.

Advertisements like the one on the left—appearing in consumer publications—sell the architect's services to the people who plan postwar homes. They are definitely producing results.

Architects who have not seen this booklet are invited to write to Edwards for copies. Limited quantities are available, imprinted with your name—free.

**Architects  
endorse this  
useful book**

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(Save Postage—Paste Coupon on Penny Post Card)

**Plan your house now!**

**START RIGHT—**

**WITH AN**

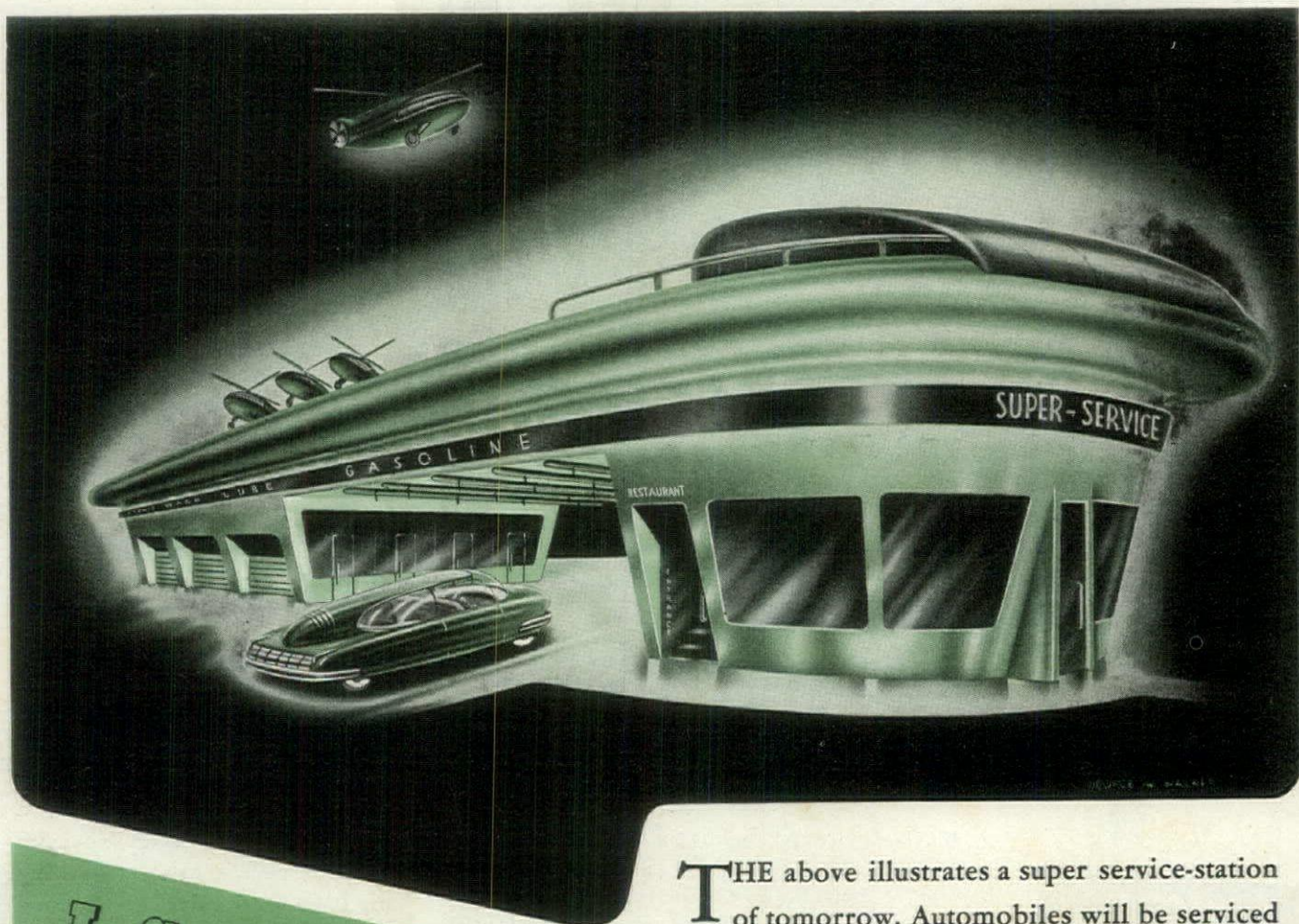
**ARCHITECT.**

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*In Step with the Future*

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

# BOHN

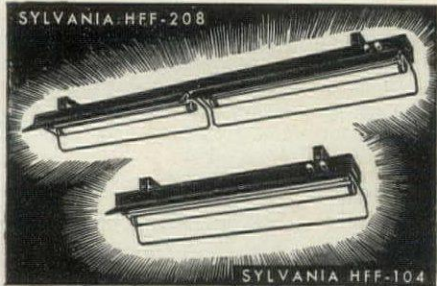


**BOHN ALUMINUM AND BRASS CORPORATION, DETROIT, MICHIGAN**  
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*Designers and Fabricators — ALUMINUM • MAGNESIUM • BRASS • AIRCRAFT-TYPE BEARINGS*



# HOW STEEL S-T-R-E-T-C-H-E-S THE SYLVANIA LINE OF "COMPLETE PACKAGES OF LIGHT"

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## Now there are SEVEN INDUSTRIAL UNITS Continuous-Row Type

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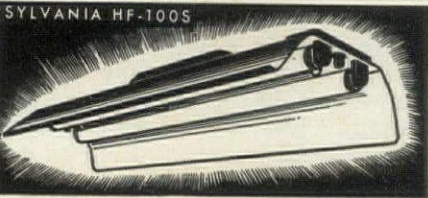
### Single (4-foot) channel top-housing

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

Double (8-foot) channel top-housing (Continuous wire-way enclosure reduces cost of continuous-row installations)

HFF-208—four 40-watt lamps, for continuous-row mounting  
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All models come completely equipped with lamps, ballasts, and starters—pretested and ready for immediate installation.



## All-Purpose Type

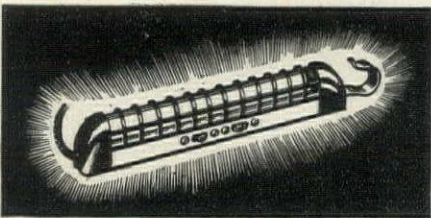
The famous Sylvania "Fixture of the Future," which has proven so popular in war industry, is now available with a reflector drawn from 20-gauge steel, with a reinforcing lip. Finished with durable synthetic enamel. For either continuous-row or individual mounting.

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

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

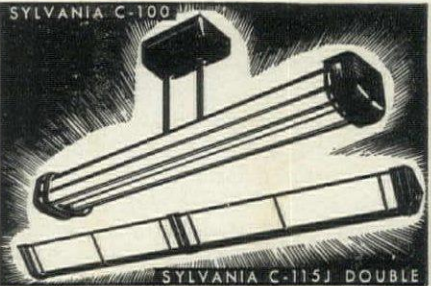


**SYLVANIA**  
ELECTRIC PRODUCTS INC.  
Salem, Massachusetts  
FLUORESCENT LAMPS, FIXTURES AND ACCESSORIES,  
INCANDESCENT LAMPS, RADIO TUBES,  
CATHODE RAY TUBES, ELECTRONIC DEVICES



## Portable FLUORESCENT WORK LIGHT FOR INDUSTRY

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



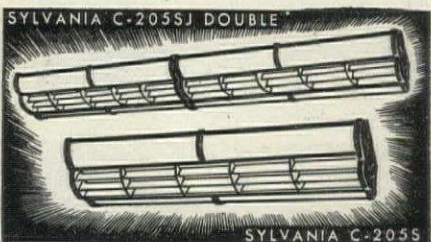
## Now there are SEVEN COMMERCIAL UNITS Two-Lamp Shielded and Unshielded

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

### Two 40-watt Lamps

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

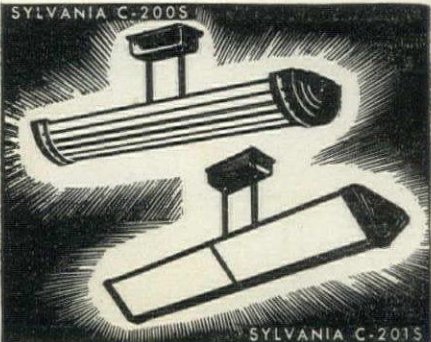
All models are supplied with Sylvania Lamps as "complete packages of light."



## Louver Type

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

Four 40-watt Lamps  
C-205S individual surface-mounted



## Four-Lamp Shielded and Unshielded

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

### Four 40-watt Lamps

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

## Leading Manufacturer of Fixtures in the Fluorescent Field

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

### SYLVANIA "COMPLETE PACKAGES OF LIGHT"

#### Industrial Fixtures

HFF-104 . . . . . ( )  
HFF-154 . . . . . ( )  
HFF-208 . . . . . ( )  
HFF-308 . . . . . ( )  
HF-100S . . . . . ( )  
HF-150S . . . . . ( )  
HF-235S . . . . . ( )  
P-7 . . . . . ( )

#### Commercial Fixtures

C-100 . . . . . ( )  
C-101 . . . . . ( )  
C-113 . . . . . ( )  
C-115 . . . . . ( )  
C-205S . . . . . ( )  
C-200S . . . . . ( )  
C-201S . . . . . ( )

SYLVANIA ELECTRIC PRODUCTS INC., Boston Street, Salem, Mass.  
J.C. AF-944

Please send me information on the fixtures I have checked.

Name \_\_\_\_\_

Title \_\_\_\_\_

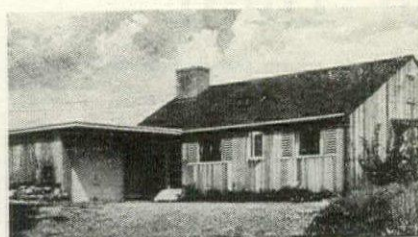
Firm \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_



# LETTERS



JANUARY: Malcolm Duncan



FEBRUARY: Paul Luzzo



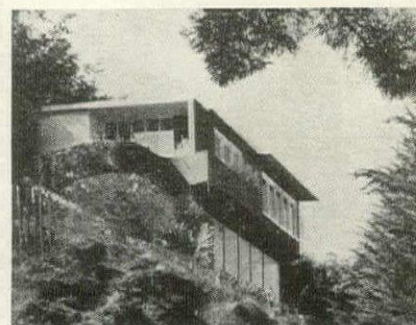
MARCH: Purdy and Dickens



APRIL: Freeman, French, Freeman



MAY: Mario Corbett



JUNE: Campbell and Wong

A rejection of modern architecture . . . A plea for Mumford idealism . . . A criticism of the Roberto brothers' classical claims.

## COWSHEDS

Forum:

Some few months ago I received an advertising letter from THE ARCHITECTURAL FORUM through which I was enticed to mail my subscription to you through promises of new ideas for the home I hope to build when restrictions are lifted.

I did subscribe and looked forward most eagerly to receiving my first copy. It was a disappointment but as hope springs eternal I have continued to look forward to the receipt of each copy. Now after six months hope isn't springing so springily.

I know that you are offering plans of homes which you feel are the very best and I know it is not good manners to be caustic regarding the ideas of others but I cannot help but glean the impression that you are attempting to dictate what the American people should have and have no regard for what the American people want. When I sent in my subscription I employed you to help me, not to dictate to me. Suffice it to say there has not been a single house pictured in your publication since the first of the year that I would build, buy, or live in. There has not been a single one in which beauty or tradition has not been eliminated. Last evening Mrs. Stafford and myself got out the copies we have and looked them over and I asked her what was her frank opinion of them and I think she hit the nail on the head with a one-word reply: "Cowsheds." In your straining for something different you have become barren in livableness.

I cannot hope that you will change. If you will not assent to incorporating in your pages something that will appeal to the vast majority of Americans let things go as they are. If you must continue in your present course, you may cancel my subscription and contribute any portion left to the American Red Cross.

THOMAS D. STAFFORD  
Grand Rapids, Michigan

While committed to no architectural style, THE FORUM's pages are — and always have been — reserved for the best and most interesting buildings we can find. In recent years, an increasing proportion of such work has reflected a contemporary approach. We are well aware that a good many sane and sensible people consider today's design trends misguided if not completely screwball. It is also a fact, however, that an equally large (and growing) group of equally sensible people see them as the first step back to

sound building that has been made in many years. To those laymen who, like Mr. Stafford, find contemporary design especially inappropriate in its application to domestic architecture, may we suggest that their quarrel (if, indeed, they have one) is more with the architectural profession than with the architectural press.—Ed.

Forum:

May I congratulate you on the fine way in which you are presenting THE FORUM, especially in these war times. Your magazine is eagerly awaited each month and is devoured from cover to cover many times.

A zone of combat may seem a strange place to plan on postwar projects, but that is exactly what we are doing. Your fine editorials and comments on what is to come, and the fine buildings you present, sure are an inspiration to all. So hats off to THE FORUM, and may you present many, many more fine issues.

S/SCT. CHARLES J. BOYER  
c/o Postmaster, N. Y.

## OBSCURANTIST PHILISTINISM?

Forum:

Almost from the first issue of THE ARCHITECTURAL FORUM, I have been a housewife reader of your excellent magazine. I have liked it especially, not merely because of its professional competence in its chosen field, which is great, but because its standards are high. They rise much above those of most professional journals, and steadily take into account the public welfare, and general public interest.

Judge then, of my dismay in reading your review of Lewis Mumford's *The Condition of Man* in your July issue. After referring to the book's "inspired idealism" as though it were a fault, your reviewer accuses Mr. Mumford of "having no given class or political viewpoint," then goes on to suggest that "if he represented any one class or faction, his basis for renewal (of our civilization) would win more friends."

What a choice bit of obscurantist philistine advice is this, to offer to a distinguished analyst and critic of civilization! Now, we know for the first time what was wrong with certain of the American spiritual ancestors of Lewis Mumford. What a pity it is that there wasn't a Rotary or Kiwanis club handy, for Thoreau to join, that he might have his heart warmed by fellow-members slapping his back and calling him

(Continued on page 36)



# WHEN THE JOB CALLS FOR REPAIR OF CRACKED CEILINGS

There are a few good points to remember:

Cracking, loosened plaster usually results from stresses and strains caused by structural settlement or removal of framing members.

Repairing or replastering may not be satisfactory because it does not remove the cause of the trouble.

Proof ceilings of Upson Panels applied right over old plaster are strong and easily with little muss

Upson Panels are strong and sturdy with a beautifully pebbled hard surface. Fully in keeping with the tradition of fine homes, churches, residences, offices and stores where they have been used.

Place to come for information to the people who originated and developed this type of application. If desired, a representative will be glad for a more detailed discussion. Write Upson Co., Lockport, N. Y.



The use of Upson Panels affords wide opportunity for improved ceiling design both conventional and modern. Application is simple and can be performed any month of the year without the introduction of moisture. Because of their crackproof qualities Upson ceilings provide a permanent solution to the problem of cracking plaster.

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

## UPSON

CRACKPROOF CEILINGS  
OF ENDURING BEAUTY



## LETTERS

(Continued from page 34)

"Hank." They'd soon have taught him to forget such odd fish as Bronson Alcott and Emerson.

And Emerson, too. If only some good friend, such as our reviewer, could have persuaded him to join the Whig party, and cultivate a "class or political viewpoint," no doubt he would have benefited from it. And Walt Whitman, instead of puttering around hospitals, nursing wounded soldiers, and sending out his *Leaves of Grass* from time to time, how sad it is that he didn't join a "class or faction," say, one of the factions that was criticising Lincoln so bitterly. A nice editorship might have come out of it. He'd soon have made money enough to shave, and get his hair cut, and be like all the regular guys of his time.

That's what we need, isn't it? Away with these "inspired idealists," who insist on dragging in religion and the primacy of the person. The need of the hour is more second rate little minds and narrow viewpoints, to speak up for a "class or faction," to swell the pressure groups in Washington, or else stay at home and denounce the government.

But let's be serious, as serious as your reviewer. Exercising a woman's privilege to be curious, let me ask: how on earth did it happen that of all men, you chose this disciple of Dale Carnegie, obviously suffering from an over-attachment to *How to Win Friends and Influence People*, to review a book of the high quality of *The Condition of Man*?

There is doubtless a place on your magazine for your reviewer. But, if your high standards are to be retained, isn't it apparent that you should confine his labors to congenial utilitarian topics, such as *The Elements of Modern Plumbing*, or *Electric Wiring in Six Easy Lessons*?

Then your reviewer will be protected from the pain and suffering "inspired idealism" obviously gives him. And those of your readers who may happen — oh, yes, ever so queerly — to think there is a place in the world for at least one splendid, eloquent protest against the mechanized barbarisms of this age, will be spared the spectacle of their favorite architectural magazine saying its prayers to idols with feet of clay.

MABEL ASHLEY KIZER  
Spokane, Wash.

THE FORUM is not opposed to idealism, and to prove it we call our original statement to the attention of Reader Kizer, painful though the memory may be. It was: "Despite its inspired idealism, the writing remains unconvincing because reality is entirely absent."

The present time is not the first in history when the condition of man has needed reno-

(Continued on page 144)

## A LETTER FROM THE PUBLISHER

Dear Reader:

Back in the days when the world was young and draftsmen were a dime a dozen, THE FORUM, always an honest enterprise, paid three cents over the market and whenever a bottleneck developed in our drafting room the art director had only to stick his head out the window and whistle and straightway an eager crowd of young draftsmen would appear.

We look back sometimes and recall with pride how many of the Rising Young Architects cut their eye teeth on our drafting boards. Most were of local origin, from the graduate schools at Columbia, Princeton and N. Y. U., but whatever the school, they all had one feature in common. They never owned any drawing instruments. This fact was so universal that we couldn't help trying to seek out its significance. It must be, we figured, a new trend in architecture. The schools were undoubtedly producing a crop of brain men who would plan the world of the future on the table cloths of expensive restaurants with their fountain pens.



A graduate student from Harvard finally broke this precedent. He had a chest of tools which would have done credit to an obstetrician but he left after two days complaining bitterly because our

poché brushes divided in the middle like moustaches.

When Peter Blake, fresh from the office of Serge Chermayeff in London, served a bit of time in our drafting room he caused the art director a good deal of unnecessary worry because he came around each day at the close of work and shook hands with everyone. It took several days to reassure the A. D. that he was just saying goodnight and not goodbye. Now-a-days, when Private Blake visits the drafting room he is more likely to trip someone up than to shake hands.



Another young man combining courtliness with capability was Giovanni Repetto, stranded here along with Botticelli's "Birth of Venus" when Italy entered the war and closed her building at the N. Y. World's Fair. Nino, who made exquisite line drawings and bowed not only from the hips but simultaneously from the knees, would not think of lighting a cigarette without first offering his pack to the other nine occupants of the room, none of whom ever refused.

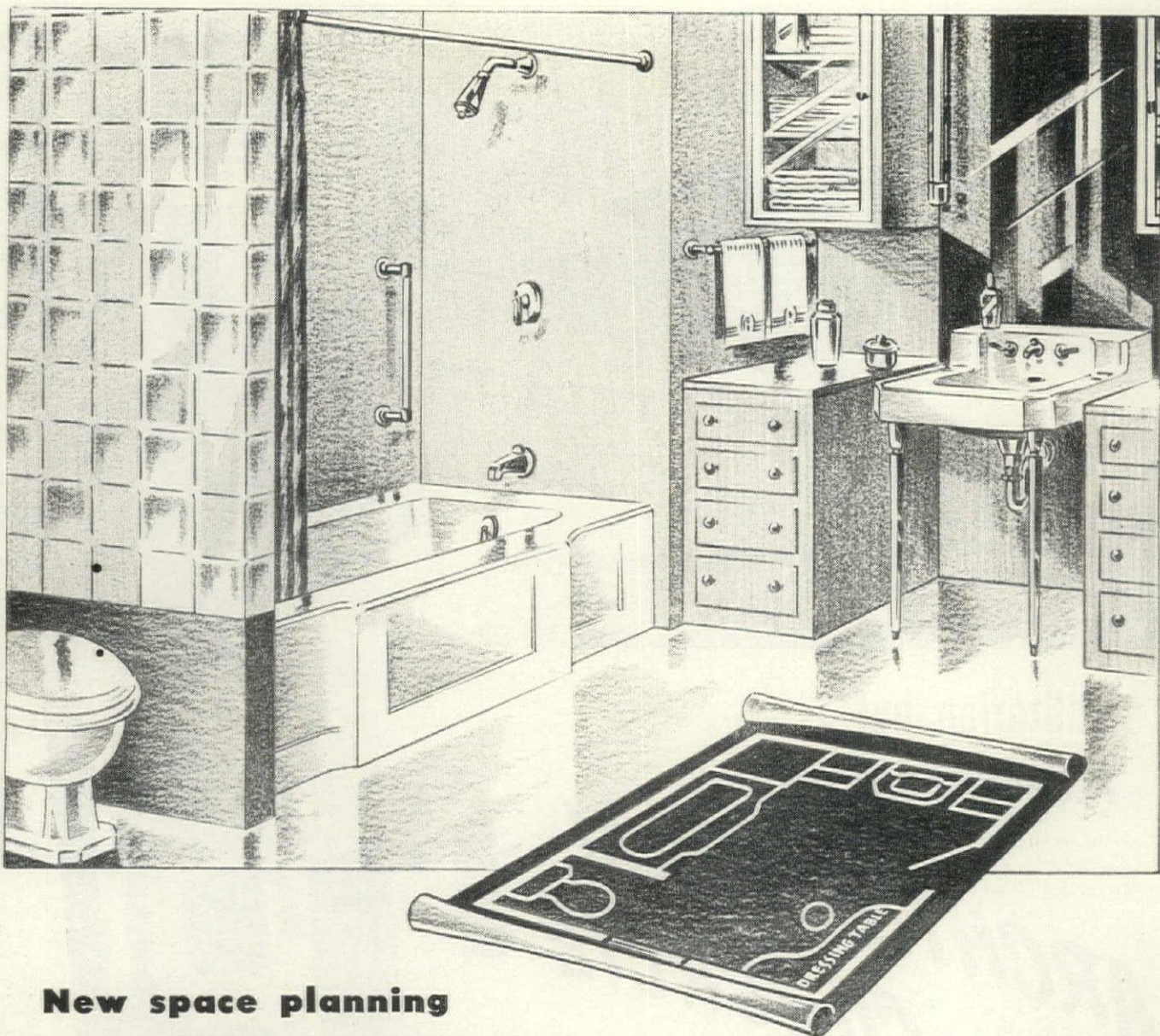
Another boy from the West Coast came back from a tour of appreciating Scandinavian architecture, carrying in his already bulging briefcase a cannon ball sent as a gift to the people of San Francisco from the people of Finland. The son of a mayor of an important Haitian city worked here during a vacation from Cornell whence he had transferred from the University of Brussels at the time of Belgium's capitulation. He sang long, mournful native ballads under his breath while drafting and performed expertly on the voodoo drums at evening parties.



One of our favorite pinch-hitters was the handsome and capable wife of a South American architect who investigated the entire staff before allowing her to work here and, even so, called for her each noon and evening. The inference always secretly pleased us as we had long longed for a touch of *la vie Bohemienne*. As a rule people trust us implicitly. Architects send their wives to us instead of to nurseries when they go overseas. Application blanks on request.

H. M.





## New space planning for tomorrow's bathrooms

As you can well imagine, Kohler designers and engineers have worked out many details of tomorrow's plumbing fixtures and fittings. Naturally, these will not be announced until conditions permit their manufacture and delivery.

Meanwhile, Kohler appreciates that changes will take place in bathroom and kitchen planning, whether for new homes or modernization.

The bathroom shown is one solution to the problem of providing greater utility. The lavatory is flanked by deep counters with drawer and storage space. Overhead are cabinets for towels and wash cloths. The mirror is large and reflects the light on the opposite wall. From the floor plan

notice that the closet has a compartment separated from the tub by a glass-block partition. There is a built-in corner dressing table with natural light from the window.

The fixtures are the Cosmopolitan bench bath with mixer-type shower; Gramercy vitreous china lavatory with shelf, compact mixer fitting, metal legs; Integra one-piece closet.

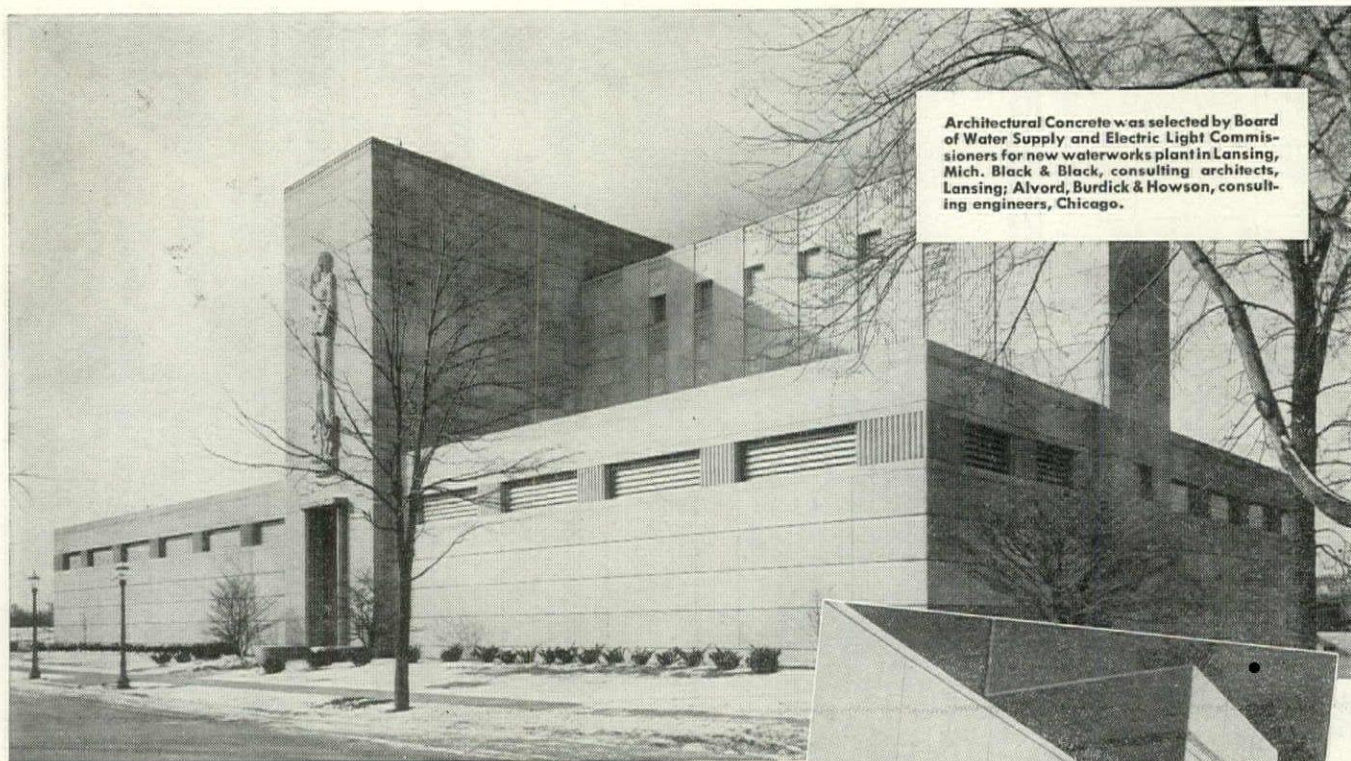
Kohler is always anxious to co-operate with architects and builders in considering ideas for post-war homes. Write: Kohler Co., Dept. AF-9, Kohler, Wisconsin.

★ BUY UNITED STATES WAR BONDS ★

# KOHLER OF KOHLER

PLUMBING FIXTURES AND FITTINGS • HEATING EQUIPMENT • ELECTRIC PLANTS





Architectural Concrete was selected by Board of Water Supply and Electric Light Commissioners for new waterworks plant in Lansing, Mich. Black & Black, consulting architects, Lansing; Alvord, Burdick & Howson, consulting engineers, Chicago.

Utilitarian but  
Attractive too with . . .

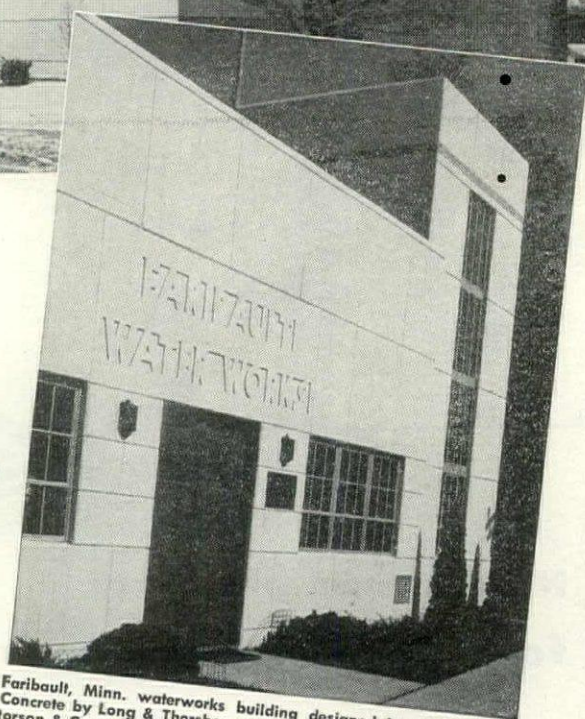
# ARCHITECTURAL CONCRETE

The plastic property of concrete enables the designer to produce striking design effects, textures or ornamentation, without adding materially to construction cost.

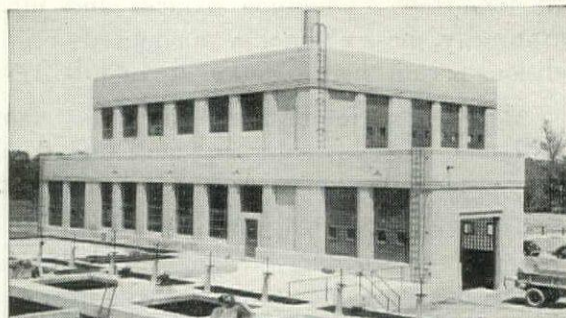
Besides distinction of design, Architectural Concrete provides firesafety and the structural strength necessary to insure long life and low maintenance expense under the most severe conditions of service and exposure.

The moderate first cost and low annual cost of concrete recommend it for postwar construction being planned now.

Write for literature on Architectural Concrete design and construction practice. Free in United States and Canada. See Sweet's Catalog, 4/30.



Faribault, Minn. waterworks building designed in Architectural Concrete by Long & Thorshov, architects, and built by C. G. Victorson & Co., both of Minneapolis.



Architectural Concrete sewage treatment plant at Anderson, Ind., designed by Russell B. Moore Engineering Co., Indianapolis. L. C. Love, Sidney, Ohio, general contractor.

## PORTLAND CEMENT ASSOCIATION

Dept. 9-7, 33 W. Grand Ave., Chicago 10, Illinois

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

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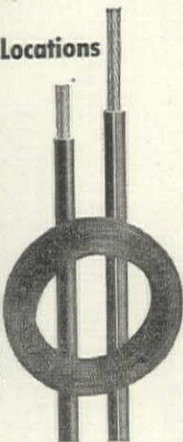
# G-E Wiring Material News

## Flamenol Building Wire

*Type SNW* for Wet Locations  
*Type SN* for Dry Locations

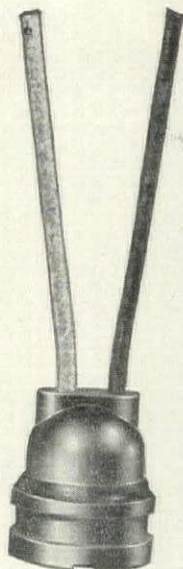
Both types are approved by the Underwriters'. Both are ideal for branch circuits, feeders or special wiring.

- Their thermo-plastic insulation has long life, is flame retarding and resistant to oils, acids, etc. Type SNW insulation, in addition, has low moisture absorption. Both these wires are small in diameter, too, permitting more conductors to be used in conduits.



## NEW G-E Weatherproof Sockets

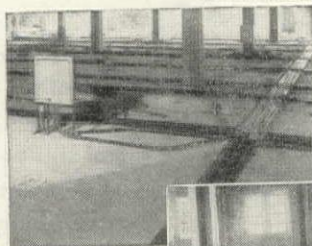
Specify these sturdy weatherproof sockets for new industrial plants, factory remodelling, shipyards and outdoor construction jobs of all kinds. They are made of a tough compound ... resist breakage ... have an improved waterproof seal around the lead-in wires. This seal is made with a heat-resisting wax in a liquid state poured into the top of the socket. It covers the whole top of the screw shell and lead-in wire assembly.



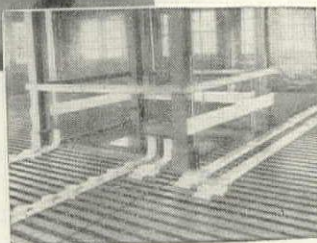
GE3482

## UNDERFLOOR ELECTRICAL DISTRIBUTION SYSTEMS

G-E Fiberduct and G-E Q-Floor Wiring—two different systems for different floors—provide complete electrical flexibility in offices, factories, shops, etc. Outlets can be opened at any time.



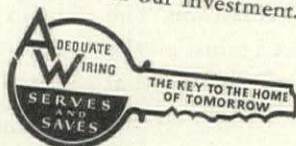
Specify G-E Fiberduct with masonry and wood type construction.



Specify G-E Q-Floor Wiring with Robertson Q-Floors

## FOR COMFORTABLE LIVING AND INVESTMENT PROTECTION

Philip A. Benson, president of The Dime Savings Bank of Brooklyn says, "We shall require adequate wiring in the new post-war homes that we finance, not only as a guarantee of comfortable living for the mortgagor, but also as a measure of protection for our investment."



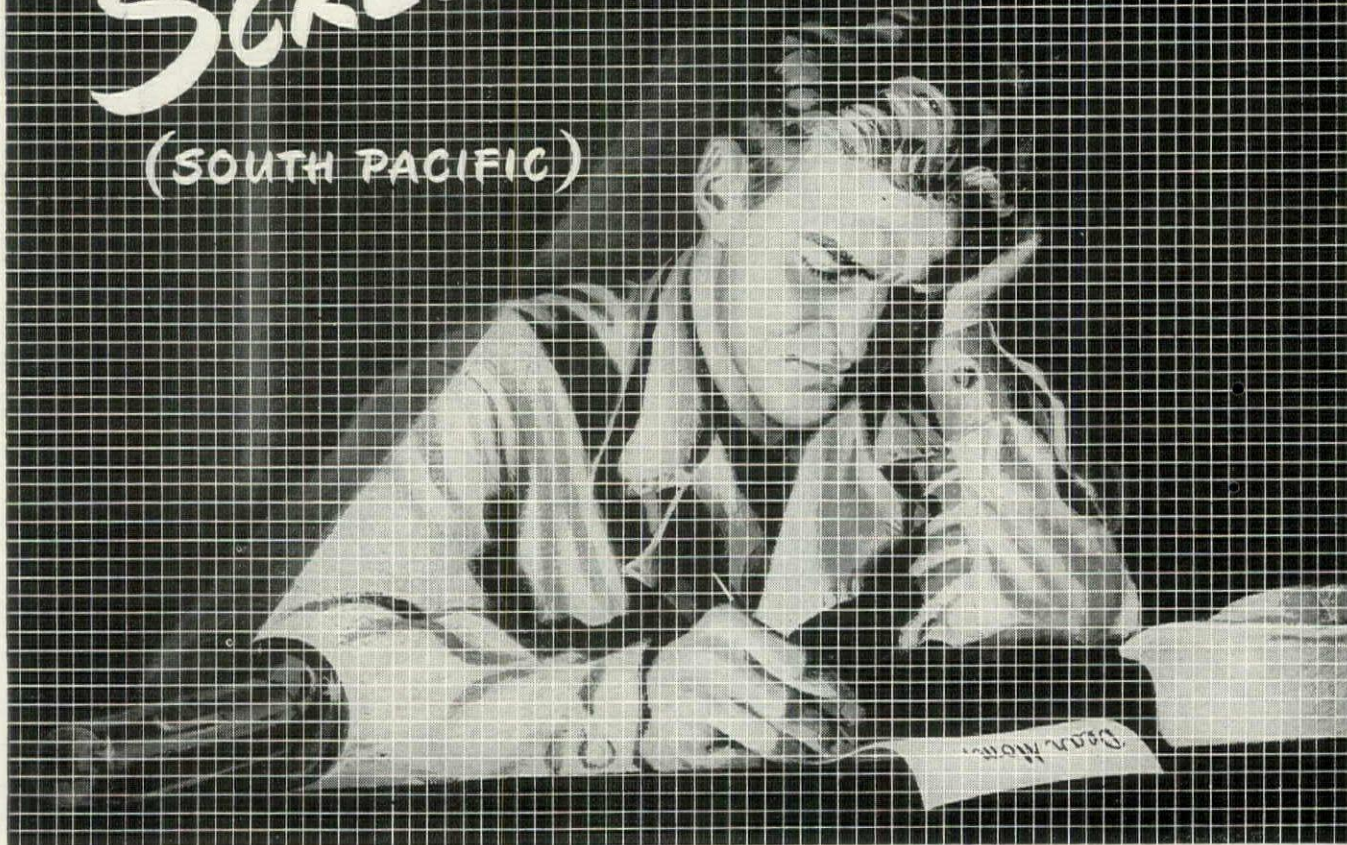
Hear the General Electric radio programs: "The G-E All Girl Orchestra" Sunday 10 P.M. EWT, NBC. "The World Today" news every weekday 6:45 P.M. EWT, CBS  
**BUY WAR BONDS AND KEEP THEM**

# GENERAL ELECTRIC



# SCREEN TEST

(SOUTH PACIFIC)



THERE'S only one kind of screen test in the South Pacific—just ask a Navy man who chaperons a frisky PT boat on nightly forays against the enemy, and daytimes fights tropic damp and boredom in a hidden hut.

That's the non-Hollywood screen test against disease-carrying insects... against damp, rust and corrosion. The armed forces' screen test against all the destructive elements of Nature that made LUMITE a new star... on the world's fighting fronts.

For LUMITE is the new plastic screen, woven from Saran\*, that laughs at heat,

\*A product of the Dow Chemical Co.

cold, rain, snow, acid fumes and salt air; says "no!" to rust and corrosion, and "yes!" to longer life.

American men will be coming home from battle fronts *sold already* on LUMITE plastic window screening for their homes... offices... plants. Because they'll have proved to themselves by experience, the tough durability of LUMITE under every conceivable adverse condition.

Tomorrow's postwar product is being pre-sold to millions of Americans! Tomorrow's postwar market ready at hand for "cease firing!"

The new  
plastic screen  
cloth

# LUMITE

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

*World's Largest Makers of Plastic Screen Cloth*

## TESTED IN WAR READY FOR PEACE

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

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





## LESS FOOTWORK

### when the Communicating and Signalling System is by C. T. & E.

The less footwork in a hospital, the greater its efficiency. Connecticut Telephone & Electric systems cut such fatiguing, time-wasting drudgery to a minimum. To accomplish this is more than a matter of having plenty of telephones spotted throughout a building . . . it calls for plenty of experience and engineering know-how. It is done with special types of telephone equipment, scientific signalling, practical doctors' registry units, special-purpose inter-com systems, and careful integration of the entire installation.

Prompt reconversion to the manufacture of advanced communication systems for hospitals and institutions can be effected as soon as our present war job is finished. If you have postwar construction in the planning stage, look to "Connecticut", as always, for progress in communicating and signalling equipment.

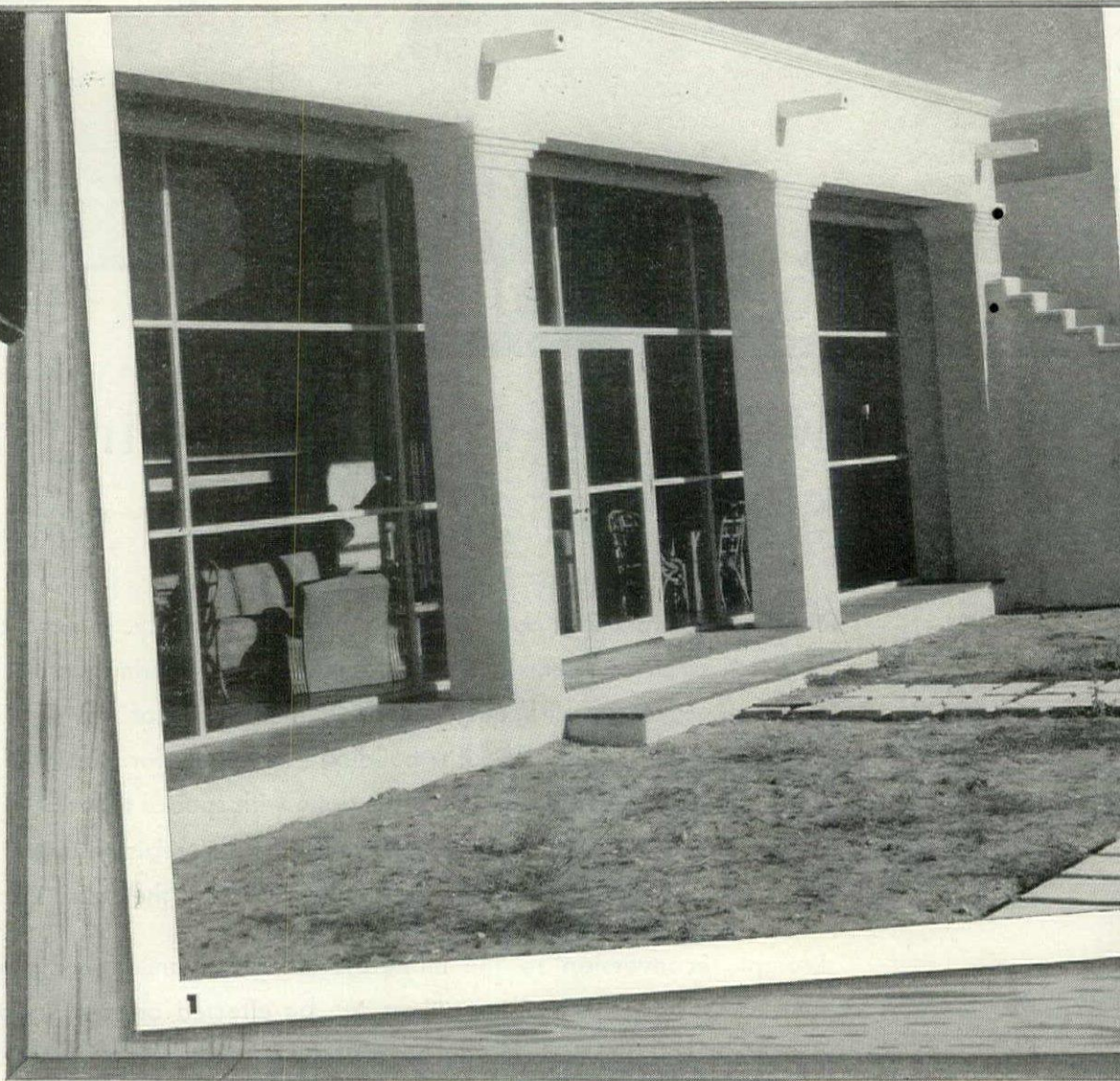


## CONNECTICUT TELEPHONE & ELECTRIC DIVISION

GREAT AMERICAN INDUSTRIES, INC. • MERIDEN, CONNECTICUT



# Ideas for the use of *glass*



**1** **Floods of daylight**, an unobstructed view of outdoor beauties, and an extremely attractive exterior appearance . . . these are the advantages of using large areas of Pittsburgh Polished Plate Glass in residential design. This picture shows how one architect has applied the principle in a lovely Arizona home. Architect: Lewis Hall.

**2** **It's always interesting** to see how an architect uses glass when he designs a

home for *himself*. Here, a picture window of Pittsburgh Polished Plate Glass, and generous supplementary areas of Pennvernon Window Glass, greatly enhance the brightness, charm and "livability" of an attractive room. Architect: Joseph Douglas Weiss, 101 Park Avenue, New York.

**3** **Unlimited possibilities** for original and appealing bathroom design are open to the architect who employs Carrara Structural Glass. This polished, reflective

glass comes in ten lovely shades, can be surface-etched, sand-blasted, laminated, fluted and bent. Architect: Paul Lewin.

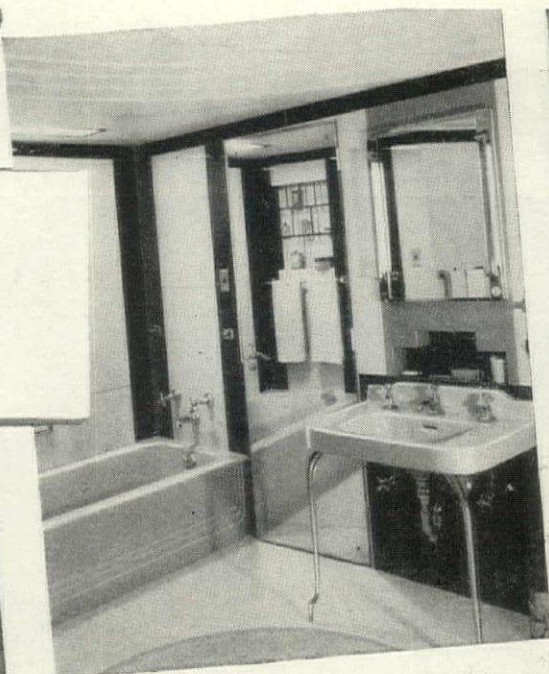
**4** **The center of attraction** in any living room can be a beautifully-mirrored fireplace like this. Pittsburgh Structural Mirrors, available in four colors of plate glass, with three colors of backing, are among the most versatile materials for striking design an architect can use. Architect: Maier & Walsh.



# n residences



2



3



4

• We believe you will find much to interest you in our new, illustrated booklet of ideas concerning the use of Pittsburgh Glass in architectural design. Send the coupon below for your free copy.

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Please send me, without obligation,  
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Building Design."

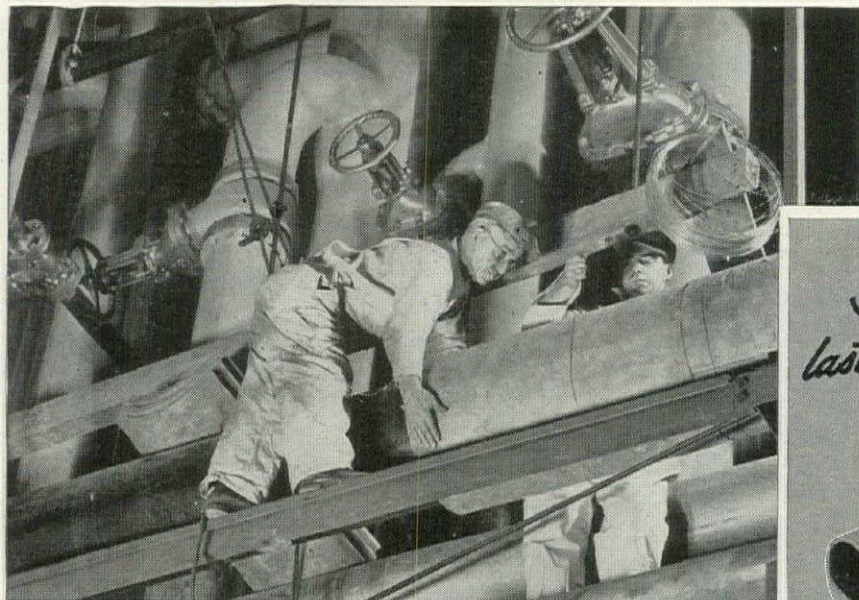
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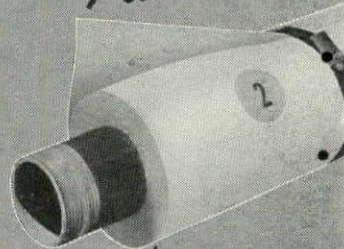
# ★ pipe insulation



.. another job for

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lasting efficiency!*



**PF (Pre-formed)  
PIPE INSULATION**

**IF IT'S TOO HOT  
TO TOUCH**  
  
**IT NEEDS  
INSULATION**

*In cooperation with the  
Government program to  
save critical fuel.*

... and if it's pipes that need covering — or re-covering — Fiberglas PF Pipe Insulation is the answer. It provides a highly efficient and convenient method of insulating steam and other hot lines of all sizes up to 30" O.D. for temperatures up to 600° F.

Fiberglas PF Pipe Insulation is exceptionally lightweight, consisting of fine glass fibers bonded with a thermosetting binder and molded into hemi-cylinders and segments.

The unusually low thermal conductivity of Fiberglas PF Pipe Insulation produces significant direct savings of heat and power. And the unique characteristics of this material bring installation and maintenance economies that have also helped to win industry-wide approval and acceptance.

Because of its mechanical strength, this pipe covering holds its shape, withstands handling and is easily applied, even on the largest pipes—where only three segments are required. The material is easily cut with a knife and the fibrous ends of sections interlace to form tight joints.

Fiberglas does not rot or decay, disintegrate or pack down under vibration.

For more information on Fiberglas Pipe Insulation or the many other uses of Fiberglas, write for booklet, "Fiberglas Insulations for Industry", Owens-Corning Fiberglas Corp., 1830 Nicholas Bldg., Toledo 1, Ohio. In Canada, Fiberglas Canada, Ltd., Oshawa, Ontario.

### OTHER FIBERGLAS INSULATIONS

**1. No. 60 PF Block**—Same materials as in PF Pipe Covering—in blocks 6" x 36" and 12" x 36", standard thicknesses.

**2. OC-1800 High Temperature Block**—A highly efficient and rugged molded block in sizes 6" x 36" and 12" x 36"—in standard thicknesses. Will withstand surface temperatures up to 1800° F.

**3. Metal Mesh Blankets**—With mesh wire or expanded metal on one or both sides. Light weight, and easily applied. 2 ft. x 4 ft. and 2 ft. x 8 ft. In standard thicknesses. Two types: For temperatures up to 600° F. and 1000° F.

**4. Blanket Type Pipe Insulation**—With mesh wire on outer side to wrap around pipe and secure with wire through special edging. Manufactured in 2-ft. sections for pipes over 3" O.D. Will withstand temperatures up to 1000° F.

**5. Insulating Cement**—For insulating fittings, valves and all irregular

surfaces. Highly efficient . . . withstands temperatures up to 1200° Fahrenheit.

**6. OC Mastic**—An asphalt emulsion cement for insulated pipe and equipment exposed to outdoor or high moisture conditions.

**7. TW-F Wool**—Fabricated in bats, rolls and bulk. Used for drying-ovens, heaters, etc., for filling irregular spaces and for fireproofing.

**8. PF Board**—Manufactured in 5 densities from 2½ to 9 lbs. per cu. ft.—standard sizes 24" x 48", 1" to 4" in thickness. For insulated panels, sound absorption and various structural applications.

**9. PF Roof Deck Insulation**—9 lb. density with facing to facilitate mopping. Highly efficient, fireproof, rotproof and moisture-resistant board, for application under industrial built-up roofings. Sizes 24" x 48". Thicknesses from 3/16" to 2".

To help you make the proper selection, a "Fuel Savings Calculator" is available for determining heat loss, fuel savings and other factors. Write us for one.

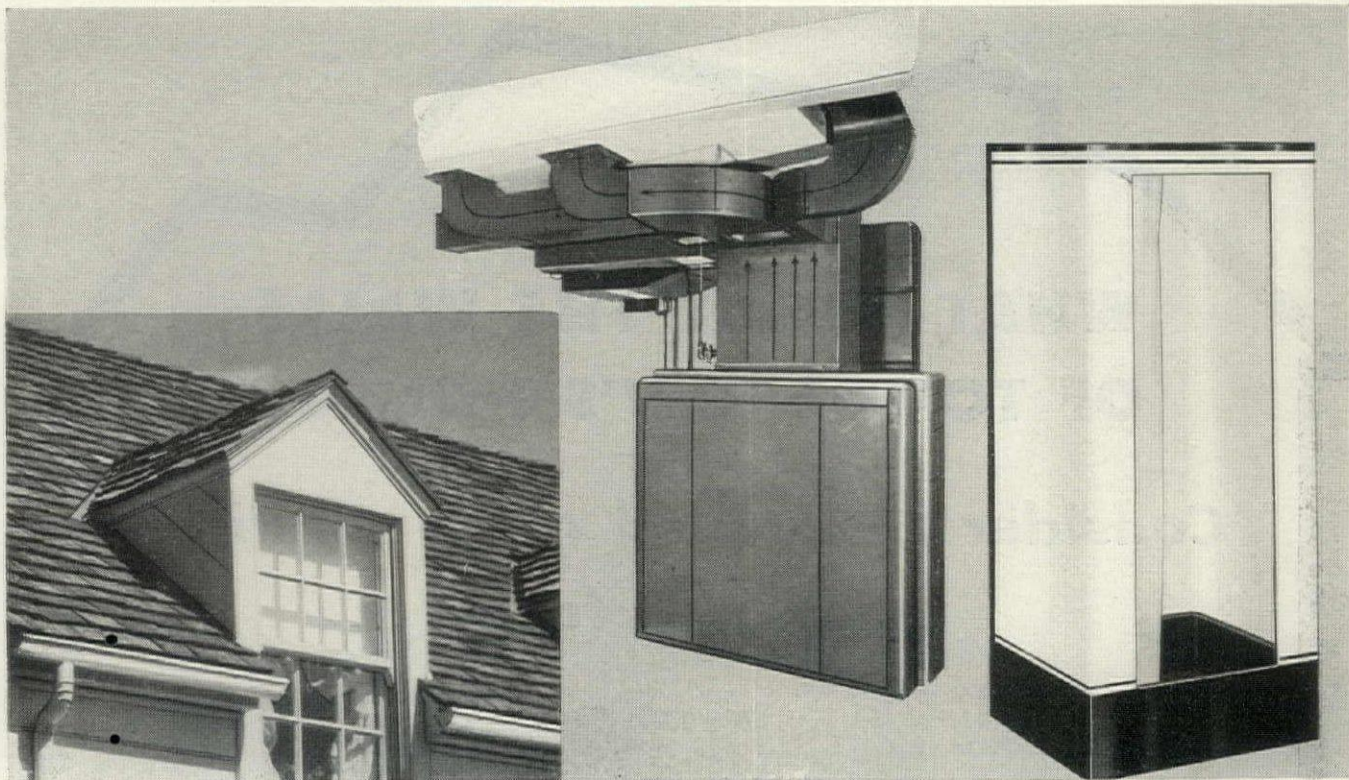


# FIBERGLAS

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

## INDUSTRIAL INSULATIONS





## They'll thank you for THIS METAL FEATURE in their post-war homes

Home-buyers will be impressed with the thoroughness of your plans when you point out that the roof-drainage system, exposed air ducts, furnace casing, and the shower cabinet—all will be made of ARMCO Galvanized PAINTGRIP Sheets.

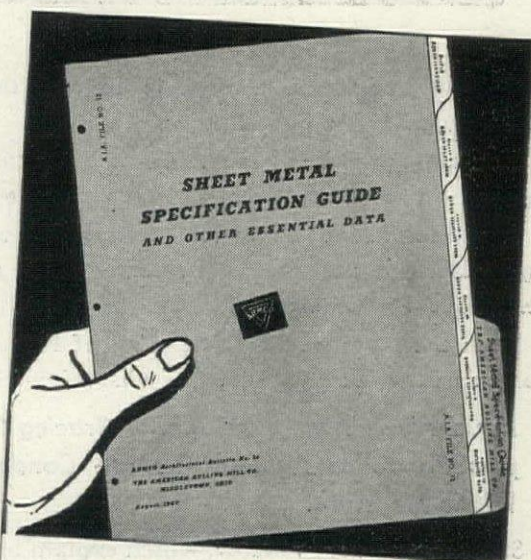
This *original* Bonderized galvanized metal requires no acid-etching or weathering. It takes and preserves paint because it has a neutral surface film that insulates the paint from the zinc. This retards drying out of the paint oils, prevents early peeling, gives double protection. Tests show that good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

ARMCO PAINTGRIP will help you to create more efficient post-war homes. It will save the owners paint and repair bills and help enhance your reputation as a home architect. The American Rolling Mill Company, 2551 Curtis Street, Middletown, Ohio.

FOR EXPORT:  
THE ARMCO INTERNATIONAL CORPORATION



*HELP FINISH THE FIGHT—  
WITH WAR BONDS*



### Write for the "GUIDE"

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 include tables on standard gage weights, thermal expansion coefficients and many other helpful facts.

Write us on your firm letterhead and we'll send you a copy without charge. The American Rolling Mill Company, 2551 Curtis Street, Middletown, Ohio.



# WHAT ABOUT THE WALLS OF TOMORROW'S HOMES?

**Consider the added responsibility  
they will face**

**THE WALLS** of the homes you design after the war will face new, added responsibilities.

You must provide adequate insulation, of course. But you must do more than that!

Air-conditioning makes it necessary that walls be so constructed that *moisture condensation within the walls is reduced to a minimum.*

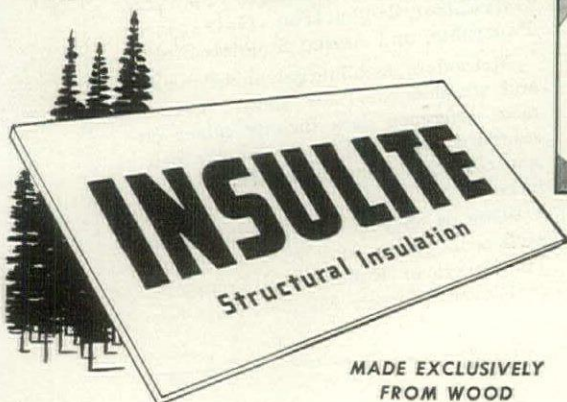
With the Approved Insulite Wall of Protection, you solve these two problems. Here's what this wall gives you:

**Double Insulation, plus Superior Bracing Strength  
plus Protection Against Moisture Condensation  
Within the Walls.**

Study the drawings below, which explain in principle, how the Approved Insulite Wall of Protection accomplishes its job. Or better yet, consult Sweet's Architectural File, Section 10, and send for free "Scientific Facts" booklet and other technical information.



**INSULITE**  
MINNEAPOLIS 2, MINNESOTA



MADE EXCLUSIVELY  
FROM WOOD

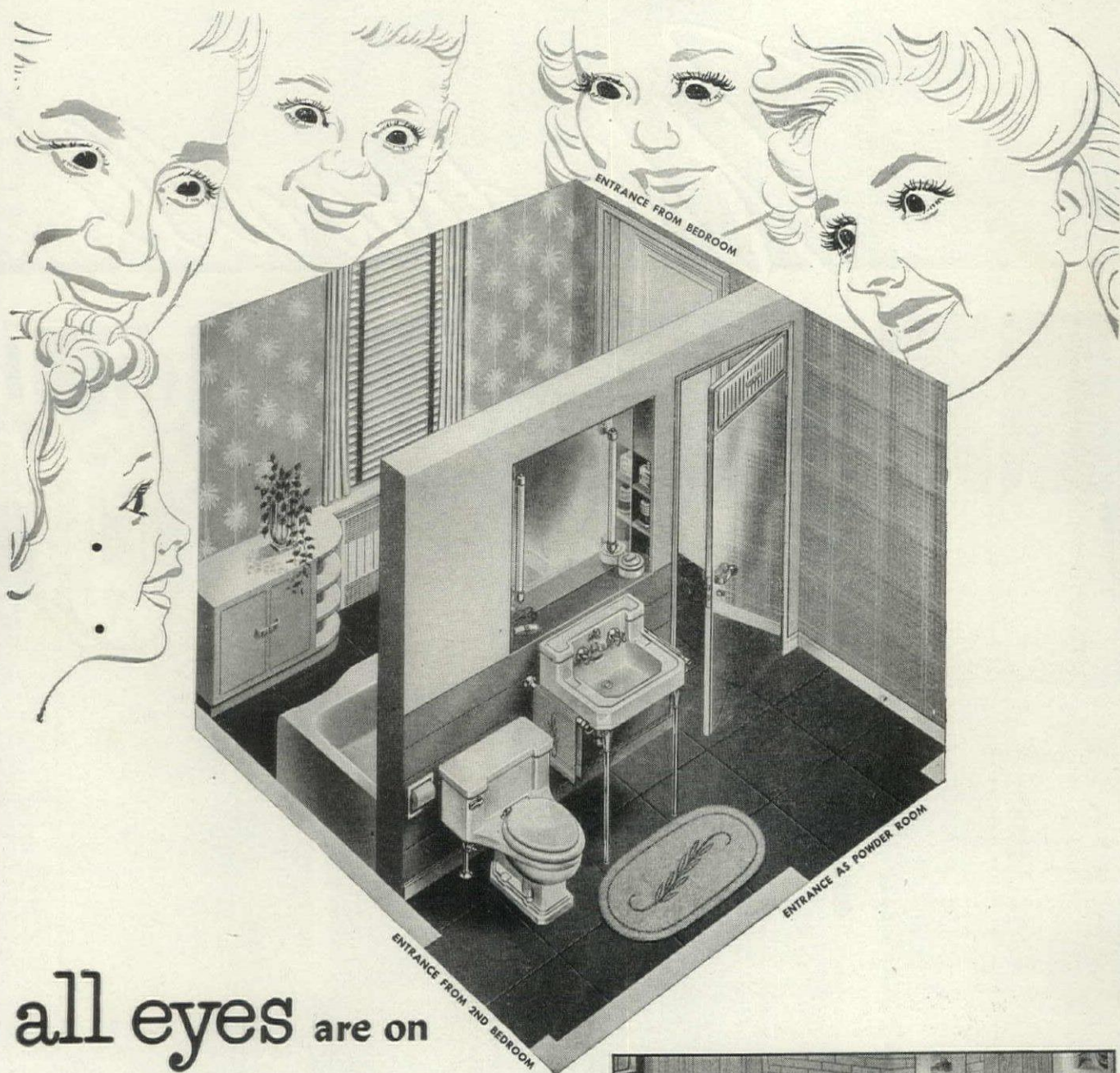


**OUTSIDE THE STUDS,** Insulite Bildrite Sheathing. The large boards provide a wind-proofed, weather-tight wall. Bildrite provides a bracing strength four times that of wood sheathing, horizontally applied.

**INSIDE THE STUDS,** Sealed Lok-Joint Lath furnishes a second wall of insulation. The patented Lok-Joint provides a strong, rigid plastering surface, prevents joints from opening under trowel pressure.

● How moisture condensation is effectively minimized in the Approved Insulite Wall of Protection. Sealed Lok-Joint Lath, with asphalt barrier against the studs effectively retards vapor travel. Bildrite Sheathing, being permeable to vapor, permits what little vapor escapes to pass naturally towards the outside.





# all eyes are on the "Standard" DUO-USE BATH

It's a pace-setter—it is destined to exert a pronounced influence on the bathroom of the future.

In addition to being new and novel its unique layout will make future bathrooms more useful, more interesting and more attractive.

Being practically two rooms in one, with the bathtub and shower in one compartment and the lavatory and water closet in the other, two persons can use it at the same time, each having complete privacy.

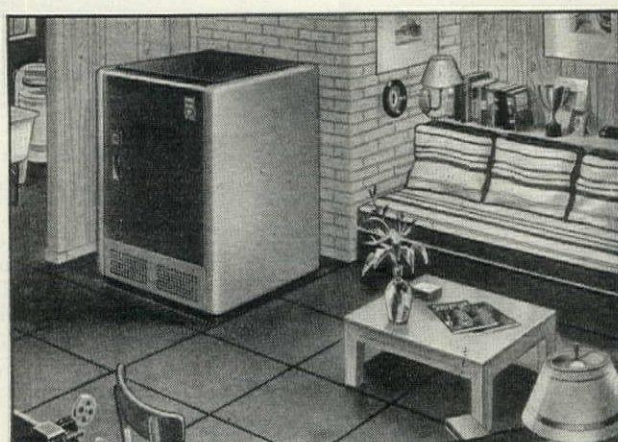
It can also serve as a powder room by simply closing the door into the bath compartment.

The "Standard" Duo-Use Bath is advertised in full pages, in full color, in the September issues of House & Garden and House Beautiful magazines. Watch for them and you will see the pace-setter for the bathroom of the future.

**AMERICAN** & **Standard**  
**RADIATOR** & **Sanitary**

New York CORPORATION Pittsburgh

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**AMERICAN**  
HEATING EQUIPMENT

Many boilers beyond repair will need replacing. WPB Limitation

Order L-79 simplifies the procedure and customer certification is now generally sufficient to permit replacement. AMERICAN Boilers are available for replacement under this order. Availability of jackets is subject to WPB restrictions.



# Windowalls.

## ANDERSEN COMPLETE WOOD WINDOW UNITS

HERE is beauty a la carte, served in a most charming manner with every meal. A dining room gains distinction because on one side it is walled with windows—WINDOWALLS that frame a commanding view of green fields, gardens and trees.

Walls of windows, windows that function as walls must be weathertight, as these most certainly are. They must likewise be engineered to permit ample ventilation—and these WINDOWALLS meet specifications.

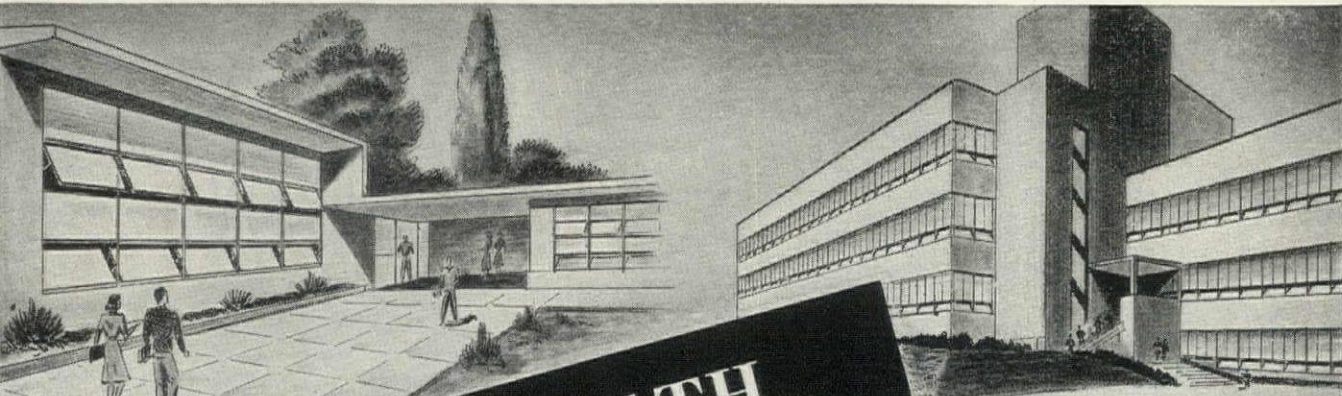
These WINDOWALLS are made with Andersen Casement Window Units. Countless variations in size and arrangement can be made with Andersen Window Units.

FOR DETAILS, CONSULT SWEET'S CATALOG OR WRITE  
DIRECTLY TO ANDERSEN





# SOULÉ INSTITUTIONAL WINDOWS



## *For* HEALTH AND EFFICIENCY

In planning windows, whether it be for a school, hospital or other type of institutional building, certain factors must be considered:

- Fresh air circulation without draft
- Maximum daylighting
- Ease of operation
- Architectural design

All features are covered when you specify Soulé Steel Architectural Projected and Casement Windows. Submit your window problems to Soulé window engineers now.

CONSULTING  
WITH AN ARCHITECT  
...NOW...  
SETS BUILDING TIME  
AHEAD

### PRODUCTS

Steel Windows and Doors	Welded Fabric
	Reinforcing Steel
Metal Lath Products	Expanded Metal
Steel Forms	Stucco Netting
Fabricated Steel	Merchant Steel

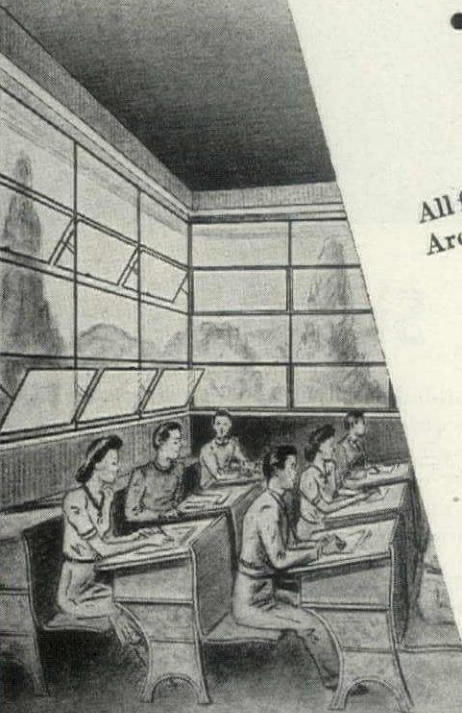


Award to San Francisco  
and Los Angeles Plants

## HOSPITALS



## SCHOOLS



# SOULÉ STEEL COMPANY

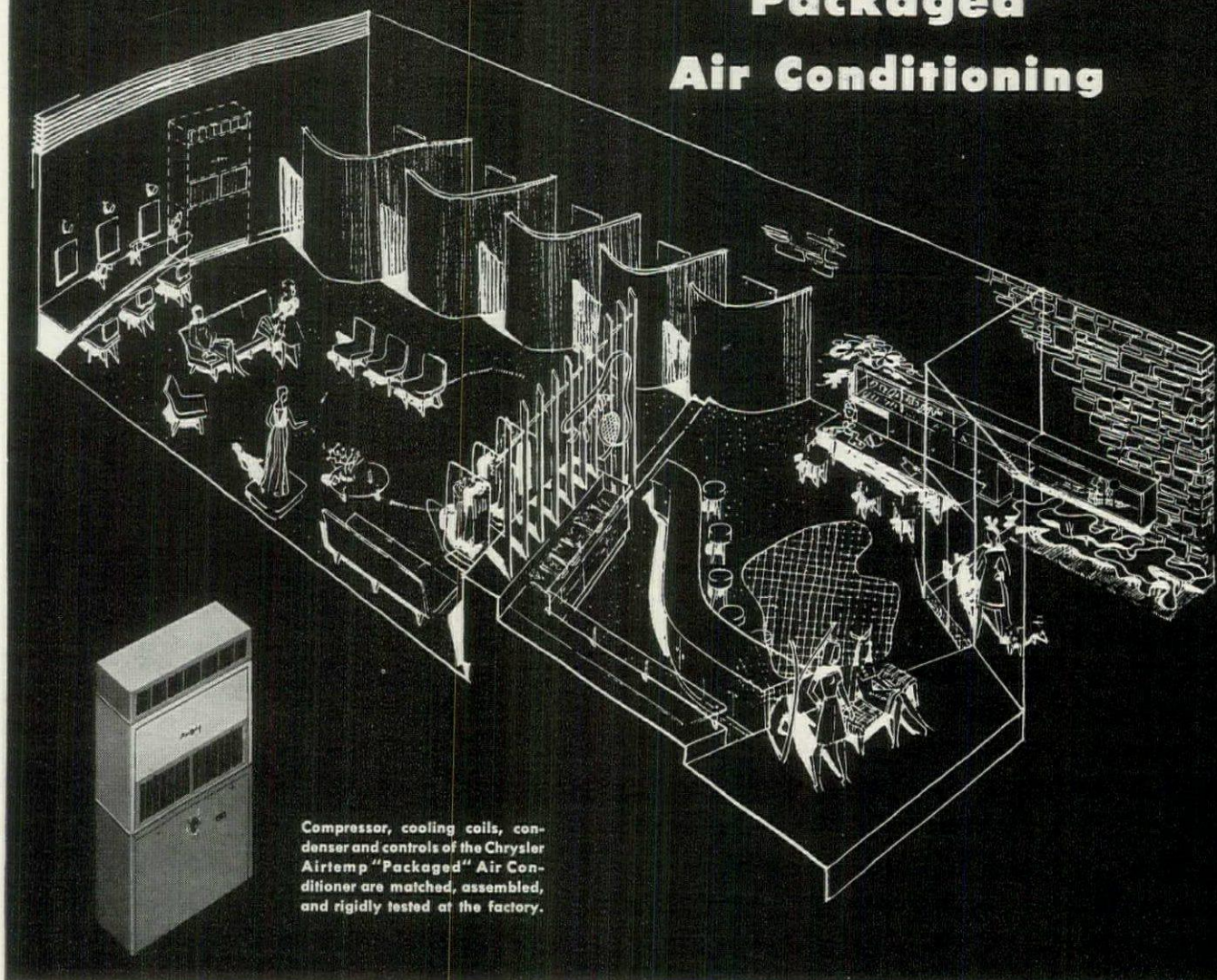
SAN FRANCISCO

LOS ANGELES ★ PORTLAND ★ SEATTLE ★ HOUSTON



# Chrysler Airtemp

## "Packaged" Air Conditioning



Compressor, cooling coils, condenser and controls of the Chrysler Airtemp "Packaged" Air Conditioner are matched, assembled, and rigidly tested at the factory.

## A Boon to Apparel Shops

In the postwar period, the public will demand the comfort and refreshing atmosphere of air conditioning in apparel shops, particularly.

Alert merchants are specifying air conditioning in their postwar building and modernization programs. And Chrysler Airtemp "Packaged" Air Conditioners, singly or in multiple, are ideal in meeting temperature-humidity requirements. In combination with a Chrysler Airtemp Percolator Boiler, the "Packaged" Air Conditioner will provide year 'round indoor climate control, plus adequate hot water, an important item in stores.

Completely assembled at the factory and shipped ready to run, these self-contained units provide quiet, trouble-free, dependable air conditioning. Easy to install, easy to move as a show case, Chrysler Airtemp "Packaged" Air Conditioners are winning high endorsement among the Nation's leading architects.

Chrysler Airtemp will be glad to cooperate with you in making estimates on not only air conditioning, but also domestic heating and commercial refrigeration. Airtemp Division of Chrysler Corporation, Dayton, Ohio. • In Canada, Therm-O-Rite Products, Limited.

Buy More War Bonds! Tune in Major Bowes every Thursday, CBS., 9 p. m., E. W. T.

**CHRYSLER**  **AIRTEMP**  
HEATING • COOLING • REFRIGERATION

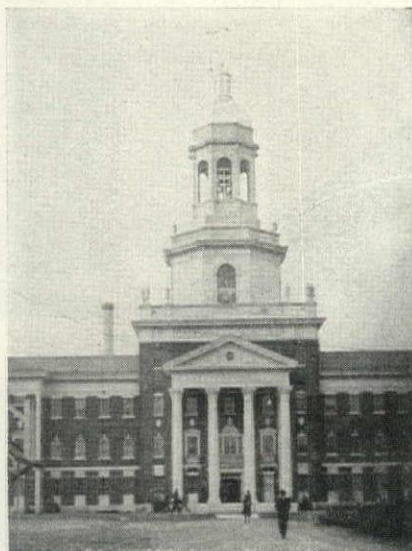


# Living Memorials

*Let Them Be Eloquent with the Charm of Heavenly Music—Alive with the Beauty of a Genuine Carillon!*

Pictured on this page are outstanding examples of Living Memorials that measure up, in a special way, to all of the requirements of a noble function. While honoring the departed, each performs a living service to those who remain. Each embodies high standards of architectural design. And each employs a Deagan Carillon as a means of emphasizing its presence, extending its influence and giving expression to its beauty:

*Pat Neff Hall, Baylor University, Waco, Texas:* Erected in honor of a public-spirited citizen, this gracious structure serves as the administra-



*Pat Neff Hall, Baylor University, Waco, Texas*

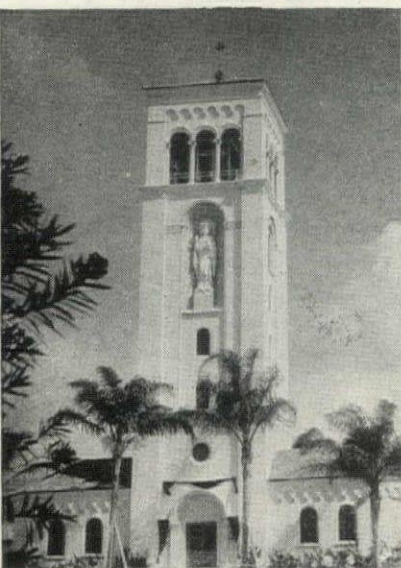
*Carillon Tower, St. Patrick's Church, Miami Beach, Florida:* Imposing in itself, this beautiful tower includes a chapel, office and living quarters. A Deagan Carillon carries the message of Christianity beyond the premises of the church to all within reach of its melodic voice.

*Field House, Lincoln Park, Chicago:* Locker rooms, showers and children's playrooms contribute to the well-being of young Chicagoans. The Memorial Carillon lifts the heart and elevates the spirit of all who visit this famous park.

*Lever Memorial Chapel, Evanston, Illinois:* Magnificent in conception and flawless in its appointments, this famous edifice is national headquarters for the Sigma Alpha Epsilon fraternity. Included among its facilities are offices and meeting rooms, a chapel, a library, a museum and a

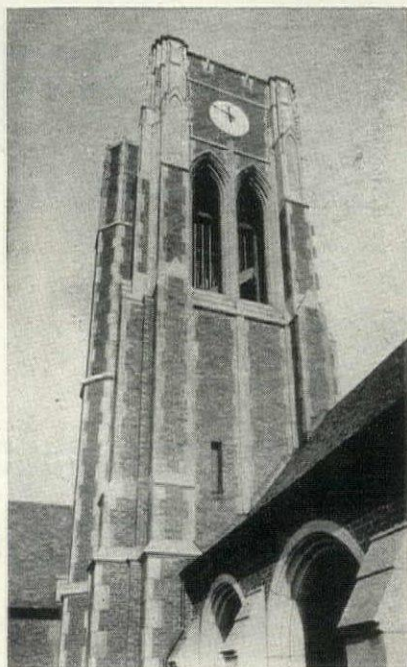
dining hall. Through the medium of a Deagan Carillon, the structure becomes in a very real sense, a *Living Memorial* to a noble personality.

Living Memorials require a voice—and in all the world there is no voice so appropriate, so inspiring and so impressive as a Harmonically Tuned Deagan Carillon. Automatically played, it helps to make the Memorial a landmark, fills the air



*Memorial Carillon Tower, St. Patrick's Church, Miami Beach, Florida*

tion building of the university. It contains class rooms and a museum. And, through the music of a Deagan Carillon, it serves to refresh and inspire the student body, remind them of the man to whom the structure is dedicated, enrich their memories of college days.



*Lincoln Park Field House, Chicago, Ill.*

with stately music every day, serves as a community time guide. Our Architectural Service Department stands ready to provide you not only with interesting information on bell music but with dimensional and other data designed to assure maximum effectiveness of the Carillon that is to serve as the voice of your Memorial. Please address

**J. C. DEAGAN, INC.**  
Department 187, Chicago 13, Illinois

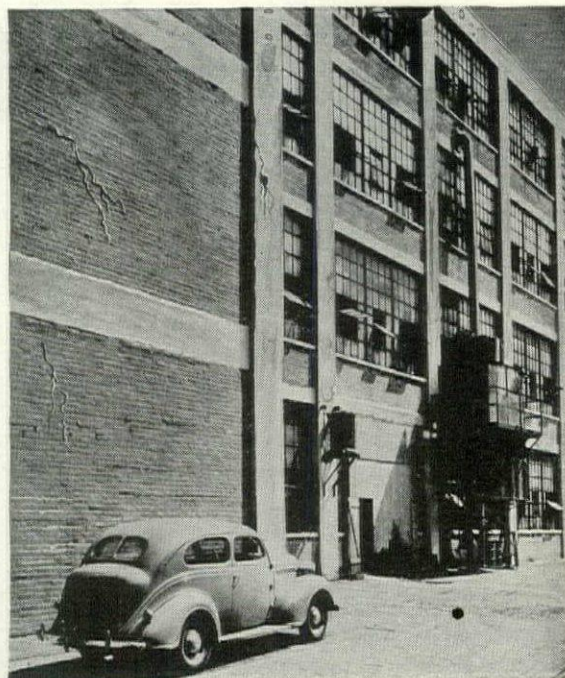
**DEAGAN**  
HARMONICALLY TUNED  
*Carillons*



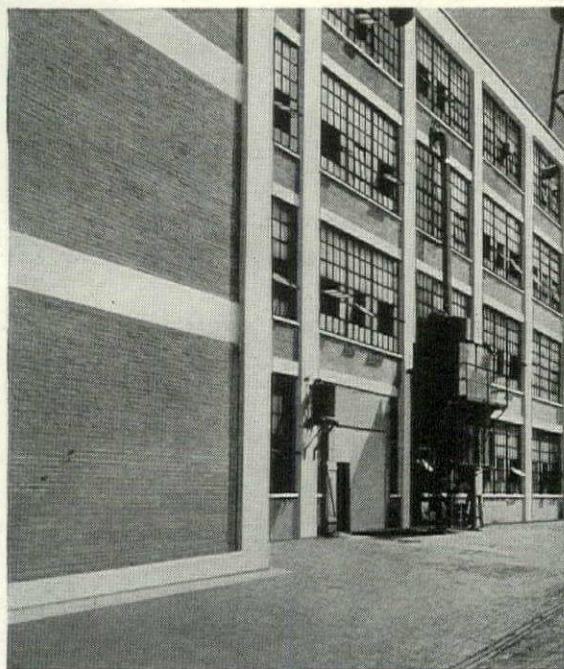
# WATERFOIL

THE UNIQUE TREATMENT FOR EXTERIOR MASONRY SURFACES

*before*



*after*



give your buildings  
a protective, decorative  
“raincoat”

Eliminate the ravages of time and weather on all masonry surfaces by applying *Waterfoil* . . . a scientific contribution of the Horn laboratories to masonry protection. *Waterfoil*, manufactured of irreversible inorganic gels, reacts chemically and bonds physically as well, to form a hard dense coating. The masonry can breathe, as it should, but actual water absorption is impeded to prevent reinforcing bar rust and spalling. Any careful workman can apply it. Send for the *Waterfoil* literature. If you are in charge of property maintenance you may benefit. Write today.

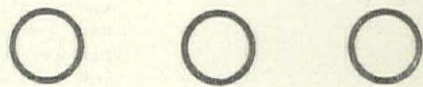
**A. C. Horn Company** *Established 1897*

Manufacturers of Materials for Building Construction and Maintenance

Factories: Long Island City 1, N. Y., Houston, Texas; San Francisco, Cal.; Branch Offices in Principal Cities



# IDEAS



## FOR ARCHITECTS DESIGNING POSTWAR APARTMENTS



Here is a book valuable to everyone planning post-war apartments, from two family dwellings to the largest types of community projects. More than just a window book, it is an *idea* book... full of new window treatments, uses and designs. Illustrated by an architect *for architects*, it contains many valuable architectural renderings. Most important, any of the standard type Mesker Metal Windows shown in the book you can *specify today*, with the ASSURANCE of getting them later. Paper shortage limits editions, so reserve your copy by mailing the coupon TODAY.

### MAIL THIS COUPON TODAY

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Without cost or obligation, mail me your Book of Windows for Homes.

Architect \_\_\_\_\_

Address \_\_\_\_\_

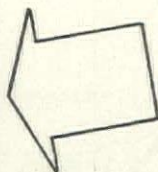
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Manpower shortages prohibits establishing a permanent mailing list.

**APARTMENT WINDOWS**

AF 94





# One way to make women happy

Various surveys and the reported opinions of a number of household economists indicate that most women, in thinking of the details of their post-war home, think first of what the kitchen will look like and how it will be arranged. They demand both convenience and pleasant surroundings.

It seems probable that within the medium price range of post-war houses, well over 70 % of them will enjoy "electrified kitchens." But, as Mr. Lippincott well points out in the text of the Saturday Evening Post advertisement, August 19, 1944 (reproduced on the opposite page), post-war kitchens must be more thoroughly integrated and more completely functional in design than ever before.

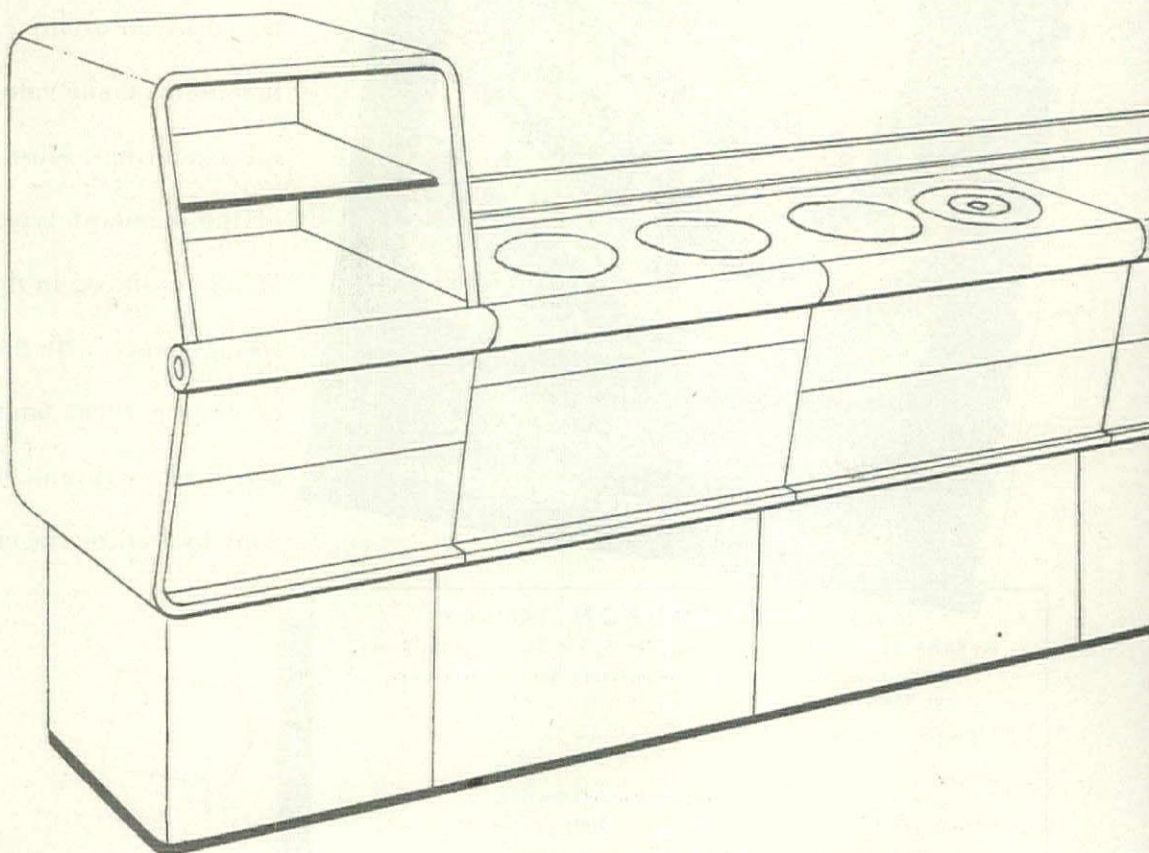
Mr. Lippincott contends that post-war kitchens must be so streamlined in design as to effect the utmost economy in space and arrangement to the end that food preparation is an easy step-by-step procedure.

Revere holds no brief for any one conception of a post-war kitchen. It does believe, however, that the project of Mr. Lippincott is interesting and highly stimulating.

But in any case Revere feels that its current national advertising, featuring the ideas of various architects and designers on the over-all subject of post-war housing, benefits the whole industry: architects, builders, contractors, realtors, manufacturers and financiers. Its stressing of the durability and beauty of copper and copper-base alloys is logical—these metals do make any building better to live in—easier to rent or sell.

Today Revere is wholeheartedly committed to war production. But with Peace it will be prepared to offer improved materials in copper and copper-base alloys for erecting better post-war houses and buildings. Roofing, flashing, pipe, tube and architectural shapes are typical forms and applications. Then, too, it will again manufacture its revolutionary line of Revere Copper-Clad Stainless Steel Kitchen Ware.

Revere will gladly share without obligation its fund of technical knowledge with post-war planners in the building field. Planning today will help implement the Peace of tomorrow! Revere Copper and Brass Incorporated, 230 Park Avenue, New York 17, N. Y.







# • A kitchen where drudgery is banished

A woman spends more working hours in the kitchen than in any other room in the house.

Why not make these kitchen a pleasant place to live in, not to slave in, a room so designed that food preparation becomes an easy, step-by-step simple procedure?

So let's try to describe briefly the "Kitchen without Drudgery". First, it is bright and airy. All metal surfaces are permanent in finish and lustrous.

The food "production line" commences with the shoulder height. Separate compartments for frozen goods, with counter height drawers for frozen goods. The doors open by foot pressure and the counter sink is faced by window and constant space for cleaning necessities. The chromium-



plated, solid brass faucet controls have a unique variable spray knob.

The stove is electric or gas with a high triple broiler. Ample roller, vertical storage drawers are included. Revere Copper-Clad Stainless Steel Ware is recommended for the cooking utensils.

A magnesium workable, castor-mounted, folding magnesium stool is provided for "sit down" work or stands. There's a counter height work shelf, lighting is planned to avoid interfering shadows. Outside windows are criss-crossed with louvers. A flexible plastic screen separates kitchen from dining room.

All hot and cold water, heating and air conditioning lines are of copper and copper-base alloys. Revere has prepared an illustrated booklet describing in greater detail this "living" kitchen. This is free. Send for it today.

J. GORDON LIPPINCOTT

Only a few highlights feature of Mr. Lippincott's "living kitchen" have been given in this detailed illustrated booklet. Just address Revere as below.

BUY MORE WAR BONDS TODAY

**REVERE**  
COPPER AND BRASS INCORPORATED  
Founded by Paul Revere in 1802  
Executive Office: 250 Park Ave., New York



## How Revere makes any kitchen and home better

"Jewels to look at, gems to cook with," are the vivid words used by one housewife to describe her Revere Copper-Clad Stainless Steel Ware which are an integral part of the "living" kitchen described on the opposite page.

Due to war necessities Revere has suspended manufacture of these remarkable utensils. But with peace, they will again contribute in thousands of homes to the preparation of the cooking magic of copper with the lasting, silver-like luster of stainless steel. They permit "waterless cooking" thus conserving flavor, vitamins and minerals. They are fast. They wipe clean and stay clean.

Plan today—as you plan your kitchen of tomorrow—to have it equipped with Revere Copper-Clad Stainless Steel Ware. In other respects, too, Revere copper and copper-base alloys play an indispensable role in making home a better place. Revere copper and copper-base alloys

are standard for both new building and remodeling. They're specified for roofing, flashing, gutters, downspouts, weatherstripping, hot and cold water lines, heating and air conditioning lines; storage tanks, many other uses. Revere copper, brass or bronze accessories add beauty inside and outside the house.

Copper gives longer life to any building anywhere, any time, because it protects, preserves, perpetuates.

After Victory, Revere products will again be available through dealers and distributors.

Revere will be glad to share its technical knowledge and to discuss, without obligation, specific problems in post-war planning, including its products, their manufacturers, builders and contractors may have. Write Revere-Executive Office, 250 Park Avenue, New York 17, N. Y.

BUY MORE WAR BONDS TODAY

**REVERE**  
COPPER AND BRASS INCORPORATED  
Founded by Paul Revere in 1802  
Executive Office: 250 Park Ave., New York 17, N. Y.

Advertisement appears in Saturday Evening Post, August 19, 1944





## THE FIGHTING FACE OF FITZGIBBONS

Not a smile in the lot—just grim, stern determination to do their job in getting out armored equipment. The men and women of Fitzgibbons work in the blinding glare of welding torches, in the shattering roar of heavy shears, punches, bending rolls. Thus are born the M-7 Tank Destroyers whose 105 mm. guns are today making hash of the toughest enemy tanks, and thus were made many of the famous General Sherman tanks that are chasing Rommel out of France. In the making of these things the men and women of Fitzgibbons have earned the Army-Navy "E" award, with star for continued effort.

When the present need is past, the men and women of Fitzgibbons will again make steel heating boilers, and air conditioners. Their job is, first to make America safe — then to make it comfortable.



A STAR HAS  
BEEN ADDED  
to Fitzgibbons' Army-  
Navy "E" flag, evi-  
dence of continued  
excellence in wartime  
production.



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# FITZGIBBONS

STEEL HEATING BOILERS SINCE 1886

BUY  
U. S. WAR BONDS  
and STAMPS



# ZONOLITE CONCRETE and ZONOLITE PLASTER Provide

## Fireproof Insulation Against Heat and Sound in MERCANTILE BANK BUILDING, DALLAS, TEXAS

Walter W. Ahlschlager, Dallas  
Architect.  
Henger Construction Company,  
Dallas—General Contractors.

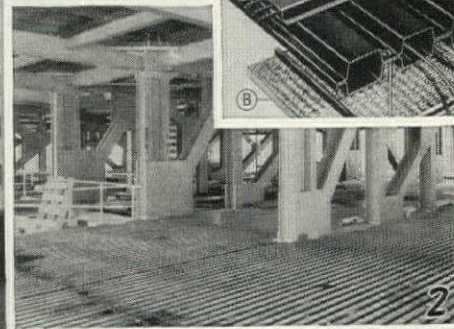
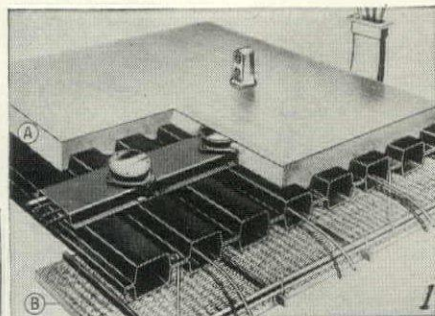
Leading architects and structural engineers in all parts of the country are specifying Zonolite Concrete and Zonolite Plaster with increasing frequency in important new buildings . . . because they find that Zonolite speeds construction and provides lightness and insulating and fire resistance values found in no other material.

The structural steel frame and cellular steel "Q" floors in the Mercantile Bank Building were fireproofed with Zonolite plaster. The density of the Zonolite concrete floor fill was only 30 lbs. per cubic foot compared to 150 lbs. per cubic foot for ordinary concrete. Zonolite plaster weighs only 39 lbs. per cubic foot compared to 100 lbs. per cubic foot for ordinary sand plaster. Zonolite fireproofing weighed approximately 15 lbs. per lineal foot of beam as compared to 240 lbs. per lineal foot of beam for standard concrete fireproofing.

Thus, Walter W. Ahlschlager, the architect, accomplished two major objectives when he chose the combination design of Robertson "Q" Floors, Zonolite Concrete and Zonolite Plaster and Zonolite Fireproofing of structural steel—a saving of structural steel in excess of 15% when compared with standard office building practice and from 45 to 60 days of erection time. This method allowed the Zonolite concrete floor topping to be placed after enclosing masonry walls were erected.

Mail coupon for detailed information about Zonolite's many uses.

UNIVERSAL  
ZONOLITE INSULATION CO.  
Dept. AR-7, 135 S. La Salle St.  
Chicago 3, Illinois



- 1 Cellular steel "Q" floor section covered on top with fireproof Zonolite Insulating Concrete floor fill (A) and fireproofed on underside with Zonolite Insulating Plaster (B).
- 2 Exposed structural steel before being fireproofed with Zonolite Insulating Plaster and cellular steel "Q" floors before being covered with fireproof Zonolite Insulating Concrete floor fill.
- 3 Spandrel beam enclosed with Zonolite Insulating Plaster fireproofing.



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**86-PAGE**  
**BOOK!**

UNIVERSAL ZONOLITE INSULATION CO.  
Dept. AF-9, 135 S. La Salle St., Chicago 3, Ill.

Gentlemen: Please send me a copy of your 86-page manual giving complete information on Zonolite concrete. Also send literature on Zonolite Plaster and Granular Fill insulation.

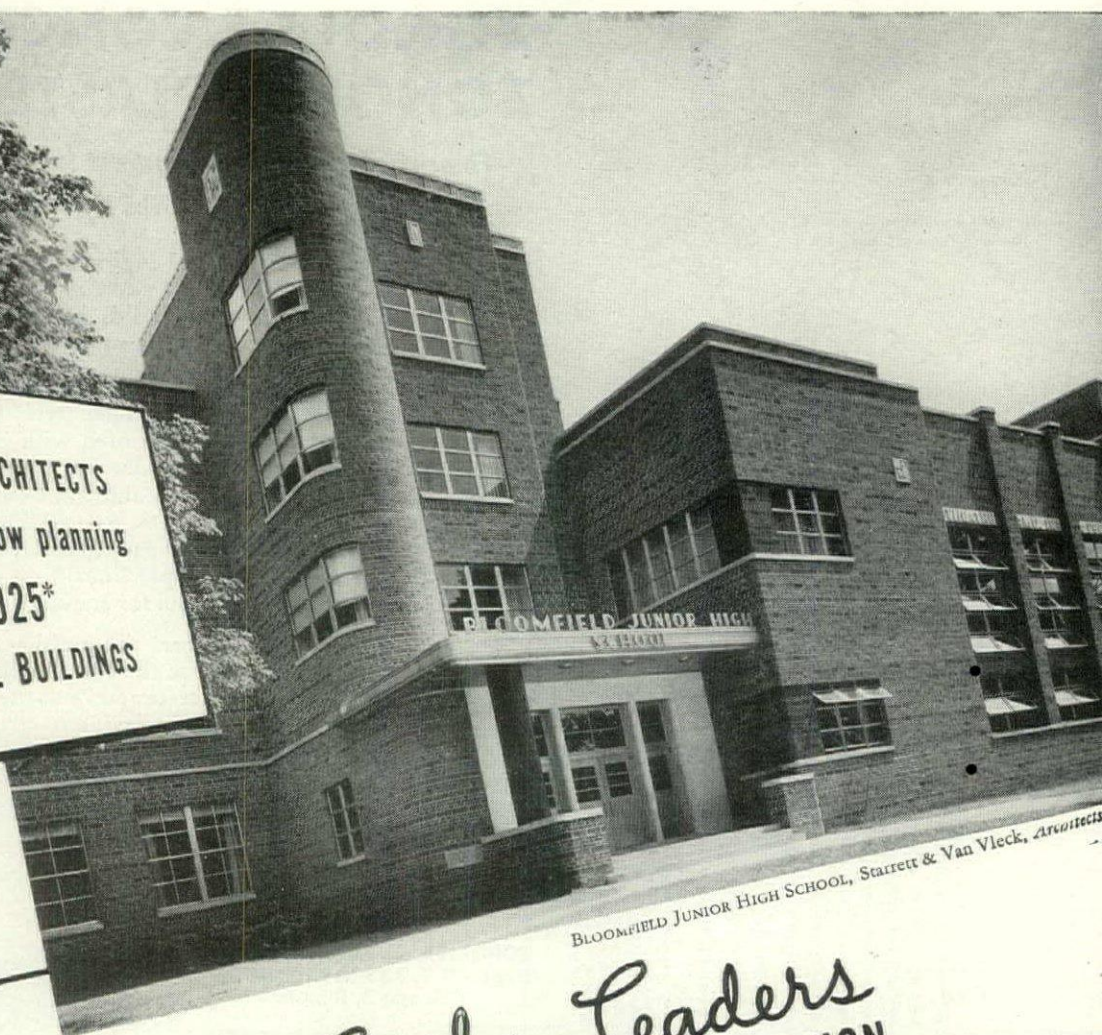
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TO THE ARCHITECTS  
who are now planning  
2025\*  
SCHOOL BUILDINGS



BLOOMFIELD JUNIOR HIGH SCHOOL, Starratt & Van Vleck, Architects

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

For years, architects regularly specified General Bronze windows, doors and architectural metalwork for outstanding jobs. This continued preference has made General Bronze the leader in bronze and aluminum fabrication.

When building starts again, that leadership will be maintained. New mass production techniques are being perfected by General Bronze—techniques that will result in finer aluminum windows at greatly reduced costs—a combination of quality and economy vitally interesting to those architects now planning schools and other post-war buildings.

If you are now working on post-war plans, we suggest that you allow us to help you with your detailing. Consult Sweet's or write today for complete information on General Bronze products and the name of our nearest representative.

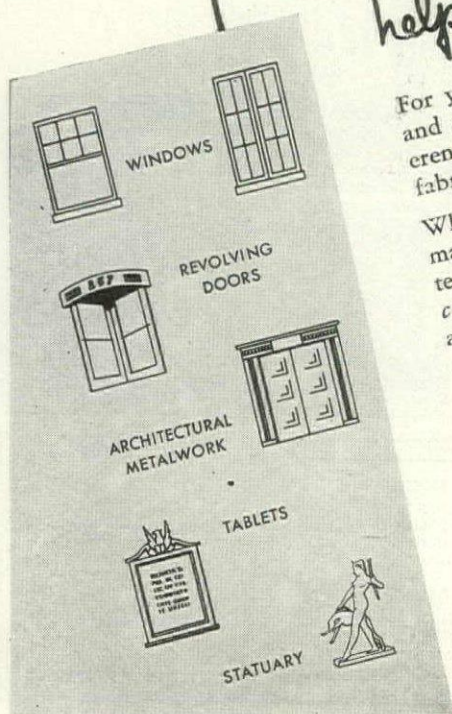
\*From "Statistical Summary of V-Day Projects" tabulated by F.W. Dodge Corporation

## GENERAL BRONZE CORPORATION

34-19 TENTH STREET  
LONG ISLAND CITY, N.Y.



FIVE CONSECUTIVE ARMY-NAVY "E" AWARDS FOR PRODUCTION





# The HOW BOOK

## of INDUSTRIAL VENTILATION

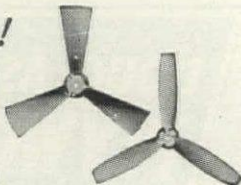
Moving Air Is Our Business—and it's your business, too, when new industrial construction is on the board . . . when you're drawing up specifications on a remodeling job . . . when a client asks you, "How best can I overcome problems of heat, dust, moisture, fumes?"

Fresh, clean air is just as essential to health and efficiency as are the pleasant, functional surroundings you will provide. Give it careful thought in planning. The small space required for compact Propellair equipment probably won't interfere with other facilities, but "Ventilation by Client" is an open invitation to later annoyances both large and small. Truly modern design is seldom achieved as an afterthought.

Since 1930, Propellair engineers have specialized in industrial ventilation equipment. Let this experience be your guide. Send for Book No. 10. You will find it a valuable addition to your library and a convenient source for reference. Specific engineering suggestions and recommendations are yours for the asking.

**Exclusive!**

**AXIAL-FLOW  
AIRFOIL  
PROPELLERS**



Specially designed by Propellair to deliver maximum air with minimum horsepower. Air flow is even over all parts of the blades—not just the tips. These unique propellers are non-overloading. Number of blades, angle and shape depend on the job to be done.

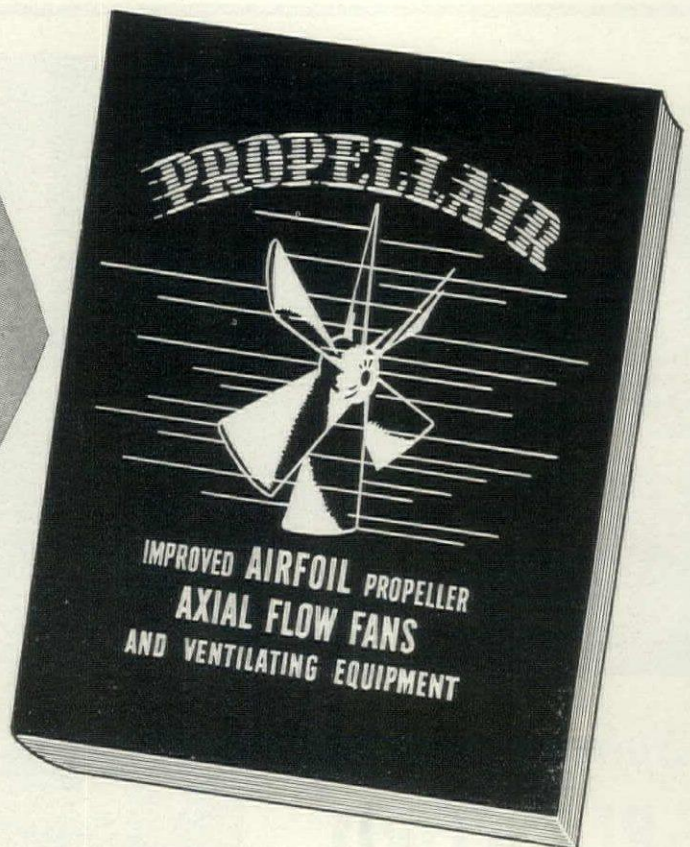
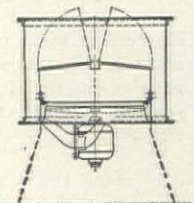
**Exclusive!**  
**EXTRA-VOLUME CURVED  
ENTRANCE RING**

Ordinary straight-edge rings serve merely as mounting devices, but this Propellair ring is curved to deliver considerably more air per horsepower. It makes possible the utilization of the "Airfoil" air-movement principle in the ring as well as in the propeller.

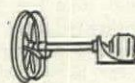


**Exclusive!**  
**VERTI-STACK  
ROOF VENTS**

The Propellair Veri-Stack is the result of important changes in the design and construction of roof ventilators. Truly automatic, it eliminates restrictions to air flow virtually 100%, thereby utilizing the full capacity of the fan.



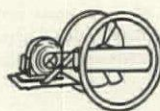
**CD**—Direct connected to electric motor. For ducts, hoods, roof ventilators or panels.



**CE**—Extended shaft fans for ducts, dryers, etc., where motor must be outside the air stream.



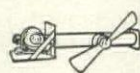
**CF**—For belt drive from separate motor, engine or line shaft. Also with extended shaft assembly.



**CS**—Heavy-duty complete belt-driven unit in duct section. For severe dust, corrosive or explosive vapors.



**CSV**—Heavy-duty complete belt-driven unit for high temperatures in ducts, pipes, and as stack boosters.



**CSB**—Heavy-duty complete belt-driven unit for ducts or stacks to handle explosive vapors, dust, or high temperatures.



**CU**—Low-stand, tiltable, portable cradle fan for hardening-room service, product drying or cooling.



**CM**—Heavy-duty pedestal blast fan for cooling men and products in heavy industries.



**C**—Industrial circulator fan for general air-circulating service of all types.



**CB**—Slow-speed, ultra-quiet complete belt-driven fan. For office or room ventilation.

**PROPELLAIR, Inc.**

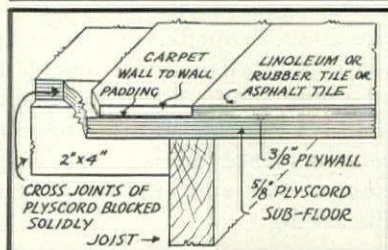
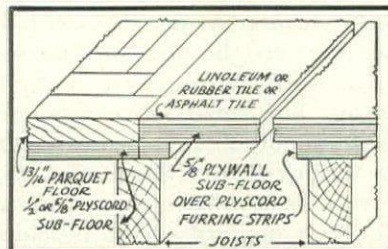
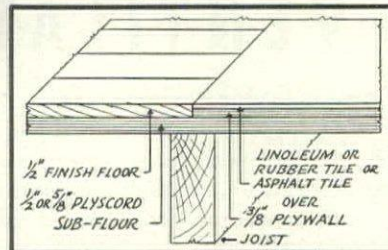
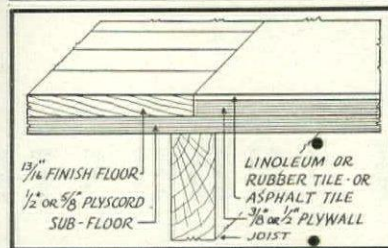
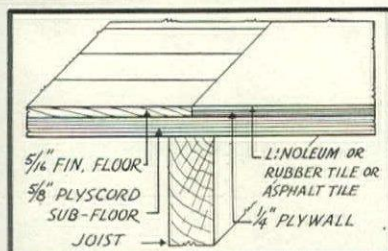
SPRINGFIELD · OHIO





STRIPPING PLYSCORD FROM FOUNDATION

DETAILS FOR JOINING TWO TYPES OF FINISH FLOORING OVER PLYWOOD.



## Specify PLYSCORD

--and give your client the benefits of this "double-use" grade of Douglas fir plywood!

1. SPECIFY PLYSCORD FOR BASEMENT AND FOUNDATION FORMS.
2. SPECIFY THAT THE SAME PANELS BE RE-USED FOR SHEATHING AND SUBFLOORING.

Plyscord—the sheathing grade of Douglas fir plywood—has a double advantage to your client. You can specify the SAME panels for TWO different uses on the same job—save time and cost, and be sure of a home that's sturdily and rigidly built.

Plyscord is ideal as a "one-use" concrete form material. The large rigid panels go up quickly, providing a smooth, finless surface, are easily stripped.

And when the foundation is set, Plyscord panels may be re-used for wall sheathing, roof sheathing, or subflooring.

As subflooring, for example, Plyscord has no equal. The big 4x8 foot panels go down quickly, save sawing, fitting and jointing time, provide a smooth, rigid base for the finish flooring. The lineal footage of joints is greatly reduced and there is no cupping, warping, squeaking or shrinking.

Remember, THERE IS A TYPE AND GRADE OF DOUGLAS FIR PLYWOOD FOR EVERY BUILDING JOB. Make full use of it in your postwar planning. For detailed information, see Sweet's 1944 Architectural file . . . or write:

### DOUGLAS FIR PLYWOOD ASSOCIATION

Tacoma 2, Washington

Because of its many advantages Douglas fir plywood today serves the war effort exclusively. When it is no longer so urgently needed for essential uses, it will again serve you in countless new ways.



\*Where concrete forms are to be used more than once, specify PLYFORM—the grade of Douglas fir plywood made especially for concrete form work.

SPECIFY DOUGLAS FIR PLYWOOD BY THESE "GRADE TRADE-MARKS"



# A hospital's heart ...is its power plant

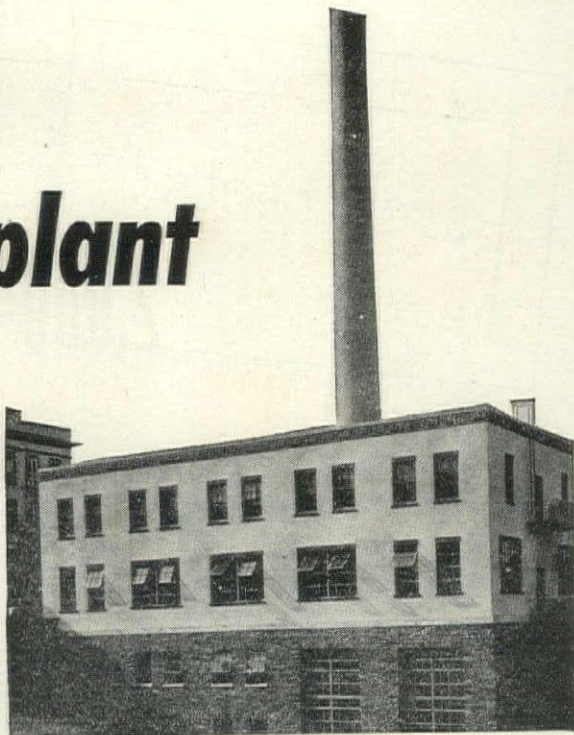
## TODD BURNERS assure dependable, efficient AUTOMATIC HEAT AND POWER

**I**N THE HOSPITAL of today, automatic heat and power is considered a basic necessity . . . the *life blood* of its operation. Thus, the power plant which supplies it is the heart of the hospital . . . its *most vital* element.

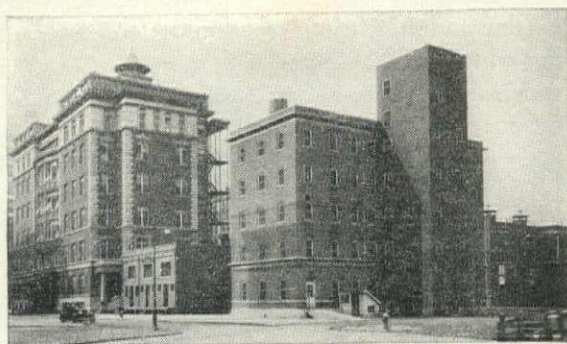
Many hospitals, everywhere, are modernizing their power plants with the installation of TODD oil or gas burners engineered to meet their specific requirements. TODD burners are quiet, safe, clean, efficient, dependable and extremely economical—using less fuel, reducing maintenance charges yet increasing the production of heat and power.

TODD's Combustion Equipment Division staff is engaged in constant research in the field of liquid and gaseous combustion equipment. As a result, TODD can offer a burner to meet any requirement . . . and an installation tailored to fit any specification. *TODD gives you the proper equipment—properly engineered!*

TODD engineers are available for consultation at any time. Call on them for expert guidance whether you're planning the modernization of present facilities or building a new hospital. They will be glad to confer with architects or engineers—without obligation.



Greenwich Hospital Power Plant, Greenwich, Conn. Equipped with TODD oil burners.



A large hospital in New York City. Equipped with TODD oil burners.



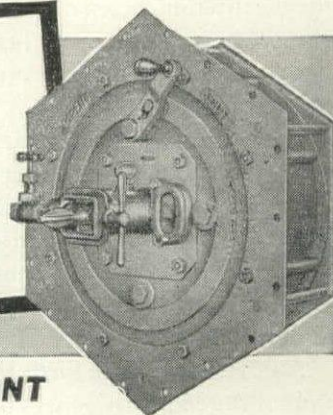
Jersey City Medical Center, Jersey City, N. J. Equipped with TODD oil burners



## TODD SHIPYARDS CORPORATION

(COMBUSTION EQUIPMENT DIVISION)  
601 West 26th Street, New York 1, N. Y.

NEW YORK \* BROOKLYN \* HOBOKEN \* BARBER, N. J. \* SO. PORTLAND, ME.  
GALVESTON \* HOUSTON \* MOBILE \* NEW ORLEANS \* LOS ANGELES  
SAN FRANCISCO \* SEATTLE \* TACOMA \* BUENOS AIRES \* LONDON



**ON THE FIRING LINE OF AMERICA'S WAR PRODUCTION FRONT**



architects!

2,000-SEAT RADIO STUDIO THEATER  
*in this space?*

*Announcing WGN's  
\$10,000.00 Chicago Theater  
of the Air Competition*

Diagrammed here are the outline and dimensions of a building which WGN, Inc. of Chicago, proposes to build, as soon as conditions permit, to house all of its activities both artistic and business.

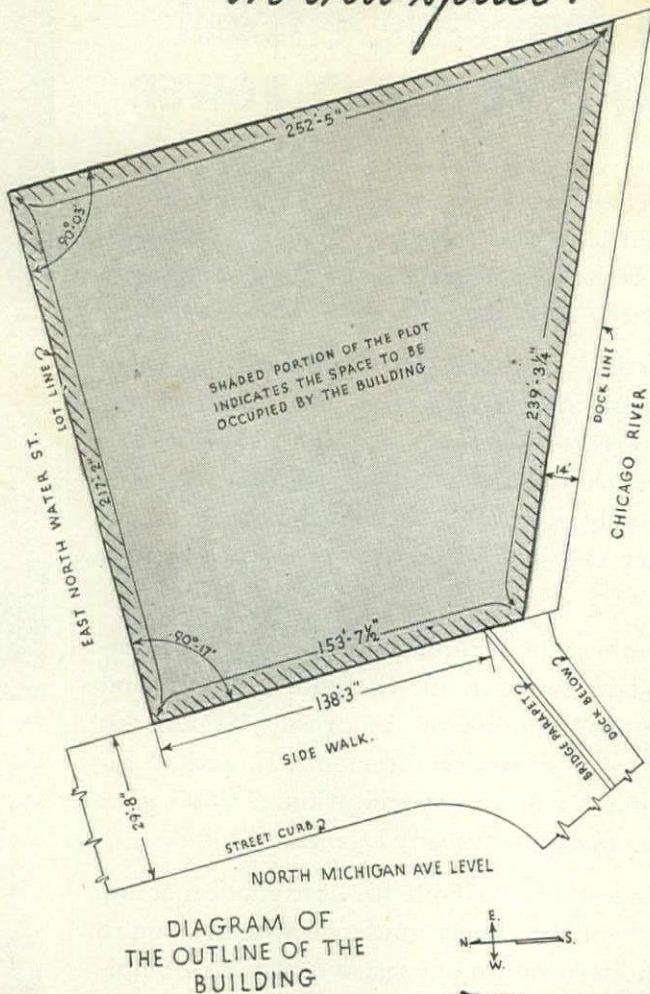
Chief feature of this new building is to be a radio studio theater, seating 2,000 persons in an auditorium as nearly acoustically perfect as can be devised and offering the most favorable working conditions for radio and television broadcasting which skill can design.

To stimulate competent talent to contribute designs and ideas for this studio theater around which the building will be erected, WGN, Inc. is conducting "The WGN Chicago Theater of the Air Competition," offering \$10,000.00 in cash prizes.

This is *not* a competition for the exterior design of the building, but for the interior design of the studio theater proper which will best utilize the available space as outlined in the rules.

Open to architects, designers and architectural and engineering talent and firms everywhere, this competition will be conducted under conditions which assure to all entrants equally fair consideration of their designs, ideas and efforts.

A brochure setting forth the details of the competition will be sent



## The Prizes

1st Prize . . .	\$5,000.00
2nd Prize . . .	2,500.00
3rd Prize . . .	1,000.00
Fifteen Honorable Mention Awards \$100.00 Each . . .	1,500.00
<b>Total Prizes</b>	<b>\$10,000.00</b>

free on request. Send for your copy today. All entries in the competition must be received at the address of the Professional Adviser in Chicago not later than 12 o'clock noon of November 15, 1944.

For copies of the brochure, address "The Professional Adviser, the WGN Chicago Theater of the Air Competition, Room 1312, 435 North Michigan Ave., Chicago 11, Illinois."

**WGN INC.**  
MUTUAL BROADCASTING S



# VENUS

ON A PENCIL

*means*

**DRAFTING  
CONFIDENCE**

**OVER**



**VENUS** on a drawing pencil gives confidence to draftsmen. They depend on its point strength and on its grading. For 38 years every **VENUS DRAWING** pencil has been accurately graded.

**VENUS-VELVET  
PENCILS**

The leading commercial pencil. Because its finely divided Colloidal lead is smooth. Because the Pressure-Proofing process makes strong points.

**VENUS COPYING  
PENCILS**

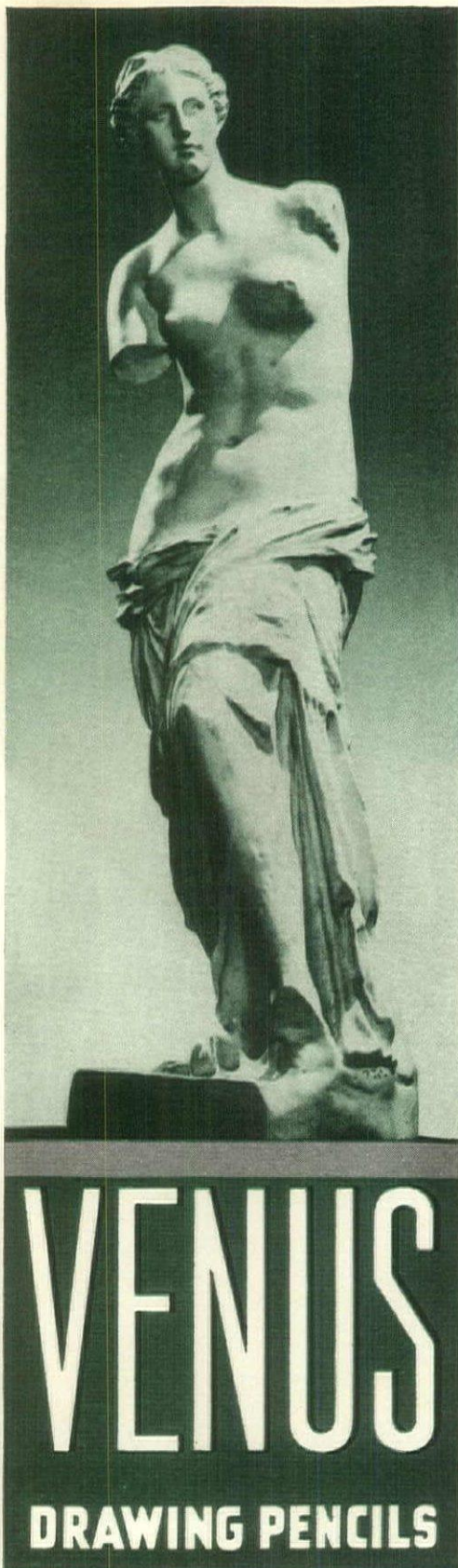
Particular people use **VENUS COPYING** for its firm point and unusual writing quality. Its marks may be changed to ink simply by wetting.

**VENUS COLORING  
PENCILS**

Made with water-soluble colors. Just about the finest coloring pencil made. Thin leads. 32 different colors. A pencil you can lean against.

**VENUS-UNIQUE  
PENCILS**

Non-soluble colors and therefore good for jobs that involve working on damp or wet surfaces. Thin diameter lead. 24 distinctive colors.



**AMERICAN PENCIL COMPANY, NEW YORK**

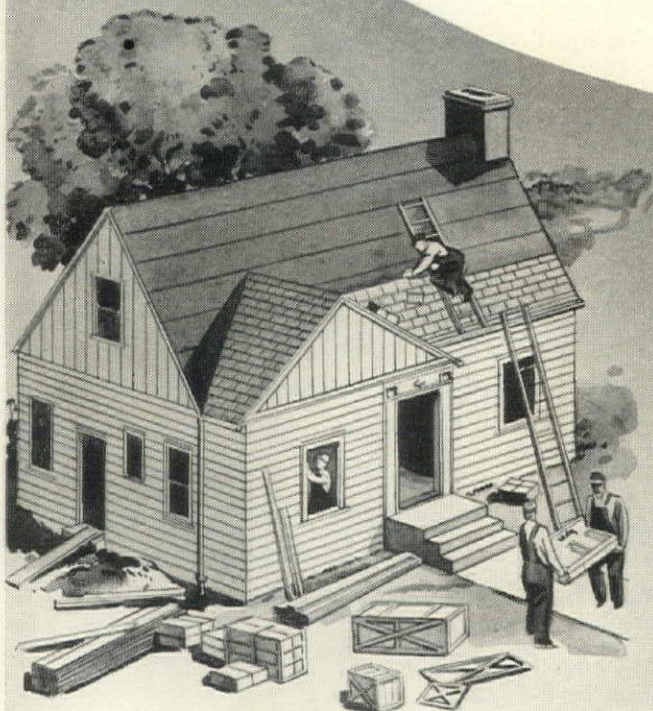
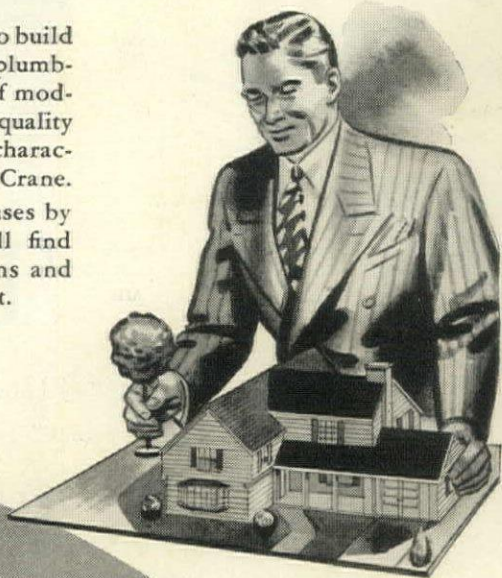
**IN CANADA: VENUS PENCIL COMPANY, LTD., TORONTO**



FOR HOMES YOU ARE BUILDING  
FOR HOMES YOU ARE PLANNING

## *Crane Plumbing* CAN SERVE YOU

● For those new homes you are planning to build after the war, Crane is developing a line of plumbing fixtures designed to meet the tastes of modern America—possessing the same high quality and sturdy reliability that have always characterized plumbing carrying the name of Crane. Oftentimes, prospects tend to judge houses by the quality of the plumbing. You will find that sales are easier when the bathrooms and kitchens have modern Crane equipment.



For today's essential construction, Crane has developed a line of plumbing fixtures of vitreous china and Duraclay that may be purchased without priorities. Bathtubs of porcelain enamel on cast iron are also available where priorities can be secured. If you are not familiar with this plumbing equipment now available in the Crane line, ask your plumbing contractor or call the nearest Crane Branch.



CE 19-563 Cottage Sink



CE 11-004 Hanover Closet



CE 3020 Oxford Bathtub



CE 754-V Norwich Lavatory

# CRANE

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

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





# There are reasons why architects alternate

**T**HE other day we were talking to an architect about the A. I. A. program to eliminate the "or equal" clause from specifications.

"Mr. Dickinson," we said, "we know the evils of the 'or equal' specification but do you believe that the 'base bid and alternate' type is best?"

"I certainly do," he replied. "We architects must keep both cost and quality under control if we are to serve our clients correctly. This can best be done through the use of a 'base bid and alternate' type of specification.

"What about the 'flat' specification?" we inquired.

"A 'flat' specification," he explained, "names only that material or product which the architect or his client believes will provide the results or service which they desire. Such a specification assures that the desired product will be obtained but it does not protect against extravagant costs. On important items we sometimes wish to compare the prices of two or more makes in order that we may select the best value; or several makes may be acceptable and we wish to purchase the one which is lowest in price thereby saving the difference. Only by use of the 'base bid and alternate' type of specification can we obtain this information regarding prices and yet retain the right to select the desired material or product."

"Some architects write a 'descriptive' type of specification," we offered.

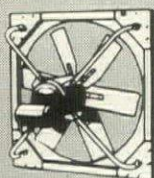
"Yes they do," he agreed. "They attempt to specify in detail exactly what is desired without naming any make. I have usually found this to be impractical. Even though it were possible to ade-



## THE HERMAN NELSON CORPORATION

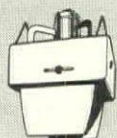
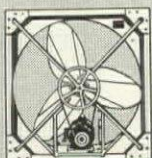
Manufacturers of Quality Heating and Ventilating Products

GENERAL OFFICES: MOLINE, ILLINOIS • FACTORIES AT MOLINE AND CHICAGO, ILLINOIS



Herman Nelson  
Autovent Direct Drive  
Propeller Fans

Herman Nelson  
Autovent Belt Drive  
Propeller Fans



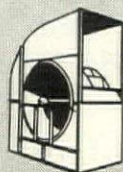
Herman Nelson hiJet  
Vertical Shaft Propeller-Fan Type Heaters

Herman Nelson  
Autovent Type  
H Blowers



Herman Nelson hiJet  
Horizontal Shaft Propeller-Fan Type Heaters

Herman Nelson  
Autovent  
Type HB Blowers





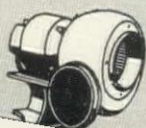
# prefer the base bid type of specification

quately cover all the tangible factors involved such as size, weight and appearance, there are too many intangible factors which affect the results of service to be obtained. These include the responsibility of the manufacturer and the organization which he maintains for cooperating with the architect and the user during the construction and entire life of the building. The descriptive specification also has many of the disadvantages of the 'or equal' type, inasmuch as the contractor may use a quotation on an inferior product and then of necessity attempt to force approval of this inferior product after the contract has been awarded. This leads to controversies and often delays construction of the building.

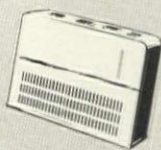
"No," he concluded, "there is no specification like the 'base bid and alternate' type. I name a definite make of material or product; ask for alternates where desired; and provide that if the contractors wish to submit proposals on other makes, they may do so. They must, however, file their bids based upon the makes originally named and are required to state in the bid the addition or deduction to be made in case alternates are selected. I further specify that no substitutions will be allowed after contracts are signed. This 'base bid and alternate' specification provides for fair competition, insures reasonable costs and places the determination of both quality and price in the hands of my client and myself."



Herman Nelson  
Autovent Belt Drive  
Blowers

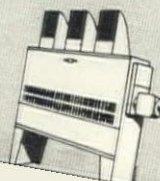


Herman Nelson  
Autovent Direct Drive  
Blowers



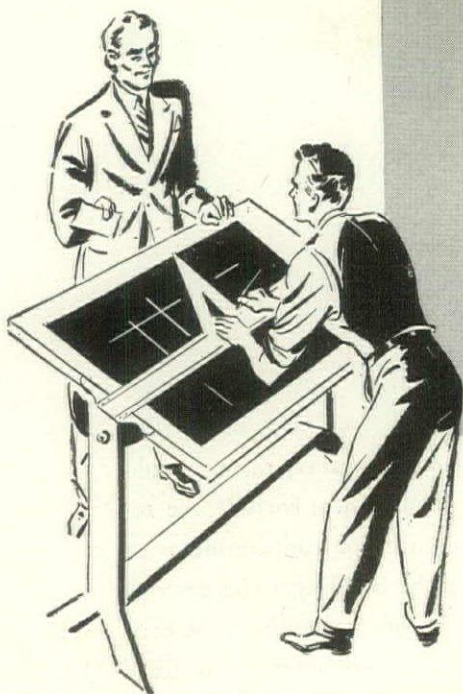
Herman Nelson hiJet  
De Luxe Mantles

Herman Nelson hiJet  
Blower-Fan Type  
Heaters



Herman Nelson  
Hi-Jet  
Blower-Fan Type  
Heaters





# The Most Beautiful Designs Ever Created for the PUBLIC MEMORIAL

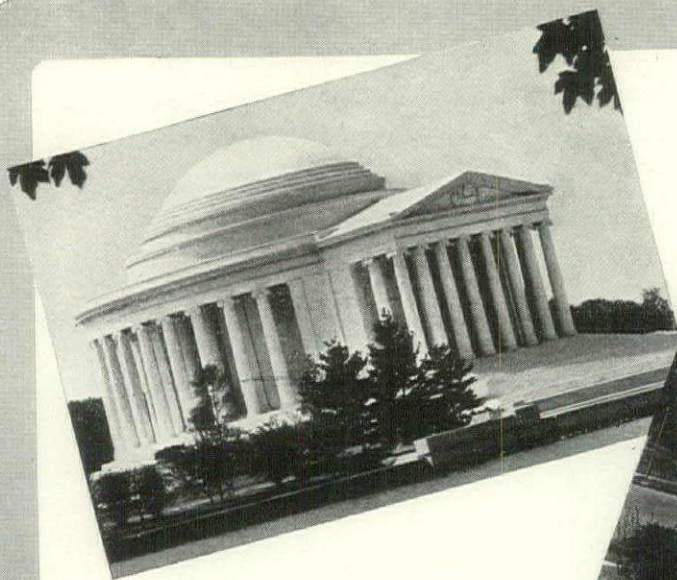
## VERMONT MARBLE

...will be inspired by the forthcoming needs of communities for fitting tributes to their citizens of the armed forces. Architects and designers are bringing the highest degree of artistry to this important field.

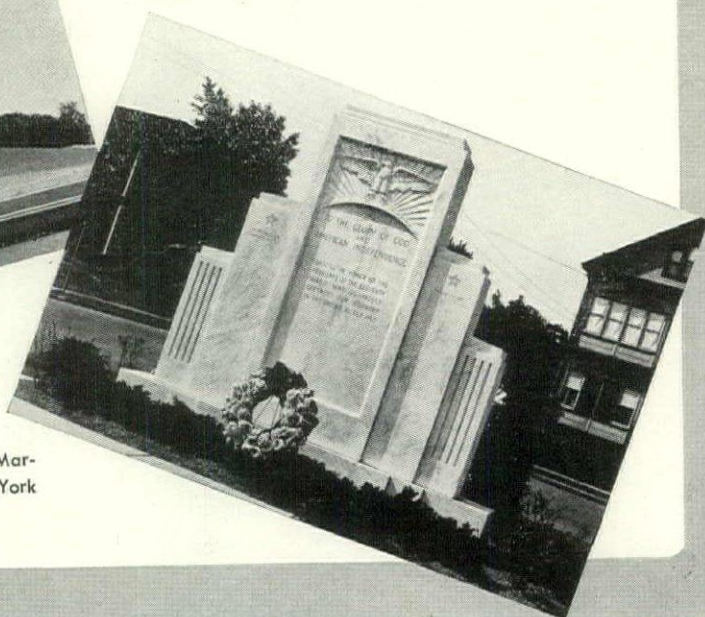
In the public memorial Vermont Marble has proved itself an outstandingly appropriate medium of expression. It lends itself to any type of ornamentation and finish. Its beautiful color and veining has won it a favored place, not only in world-famous shrines, but in the simple, inexpensive monument.

VERMONT MARBLE COMPANY, PROCTOR, VERMONT

*Vermont Marble Company maintains offices in principal cities to serve you as fully as wartime regulations permit.*



THE THOMAS JEFFERSON MEMORIAL—Imperial Danby Marble. Otto R. Eggers, Daniel Paul Higgins and the late John Russell Pope, Architects



ALBANY WAR MEMORIAL—Imperial Danby Marble. Erected by Memory Studios, Albany, New York

Copyright 1944, The V. M. Co



# Since 1795 ... it must be better—to be "BIRD"

That is why BIRD  
has developed  
**CONTROLLED PRODUCTION**  
for all building materials



This is a frank statement to the men who know building—and who know Bird. It will help you in the selection of building materials, just as it has helped Bird to hold a reputation for quality since 1795.

LONG AGO, Bird determined that any product that bore this name should be of the highest quality consistent with the classification for which it was designed.

But quality is made up of such a lot of little things, that Bird found it impossible to maintain quality unless every step in production was controlled. So Bird owns and operates its own factories to control the vital raw materials for Bird products.

This policy of Controlled Production makes a difference you can actually see and feel. For example, take the Bird Master-Bilt Shingles. Controlled Production starts with the first manufacturing step. The tough layer of felt that acts as the base is produced in Bird's own felt plant, to specifications laid down in Bird laboratories.

Then the waterproofing asphalt is not only controlled as to quality and amount, but is actually reinforced, for a longer weather-

proof life. The color pigments, that give all Bird shingles their enviable tones, must also measure up to precise standards.

Now note the distinctive thick butts on Master-Bilt Shingles, pioneered by Bird to add greater thickness where it does the greatest good. In a similar way, Bird introduced coarse granules to give greater protection to the asphalt underneath—shielding it from the sun's rays, providing "expansion joints" to counteract temperature changes, adding years of life to the shingle. Indeed, each detail of construction is rigidly controlled by a completely balanced formula for production.

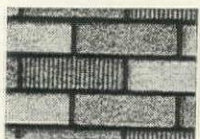
Of course, there are easier ways to make a shingle. But Bird has found that Controlled Production makes a difference that goes all the way through, adding extra beauty and durability to all those Bird products, so well known to architects and builders.



1



2



3

The products illustrated on this page are splendid examples of CONTROLLED PRODUCTION: (1) Bird TRI-TAB HEX Shingle—colorful draft-free—wind-resistant. (2) The Bird MASTER-BILT Shingle described on this page. (3) Bird INSULATED SIDING, in varied attractive brick tones: magically modernizes sidewalls, with built-in insulation for all-year comfort.

FOR HOMES



ASPHALT SHINGLES • INSULATED SIDINGS  
INSULATION BOARDS • FLOOR COVERINGS  
WALLBOARDS • BUILDING PAPERS

SINCE 1795

*Men who know  
the best know*

**BIRD**

FOR INDUSTRY

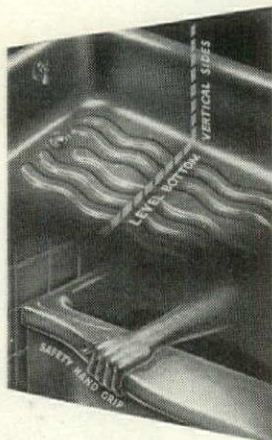


RUBBERLIKE FLOOR RUNNERS • INDEX  
PRESSBOARDS • SHIPPING CONTAINERS  
SHOE CARTONS • BUILT-UP ROOFS  
BIRD-FIBRE WOOD FRAME CASES

Bird & Son, Inc. • East Walpole, Mass. • New York • Shreveport, La. • Chicago, Ill.

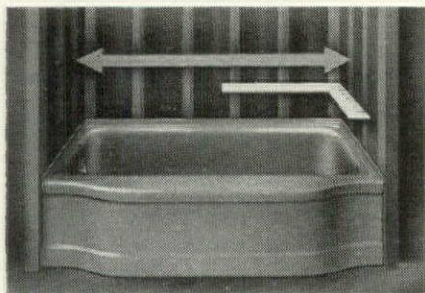


# If it's **BRIGGS**— it has these essential features



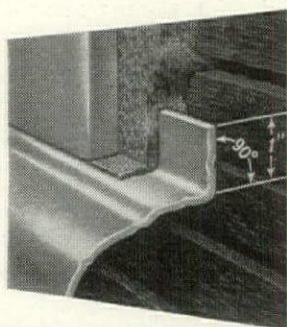
## it's safe

Briggs engineers designed and produced the only real Safety Bottom Bathtubs . . . a maximum area of level bottom, serpentine embossed for safety. This non-slip tread is an exclusive, patented Briggs safety feature. Wide rim seat, low sides and convenient hand-grip are other safety features pioneered by Briggs.



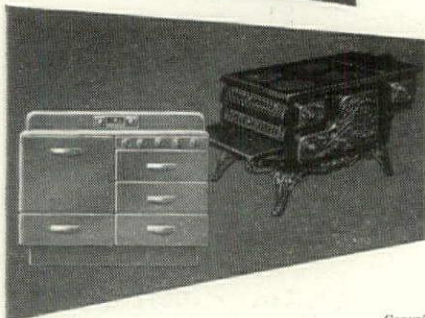
## it fits

— Exactness of dimensions in plumbing fixtures is required today if full advantage of mass production principles in the building industry is to be realized. Briggs Beautyware fixtures meet this requirement because they are die-formed and are engineered to permit easy installation . . . keep construction costs down.



## it's leakproof

— Leaks along the built-in edges of bathtubs are a problem familiar to every builder. Briggs solved this problem with a one inch integral lip flange which provides a perfect flashing — a permanent water seal — tub to walls.



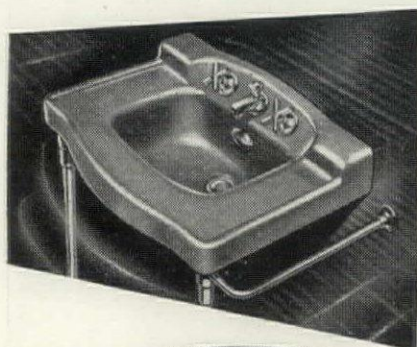
## unnecessary weight is eliminated

— Briggs Beautyware Formed Metal Plumbing Fixtures — one-third the weight of their old-fashioned predecessors — are typical examples of how reduction in weight goes hand in hand with increased utility and beauty.

Copyright 1944

**BRIGGS MANUFACTURING COMPANY**



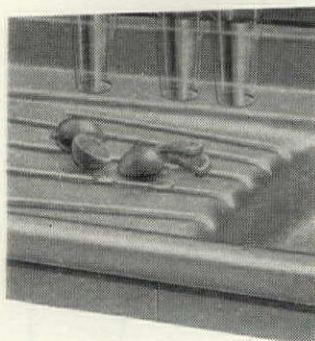


## it's smartly styled

Modern and pleasing in appearance, each Briggs Beautyware fixture is designed to give the fullest utility and convenience. A Briggs bathroom is a room of beauty, an enhancement to the charm of the home.



**it's colorful** — Briggs took the lead in popularizing the use of colored fixtures and has made it possible for home owners with even the most modest budget to enjoy their advantages. Color in a variety of pleasing pastels blends tastefully with the most distinctive wall and floor treatments, and lends a homelike warmth to the room.



**it's acid resisting** — Briggs Beautyware Fixtures are of one quality—the highest — acid resisting porcelain enamel . . . easy to clean and easy to keep clean . . . and at no extra cost. Acid resisting enamel preserves original fixture beauty and protects it from the etching and surface staining common to regular enameled fixtures.

DETROIT 11, MICHIGAN •

**BRIGGS** *Beautyware*  
PLUMBING FIXTURES



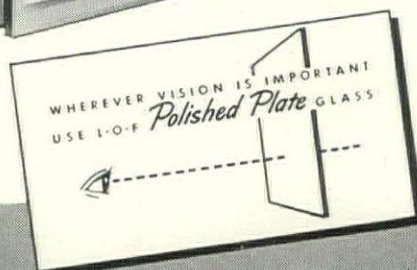
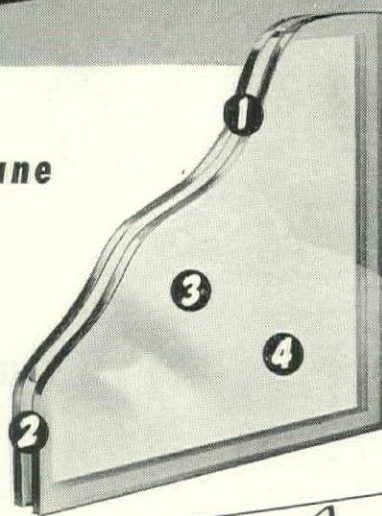
# Thermopane

with the  
**BONDERMETIC SEAL**



## 4 important features of Thermopane

- 1 INSULATING AIR SPACE.** The layer of air inside the Thermopane units is hermetically-sealed at the factory. When desired, Thermopane also is made with three or more panes of glass.
- 2 BONDERMETIC SEAL.** This patented, metal-to-glass seal bonds the two panes of glass into one unit to prevent dirt and moisture from entering the air space.
- 3 CLEAR VISION.** The dry air is sealed in with the patented bond to prevent frost or condensation from forming on the inner surfaces of the panes of glass.
- 4 ONLY TWO SURFACES TO CLEAN.** The glass surfaces inside a unit are specially cleaned at the factory . . . and stay clean!





# *..the Windowpane that Insulates*

## Enlarges your opportunity to use **DAYLIGHT ENGINEERING**

In the postwar houses you design or build, you can offer extra daylight and the thrilling expansive outdoor views that big windows provide . . . plus an exciting, yet highly practical, new feature for homes.

It's Thermopane — the revolutionary Libbey-Owens-Ford *windowpane that insulates*.

Thermopane enables you to use large glass areas as extensively as you wish, without worry about excessive heat transmission, whatever the climate. Thermopane will be an effective sales lever in postwar houses because it is one of those "better things"—one of those "startling home improvements"—that many house buyers will want.

Thermopane presents no unusual installation problem. It fits into a modified single sash, just like a single pane of regular glass—except that the rabbeting is grooved somewhat wider to accommodate Thermopane's slightly greater thickness.

Thermopane comes in a wide range of sizes—from 8"x8" up to 60"x100". You can have it in a variety of thicknesses . . . with regular plate or sheet glass, Blue Ridge Patterned Glass, Color Clear Plate, Tuf-flex, Safety Glass, Colored Plate or Heat Absorbing Plate. For extreme conditions, Thermopane can be made with whatever number of panes the need requires. The benefits of Thermopane for cold weather insulation, and for air conditioning, are readily seen in its low coefficient of heat transmission—as low as .53 for double-glass Thermopane and .35 for triple-glass Thermopane.

The high insulating efficiency of Thermopane is explained in its four important features shown at the left. For full information—such as insulating coefficients, sizes, thicknesses, types of glass and other data, write for our new Thermopane book. Libbey-Owens-Ford Glass Company, 994 Nicholas Building, Toledo 3, Ohio.



**LIBBEY • OWENS • FORD**

*a Great Name in* **GLASS**





# QUIET PLEASE...

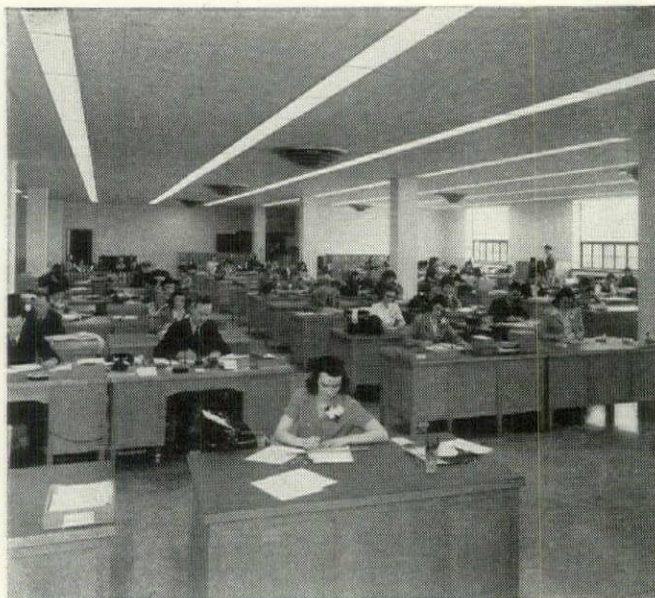
**F**OLKS who have to work for a living are going to get a real break after the war, if they are fortunate enough to be located in a post-war building.

Surveys indicate that almost without exception, post-war structures—both industrial plants and office buildings—will be acoustically treated for noise reduction. In fact, the improvements that will immediately identify a post-war building as modern will be better lighting, air conditioning, sound control and,

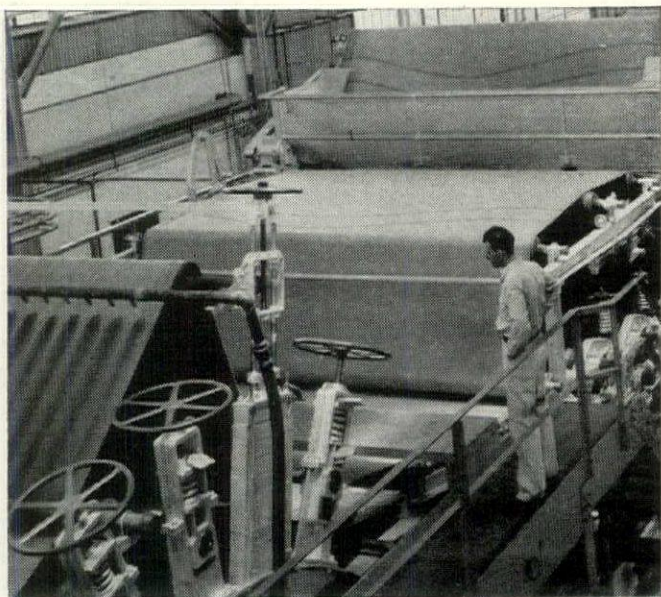
of course, attractive modern design.

National Gypsum, one of the pioneers in the acoustical field, offers a wide choice of sound control materials in every price range. These Gold Bond Products are fully described in Sweet's.

In specifying Gold Bond, architects have the assurance that actual installations will be handled by factory-appointed acoustical engineers located in key centers throughout the country.



**Noise Reduction.** Actual tests prove conclusively how employee efficiency is stepped up in acoustically treated office buildings. Also, with noise soft-pedaled, more employees



can be accommodated in the same space. Factory hands, too, are able to do more work and better work. Nervous fatigue is reduced with less sickness and absenteeism.



## BUILD BETTER WITH GOLD BOND

Wallboard • Lath • Plaster • Lime • Metal Products • Wall Paint • Insulation • Sound Control

NATIONAL GYPSUM COMPANY • EXECUTIVE OFFICES • BUFFALO 2, N. Y.



# THE MONTH IN BUILDING . . . NEWS

H-2 housing strikes financial and equipment snags (this page) . . . G.I. down-payments bump on inter-agency squabble (page 76) . . . Kaiser announces prefab plan (page 76) . . . Timid rebuilding proposals for London's financial center (page 77) . . . Plandemonium over New York's zoning changes (page 79) . . . Mortgage men back the single-family house (page 132).

## BULLDOZERS' JOB

Major General George S. Patton had once said that if he had to choose between tanks and bulldozers for an invasion he would take the latter, and Building men liked knowing that their bulldozers and scrapers were busy at a big job. They had gone ashore with the infantry in Normandy and southern France. On Guam, they had widened the carabao trails and cut through the head-high sword grass to clear the way for tanks. In New Guinea, they were armored and fitted with machine gun protection against Jap snipers. From the Pacific to the Seine, U. S. bulldozers were winning the battle of earth moving.

But it would be a good day when the bulldozers and scrapers were back again, leveling a path for the world of tomorrow. Already a few could be spared for such postwar jobs as New York's giant Idlewild airport which, Mayor LaGuardia said, would be ready for flight operations in the fall of 1945 "even if we have to construct temporary buildings." But too much of Building's 194X job was still in the talking stage—nothing, really, for a bulldozer to get its giant teeth into. There was, for example, the West Coast's glittering challenge to New York's much-touted fashion center—San Francisco's scheme for an Apparel City that would cover 37 acres, cost \$4,000,000. The widespread alarm over the proposed tightening of New York's zoning restrictions on height and land coverage had brought a rash of filings on skyscraper plans, but thoughtful New Yorkers were this year talking less about skyscrapers, more about slum clearance. Londoners, too, were cool to the business-even-more-than-usual plan for rebuilding their city's blitzed financial heart.

A few more prefabs were shipped to what was probably the war's last boom town—Richland, Wash. Housing equipment stocks were falling lower and lower, and price ceilings loomed bigger than material shortages as a block to resumption of production. Hope was

that the soon to be set up Construction Advisory Committee could spark-plug a WPB go-ahead on equipment manufacture in time for a prompt building start. Housebuilders eyed without much enthusiasm the National Housing Agency's tide-over program for 500,000 units of interim housing, waited restively for the day when they could get busy building better homes than they had ever built before for all the homecoming G.I. Joes who would want them.

## SHORT MIDDLE ROAD?

Never so easy as it looks, the middle road of compromise brought its own dilemmas to the National Housing Agency last month. Choosing between a firm stand on the war definition of what housing may be built and a vigorous push for nonwar housing, NHA had taken the middle way. H-2 housing, which may soon go up in communities where shortage means serious hardship, will be a little better than trimmed-down war housing but still not good enough for the normal market (see ARCH. FORUM, Aug. '44).

Although WPB had agreed to issue priorities covering about 500,000 units of interim, or H-2, housing it was far from clear how this housing would be financed. With stocks of materials and equipment dwindling, with standards trimmed down to a minimum and no easement in sight, lenders were increasingly leery of assuming mortgage risk. If H-2 units were to get the benefit of war housing insurance under FHA's Title VI, an additional authorization of \$300 million would be necessary. But the Budget Bureau had shaved in half FHA's last request for a Title VI authorization, and FHA itself was not anxious to continue the additional risks of this war insuring instrument. If Title II insurance aid were opened to H-2 housing, the compromise program would run into the formidable obstacle of construction standards that cannot be met under existing material and equipment limits.

Hope was that H-2 housing would be



short-lived. With all signs pointing to end of the European war within a few months, WPB expected to be able to hike housing standards to something like normal by 1945. But material priorities will still be necessary while war in the Pacific lasts. Concerned about what it senses as a postwar trend to more expensive building, WPB intends to use its preference rating plan to bolster house-builders' enthusiasm for the moderate-priced house. Restrictions on type of occupancy and location will be the first to be dropped.

While lumber would be short, lack of standard items of equipment loomed as the biggest block to a postwar housing start in 1945. Unless manufacturers soon get busy on copper flashing, brass pipes, copper tubes for water heaters, chromium-plated plumbing fixtures, refrigerators, etc., there may be a marked hiatus between relaxation of L-41 and resumption of normal housebuilding operations.

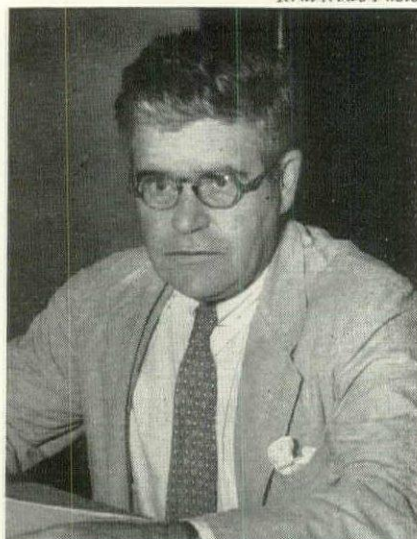
Ahead of WPB's Construction Requirements Committee was the job of sparkplugging production of key equipment items. But setting up of the Construction Requirements Committee waited on appointment of the Construction Advisory Committee, first official industry-wide representation called in by WPB (see ARCH. FORUM, Aug. '44). Cautious spoke-in-the-wheel was the Department of Justice, which must look over the advisory committee set-up carefully to make sure that its WPB consultations will not constitute violations of anti-trust laws.

## HOME LOAN SNAG

Those who remember the street queues that marked the opening of Home Owners Loan Corporation offices will have some gauge of the potential size of the guaranteed loan job ahead of the Veterans' Administration. HOLC handled about 2,000,000 applications for mortgage relief. With some 15,000,000 veterans eligible for government-guaranteed loans, VA estimates that it will receive at least 4,000,000 applications for home loans within a few years after war's end.

The Veterans' Administration has neither the wish nor the manpower wherewithal to create an organization big enough to do the whole job. HOLC shopped out part of its task, and VA, as it is directed by the Veterans Readjustment Act, intends to do the same thing. But neither the Administration nor the new director of its Guaranteed Loan Section, Francis X. Pavesich, has any intention of functioning merely as an obliging rubber stamp. VA knows it will have the rap to take if the veterans'

*Reni News Photo*



**G. I. LENDER: Francis Pavesich**

loan program stumbles. While maximum use will be made of existing federal housing agencies, VA intends to turn over to nobody the responsibility for keeping the program on a sound footing. In Pavesich, a former Home Loan Bank Board executive, VA had a well-trained and capable man for the mammoth job.

Already the home loan program had jarred a little on the usual Washington battle of the bureaus. Discharged service men were asking about applications. But issuance of regulations was being delayed, insiders said, while the Federal Housing Administration fought the Federal Home Loan Bank system for jurisdiction over the veterans' home mortgages. It was about time for the National Housing Administrator to appear in his well-rehearsed role of peacemaker.

## MORE KAISER

From the froth of tall talk common to all industrialists who hitch their wagons to a prefabricated star, one precise fact emerged about the promised Kaiser-made house: there would be gypsum in it. To the steel, magnesium and plastic cement he now produces, some 500,000-000 tons of raw gypsum were added when Henry J. Kaiser, with substantial financial enthusiasm, locked arms with the West Coast's Standard Gypsum Co. Already Kaiser engineers were at work on a wall section compounded of steel and gypsum, with a 38 by 10 ft. steel frame light enough, Kaiser said, to hold in one hand. The shipbuilder was still not ready to fill in his preliminary sketch of the industrialized house with construction and merchandising details. But to the FORUM last month Kaiser gave this statement of how he is thinking about the job:

"Our postwar plans commenced with a comprehensive and complete review of past experience and present practices of the U. S. housing industry. Similar to our methods in shipbuilding, steel, cement, magnesium, aircraft and other lines, we are now analyzing and sifting past experience of the housing industry and will couple the best practices of the past with the newest developments and latest scientific approaches. Our postwar housing division is presently staffed by alert and experienced Kaiser-trained men who are specialists in ingenuity and in the invention and application of modern methods. At the present time our plans for postwar housing cannot be described as a fixed, unvarying or single method or program, but embody many

*Myron Ehrenberg*



**STEEL AND GYPSUM DERELICT**, near New York, all that is left today of the glittering prefab vision of the 30's. Tomorrow Henry J. Kaiser will launch his version of a gypsum and steel prefab destined to revolutionize housebuilding.



ideas. Our postwar plans will finally be selected after full consideration of a) conventional construction; b) precast or readycut housing construction; c) site fabrication; d) factory prefabrication.

"For postwar housing we are concentrating on a program ranging from the lowest cost house to a \$5,000 to \$6,000 average cost unit. In addition to the cost range we have become cognizant of, and are analyzing the following fundamental variables which will finally determine the nature of postwar housing:

- ▶ Geographical location of postwar houses.
- ▶ Availability of basic materials.
- ▶ Number of houses to be constructed.
- ▶ Basic design to be employed (i. e., modern, colonial, etc.).
- ▶ Coordination of postwar ideas with specific sites, living standards in area, etc.

"Our technicians are developing the advantages and disadvantages of the module system, prefabricated panels, walls and roofs, the construction and delivery of entire houses from a central factory to the site complete with furniture, mechanical cores, and, of course, all the 'latest ideas.'

"Our ideas and plans for postwar housing will certainly include a wide combination of basic materials in construction of a good house. Many of these materials will be produced by the Kaiser organization and will include sand, gravel, Portland cement, plastite, gypsum, steel, magnesium and various types of insulation and flooring.

"Our ideas and plans for postwar housing are to take the best from the house of the past, mix with the new production methods and materials which have recently been developed, thereby arriving at a combination of materials and methods that will bring quality housing within financial reach of the average citizen."

### LONDON'S LITTLE PLANNERS

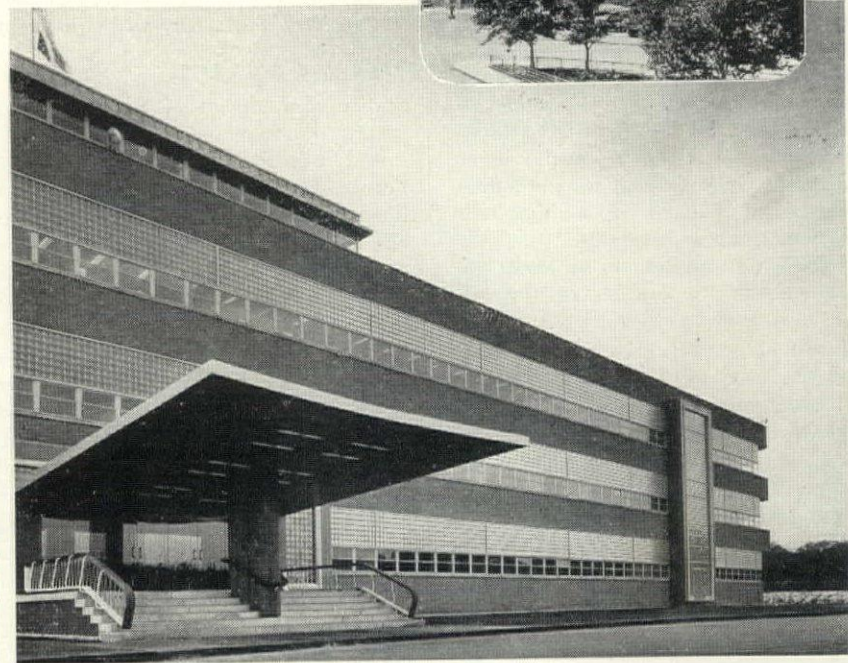
The warning had sounded and the City Fathers meeting in the crypt of the blitzed Guild Hall involuntarily listened for the familiar moan of flying bombs. It was not the best time for unveiling the Improvements and Town Planning Committee's milquetoast proposals for rebuilding the bomb-gutted financial heart of the Empire—the central square mile City of London.\* Said many an alderman: It was no use making plans until the last bomb had knocked down the last building.

But the Court of Common Council shook their official heads approvingly over the scarlet morocco volume

\* The London County Council plan published a year ago, covers all of Greater London except for the financial and wholesale district known as the "City."

### TREND

What to do with surplus war plants may turn out to mean what to do with the plants of World War I, if Sperry Gyroscope's move is indicative. Selling its Brooklyn plant—an old war baby—to Howard Stores, Sperry expects to take over the Defense Plant Corp. built factory (below) for postwar operations.



whose slender 70 pages of text added up to a single proposition: "Return to the City at the earliest possible date of those businesses which have been displaced by enemy action." Possibly a more accurate statement of the Council's apparent planning aim would have termed it not only the return of all displaced businesses but the addition of as many more as could be crowded into the ancient city precincts. For the Improvements Committee proposed that demolished structures—most of them 4-story—be replaced by steel or reinforced concrete framed buildings 8-10 stories high.

It was clear that the City had turned its financially potent back on any responsibility it might have been expected to assume for helping to solve a major planning problem of Greater London: the fact that the average Londoner has to travel about 4.4 miles every day to get to work. Only sign that the City had ever heard of this matter was the rather tentative proposal for a few blocks of flats to be set down in this almost completely commercial area. But, on the whole, the City planners displayed little interest in the rather obvious notion that an overcrowded and hypercentric business district means bad traveling and bad living conditions for a whole city. Nor were they interested

in what they called the "artistic approach" of the Royal Academy's City rebuilding scheme. They were, they pointed out, "practical men."

Said chief planner F. J. Forty, a spare, soft-spoken Yorkshireman who travels 20 miles daily to get to his home in the suburbs: "The essence of my plan is the retention of the City as a market place. I want it to be the leading place of commerce in the world and not—as some planners suggest—a park."

Choked with guineas and tradition, the City holds the most valuable real estate in London, has already seen some 26 per cent of its total £6 billion assessed value smashed by Nazi bombs. Daytime population is a half-million, but not more than 10,000 persons sleep in the City, among them a half-dozen employees of the 250-year-old Bank of England who traditionally make their home somewhere within the Old Lady of Threadneedle Street's massive windowless wall. Here Sir Christopher Wren's graceful spires climb above the Royal Mint, the gilt-domed Stock Exchange, the House of Rothschild. Here is the Tower of London, Bow Church whose bells called back Dick Whittington to be thrice Lord Mayor, the medieval guild halls of the fishmongers, the drapers, the curriers, the mercers. With



# NEWS

so much history to the square yard, the City's replanning problems are admittedly unique. But thoughtful Britishers felt that the timid rebuilding proposals bowed rather less to history than to pounds sterling.

Said the *Observer's* ironic Donald Tyerman: "The makers of this scheme are not planners but pessimists. To attempt a more ambitious scheme of rebuilding would cost great sums of money. It would call for a final solution by the government of the problem of compensating land owners for restrictions upon the right to develop their properties. It would call for the public development of the city as a single unit with much public ownership."

Facing up squarely to at least one problem—the separation of through from local traffic—the City plan incorporates, in general principle, the ring road proposed by Sir Charles Bressey and Sir Edwin Lutyens in 1937 to encircle the whole area. Otherwise the shape of the City would show little change. Existing zoning patterns would be reinforced; some streets widened; St. Paul's would be unwrapped from its shroud of commercial buildings, given a river vista.

Short-term realist Robert Moses, the Park Commissioner who has become synonymous with the "practical spirit" of New York's patchwork city planning, would applaud the work of the "practical men" of London. And since realist Moses has somehow tied up idealistic no-

*British Information Service*



**RELEASE OF ST. PAUL'S** from its surrounding husk of commercial buildings—already partly accomplished by the blitz—is a major objective of City of London rebuilding plan now before Common Council.

tions about city rebuilding with an origin on the other side of the Atlantic, he may be a little confused unless he can remember that, everywhere and always, there have been short-term realists. Sir Christopher Wren broke his heart to change the medieval pattern of the City of London in 1550, but the short-term realists won. It may be that, in London and in New York, they will win again.

## SPENDING DOLLARS

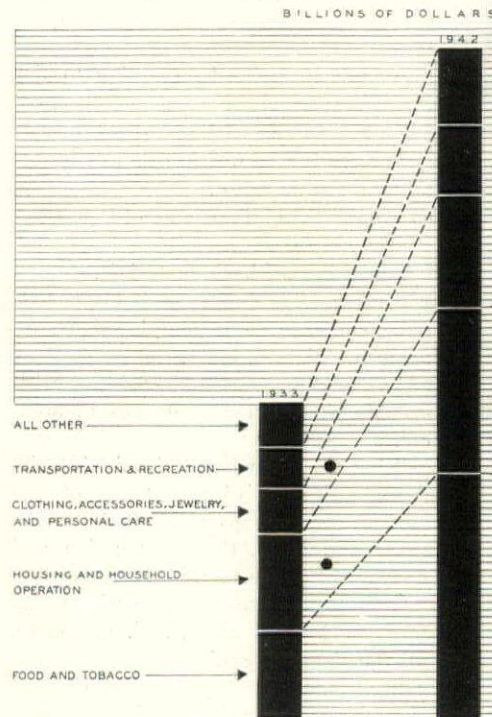
Statistical footprint of the fluctuating pattern of national spending since 1929, a study now underway at the Bureau of Foreign and Domestic Commerce is also the first to measure the impact of war on consumption expenditures (see chart). Biggest slice of consumer dollars goes, of course, for food, housing and clothes. Next biggest item in the U. S. family budget is normally transportation—a classification which covers automobiles and gasoline. The war years not only gave the U. S. a bigger spending pocketbook than it had yet had, but brought significant changes in the way that pocketbook was divided among these four major budget items. Over the last two war year proportionately more of the swollen pocketbook went for food and for clothing, less for housing and for transportation. The percentage pattern looks like this:

	Average 1929-41	1943
Food and tobacco....	30.2	37.4
Housing .....	14.1	10.6
Household operation..	14.5	13.6
Clothing .....	12.8	15.1
Transportation .....	9.6	5.8
All other .....	18.8	17.5

With total expenditures bouncing from a prewar average of \$63 billion to \$89 billion in 1942 and \$98 billion in 1943, actual dollars spent in the last two war years increased for each of the above classifications except transportation. Reflecting the absence of new cars and gasoline and tire rationing, transportation expenditures in 1943 amounted to \$5.7 billion as against the 1929-41 average of \$6 billion. Because several years of serious depression are included in the prewar average, this decline is especially impressive.

Dollars spent for food in 1943 (\$37 billion) almost doubled the average prewar expenditure (\$19 billion). Showing the effect of rent control, curtailment of residential building, and cut-backs in production of durable goods, expenditures for housing and for household operations markedly failed to keep pace with the general increase. In 1943 consumer expenditures for housing\* and household operations amounted to \$23½ billion—a gain of only \$5½ billion over the prewar average of \$18 billion.

## HOUSING'S SHARE OF CONSUMER DOLLARS (1933-42)



**FOOD EXPENDITURES** climb more than 200 per cent in 1942 from depression year level. The inhibiting effect of war restrictions on 1942 housing expenditures is evident.

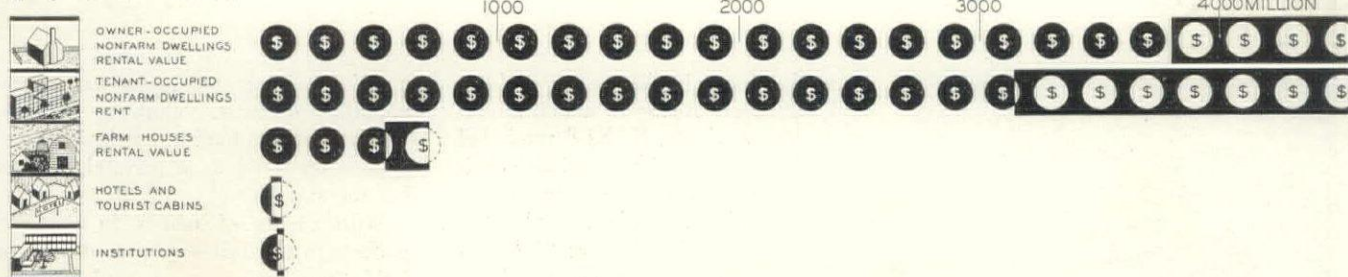
The Bureau's year-by-year analysis underlines the hypersensitivity of heavy durable commodities to changes in business conditions. (Heavy durables are defined as including furniture, floor coverings, refrigerators, washing and sewing machines, cooking and portable heating equipment, new cars.) Commented Bureau economist William H. Shaw:

"As compared with all other commodities and service, the heavy durable group fluctuates violently. From 1929-33, for example, the total of heavy durable commodities declined 66 per cent, while all other commodities and services declined 42 per cent and 35 per cent respectively. Even the relatively mild contraction of 1938 stands out sharply in the heavy durable group. Its decline of 27 per cent compares with declines of only 4 and of less than 1 per cent for all other commodities and total services respectively."

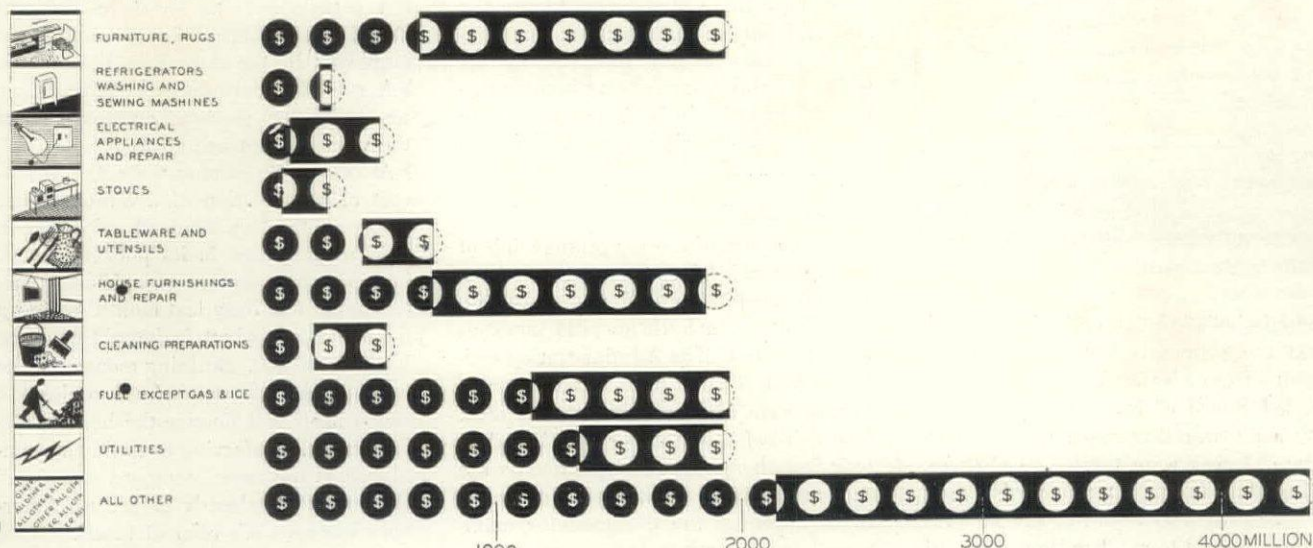
Although the enormous increase in consumption expenditures for food over the last two years naturally reflects in part the rise in all prices, price stiffening, while admittedly substantial, comes

\* The Bureau of Commerce analysis treats new residential construction as a capital investment, defines rental value of owner-occupied units as consumption expenditures.





### HOUSEHOLD OPERATION



EACH DOLLAR = 200 MILLION DOLLARS EXPENDITURE IN 1933  
 EACH DOLLAR = 200 MILLION DOLLARS INCREASED EXPENDITURE IN 1942

**HOW U. S. HOUSING DOLLARS WERE SPENT** in the depression year of 1933 and the full-employment year of 1942 is shown on this chart, based on Department of Commerce studies of consumption expenditure. Enough durable goods were still on the market in 1942 to give these categories (furniture, refrigerators, stoves) substantial increases.

nowhere near accounting for the almost 100 per cent increase in food spending. Consumption potentials are even clearer when the depression year of 1933 is contrasted with the full employment year of 1942 (see chart). Obviously, U. S. ability to buy food in 1933 fell short of ability to consume. Still unmatched in the peak years of 1942 and 1943 is the ability of a full-employment economy to consume housing, since war restrictions have necessarily kept housing supply from rising to meet demand. Not covered in this analysis of consumer spending is war-stimulated consumer saving, which will help to boost housing expenditures in the years ahead.

### RENT SKIRMISHES

Boiling with bad temper at mid-summer, New York's rent squabbles, unlike the rest of the sweating city, cooled off somewhat in August. A major refrigerant in the commercial rent row came, surprisingly, from the Department of Justice. Investigating a reported landlords' "combine" to boost rents and demand five-year leases at inflated levels from store and loft tenants, the Department of Justice found the hint of an anti-trust suit more than enough to discourage the scheme.

Although some apartment tenants quibbled about renewal leases equipped with "escalator" clauses, there was little chance that New York's residential landlords would soon get the 10 per cent blanket increase for which they have stubbornly petitioned OPA. Nor could the landlords expect much from the new OPA regulations for easement of rent ceilings in cases of "special hardship." Although OPA now controls rents on 14.5 million residential units—or three out of every four rental units in the country—"only a comparatively few landlords" will qualify for relief under the new amendments, according to Price Administrator Chester Bowles. One word of cheer offered by Bowles to property owners: "As fast as normal conditions return, rent control must be eliminated."

Still unconvinced was the Senate Small Business Committee, which has been a wailing wall for store and loft tenants, that commercial rent increases are widespread enough to call for an amendment to the Price Control Act that will put these rents under ceilings. Most of the complaints collected by the Committee came from New York, where a score of business men charged that rent gougings are shoving them towards

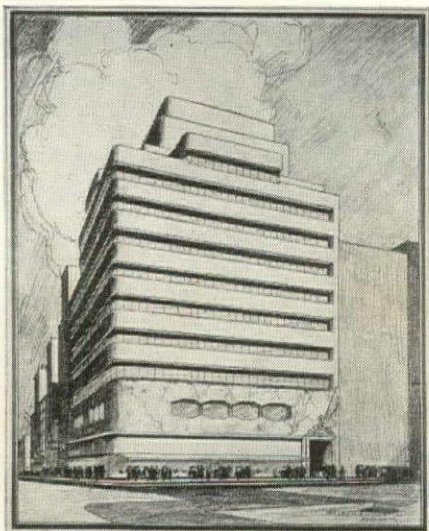
bankruptcy. But the Real Estate Board of New York indignantly countered: "City properties have been taking a licking second to none over the last ten years . . . In nine years nearly 9,000 properties were foreclosed in Manhattan alone, to a total value of over \$1 billion . . . In depression years, owners had to write leases at rentals far below economic levels in a desperate effort to keep their tenants."

### SKYSCRAPER SPREE

The new zoning proposals made by New York City's Planning Commission hit private building like a shot out of a bazooka. Gathering up their shattered dreams of postwar construction unlimited, corporations skirted future building height and land usage restrictions by hastily filing preliminary plans under the present law. In a single day four skyscrapers—\$20,000,000 worth of building—were submitted to the Department of Housing and Building, a pace not seen in New York since the booming twenties.

There were, to be sure, several hurdles still ahead of the zoning changes. Although the City Planning Commission seemed, to a man, to be in favor of the proposals, still lacking was the





**HEDGE** against rezoning

Commission's official nod of approval. Next the proposals would have to get assent from New York's practical-minded Board of Estimates. But those with a postwar skyscraper up their corporate sleeves were taking no chances. Filing plans for a 38-story office building on Broadway near 38th St., Ely Jacques Kahn expected to get 1 million sq. ft. of floor space out of this \$5 million building. If the City says yes to the zoning changes this building would lose one-fourth of its area. Prominent in the rush were architects Egger and Higgins with plans for four skyscrapers ranging in height from 33 to 50 stories. To replace the famous Vanderbilt brownstone on Fifth Ave., Walker & Gillette filed plans for a 13-story building (see cut).

## TRADE BATTLE

Quite a lot of tempers snapped in the August heat—and one of them belonged to the National Association of Real Estate Boards. Toppling from its perch of impeccable dignity, NAREB hit back vigorously at what it called the "smear campaign" launched by the National Farmers Union. Disgruntled because the job of selling farm lands no longer needed for war purposes is assigned to the Reconstruction Finance Corporation, the Farmers Union saw the "fingerprints of NAREB all over" the matter (see ARCH. FORUM, Aug. '44). Said the Union: the Farm Security Administration is the proper agency to handle farm land disposal, the regulation turning the program over the RFC "was written in the interest of swollen profits for private real estate dealers . . . the probabilities of scandalous profits and inflationary selling are very great . . ."

NAREB's habitual enthusiasm for federal policy-molding—the specialty of all potent trade associations—was

strangely absent in the matter of farm land surpluses. Ready to match fingerprints with anybody, NAREB reminded that the controversial regulations specifically forbid the exclusive listing of surplus land with any broker. Added the Realtors, in an injured tone: "NAREB has been one of the most effective leaders in working for farm ownership and for the family-size farm. We were active in pushing these ideas years before the National Farmers Union gained a recognized place. As for the methods by which surplus war property is to be disposed, our attitude is simply that there should be an orderly disposition of such property. . . ."

## 300,000 BEDS

Although part of the gargantuan job of the Veterans' Administration will be a sizeable hospital building program, remodeling of war-built hospital facilities will come first. The Administration estimates that 300,000 beds will be needed to take care of discharged service men. One third of this number will be taken over from hospitals now operated by the Army and Navy. Hastily put up, few of these buildings are designed for maximum operating efficiency—most are strung out in small low buildings and will call for substantial renovation. The Administration presently operates 100,000 beds in hospitals built for World War I veterans. An additional 100,000 beds will have to be supplied by new building. This construction program will be spread over the next 30 years, since World War I experience indicates that peak hospitalization load will not come until 1975. Expectation is that VA hospital building will amount to about \$30,000,000 annually in the first three years after the war. For the whole hospital job, VA has authority to ask for a total of \$500,000,000 from the federal budget.

## PATTERNS

August marked the end of a 1933 federal housing venture intended to solve the problems of garment trade workers and the beginning of a CIO Textile Workers Union move to house its members.

Graveyard of a subsistence homestead experiment, the Jersey project will soon be unloaded by its inheritor, the Federal Public Housing Authority, according to Representative James C. Auchincloss (Dem., N. J.). From the slums of Brooklyn and the Bronx, 200 clothing workers and their families moved to rural Jersey Homesteads in the lean 30's, putting up \$500 each toward a home and subsistence garden. Part of the Farm Resettlement Administration's plan for

a self-sustaining community was a communally operated clothing factory, which went into bankruptcy in 1940 and is now operated as a privately owned hat factory.

With plenty of money in workers' pockets in the full-employment year of 1944, the Textile Workers Union got interested in a housing project for vastly different reasons. Three of them:

▶ A serious housing shortage at Front Royal, Va., where union members are employed by the American Viscose Co.

▶ A need for permanent housing, since prospects for postwar employment at the viscose plant are good.

▶ A chance to demonstrate the actual cost of construction of a 6-room house under contract at standard union wages.

With priorities in its pocket for 300 houses and an option on a 57-acre site, the union was busy last month planning a model house which it thought could be built for \$4,000. Building money will be welcome, but if none is forthcoming the union itself will finance the housing development. Preferring to avoid any semblance of old-time "company housing," the union has already passed up American Viscose Co.'s offer of funds.

## SHIFT TO MODERN

Do customers make or follow style trends? This old chicken-egg controversy showed up in the probe of consumer taste in furniture design methodically executed last month by the New York *Journal-American*, for reasons known only to itself. Lots of women told the inquiring newspaper that their choice in furniture design is not what it used to be. But most believed that their taste has changed only because fashion in furniture and home decoration has changed.

Like the survey made by *McCall's* magazine (see ARCH. FORUM, June '44), the *Journal-American* scrutiny pointed up the shift of buyer's taste from traditional to modern design. Some 68 women said that only a few years ago they were sure they would never like modern furniture, but now plan to buy it. "Modern is different now, more refined, less theatrical," added 43 potential customers. Another 25 attribute their conversion to a new recognition that modern may be happily combined with traditional pieces they already own.

Forty-seven are anxious to buy furniture with plain lines, unadorned by dust-catching surface decoration. Twenty-one declared themselves tired of the massive furniture that had formerly pleased them, would look for smaller-sized pieces when making their next purchase.

(Continued on page 130)



# GRASS ON MAIN STREET" BECOMES A REALITY



EARL F. GIBERSON

WHITNEY R. SMITH, Associated Architects

ERNEST C. HILLMAN, Structural Engineer

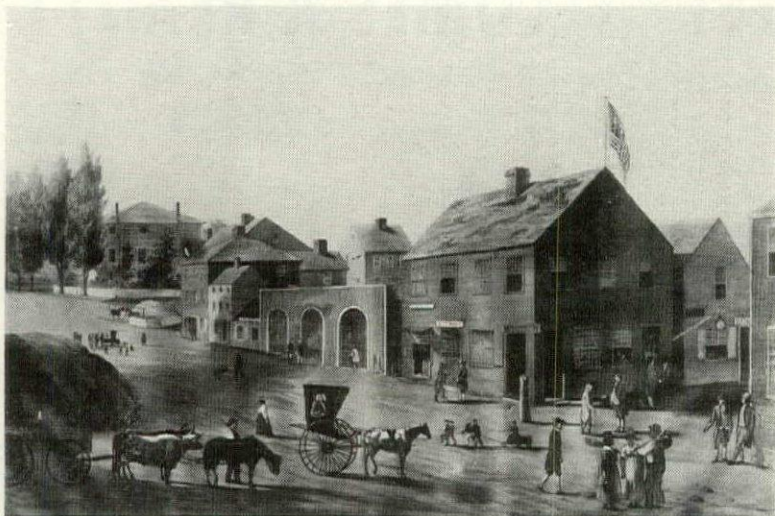
HAROLD DANKWORTH, Landscape Architect

A PROJECT OF THE NATIONAL HOUSING AGENCY

## SHOPPING CENTER, LINDA VISTA, CALIFORNIA



1.



New Bedford, Old Four Corners; Courtesy of Old Dartmouth Historical Society and Whaling Museum

1807

As buying dollars shifted from the carriage trade to the pedestrian, the automobile usurped his right-of-way. Today's traffic should bypass and not bisect shopping zones.

2.



View of Park Place, N. Y.; Courtesy of M. Knoedler & Co.

3.

1. VILLAGE GREEN. 2. COBBLED STREET OF THE EARLY INDUSTRIAL ERA. 3. ANY CAR-CHOKED MAIN STREET TODAY. 4. PLANNED NEIGHBORHOOD SHOPPING CENTER.

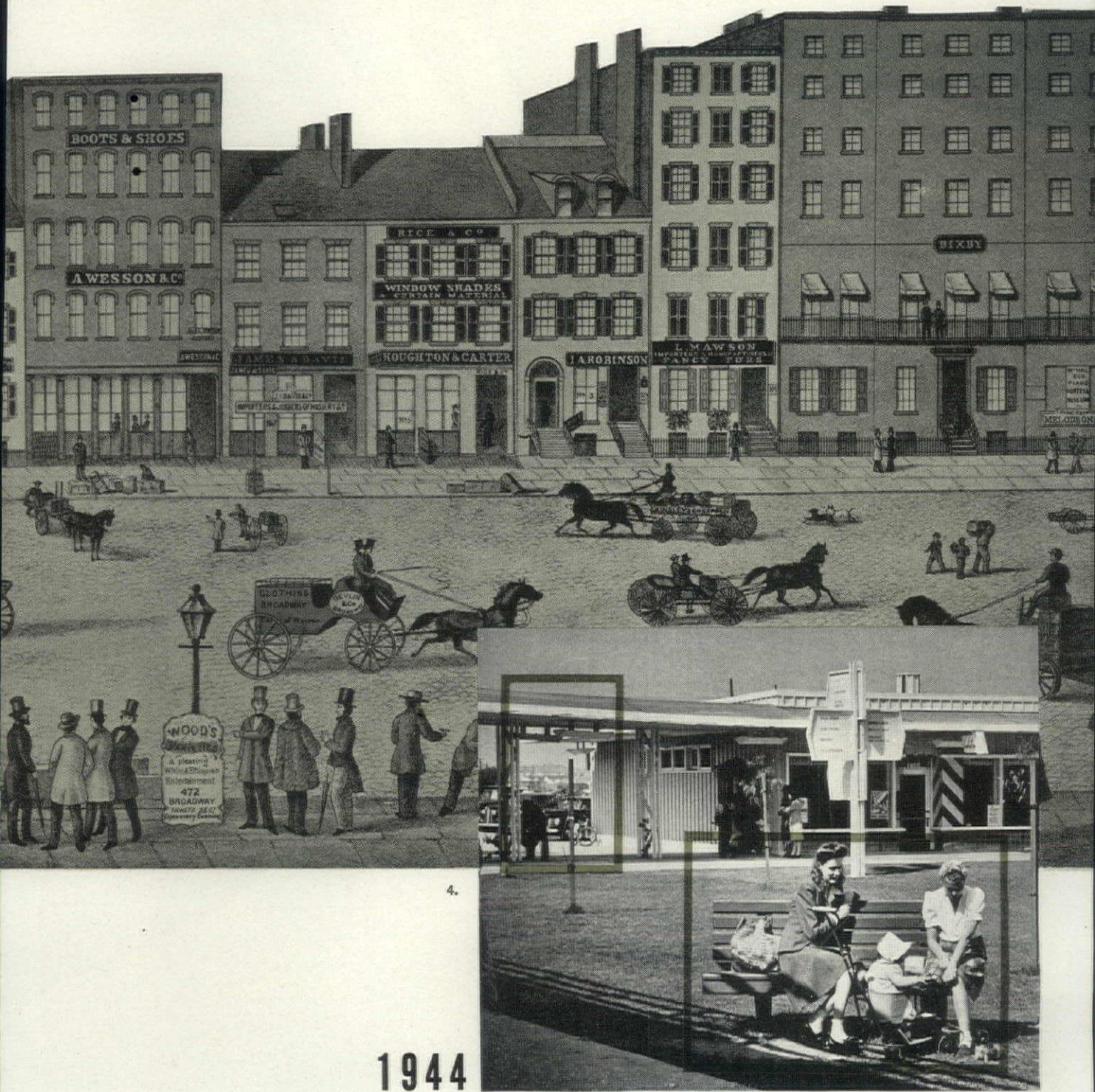


Alfred Eisenstaedt-Pix



When the early colonists laid out our first towns they grouped important community buildings around generous central greens. These open areas afforded an undisturbed gathering place in which to carry on business, social and recreational activities. With the gigantic wave of urban development brought about by the industrial revolution, this attractive, functional pattern was to disappear. In its stead there arose hundreds of rapidly expanding cities, each with its noisy, congested business district. Main Street had come into its own. In horse and buggy days this was not so bad, but with the advent of the automobile, the pedestrian lost his right to do anything but dodge. Shopping developed into a hazardous, nerve-racking duty from which no one might escape.

These problems have been a cause—if not the principal cause—of merchants moving their shops to outlying residential districts. But such decentralization, while it succeeds in eliminating congestion at least for a time, sacrifices the very real advantages of a midtown location. In May, 1943, THE FORUM proposed a more fundamental solution. Selecting an existing town, the editors showed that by diverting traffic around the shopping area, providing parking space on the low-priced land back of Main Street, and converting the street itself into a landscaped area, it is possible to achieve the charm and convenience of the early village green without disturbing present merchandising patterns or sound existing buildings. In other words, plant grass on Main Street.



1944





J-B  
BARBER SHOP

LINDA VISTA  
BEAUTY SHOP

DeLuxe

CLEANERS



## With its new shopping facilities war-built Linda Vista, Calif. stages the first full dress presentation of the Grass-on-Main-Street idea.

Linda Vista, Calif. was the largest of the pre-Pearl Harbor "defense" housing projects built by the PBA (Public Buildings Administration) and is one of eight major projects located within and around the city of San Diego. It consists of 3,000 dwelling units erected on open, hilly land. It is, literally speaking, a completely new, planned city. The project, which included its own sewage disposal system and water storage facilities, was completed in 300 days. Developed at a time when defense housing standards were still at peacetime levels, the town plan has many admirable features. Individual and row houses are set on cul-de-sacs or curving streets, looped to prevent through traffic. A basic determining factor in the plan was the existence of an important traffic highway bisecting the property at an angle. Had the colony developed in an uncontrolled, haphazard fashion, the result would certainly have been a commercial development straddling the highway, complete with all of the usual problems of congestion, inadequate parking, etc. As it is, this highway has been incorporated into a planned traffic scheme and though the shopping center now flanks it on one side, no congestion results.

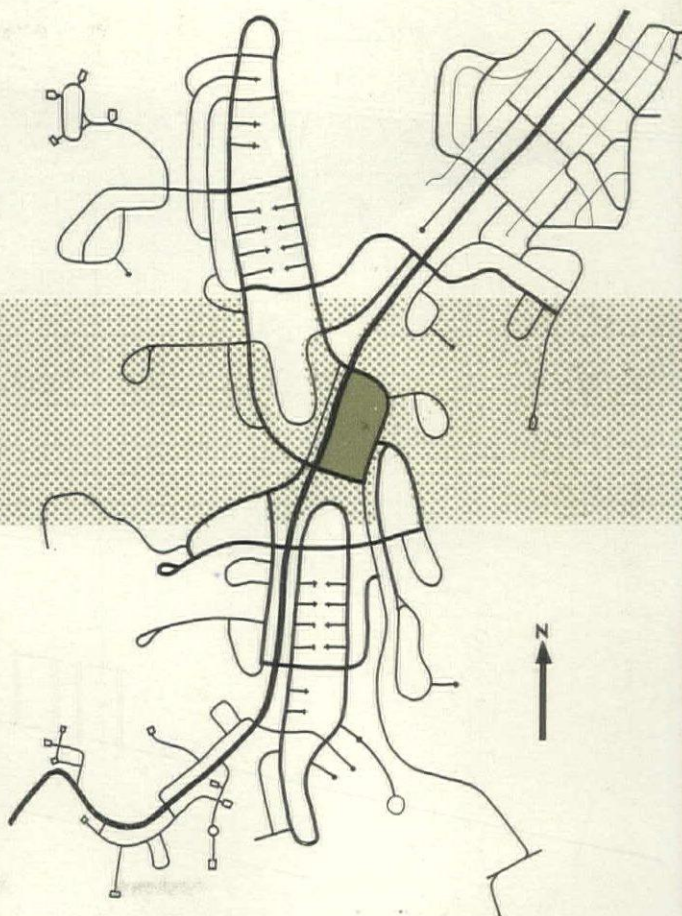
At the time when the housing was built, funds for community buildings were not available and considerable time elapsed between the construction of the dwelling units and other facilities. Tenants were forced to walk into the center of San Diego — a distance of two miles — to shop and some of the housing units had to be used for improvised schools. The original PBA plan provided sites for schools and a commercial center. The latter was allotted thirteen acres. The project has since been taken over by the NHA which was responsible for the design and construction of the shopping center. The new center now serves 4,800 families living in the immediate area and also attracts trade from neighboring communities.

**Tailored store fronts surround a central landscaped area. Ingenious directional signs, small but prominently placed, spot locations of smaller shops.**

Occupying two-thirds of the original thirteen acre site, Linda Vista's commercial buildings are irregularly grouped around a pedestrian park where customers may shop in leisurely comfort. The remainder of the land will be used for future expansion. The grocery, already built at the time the shopping center was begun has been incorporated into the design and is indistinguishable from the rest of the building group. Parking and merchandise delivery are limited to the outside ring. While open land and a designated site certainly simplified the design, it is probable that much the same effect and convenience could be achieved in one or more existing city blocks by diverting the traffic and using the street proper as a planted area. Intersecting streets could be utilized as entrances, parking space provided in the rear part of the blocks.

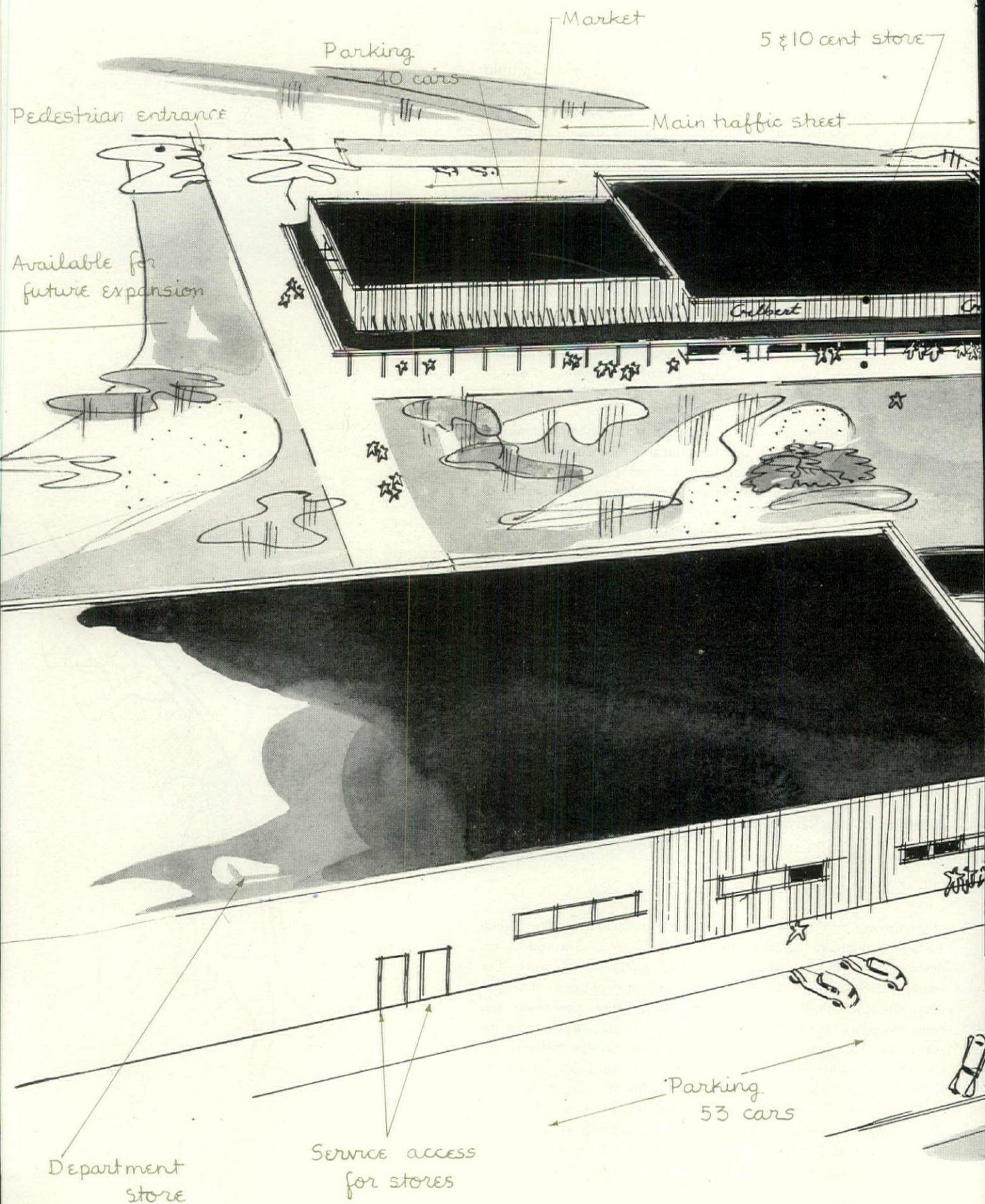


LINDA VISTA, CALIFORNIA, SITE OF THE NEW SHOPPING CENTER



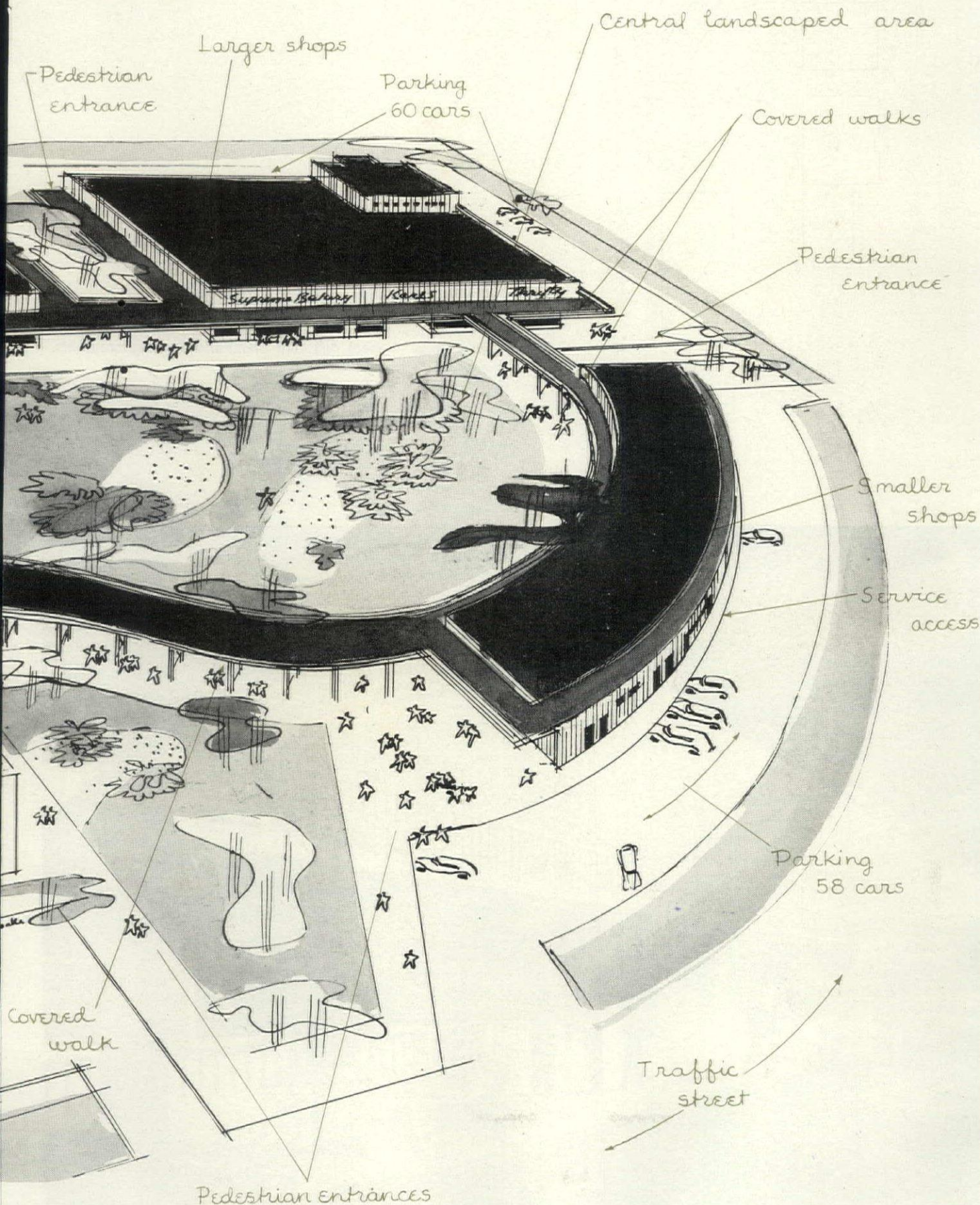


Generous parking on the perimeter of the thirteen acre s



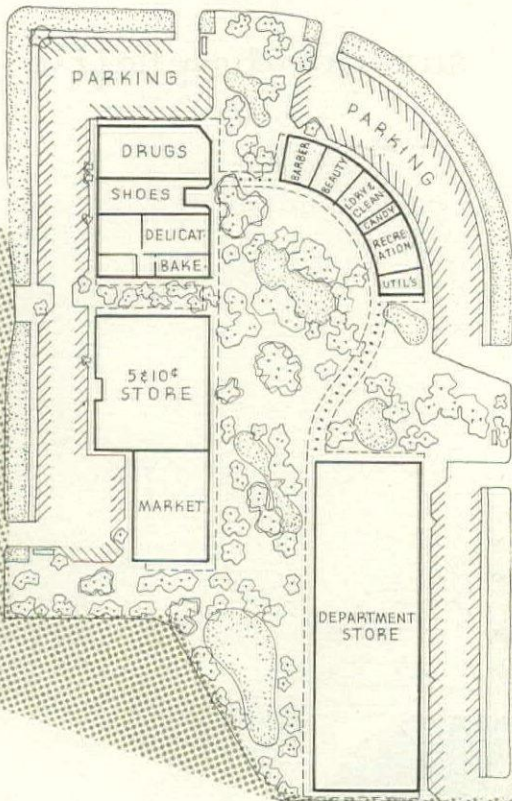


separates the Shopping Center from surrounding traffic





The vigorous design employs unpretentious exter



Site plan and architectural treatment provide suitable variations to meet different merchandising requirements.





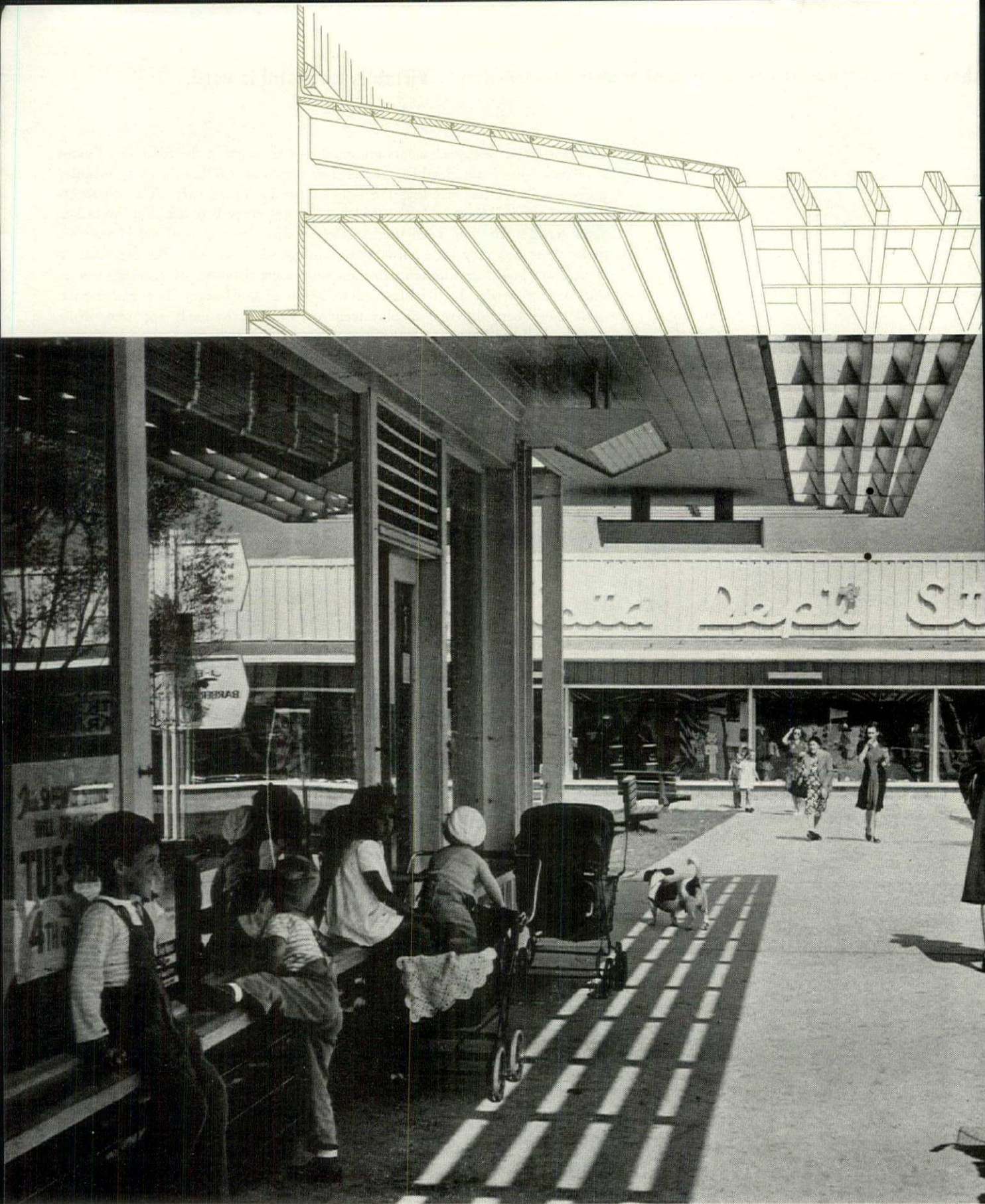
shes in an appropriate expression of timber construction. Virtually no metal is used.

Two distinctive design elements are employed throughout the Shopping Center buildings. One is the flexible structural system, which follows a 14 ft. modular grid in spite of the fact that the sizes of the buildings vary. The architects designed the buildings to fit the grid but did not allow it to act as a limitation. Some tenants who had been used to clear spans objected to the columns; actually there was very little hardship on anyone. The second is the combination of uniform board and batten exteriors with show windows of varying sizes to suit tenants' needs. In the illustrations below of the bakery shop and department store these different display techniques are particularly apparent. Note also the uniform lettering on the store fronts, which is better looking and more effective than the usual competitive advertising.

With few exceptions building materials follow the FPHA standards. Floors are cement, construction is post and girder. A variation was the use of Thermax on the ceilings of all stores, for its acoustic as well as insulating properties. All heating is by oil furnace, the tanks for the larger units being underground. The exterior walls are of redwood and are painted gray-green. Trim and shelters are white. Slate blue tile was used under the large display windows. The all-wood lighting standards were designed by the architects to allow for overhead stringing of wires. They provide soft indirect illumination throughout the pedestrian park.



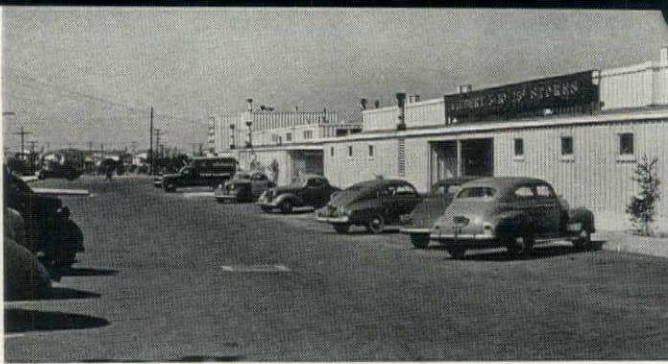






1. & 2. AMPLE PARKING AREAS FOR SHOPPERS' CARS  
SURROUND THE CENTER ON ALL SIDES AND PROVIDE  
ACCESS FOR DELIVERIES AT REAR OF STORES WITH  
MINIMUM INTERFERENCE TO PEDESTRIAN TRAFFIC.

1.



2.



Self contained scheme features broad sidewalks and pleasant surroundings, encourages window shopping. Children can romp or relax in safety while parents are inside stores. Covered walks protect shoppers from the weather and merchandise from too much sunlight.

3.



4.



3. COVERED WALKS AFFORD CONTINUOUS WEATHER  
PROTECTION BETWEEN PARKING AREAS AND SHOPS.

4. RULE EXCLUDES BICYCLES FROM INSIDE WALKS.





BARBER SHOP  
REALTY SHOP  
SAN DIEGO  
GAS & ELEC. CO.

SAN DIEGO  
GAS & ELECT. CO.

DRUG STORE  
SHOE STORE  
BAKERY  
DELICATESSEN

UNDA VISTA  
BEAUTY SHOP

THE NEW YORK PUBLIC LIBRARY  
ASTOR LENOX TILDEN FOUNDATIONS  
500 5TH AVENUE  
NEW YORK 17, N.Y.

MISSING

**The Love of Books**





After a year's experience with their new shopping center, Linda Vista's consumers register enthusiasm.

### Storekeepers are still mildly skeptical.

A recent study of reactions to the Linda Vista layout indicates that the merchants are about evenly divided for and against the arrangement. A number still cling to the idea that show windows should face passing traffic but this theory has found little justification in fact, since business has been uniformly good. All of the storekeepers agree that the center draws customers from surrounding neighborhoods, despite limited advertising opportunities.

A general complaint is that lack of competition keeps prices up. Customers, however, say that they prefer to pay slightly more to shop in comfort. One or two of the merchants offered constructive suggestions; among them, the need for a bank. While it is obvious that Linda Vista tenants must still travel to midtown San Diego for special purchases, cash facilities within the shopping center would be a convenience for regular marketers.

Shoppers are favorably impressed with the arrangement. They refer enthusiastically to its easy parking, the convenience of leaving their children outdoors unsupervised, faster shopping because of the compactly grouped stores. Only one woman complained that there was too much space for her child to get lost in. (*Additional pictures, credits and construction outline on page 178.*)

appearance of the central court.





# PLANNING WITH YOU

Regional planning, as distinguished from city planning, must interrelate urban, suburban and rural problems, must consider the farmer, the industrialist and the worker. Above all it requires cooperation between many municipalities to insure against costly mistakes and duplication of effort. With these ideas in mind, the master plan of Beaver County, Pa. adds up to a basically sound report, although some of its recommendations are vague. This inability to get down to cases is most noticeable in the over-all outline which extends beyond the postwar period into the necessarily dim future. A definite set of improvements for the five years immediately following the war puts a needed amount of starch into the plan. Estimated expenditure would be \$52 million, mainly federal, state and private money. The shock of postwar unemployment would be softened by the three million man-days of work thus provided. This part of the program then is good. The fact that Beaver County even attempted complete, long-range planning is better yet.

Beaver County's major natural advantage — the constant factor in its growth to become the third largest industrial producer in Pennsylvania and seventh in the nation — is also the source of its many headaches. This double punch comes from its two rivers, the Ohio and the Beaver, which join in mid-county, providing power and traffic facilities for the entire section. Along these rivers and their tributaries were built the first grinding mills, accessories to farming which, in the early 1800's was the major occupation of Beaver County. Small concentrations of workers settled near the mills, and villages soon developed around these focal points. Today's congested areas with their ensuing problems are but an enlargement of this original pattern.

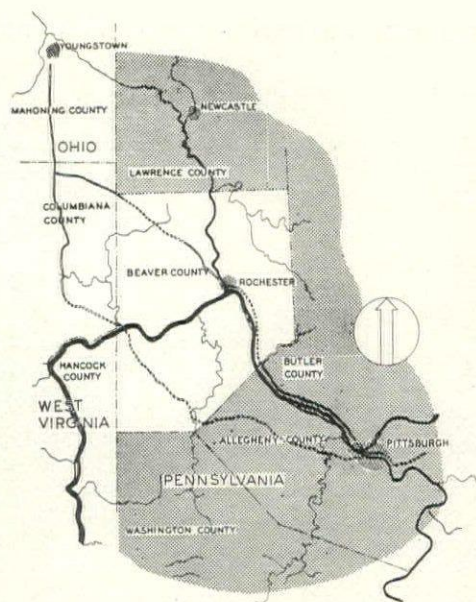
During the second half of the 19th century, with the discovery of iron ore and rich veins of coal, Beaver County passed from a mainly agricultural to a predominantly manufacturing center. Again the rivers, supplying power and busy with freight traffic, influenced this growth. Railroads sprang up and Beaver County became a thoroughway for transporting goods from the industrial and commercial East to the midwestern and southern sections of the country.

Today, as part of the "steel center of the world," directly between Pittsburgh on the southeast, Erie on the north and Youngstown, Ohio on the northwest, transportation is still the keynote of Beaver County's humming industry. The surrounding metropolitan areas utilize the County's transportation systems extensively for shipping goods and materials. Barge traffic on its rivers amounted to 35 million tons of freight

in 1941. It boasts one of the world's largest switching yards where the Pennsylvania Railroad's main line from New York to Chicago can handle 10,000 cars of freight a day. Its steel and iron industry now employs 46 per cent of all industrial workers in the county, but coal — 418,536 tons produced in 1942 — is also of major importance, while deposits of brick and tile clay are the backbone of an ever-increasing masonry products industry. Although a county with no large cities, its urban population outranks suburban and rural with a ratio of 100 to 40 to 13, the vast majority of which are industrial workers.

With this immense activity concentrated in five strategic river areas complications are bound to set in. Beaver County in its hustle and bustle has become, so to speak, too big for its pants. Haphazard building combined with too many people all intent on living close to their place of work, has inevitably led to inadequate housing and sanitary conditions. Schools and hospitals are overcrowded, traffic hazards have increased and transportation could be improved. Improperly treated sewage and industrial waste contaminate the rivers. Recreational facilities are inadequate. The congestion also multiplies hazards from fires and epidemics. Occasionally the rivers flood their banks taking toll of life and property. Smog, a combination of fog and soft coal smoke blankets the river area approximately 25 per cent of the year, causing chronic sinus and lung ailments and costing the average family \$100 annually in extra cleaning and laundering bills.

Most of these conditions, not acute during normal times, have been accen-



**THE STRATEGIC POSITION** of Beaver County in western Pennsylvania bounded by Ohio and West Virginia and near the metropolitan areas of Pittsburgh and Youngstown, makes it a transportation thoroughway from eastern states to the West and South.

tuated by the war boom. New and expanded industries have attracted new workers, many of whom will remain after the war. This situation is not unique. A similar rapid expansion occurred during World War I, but Beaver County does not intend to let this boom run the same course. In the ten years of prosperity following the last war, workers streamed into urban areas at the expense of rural sections. Residential, municipal and industrial building was rampant, but this unplanned growth foreshadowed idle factories and areas of blight which appeared when the depression hit.

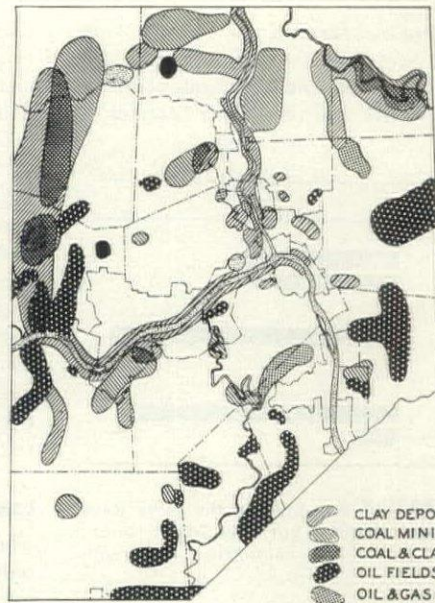
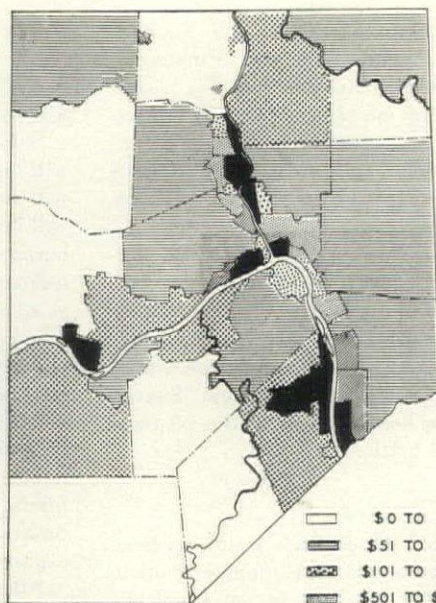
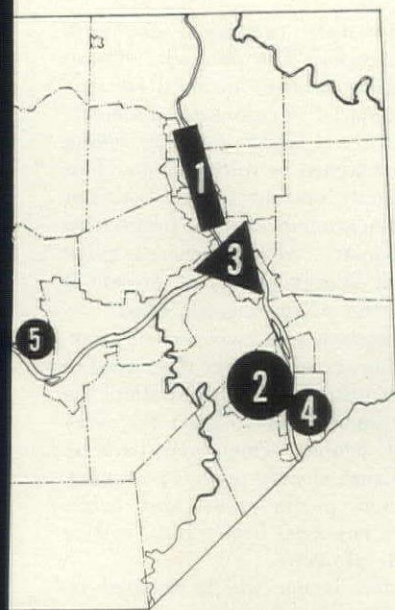
## OUNCE OF PREVENTION

This time Beaver County has a head on the future. At the request of County officials, Michael Baker Jr., consulting engineer, planner and surveyor has prepared a 100-page master plan, a detailed research and evaluation of Beaver County, its resources and the basic needs of its inhabitants plus an integrated improvement program for its future.

The plan finds on the credit side of the county ledger: availability of cheap power and fuel; low cost transportation within the county; the presence of established industrial plants; the diversity of present and potential products combined with one main resource — metal; and most important, the county's topographical variations — river valleys contrasting with plateaus and adjoining hilly sections — which provide an excellent opportunity for both industrial and agricultural pursuits.

Its main problems, therefore, are to correlate both urban and rural development, to plan a balance between manu-



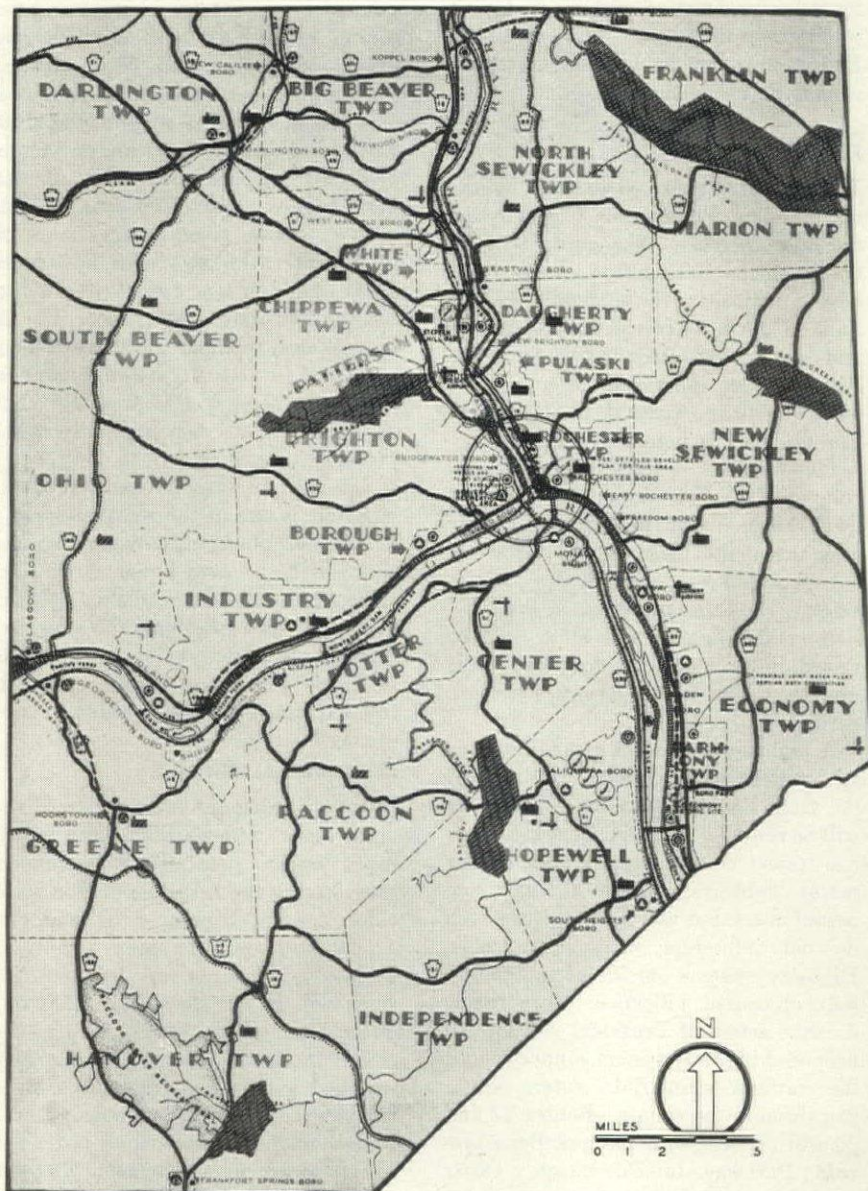


**CONCENTRATION OF POPULATION** (above) and highest land values (middle) group along the Ohio and Beaver rivers, waterways which from first have influenced industrial growth in Beaver County. Their river and transportation facilities have been a major factor in development of the county's natural resources (right).

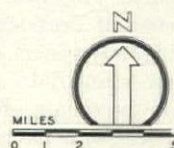
	\$0 TO \$50
	\$51 TO \$100
	\$101 TO \$500
	\$501 TO \$1000
	\$1001 TO \$2500
	\$2501 TO \$5000
	OVER \$5000

- CLAY DEPOSITS
- COAL MINING
- COAL & CLAY MINING
- OIL FIELDS
- OIL & GAS FIELDS
- GAS FIELDS
- CLAY & STONE MIN'G.
- SAND & GRAVEL
- LUMBERING

**SPECIFIC IMPROVEMENTS** included in Beaver County's master plan are scheduled for completion the first five years after the war. These new projects spot the industrial sections along the county's two rivers and a lesser number are scattered in rural districts. On the map at right are shown both existing and future facilities which include roads and bridges, river developments, parks, swimming pools, airports and water utilities. Both sewage disposal and water softening plants are important in the program. Plans have not yet been drawn up for the projects, but these recommendations will guide the county's many municipalities who must eventually do the real job.



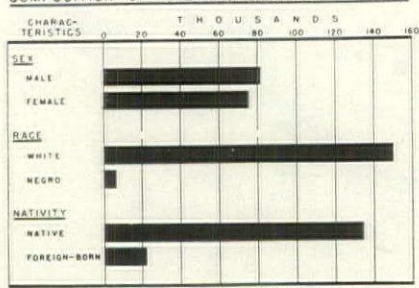
- Existing airports
- Proposed airports
- Existing parks
- Proposed parks
- Existing swimming pools
- Existing state and federal highways
- Proposed highway relocations
- Proposed highway improvements
- Proposed highway interchanges
- Proposed highway bridges
- Existing ferries
- Existing dams
- Proposed dikes, levees
- Existing consolidated schools
- Proposed consolidated schools
- Existing wells and softening plants
- Proposed softening plants
- Proposed wells and softening plants
- Existing river water works with filtration
- Proposed filtration plants
- Existing sewage disposal plants
- Proposed primary treatment plant
- Proposed primary and secondary treatment
- Proposed sludge and bio-filtration plants





facturing and farming and so to provide its citizens with two basic needs: an assured income and a decent place in which to live and raise their families.

COMPOSITION OF THE POPULATION — 1940



**IMMIGRATION** was high in the early days of Beaver County, but now only a small percentage of the population is foreign born.

This cannot be accomplished, however, without realizing also that Beaver County is inextricably related to the surrounding metropolitan areas for its prosperity. It contributes to the industrial greatness of Western Pennsylvania by its transportation system, including waterways, highways and railroads. Future development, here as elsewhere, cannot be an isolated growth.

#### FUTURAMA

The Beaver County visualized by the master plan, therefore, is primarily active and thriving. Navigation will increase on its rivers, new docks and perhaps a hydroport for seaplanes will be built. The Ohio River will be deepened, and a canal constructed beyond the Beaver River, providing a continuous waterway to the Great Lakes. Already this proposal is before Congress.

Flood control — 18½ miles of storage reservoirs in the upper Beaver and Ohio basins—will protect the county from seasonal damage. Dikes and levees at specific spots will further insure safety. The railroad bridge at the junction of the Beaver and Ohio will be raised above flood level and flood walls built near the busy Conway switching yards.

A highway bottleneck near this same spot will be relieved by an extension of the Ohio Boulevard. Some other roads will be rerouted although Beaver County has rejected the bypass system. Its major highways will run through congested areas, but will be freeways which do not interfere with local traffic. Highway systems outside of the county will, of course, influence future roads. A main artery of President Roosevelt's proposed highway system connecting all the nation's industrial centers would run through the county. Routes 22 and 30 will connect with the new Penn-Lincoln Parkway to Pittsburgh. Other roads must jibe with the main traffic

lanes between Cleveland and Youngstown, Erie and Wheeling, Pittsburgh and eastern Pennsylvania. The roads will be not merely efficient, but more beautiful than former highways. Overall alignment and grading will create pleasant vistas and advertising will be controlled.

Although it would be impractical for the County to establish huge airports, it plans to build "feeder" stations which will connect with the larger ones in surrounding cities. Thus its future transportation systems will allow Beaver County to hold its own in the postwar industrial battle.

#### LAND USE

The rest of the county's problems bear only indirectly on its dealings with other areas. They are, however, of equal importance. Careful land use to solve the many problems of industrial and farming sections will make Beaver County a pleasanter and more stable place to live in.

Again looking at the postwar picture painted by the master plan we find that zoning ordinances will regulate both urban and rural growth. New parks and playgrounds—many small ones instead of a few large ones—will dot the cities. More hospitals, libraries and swimming pools will be built. The river junction, most highly populated section in the county, will be given a water front development including parks and sports areas where citizens can play tennis, go boating and watch ball games. The use of smokeless fuel and strict enforcement of smoke regulations will eliminate the unpleasant smog now so prevalent. Adequate off-street parking will reduce present traffic hazards.

This urban development program, however, is one of the weakest spots of the master plan. Exactly how congestion will be relieved is not made clear, although the planners definitely think it's a good idea. Perhaps the suggested removal of restricting borough lines and political subdivisions will permit the free expansion of overcrowded areas.

#### AGRICULTURAL PROBLEMS

In rural zoning the master plan makes more sense. Sub-marginal land will be zoned against agricultural settlement, thus forcing the rural population into a closer concentration on good land. The 12,700 acres of crop area and 64,500 acres of pasture not now being used as such, will be put to work. Since only 20 per cent of the farm products consumed in Beaver County are at present supplied locally, the stimulation of agriculture is highly desirable. A real back-to-the-farm movement will help ease postwar unemployment. In addition the closer concentration of farmers

will allow more convenient access to public services. The one-room schoolhouse, still prevalent in rural sections will be replaced by consolidated schools.

Sub-marginal land released by zoning will be reclaimed by reforestation. This will not only prevent soil erosion, but will lay the groundwork of a future lumbering industry. Although there is much lumber in Beaver County at present it is all second or third grade wood.

In connection with land planning, recreational areas will also be developed to give both urban and rural dwellers the national standard of 10 acres for every thousand people. One such park at Racoon Creek already provides camping, hiking and picnic areas, and bridle paths. A new one, Brady Run, will be a postwar project.

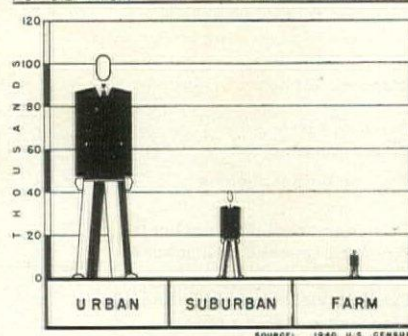
Attention is not wholly focused on such idyllic additions, however. Beaver County will also add a number of strictly utilitarian sewage disposal plants with efficient facilities for purifying waste. The rivers which have long been contaminated will regain their original healthful state. New distribution plants will soften the water piped to Beaver County citizens.

#### CARRYING OUT THE PLAN

If adopted, the specific projects listed in the master plan are scheduled for completion the first five years after the war. The general outline of improvements extends indefinitely. Additional research would be necessary and changes would undoubtedly be made to cope with new situations, since the great majority of recommendations are too general for immediate application. This distaste for specific detail in a long-range plan is a common failing. It is more excusable in county than in city planning, for the difficulties involved in coordinating many communities are tremendous.

(Continued on page 160)

POPULATION BY LAND DIVISION



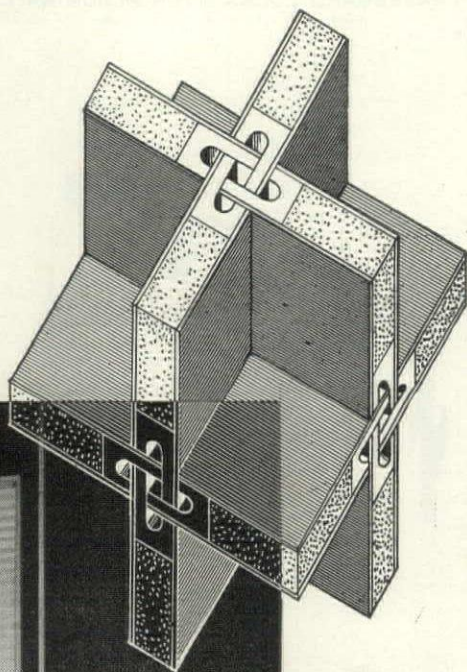
**URBAN POPULATION** is vastly predominant over suburban and farm classifications, an unusual situation in a county with no large cities. This may be explained by the fact that most of the industrial workers live near their place of employment.



# PREFABRICATION

## A NEW SYSTEM OF OFFICE PARTITIONS

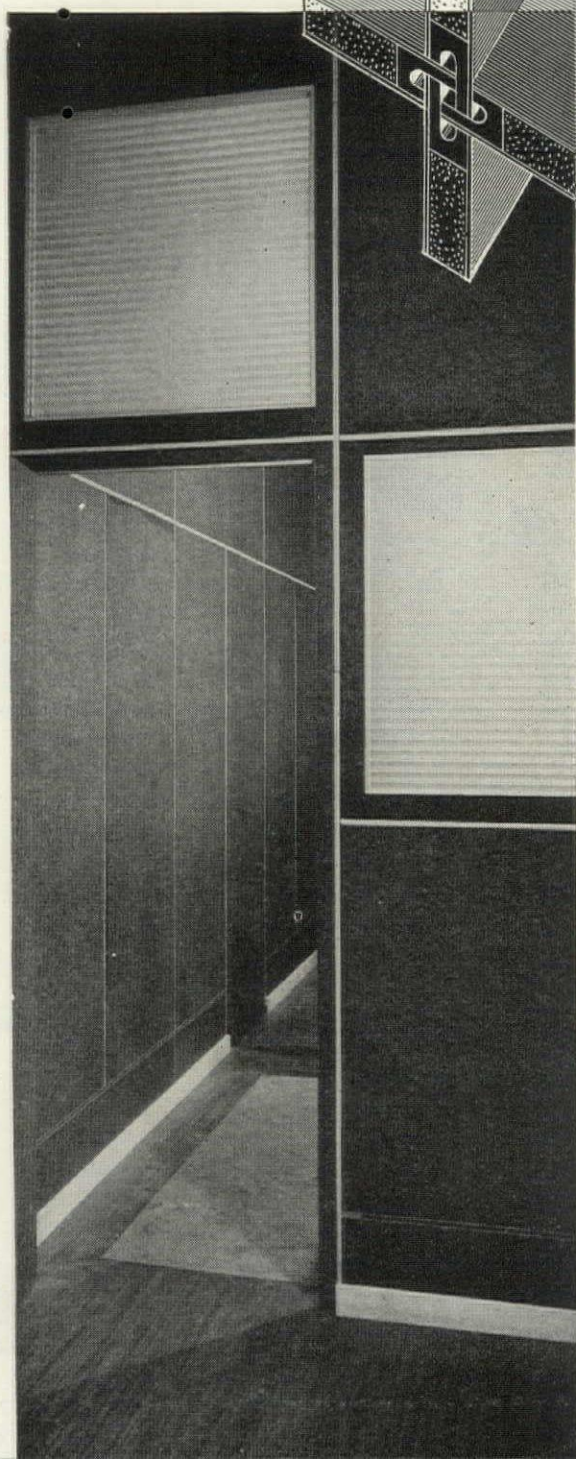
produced by the General Panel Corp., introduces a simple but ingenious connector which makes assembly and rearrangement as simple as building with blocks. The result: an unusually handsome structure with doors flush with the walls on both sides.



These new demountable office partitions, developed for The General Panel Corp. by Konrad Wachsmann, offer a number of advantages over other products in the field and have interesting possibilities for use in housing as well. The basis of the system is a cleverly integrated connecting device which allows for two, three and four-way panel intersections without recourse to projecting posts or elaborate connectors. This is achieved by an irregularly grooved edge on all four sides of the panels, shaped in such a way that four panels can be fitted tightly together with edges interlocked (see cut). Butt joints between panels are filled with simple wood splines. Since no extra space is required at cross or angle connections, the module is retained in all directions. Appearance is another important advantage. Not only does the system produce a completely flush wall, a rare attribute in movable office partitions, but the narrow splines and varying panel sizes create an interesting pattern which offers excellent design opportunities. The panels can be used in either horizontal or vertical position, and even laid flat, to produce shelves and closet ceilings. Doors and glazed sections are incorporated in the units.

While a wide variety of surface materials can be utilized under the present manufacturing process, the most practical and economical is a pressed-wood fiberboard. Glued under pressure to both sides of a light wood frame, it produces an easily handled, stressed-skin panel only  $1\frac{3}{8}$  in. thick. An optional stuffing of mineral wool provides sound and thermal insulation. Experiments now being conducted for postwar production promise a solid panel of newly developed synthetic material enclosed in a hard-surfaced, paper-thin plastic covering, in a wide range of colors. The board itself will be soundproof and fire resistant.

While a number of other methods for prefabricating office partitions have been found satisfactory, and a few equally good looking, the simplicity of the connector makes General Panel's system potentially the most economical





yet devised. The splines are unfinished, milled wood strips which can be produced in quantity at negligible cost. The panels themselves are completely standardized and unusually economical. Another money saving attribute is the fact that no nailing or bolting is required in assembly.

The standard panel size is 3 ft. 4 in. by 6 ft. 8 in., augmented by horizontal and vertical half and quarter sizes. In addition, narrow end strips are available for use as baseboards, to fill space between partition and ceiling, or for slight longitudinal extension. Due to the standardized connecting grooves on all four edges, the various sizes can be used in an almost unlimited series of combinations. Equal flexibility and standardization has yet to be achieved in any other panel system.

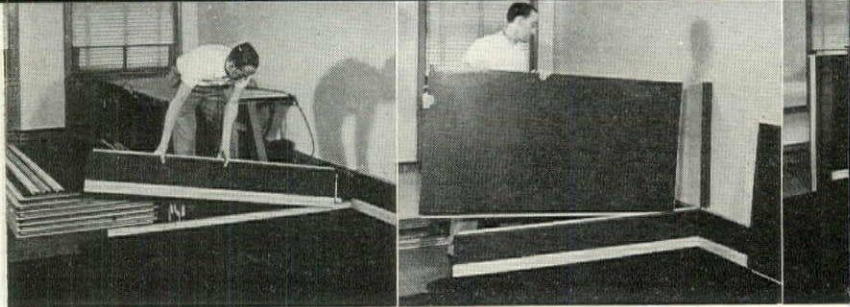
Dwarf partitions, eyesores in many an office, provide one of the best examples of the improvements this system has to offer. Instead of the usual posts placed at regular intervals, individually capped, the General Panel partition is flush, topped with a continuous wood cap or by glazed strips.

Door, window and wall panels are of uniform thickness. Door sections consist of standard full-size panels with the door flush on both sides. To form a stop, door and frame are rabbeted. Glazed sections have fixed or sliding glass set into the regular panel frame.

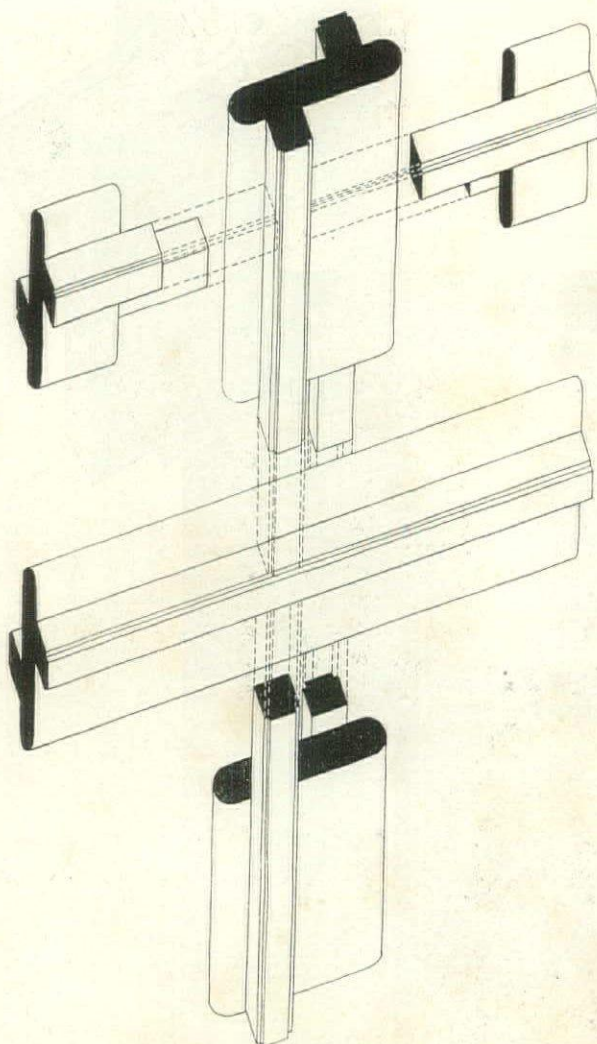
Wiring, a persistent headache among prefabricators, has not been as well worked out as some of the other features. It is possible to order the panels with inside wiring for wall outlets and switches and wiring and junction boxes can be included in the base panels, but the system does not afford the same flexibility of wiring found in other types of movable partitions.

Screwing the floor rails to the floor and installing the wall rails constitutes almost all of the carpentry required on the job. Assembly, disassembly and rearrangement are extremely simple and involve no waste. The key-like splines, inserted between the grooved panel edges make surprisingly rigid interlocks without the use of any further fastening. When a four-way connection is used, the panels brace each other, requiring no spline.

While this system was designed solely for office and factory interiors, its great flexibility, high degree of standardization and agreeable appearance make it an important advance in prefabrication design. It is well suited in its present form to provide a system of flexible, prefabricated partitions for use in housing of all types, and might be combined with prefabricated closets and cabinet work to further enhance this possibility. It is also likely that the principle of the four-way connector, which is protected by patent applications now pending, may wield a strong influence on structural and exterior walls of prefabricated houses.



BASEBOARD LOCKS OVER FLOOR RAIL. THE HORIZONTAL WALL PANEL



**GROOVED SPLINE** is shown in vertical and horizontal connecting positions. Angle joint requires that spline end have profile to fit side of adjoining splines.

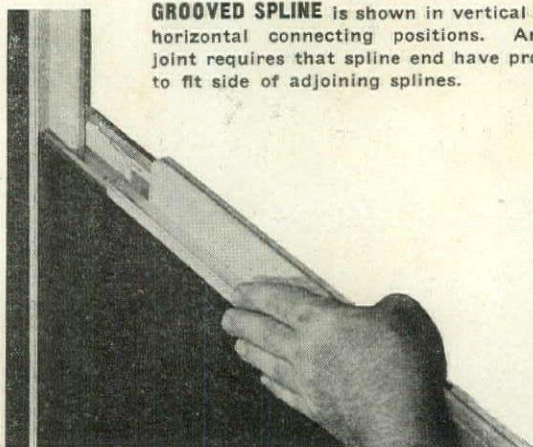
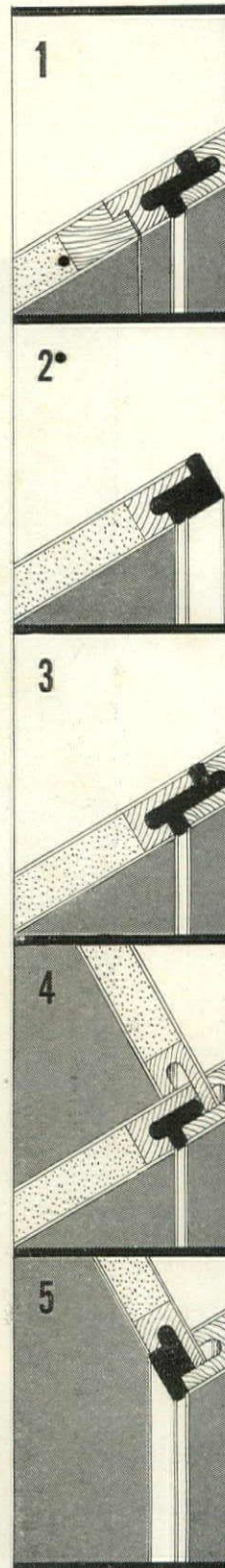


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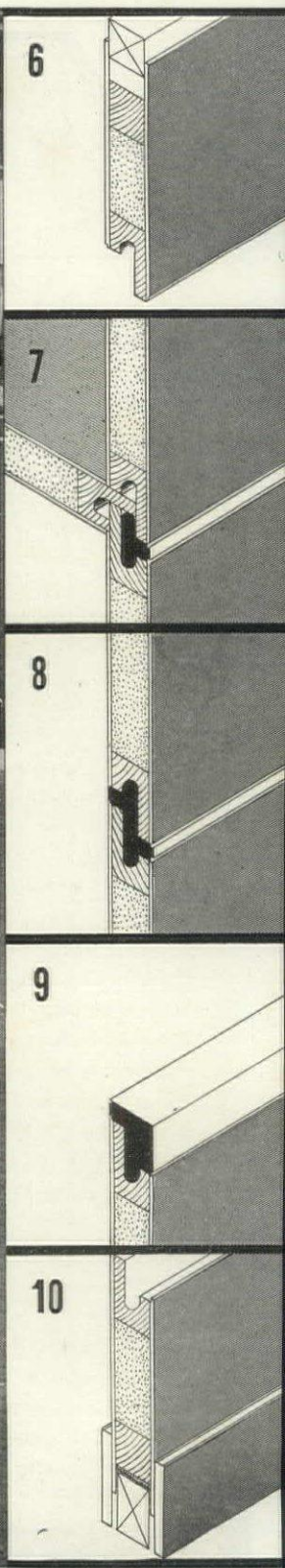
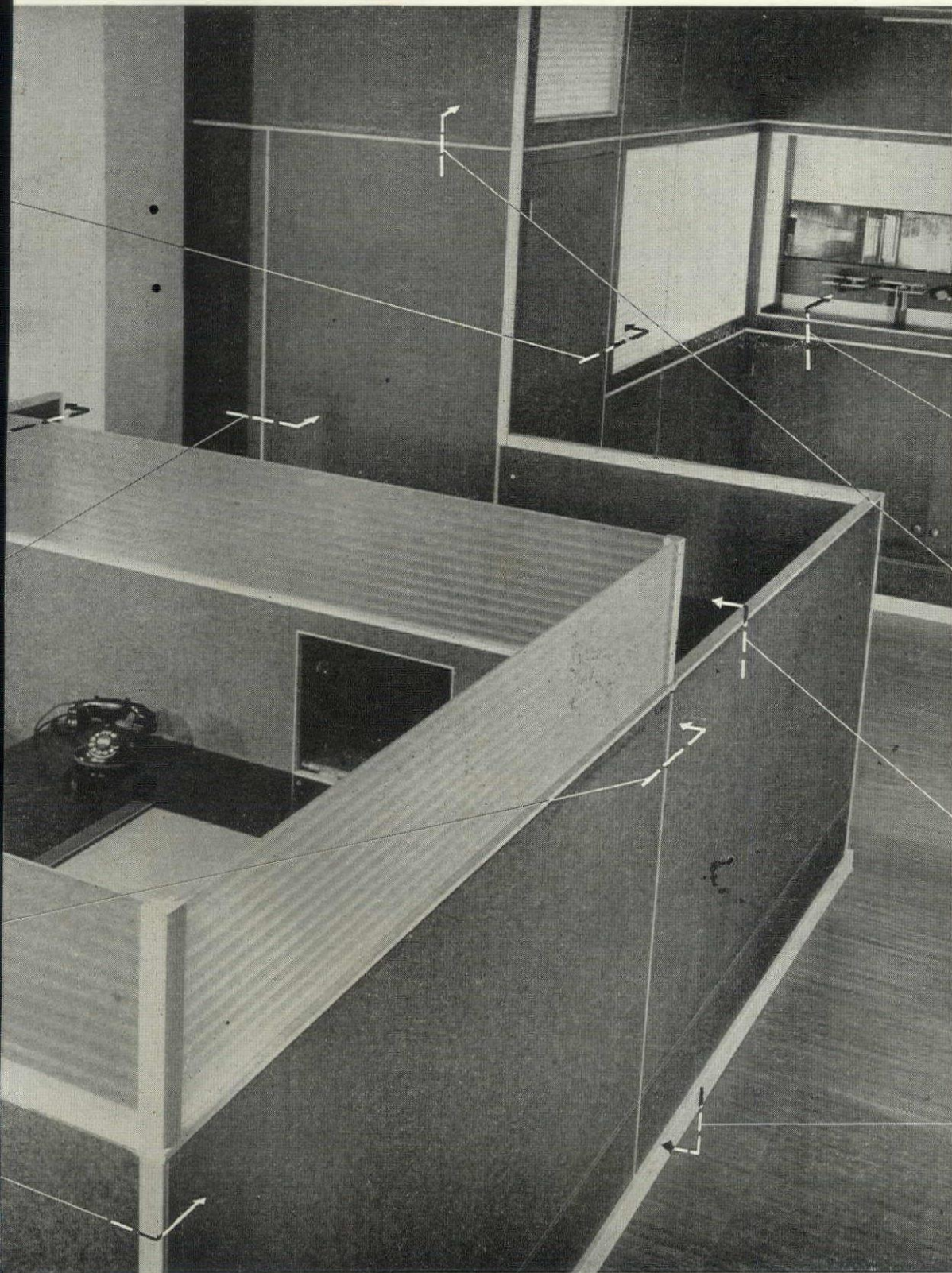






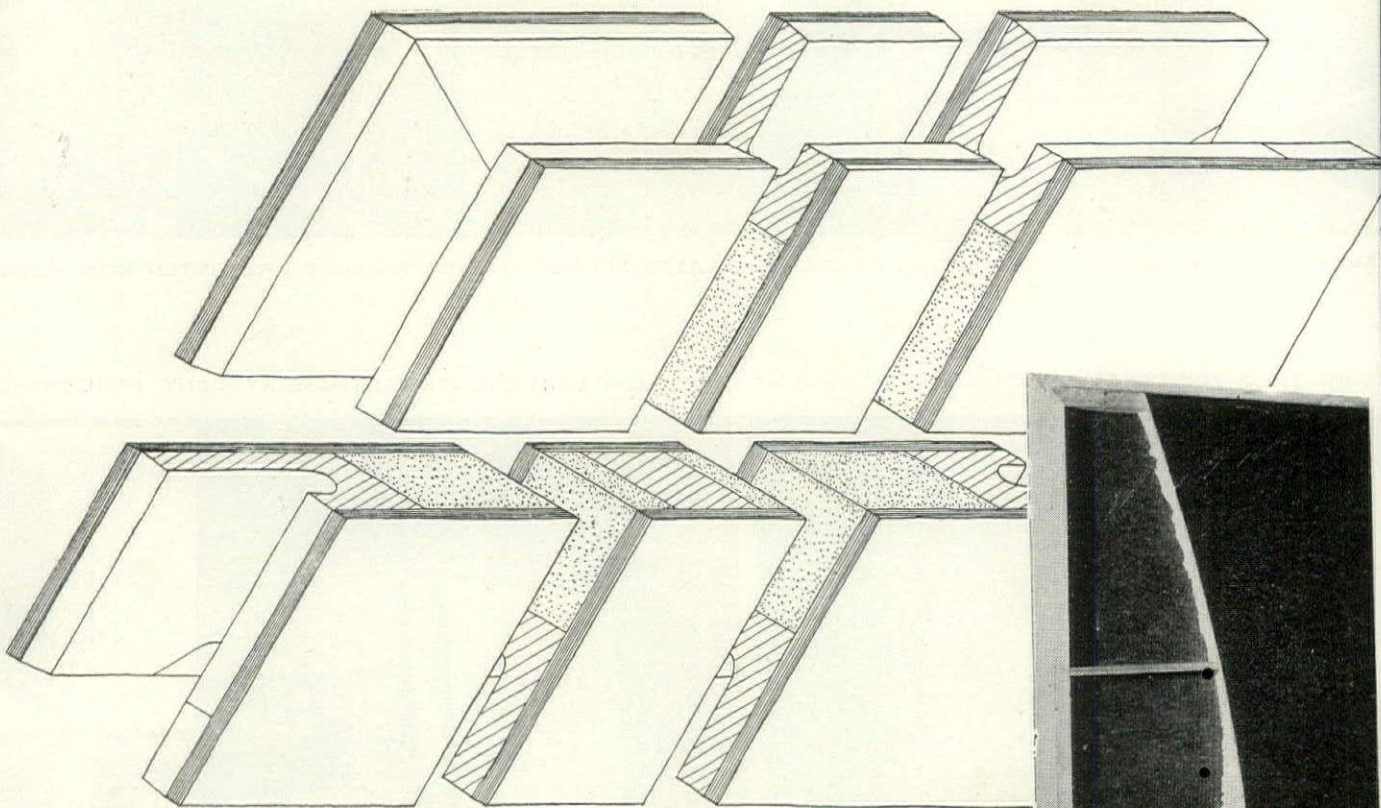
ALLED NEXT WITH WALL RAIL ACTING AS SPLINE. GLAZED SECTION AND DOOR FRAME ARE FITTED INTO PLACE

CONDITIONS FOR PANEL CONNECTIONS. DETAILS AT LEFT SHOW VERTICAL JOINTS; THOSE AT RIGHT, HORIZONTAL



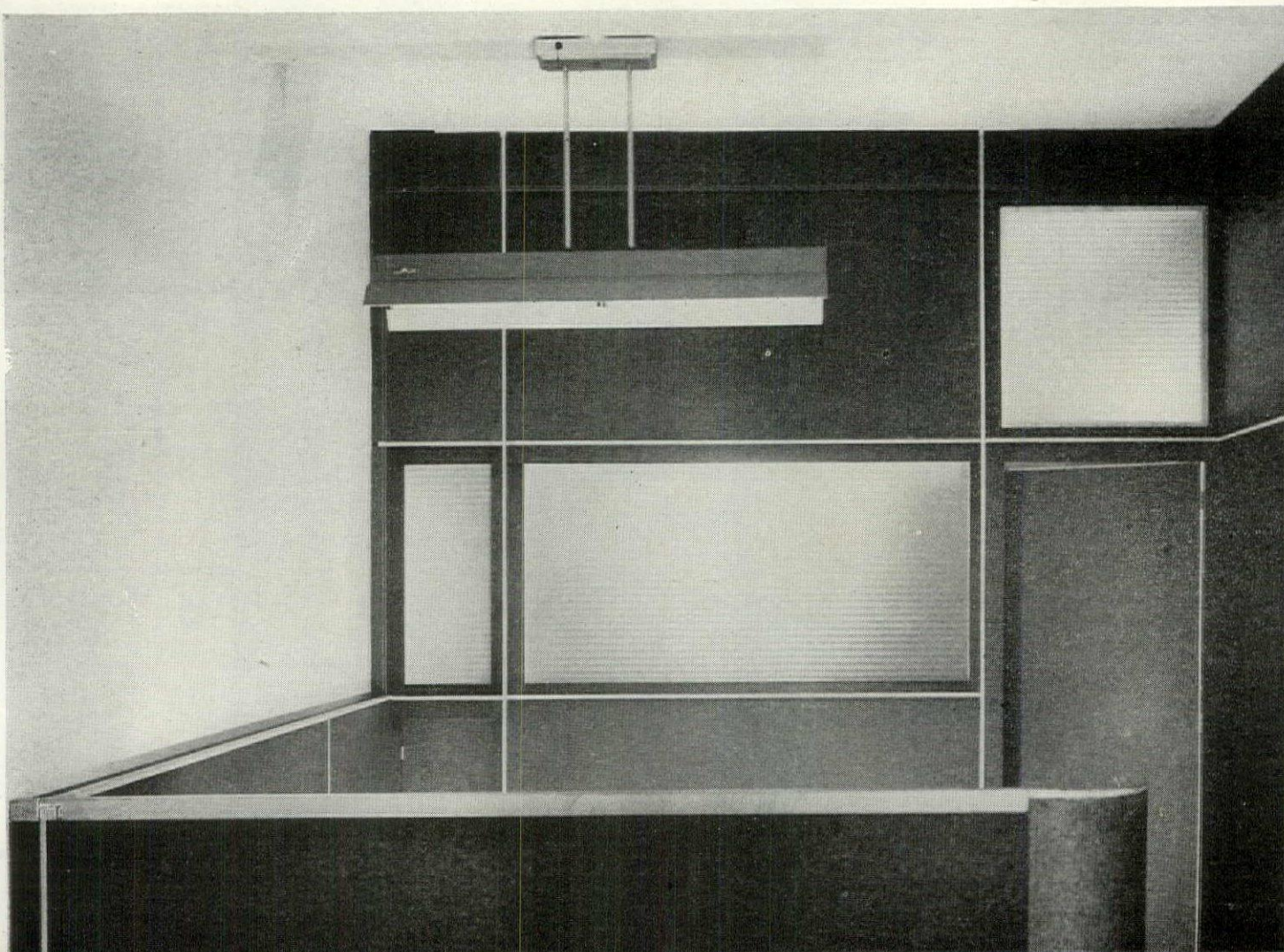
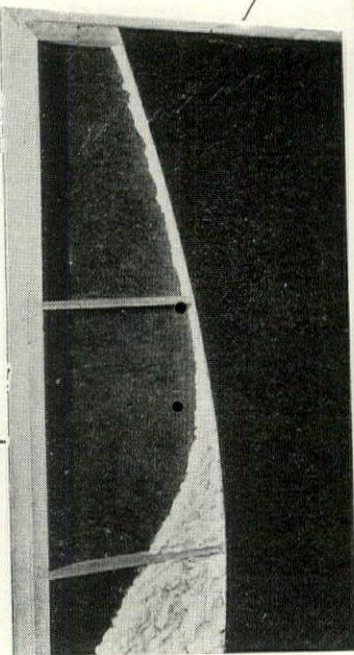
Rudy Bleston





**TYPICAL SECTION** through standard-size panel shows groove around all four edges. Stiffener can be seen at center. Mineral wool insulation fills space between surface materials, which extend flush with panel edge.

*Rudy Bleston*







## TVA WATTS BAR STEAM PLANT

Designed and constructed by the engineering and architectural staff  
of the Tennessee Valley Authority.



Just after the fall of France, TVA's Chairman Dave Lilienthal took to Washington a one-page memorandum outlining proposals for the building of additional electrical supply plants for national defense. Opponents pooh-poohed it, said the war would be over before the program could be carried out, that it was just another TVA scheme to get more dams built. But the year in which we produced the greatest number of luxurious automobiles in history saw the memorandum put into effect. Today there are ten new dams completed or nearing completion, most of them already producing electric power for the aluminum plants which were about to shut down for lack of it in 1940.

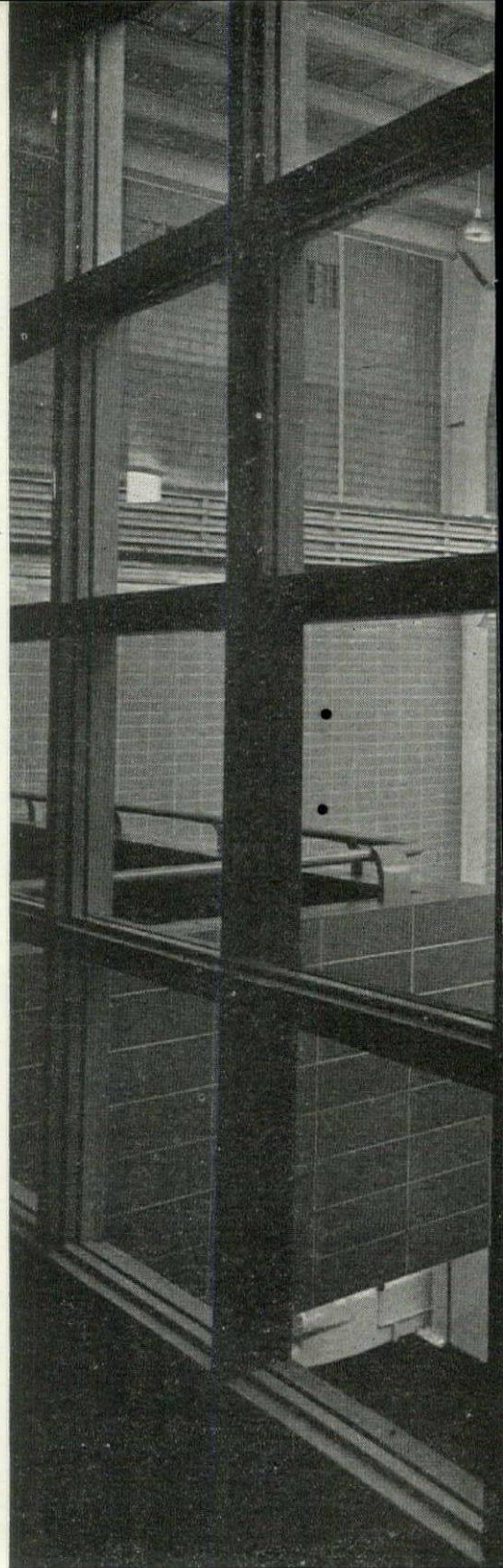
One day's power from the Watts Bar Dam and Steam Plant is now processing enough aluminum to build 31 big bombers. The Dam was completed in 1942; the Steam Plant, although not finished, began to furnish power the same year.

The Steam Plant is about three-quarters of a mile downstream from the Dam, on the right bank of the Tennessee River. It uses large quantities of water from the Watts Bar Reservoir and bituminous coal from nearby mines. Because of the distance from the Dam and Hydro Plant there was no objection to the use of different materials. Brick, colored a light, warm grey to harmonize with the concrete and limestone buildings in the neighborhood, was found to be the most expedient and cheapest way to enclose the steel skeleton structure.

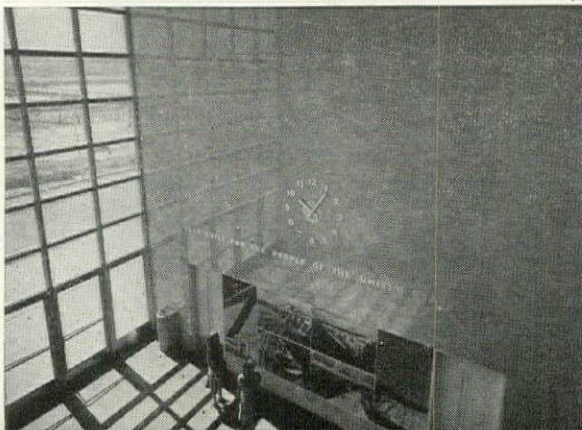
The not-so-novel realization that strictly utilitarian structures can also be beautiful is brought home very forcibly to Steam Plant visitors if they have not already been faced with it in other TVA developments. Another strong impression is created by a view of the generator room, in which the use of permanent finishes and the complete absence of dust and dirt prove that maintenance can be a pleasure to the Operating Department.

**TVA ENGINEERING STRUCTURES** are remarkable for their consideration of esthetics. The Generating Hall (large illustration) is no exception. Generating units are finished in two colors: a light, sharp yellow brings out the curved shapes and a rich tan is used for contrast on the valves and other parts. The vitreous tile floor is grey and structural tile walls are powder blue. All structural steel is light gray and is distinguished by simplicity of design.

**THE EDUCATIONAL SIDE** of TVA's power program is emphasized by provisions for the instruction of the public. Lower illustrations show entrance hall and galleries, from which visitors can look down on plant operations. Photographic murals decorate entrance hall. Large center units on reception room ceiling are combined air-conditioning and lighting fixtures.



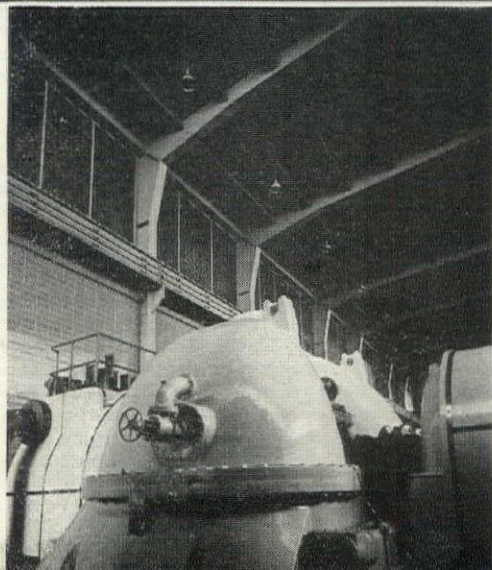
THE POLISHED WALLS OF BUFF-COLORED TENNESSEE MARBLE MIRROR ENTRANCE HALL AND VISITORS' GALLERIES







PUBLIC CAN LOOK OUT TOWARD RIVER FROM UPPER LEVEL





Coal is received at the central hopper building directly from cars or trucks, or by conveyors from the barge unloading dock. After going through a crushing process it is transferred either to the powerhouse hoppers, which hold enough for a day's supply, or to a large storage yard where it is distributed by radially sweeping dragline equipment. The same equipment reclaims it for conveyance to the powerhouse hoppers as required.

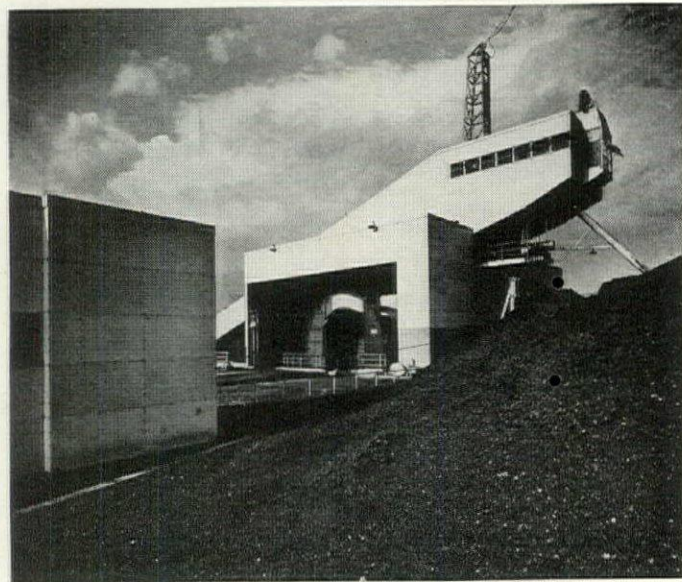
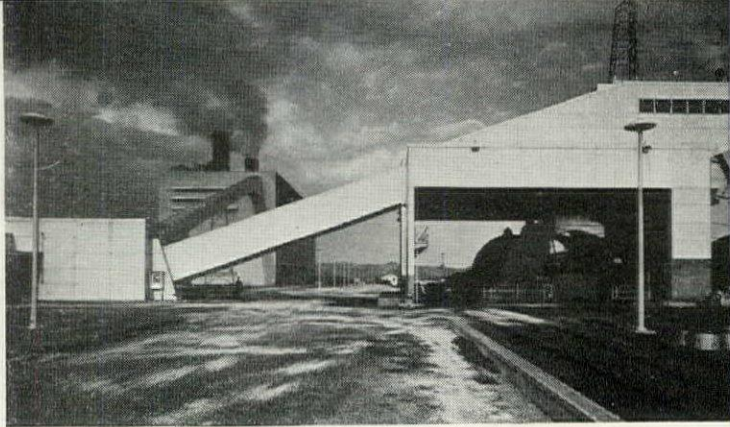
The four boilers in the main building are fired by eight innertube burners, fed by a mixture of pulverized coal and pre-heated air. They rate 600,000 lbs. of steam per hour at a pressure of 900 lbs. per square inch. The boiler house has practically no windows. Air is admitted by hooded vents with operable louvers on the inside face. The short smoke stacks are characteristic of modern steam plants, in which the draft is artificially induced.

Massive concrete foundations support the heavy equipment and structure loads. In the generator hall each unit stands on its own foundations reaching to bed-rock, marked off on the floor by steel-faced expansion joints. A fourth generating unit, which does not appear in the illustrations, is now being installed.

The completion of Watts Bar marks a ten-year anniversary for TVA. Visitors, passing along the projecting inspection gallery between glass and steel partitions, and looking down on this great source of power, may remember the controversy which greeted the announcement that the Authority was to sell electricity at wholesale. But this episode is now history. TVA's entry into the power business marked an addition to its well-publicized program of erosion, flood and malaria control, navigation aids and recreational activities. It heralded a large-scale development of industry in the Valley, cheap freight rates to get the goods to market, new processes, hundreds of new products and employment for thousands of people. Watts Bar, an instrument of war in 1944, can be the agent of still greater industrial and business growth when the time comes to produce the goods of peace.

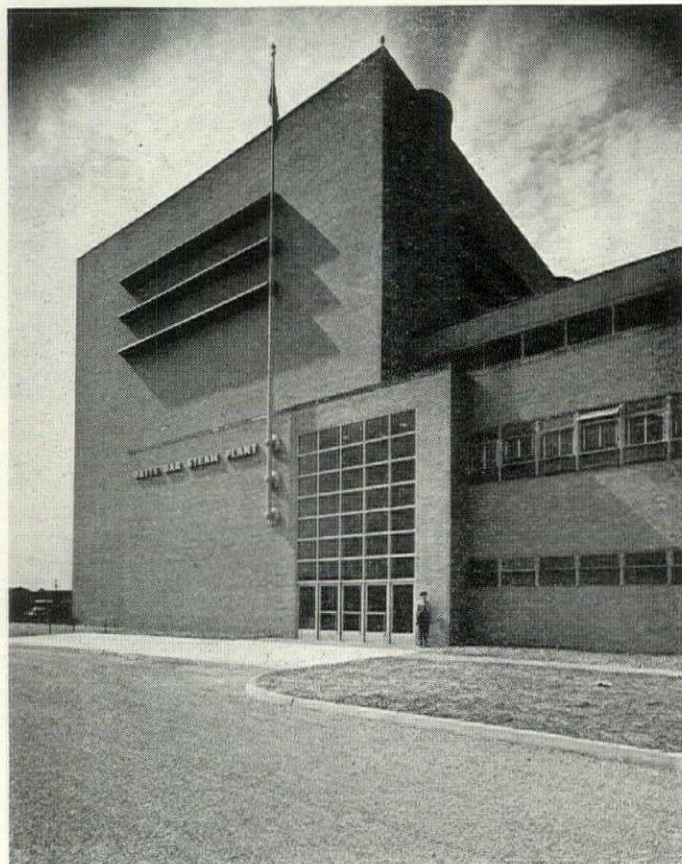
**SHEETS OF ASBESTOS CEMENT** are used as facing on the hopper, coal storage control building and overhead conveyor. Above ground section of hopper is a large shelter for gondola cars, which are turned upside down on reaching the interior and dump their loads. The control cabin projects over hopper shed. Bottom photo shows entrance to public reception room, marked by a tall flagpole. To right are machine shops and above these are offices and laboratories. Fenestration is continuous, the structural columns being divorced from the windows. To left of entrance are workmen's locker rooms and showers. The different functions of the building are well expressed in the design.

**NINETY FEET ABOVE GROUND** and 30 ft. below, the boiler house is tall structure shown in top illustration on opposite page. In front of it is the generator wing, lighted by a continuous wall of glass block around upper periphery. Lower photograph shows horizontal metal hoods, a characteristic feature of the boiler house. On left side are two employee entrances and between them is a band of windows consisting alternately of glass block and operable sash. Exterior facing of both buildings is warm grey brick.

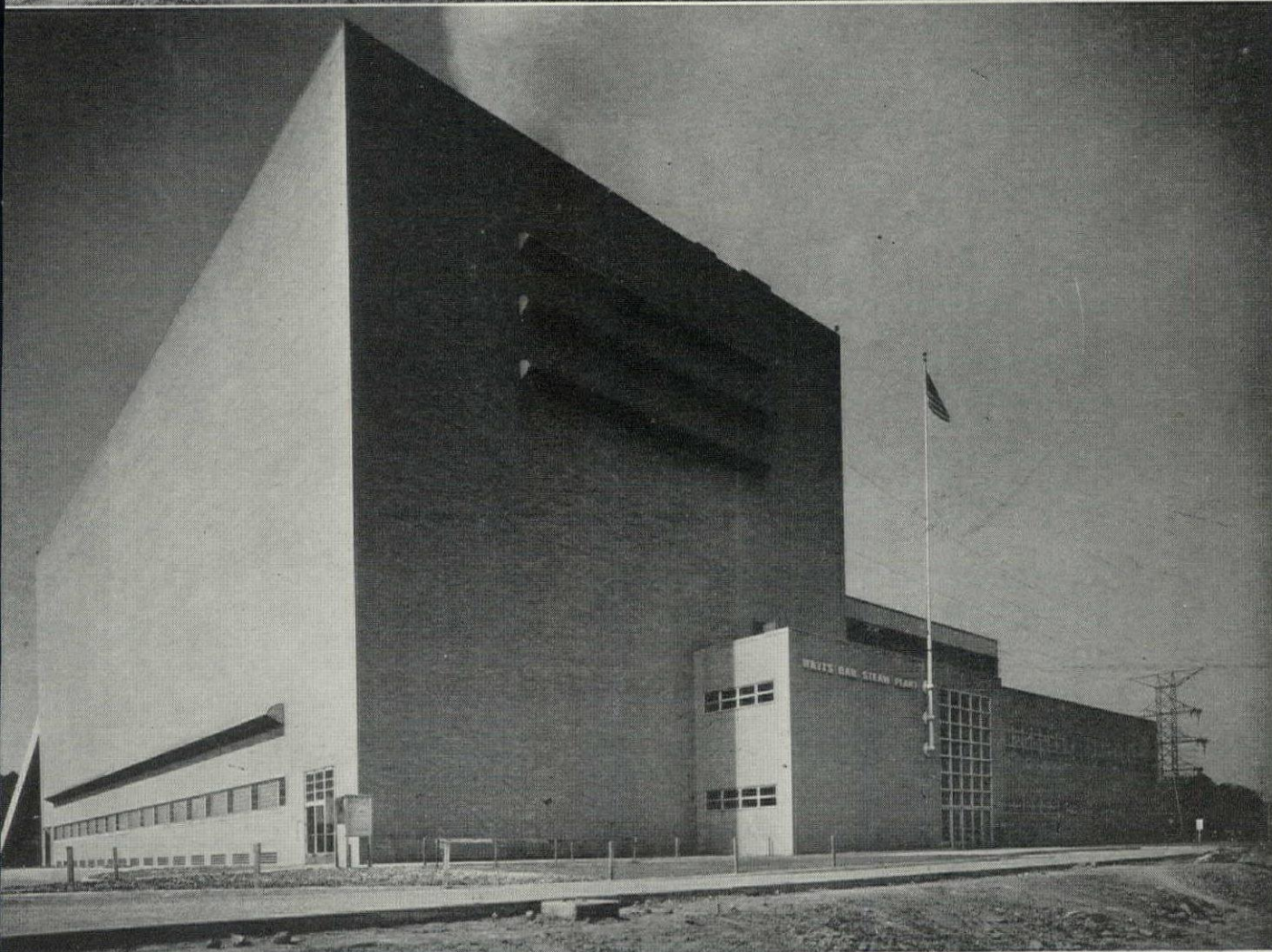
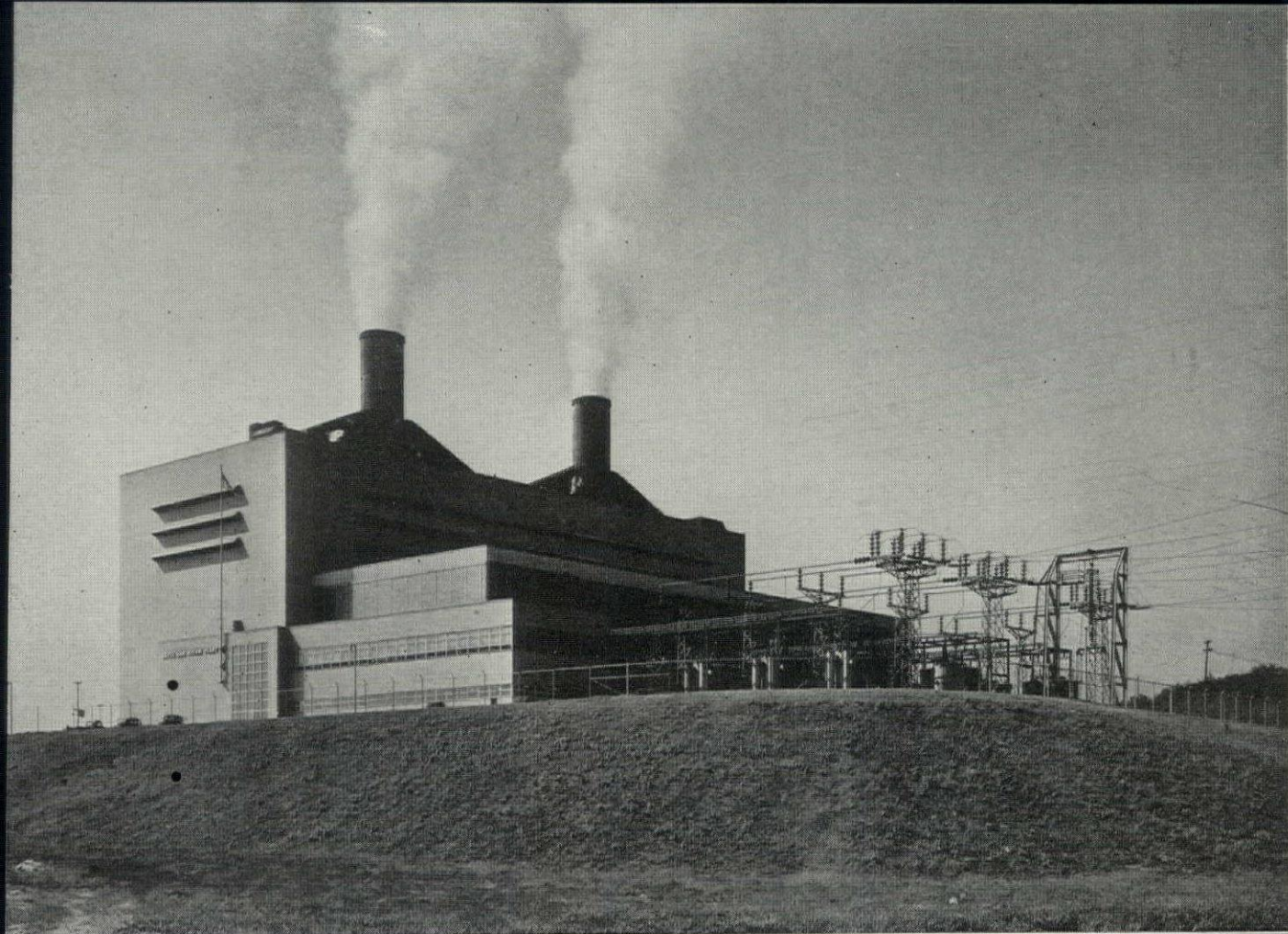


HOPPER AND STORAGE CONTROL BUILDING HANDLE COAL

GLAZED WALL ACCENTS PUBLIC ENTRANCE AND LOBBY













# LIVING MEMORIALS

How shall we honor our war dead? Two prominent Americans, Archibald MacLeish and Charles D. Maginnis, inaugurate a discussion of this question — a discussion which will become more insistent throughout America as victory approaches. In no sense a debate, the views here presented should clarify the issues at stake in deciding upon the proper tribute. These provocative studies will be followed by others in which we hope our readers will participate.

## THE WAR MEMORIAL by Charles D. Maginnis

- **L**ET me concede in the beginning, for it may be detected, that the judgment of an architect as to the medium that is most eloquent of men and events is not necessarily of consequence. He has an obvious bias in that, like Sir Christopher Wren, he is more or less innocently occupied in developing memorials of himself. I am asked, however, out of that general perversity that pushes the most obvious and respectable principles into controversy, to express my views on the rationalities of memorialization. It would not surprise me if, in the eccentricity of modern thought, we were finally confronted by the principle that people and things were better forgotten. The new philosophy of architecture has been preparing us for the idea. It has no provision for enduring things, no solicitude for posterity. The past already is dismissed as a distraction and a tyranny and only the passing hour is of consequence. In their turn the generations will henceforth make their fleeting imprint upon the sands and the little men and the big will be submerged in the heightened tempo of evolution. Time may vindicate the prophecy in this, but the habit of mankind is not easily diverted.

From the beginning of history the world has relied upon the vividness of architecture for its solemn testimonies. It was Victor Hugo who ventured the prediction that the printed word would displace the building as a witness of civilization but man has obviously not lost the instinct for the physical symbol. A vast literature testifies to Napoleon, but it is only in the rotunda of the Palais des Invalides, as we contemplate his great tomb, that the man actually comes poignantly to the imagination. The controversy over the national memorial to Lincoln is still recent history. How should the nation voice the sense of his significance? Out of the conflict of opinions, two methods finally emerged to challenge the consideration of the Congress. One of these was a proposal to construct a great highway across the continent. The other took the shape of an abstract monument. I recall the character of the arguments. It was protested against the highway that it would be impossible to preserve the dignity of such a thoroughfare or to hold throughout its course the solemn implication of its label. It would be blighted by billboards and the assaults of that offensive and fugitive commerce which feeds upon the casual passerby. Amid such disturbances the traveler would easily lose the sense of Lincoln. The case against the monument on the other hand was rested on the epigram that a log cabin was more befitting Honest Abe than a Greek Temple. The monument was built. Admittedly a work of rare architectural scholarship, of grave and sensitive beauty, its only critics are the



philosophers of modernism who find offense in its reactionary style. The merit of this criticism which is debatable is obviously not relevant to the present discussion. What is triumphant in the concept is its absolute preoccupation with its theme, the integrity of its symbolism.

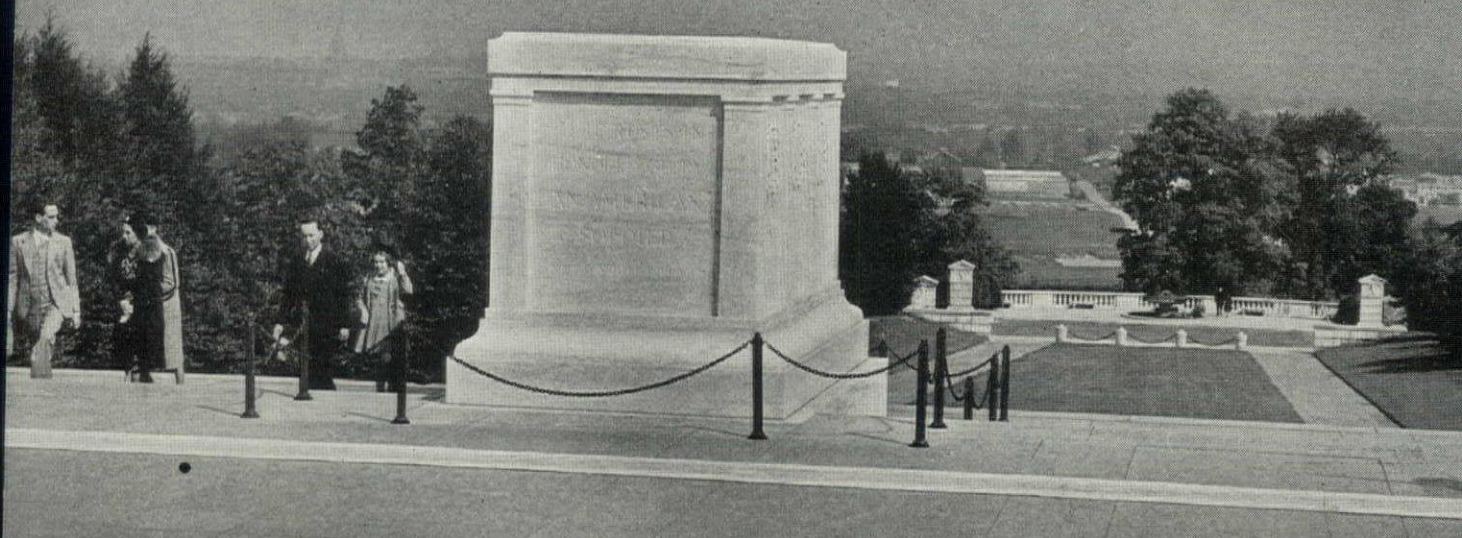
It is significant of the same principles that the thought of Washington is more definitely excited by the obelisk on the Mall than it is by the city itself. To the citizens of Boston the mention of Washington Street evokes only the vision of Jordan Marsh Company and not one in a thousand knows the dedication of the Charles River Embankment. Every visitor to London is struck by the immediateness with which the Cenotaph in Whitehall draws upon the reverence of the British public. Yet it is only architecture. The Arc de Triomphe in Paris in an extraordinary degree had this emotional and vivid faculty even before the sarcophagus of the Unknown Soldier gave it its particular poignancy. And here let us not miss the significance that so sophisticated a nation as France should have resorted to the perpetual flame as a spiritual expedient.

It is not suggested that architecture as an instrument of the memorial intention has always served the cause of historic truth. Indeed its capacity to minister to the vanity of tyrants was never neglected from the days of the pyramids. It is related that Rameses the Third was so solicitous of his posterity that he referred to it not only his own accomplishments but appropriated those of his predecessors. The kings and emperors of old were not given to blushing at their fame. They shaped the laurels to their own brows and summoned the architects and the sculptors. Trajan and Constantine and Titus Andronicus and the rest were not unmindful of themselves when they reared the great triumphal arches to the glory of the Roman arms. This egotism is familiar even in democratic atmospheres but it is now compelled into more cautious enterprise. Nowadays the people identify their own heroes. Out of the present international drama ideas and personalities will emerge that are bound to exact a formal acknowledgment even if machinery be the determining instrument of the issue. The picturesqueness has gone from war which once inflamed the imagination of the epic poet. It has become a sinister and hideous business that must be outlawed if the world is to be saved from a final madness. A realistic student of modern warfare, Major de Seversky, says "As one who has observed the science of annihilation at close range, I dare predict that 'the next war' will not merely bring more destruction than this one but destruction of a new kind applied on an unprecedented scale and against every living thing on earth. The nations hold in their hands scientific force capable of blowing civilization to bits." That Science must be brought directly to the service of humanity is an idea which the American soldier may not be unmindful of as he makes his thoughtful journey home. No one may predict the national mood in which we shall remember what has happened nor the precise spirit in which we shall cast memorials. If providentially the promise be bright for such a peace as responds to the prayerful hopes of decent men the gratitude of the nation would overflow to those who made it possible. In that event we shall be at no loss to find the felicitous symbols. Patriotism, however, will be no less active an emotion, however genial may be the ways of its manifestations. Whatever shape they take, however, our war memorials will be convincing only if they embody the spiritual principle. Conceivably in a new tenderness they may take the forms which withdraw our minds utterly from the memory of war. But it would be dangerous to indulge so secular a temper till a peaceful world is convincingly established. Peace has become so (Continued on page 166)

Photo: David Sherman

Photos: Left, British Combine. Right, Collection "Temoimage."



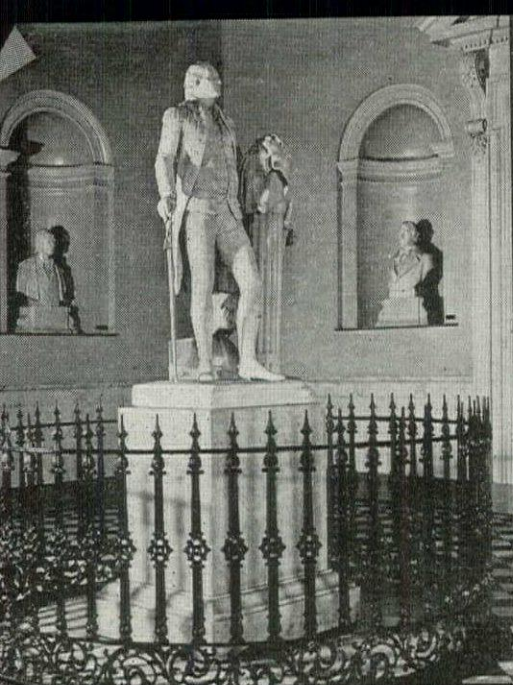


AMERICAN TOMB OF THE UNKNOWN SOLDIER IS IMPRESSIVE MORE BECAUSE OF ITS ASSOCIATIONS THAN ITS BEAUTY OF DESIGN

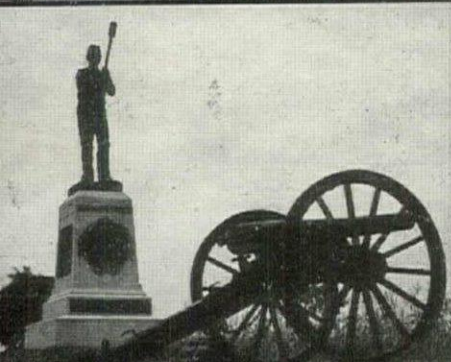
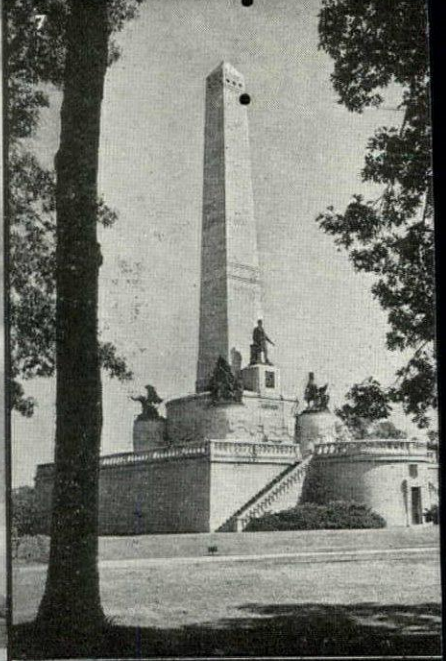
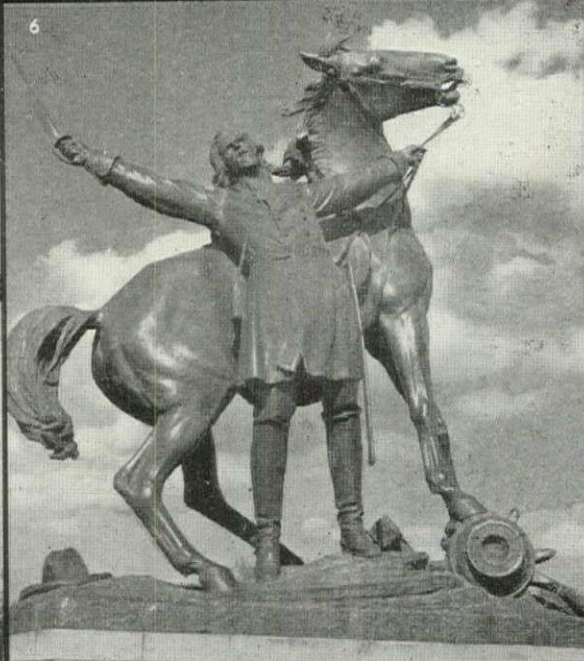


BRITISH CENOTAPH AND FRENCH TOMB, SIMILAR IN DEDICATION TO OUR OWN, WERE PLACED ON ALREADY HALLOWED GROUND

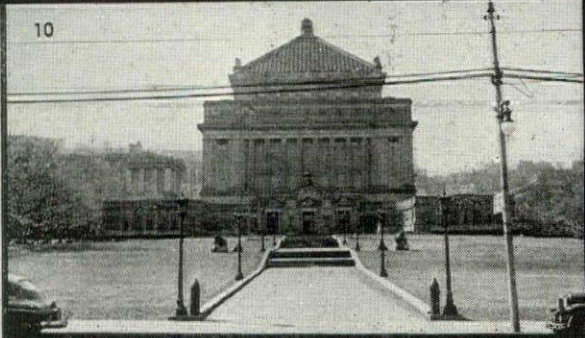
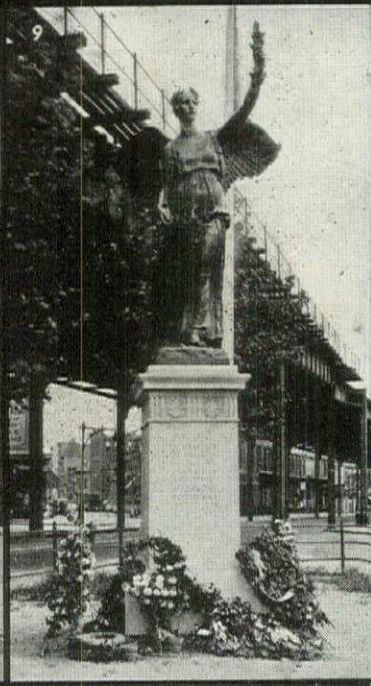
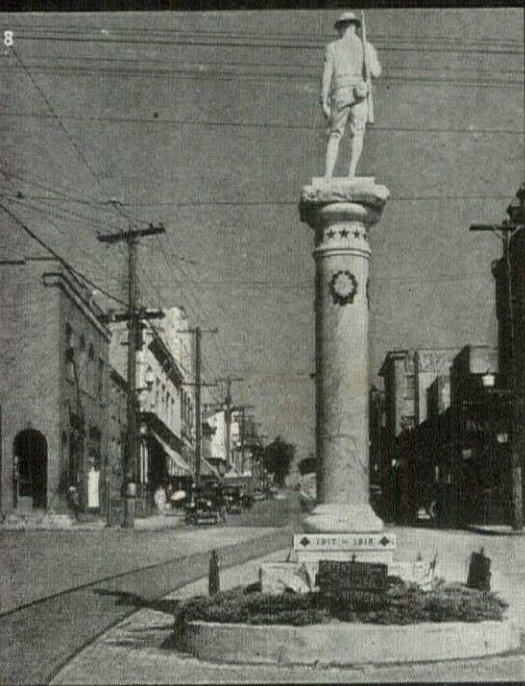




MONUMENTS INSPIRED BY AMERICAN REVOLUTION ARE MORE DIGNIFIED THAN THOSE THAT COMMEMORATE SUBSEQUENT WA



CIVIL WAR STATUARY REVELED IN REALISM. MONUMENT TO LINCOLN IS REMINISCENT OF BAROQUE WASHINGTON MEMORIAL ABOVE





THERE was an argument after the last war about war memorials. Some people thought we should build memorial hospitals or memorial schools instead of memorial statues. They argued that the hospitals would be useful whereas the statues would merely be statues. It was a question of mathematics. A hospital would be a memorial plus a service to the community. A statue would be a memorial and nothing more. Therefore, a hospital was superior to a statue.

I hope that debate will not be renewed after this war—or that, if it is renewed, it will be renewed on a sensible issue. The question is not whether a useful memorial would be more useful than another. The question is whether a useful memorial would be better.

Which means, better *as* a memorial. No one doubts that structures can be built and called memorials which will be of use to the community. What some people question, and question seriously, is whether the added usefulness of a hospital or a library or a school or an auditorium is an advantage when the object is to construct, not a library or a hospital, but a memorial to young men killed in a war.

They have a right, I think, to an answer—and to an answer on their own terms. They have a right to an answer even when they use the debate to beat dead donkeys, demanding to know whether we are now so dependent on functions to create forms that, where there are no functions, we are obliged to invent them. The real question in issue, whether we like it or not, is precisely the question they raise. The real question in issue is whether a memorial structure which serves a utilitarian purpose will be better or worse *as a memorial* than a structure which has no purpose but the purpose of commemoration.

But what, then, is a memorial? What is it for? What is it supposed to do?

I should say, for myself, that the purpose of a memorial is to make the minds of men remember. It is a structure built by the living not only to honor the dead but to keep the names of the dead, and of their deeds, alive. Which means, of course, to keep them alive in the minds of generations which had not been born when these battles were fought and these dead died.

I say “for myself” because there are intelligent men who take a different position, arguing against the traditional war memorials on the ground that the people of America do not think of the dead when they build, but of the living. They argue that American civilization is free of the regard for the dead, the regard for the past, which has occupied the minds of earlier civilizations, and that American architecture is an architecture indifferent to the monumental and memorial forms which have characterized the architecture of other peoples. I do not believe them, and I do not think the position can be supported on these grounds. A great people, now as before, is a people in which the sense of the past has become the sense of the future: a people in which the sense of history has turned its face about to become the sense of destiny. And the architecture of a great people is an architecture which not only works but speaks—an architecture able, in its supreme expressions, to turn the people’s past into their purpose.

But whether or not they are right in theory and aesthetic, those who take this view are wrong in fact. The American people *will* be thinking of their dead in

Hendon statue of Washington in Virginia State Capitol. 2. Equestrian statue of Washington at entrance to Capitol building, Richmond, Va. Photos: 1. and 2. Richmond Chamber of Commerce.

3. Civil War Monument. 4. and 5. Memorials at Gettysburg. 6. Vicksburg Battlefield Monument. 7. Springfield, Ohio's tribute to Lincoln. Photos: 3. Ewing Galloway, N. Y. 4. Black Star. 5. Neal Haas, Black Star. 6. FSA. Walker Evans. 7. Alfred Eisenstaedt-Pix.

8. Small town Memorial, World War I. 9. One of many World War I monuments in New York City. 10. Soldiers and Sailor's Memorial Hall, Pittsburgh. 11. Bridge Square, Northfield, Minn. Photos: 8. FSA. Walker Evans. 9. Presbrey-Leland Studios. 11. Erling Larsen.



this war when they raise their memorials, and the structures they build will be commemorative structures: or will be so intended. One may quarrel with the intention, but one can hardly deny that it exists. And neither, I think, can one deny its sincerity. I have seen arguments for "useful" memorials which came close to scepticism on that point, and even to open cynicism. I have seen it broadly hinted that the desire of the citizens of American communities to remember their dead should be so molded and managed that it would become a desire for something which would be "better" for them than a mere memorial would be. Find out what the town needs most, and get the people to make a memorial of that! Make this sentimental monument-building serve a useful purpose—something the town will be glad to have fifty years from now when the war is forgotten—and the dead are forgotten!

But, of course, it is precisely to keep the people of the town from forgetting the dead and forgetting the war that the memorial is to be built. To turn it into something else which cannot keep the memory of the dead alive is to cheat the town of its dearest hope. And the cheat will be no more excusable because a bronze plaque to the left of the front door, or a marble panel by the drinking fountain, calls the building a memorial. Unless it is in fact and in truth a memorial, affecting the minds of men as a memorial should affect them, the structure will fail to do what it pretends to do. There is a word for failures of that kind whether in business or in art.

But to say all this does not mean that there is no proper relation between the usefulness of a structure and its adequacy as a memorial. Of all categories of art, the art of the people's memorial to their dead is, or should be, the most democratic, the most general. It exists for, and it should speak to, every man and woman and understanding child. It should be seen even by those who do not wish to see it—even by those who would like to forget that men have suffered for belief before and may again. It should be a part of the consciousness of the people, a part of their recognition of themselves, a presence in the minds of all those who have lived in the town or loved it or remembered it, as the smell of the wild carrots is part of the common memory in one place, or the smell of the salt marshes in another, or of coal smoke, or sweet grass, or the sprinkling cart on the asphalt. No child should grow up in the town without knowing it and knowing what it means—not by a plaque or a preachment but by the thing itself.

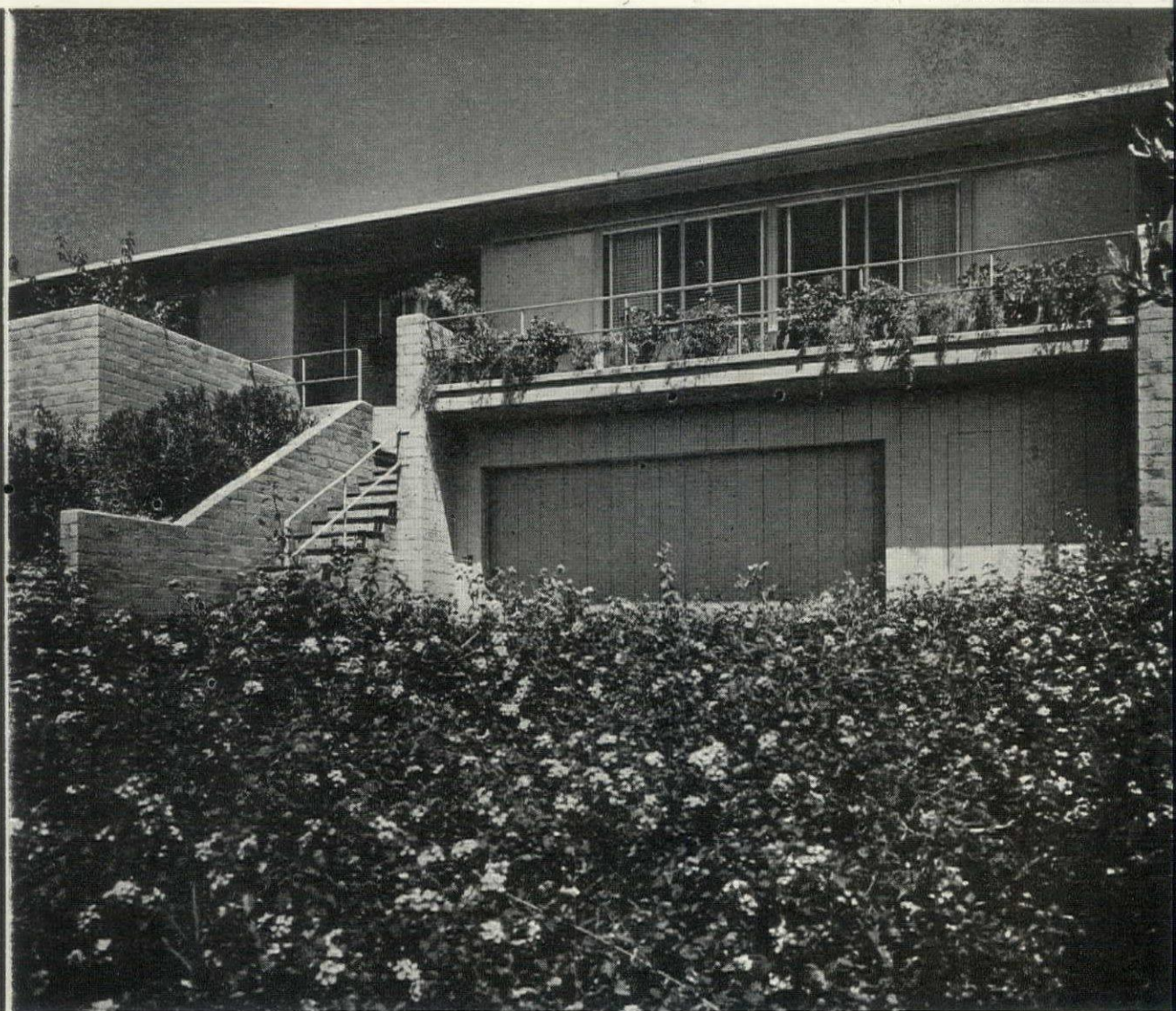
The usefulness of a structure—or, more precisely, its useful relation to the life of the community in which it stands—may relate directly and helpfully to its accomplishment of these ends. In an ideal world—a world in which every town and village could find an artist of genius and, what's more, could recognize him when it found him—the commemorative purpose might be achieved without resort to utility. A great monument is, next to a great poem, the most enduring means to make the minds of men remember. But great monuments demand great artists and great artists are not numerous to begin with, nor, when they do exist, are they always the artists the town councils and the local chambers of commerce select. The practical choice facing most American communities after this war will not be a choice between great monuments and useful buildings. It will be a choice between monuments of a kind which are already far too familiar, and structures which may, by their usefulness, or through their usefulness, make up in part their lacks as works of art.

In that choice utility is entitled to consideration, not as utility, but as an aid in accomplishing what the memorial was intended to *(Continued on page 170)*



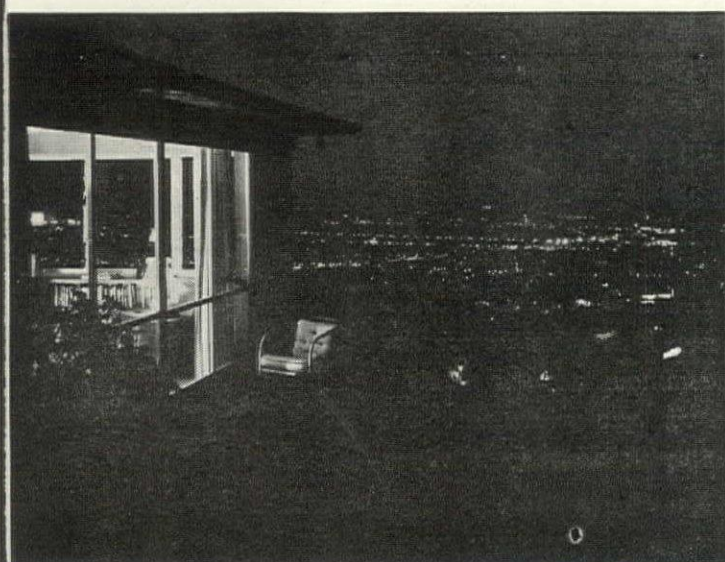
# HOUSES

*Julius Schulman, Photos*

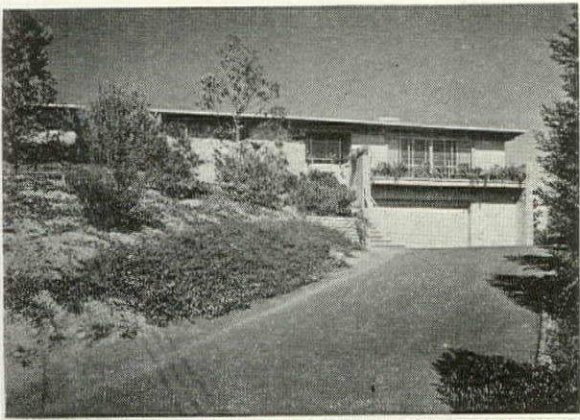


A Hollywood hillside provides the site for a film writer's house overlooking the city with distant views of the Pacific Ocean.

J. R. DAVIDSON, DESIGNER



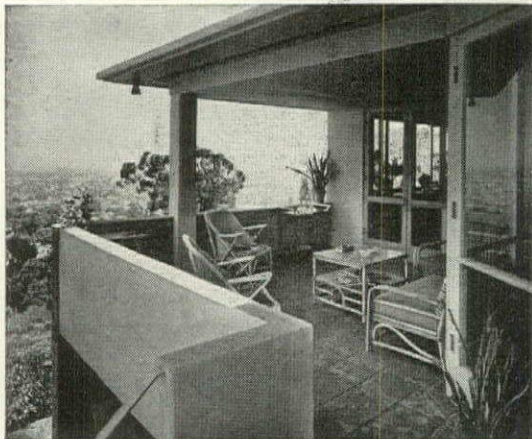




THE HOUSE IS APPROACHED BY STEEP DRIVEWAY



LIVING ROOM OPENS ON CEMENT TILED PORCH

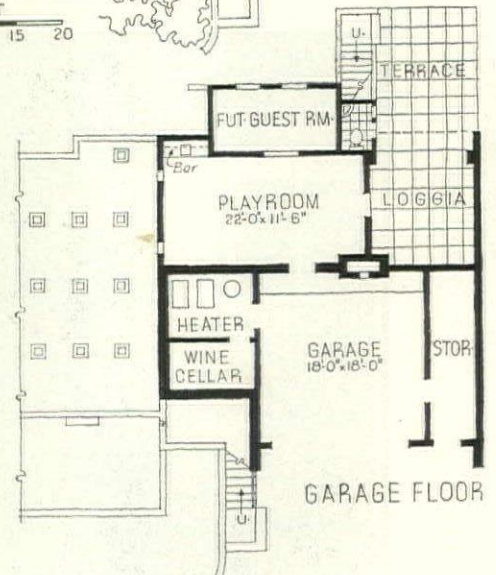
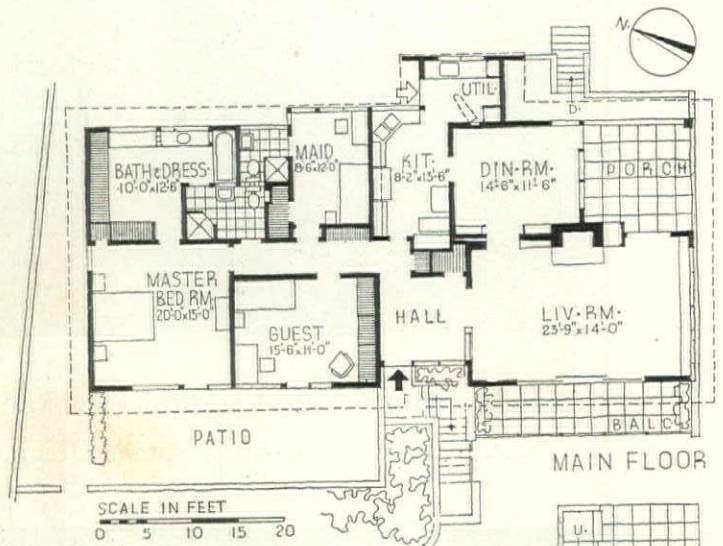


Placing the house on the narrow ridge of a steep hill, the designer took advantage of the natural topography to avoid unnecessary excavation and too many retaining walls. He was careful also not to express excessive individuality in the planning so that the house might be suitable for rental purposes later.

The main rooms, patio, balcony and porch face west and south, while the living room has three exposures. This floor is approached from the front by outside stairs. On the east side other stairs lead down from the porch to a playroom and loggia on the lower level. The loggia has recently been enclosed to form a study.

The general planning is interesting for its solution of the circulation problem. By placing the entrance hall and kitchen between the living and sleeping quarters, all rooms are kept free of unnecessary passage through them and the work of the house, answering doorbells, and so on, can take place without disturbance of the occupants. This arrangement is made possible by giving the plan a depth of two rooms, which adds to its compactness and convenience.

Above its banks of Lantana and other pleasant California flowers, the house has an unassuming horizontality, which is reminiscent of the ranch and folk architecture of the region. The traditional patio has not been forgotten as an addition to the bed and guest rooms and the garage roof has been made use of for a balcony outside the living room.





SON, DESIGNER



ANELING ADDS TO ROOM FINISH



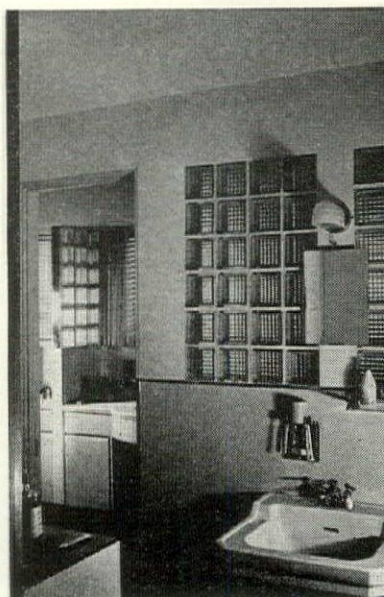
WITH OPEN PLANNING HALL AND BALCONY BECOME PART OF LIVING ROOM  
THE WINDOWS IN LIVING ROOM IS USED FOR CUPBOARDS AND BOOKSHELVES. HEARTH IS FLUSH WITH FLOOR



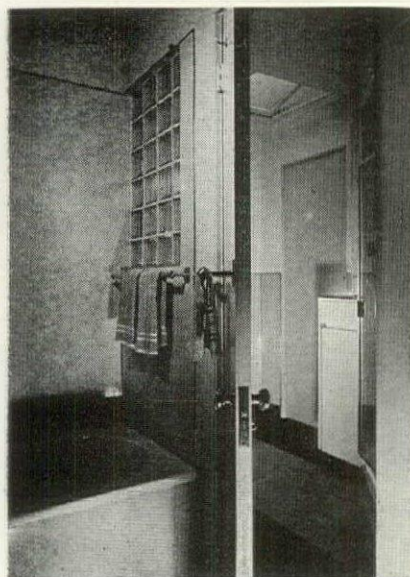




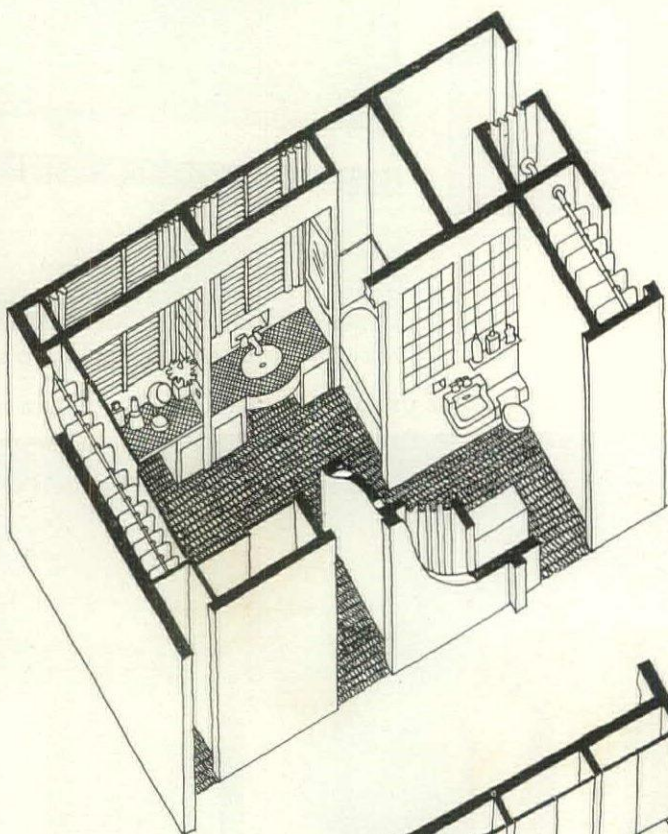
MIRRORED CLOSETS ADD SPACIOUSNESS TO BATH-DRESSING ROOM



GLASS BLOCK LIGHTS INSIDE

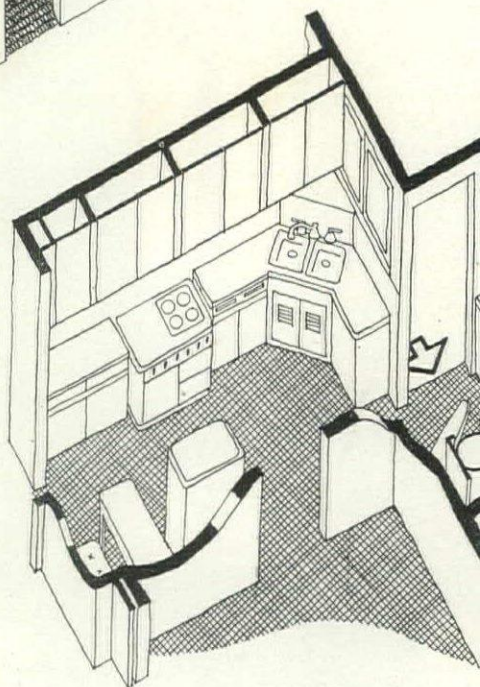


BATH FIXTURES IN DRESSING ROOM

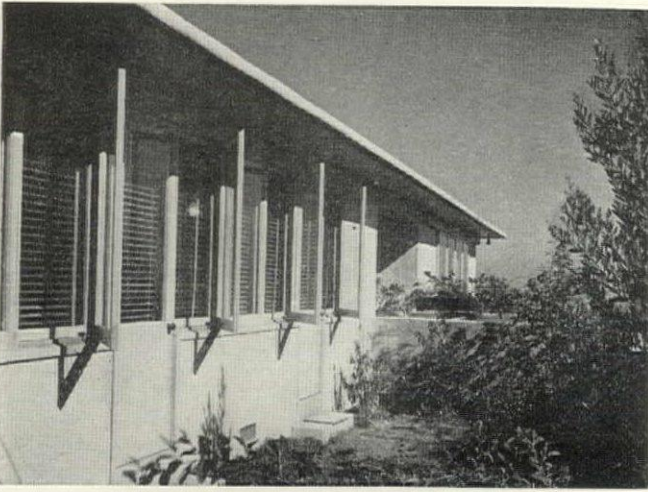


**Isometric drawing** shows master bath-dressing room and shower-toilet facilities for owners and guest. This useful arrangement was obtained by concentrating plumbing and connecting the master bedroom with the dressing room. The toilet can be approached from the dressing room or from the passage.

The angled kitchen opens onto a utility room with laundry facilities, forming a combination especially desirable for small families.







BEDROOM DOORS AT GROUND LEVEL OPEN ONTO PATIO

The position of the maid's shower room next to the guest toilet and shower, with the master bath-dressing room beyond is a unique arrangement which provides a useful interlocking of functions, although there is the possibility of a nuisance from steam in the dressing room. The utility room which is actually an extension of the kitchen has much to recommend it. The working parts of the house were carefully planned for economy in the plumbing fixtures.

A bathroom with shower was later added to the lower level facilities. The toilet and shower plumbing were installed with the house. When the owner married and became a father the guest room was used as the child's nursery.

Including the architect's fee, construction costs were approximately \$8,800.

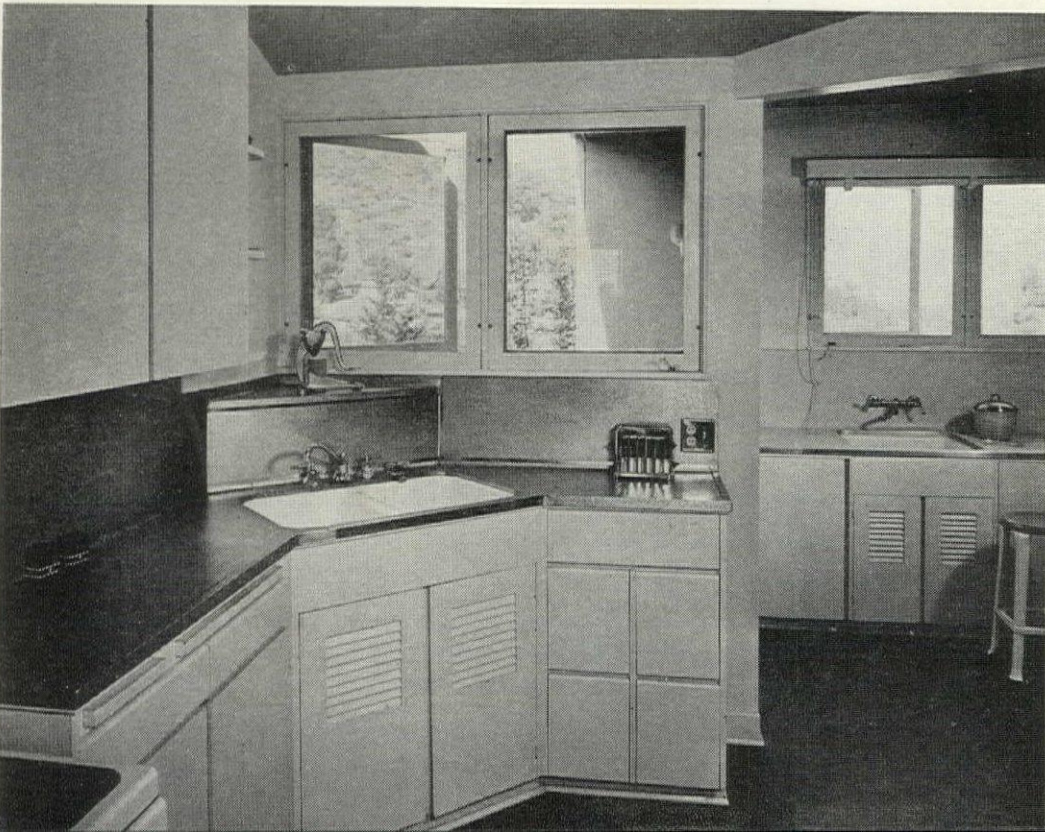
**CONSTRUCTION OUTLINE:** STRUCTURE: Exterior walls—reinforced Groutlock brick, Simons Brick Co., and stucco over wire mesh, studs, Button lath, U. S. Gypsum Co.; inside—interior stucco and plaster. Floors—oak. ROOF—15 lb. felt, 90 lb. mineral surfaced capsheet, Pabco, Paraffine Co.'s, Inc. INSULATION: Attic floor and roof—rockwool, U. S. Gypsum Co. WINDOWS: Sash—wood. Glass—double and single strength, Libbey-Owens-Ford Glass Co. Weatherstripping—General Weather Strip Co. WALL COVERINGS: Living room—white pine paneling and Weldbord, U. S. Plywood Corp. Kitchen and bathrooms—Sanitas, Standard Textile Coated Products Co. KITCHEN EQUIPMENT: Range—gas, O'Keeffe & Merritt Co. Refrigerator—Kelvinator Div., Nash Kelvinator Corp. Fan—Tradewind Ventilating Co. BATHROOM EQUIPMENT—American Radiator-Standard Sanitary Corp. HEATING—gravity gas furnace, Child's Heating Co. Water heater—American Radiator-Standard Sanitary Corp.

GENERAL CONTRACTOR: LE BREA CONSTRUCTION CO.



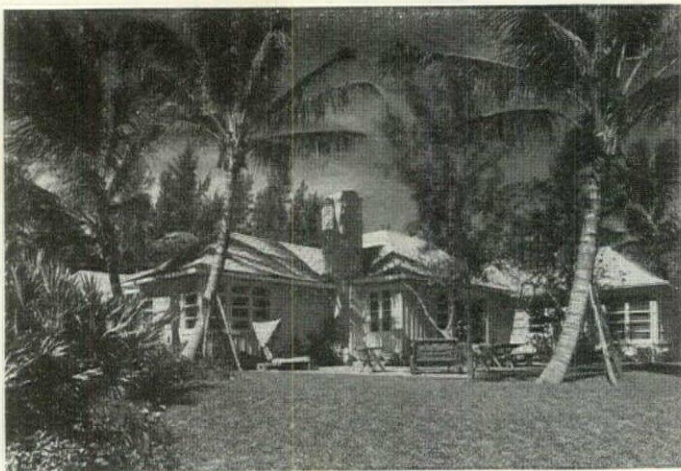
VENETIAN BLINDS SHADE MASTER BEDROOM WINDOWS

KITCHEN VIEW SHOWS NEARBY UTILITY ROOM WITH LAUNDRY AND IRONING EQUIPMENT





HOUSE AT HOBE SOUND, FLA.    Designed for a Pennsylvania family wintering in t



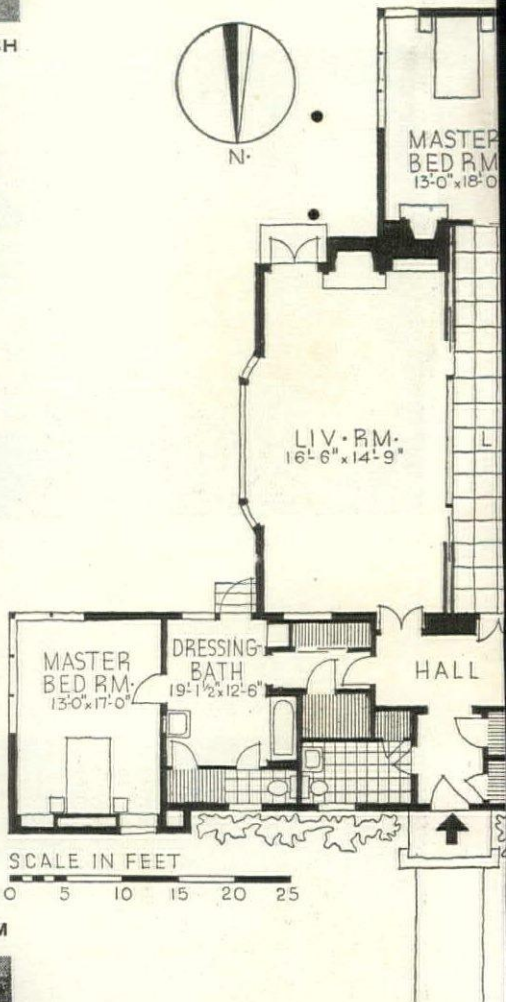
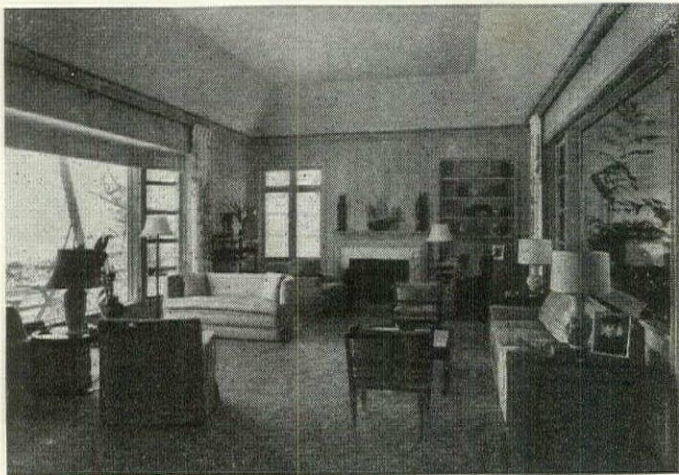
LIVING ROOM HAS ACCESS TO TERRACE ABOVE THE BEACH

Gottcho-Schleisner, Photos



THROUGH PINES AND PALM TREES CORNER WINDOWS HAVE VIEW OF SEA

SLIDING DOORS TO PATIO OPEN FROM LONG LIVING ROOM





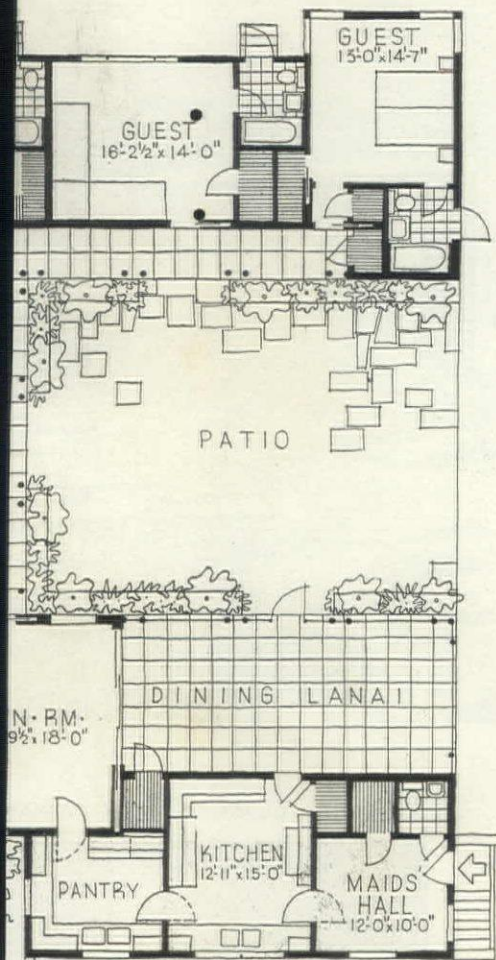
th, this one-story residence was inspired by the local Hawaiian tradition. Architects: Wyeth and King.



LANAI IS OUTDOOR LIVING ROOM, FLORIDA STYLE

The architects of Doris Duke Cromwell's house in Honolulu reclaimed the sand dunes on the beach for this bungalow with its splayed eaves and shady porch terrace. Built of vertical cypress boards and battens, the house is stained silver-gray and has white trim. Corner windows to the south-east combine a wide view of the ocean with ventilation from the pleasant winter breeze. North walls were opened just enough to provide cross-ventilation when desired.

The plan is of the open, patio type, with sleeping and kitchen wings arranged loosely around the central living room, the walls of which are finished in cypress. The bedroom walls are plaster and are decorated with murals of tropical plants. Through trap-doors in the closets, access may be had to the electric hot-water heaters, which are placed above the baths to avoid the necessity of a circulating system.



BEYOND DINING ROOM PROPER IS DINING LANAI

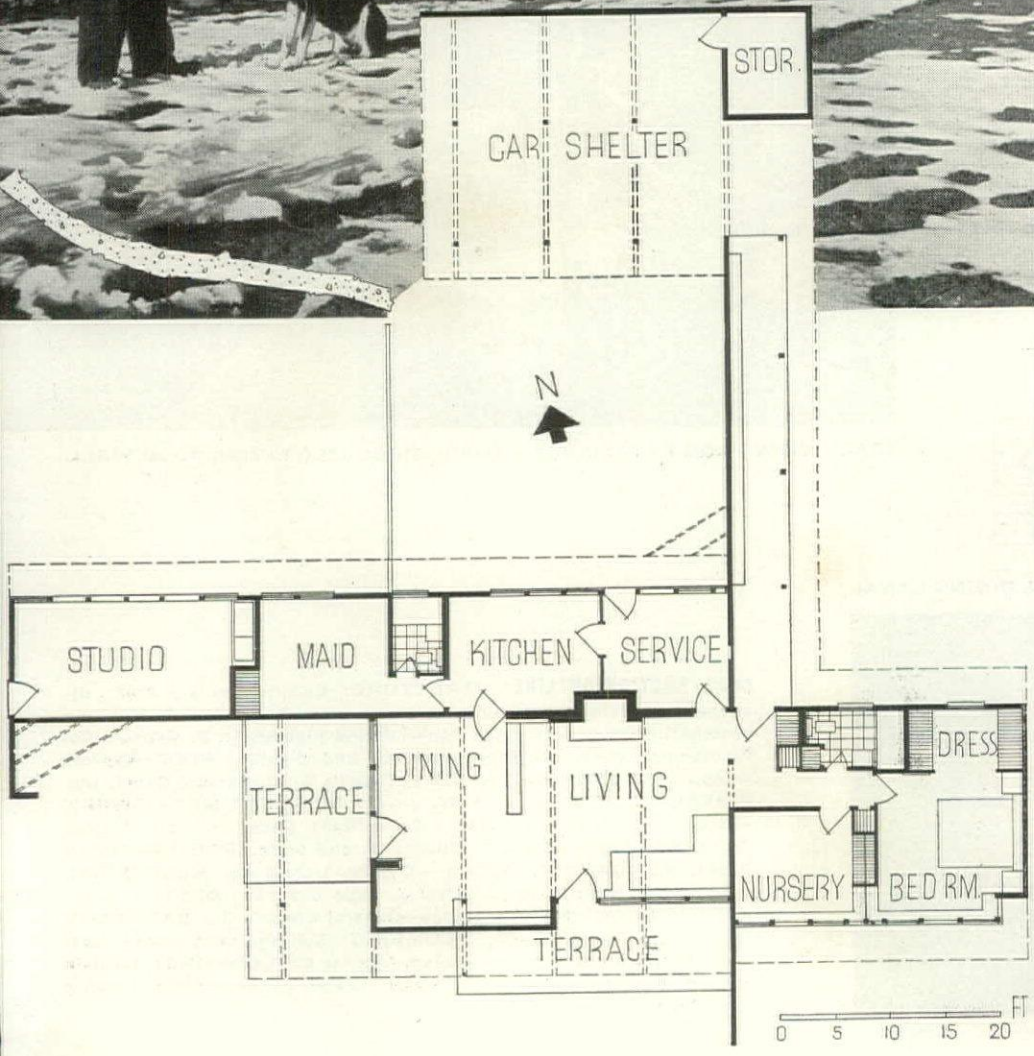
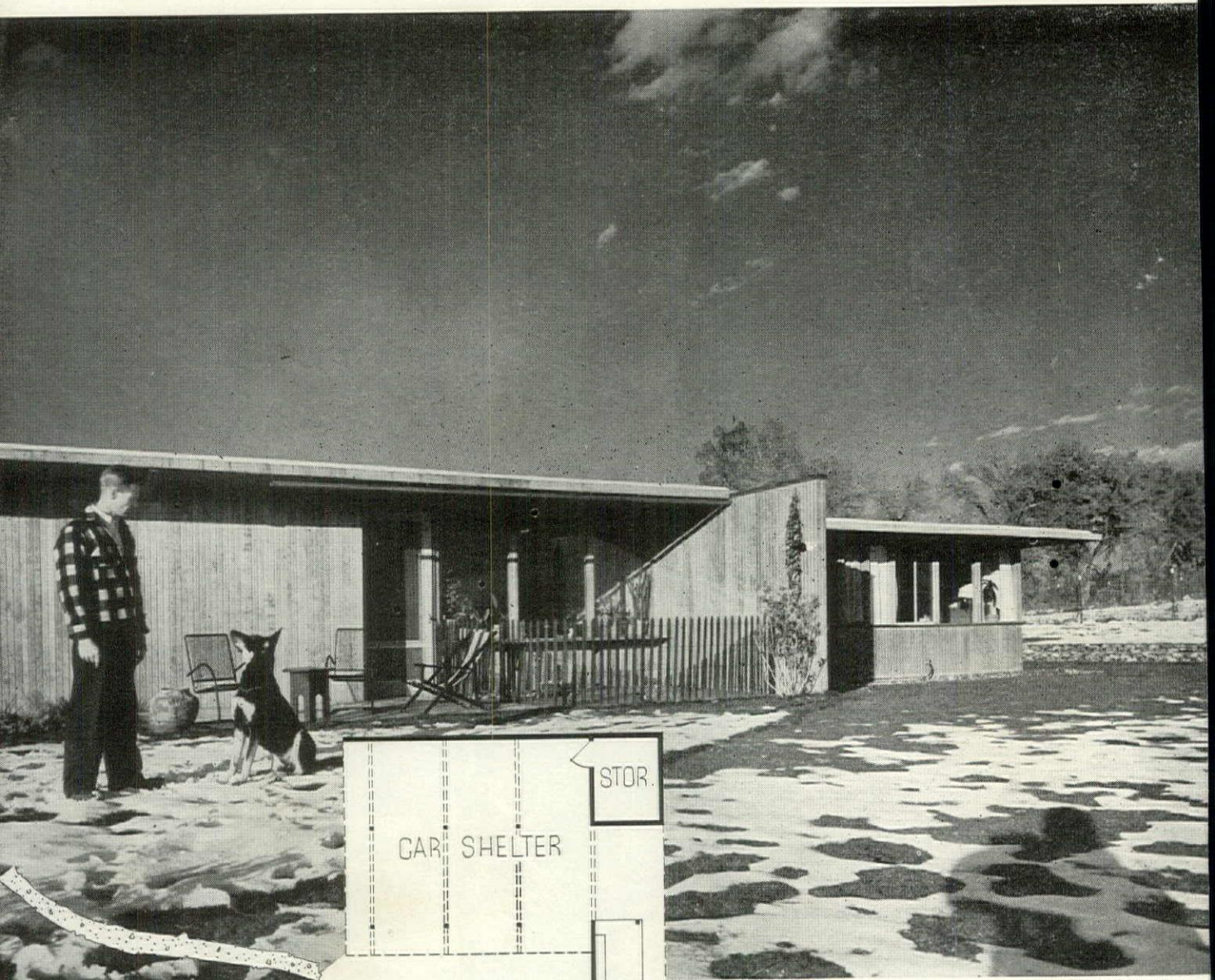


BEACH VIEW FROM PATIO IS SEEN THROUGH GLAZED LIVING ROOM WALL

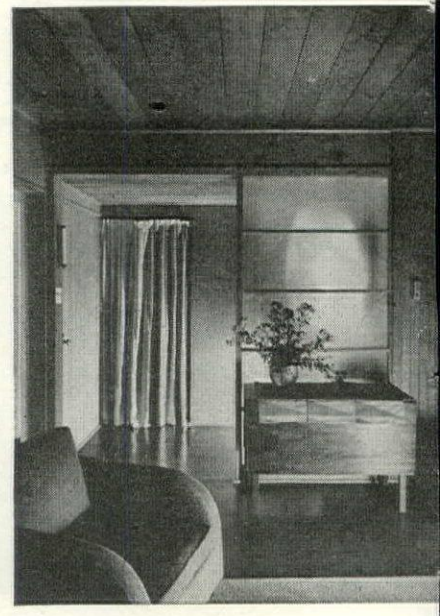


**CONSTRUCTION OUTLINE:** STRUCTURE: Exterior walls — studs, diagonal wood sheathing, building paper, vertical cypress boards and battens; inside — perforated Rocklath and plaster, U. S. Gypsum Co. Floors—oak strip. Ceilings—Rocklath and plaster. ROOF—cypress shingles. SOUND INSULATION — Cabot's Quilt, Samuel Cabot, Inc. FIREPLACE: Damper — H. W. Covert Co. SHEET METAL WORK — copper. WINDOWS: Sash — Super Vent, Gate City Sash & Door Co. Glass—double strength, Quality A, and plate. PAINTS—Samuel Cabot, Inc. GARAGE DOORS — Overhead Door Co. ELECTRICAL INSTALLATION: Wiring — Steel & Tube Div., Republic Steel Corp. KITCHEN EQUIPMENT: Range—General Electric Co. BATHROOM EQUIPMENT — Crane Co. PLUMBING: Soil and vent pipes — cast iron. Water pipes — copper tubing, Mueller Co. HEATING: Built-in electric heaters and electric water heater — Thermadore Electric Mfg. Co.



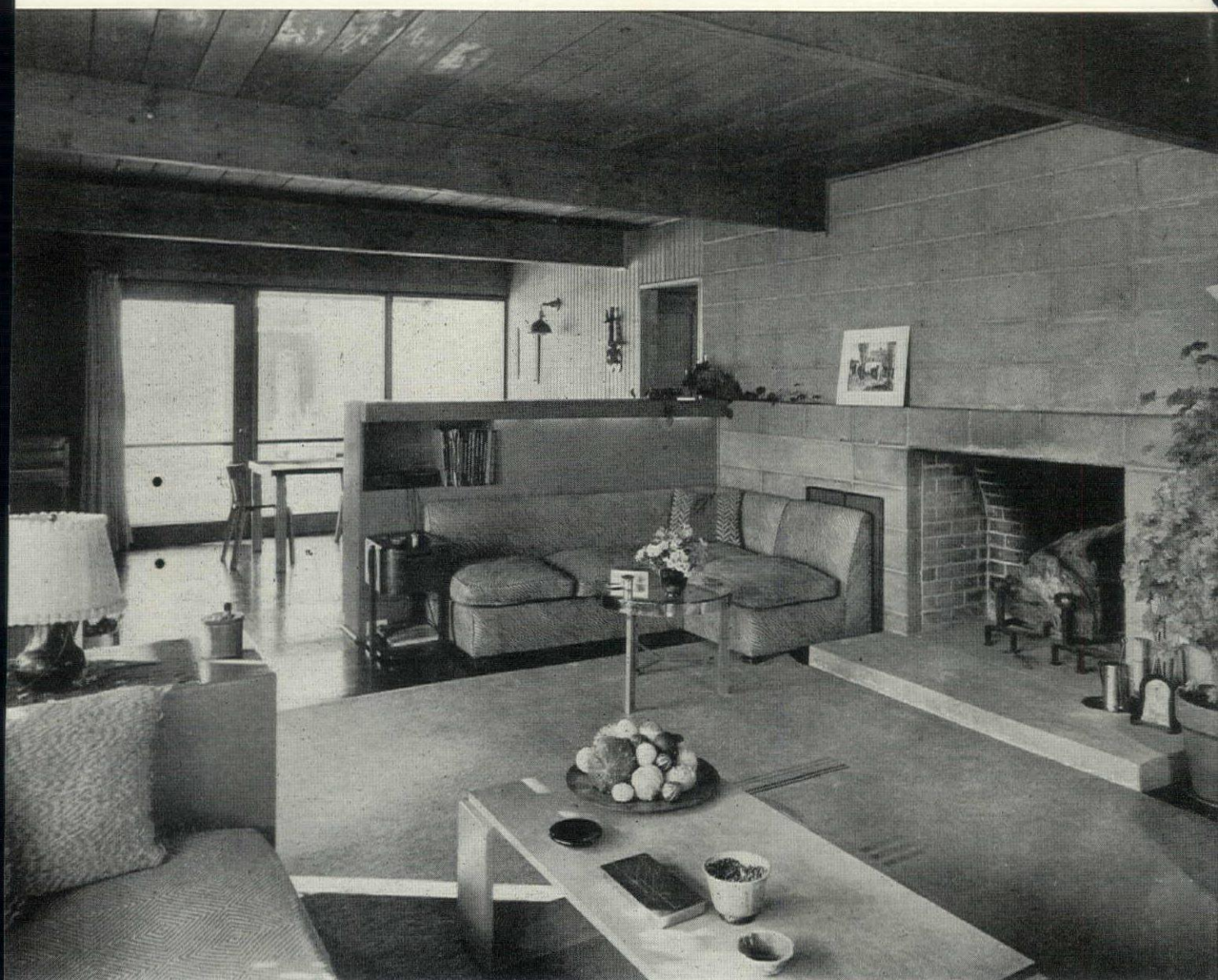


DIFFUSING GLASS LIGHTS PASSAGE





provide a roomy all-year house for a young married couple proves feasible in the Colorado climate.



R PLANK CEILING, ASPHALT TILE FLOOR AND CONCRETE BLOCK FIREPLACE WALL CREATE HARMONIOUS ENSEMBLE

PAVED WALL IS DECORATIVE IN LIVING ROOM AND OUTSIDE



This house was designed as a temporary home for its owners—hence the absence of trim, doors to closets (which are covered by curtains) and the substitution of integral switches for electrical outlets. In spite of these economies, or because of them, the result is a fine architectural effort, with interesting features in construction and planning.

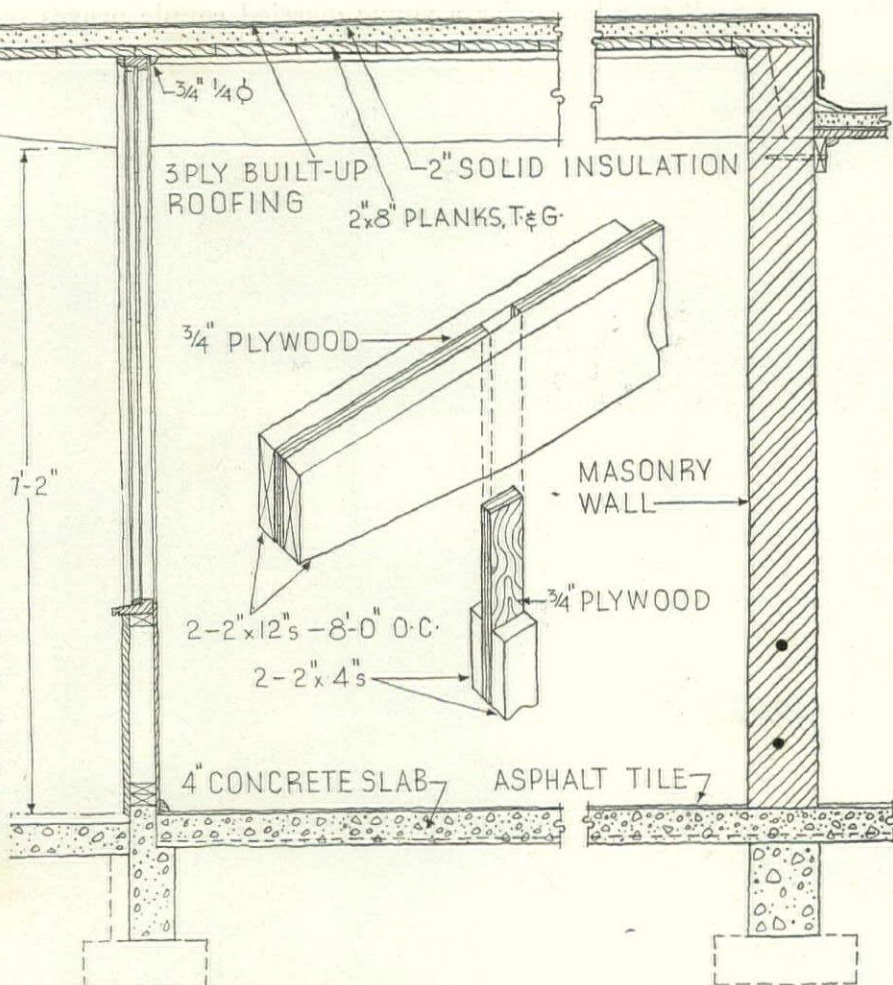
The plan was influenced by the structural system developed by the architect on previous jobs. In the studio, maid's room and kitchen the roof is supported simply by the structural stud walls, while in the living-dining room a free system of posts and beams with tongue and groove connections does the work, the south wall being non-structural. The beams are ordinary framing lumber with a  $\frac{3}{4}$  in. plywood core. Projecting planks form the overhangs, and the 2 in. solid insulating material is laid directly on them. This accounts for the thinness of the roof edge. The floor is a 4 in. reinforced concrete slab, laid on gravel.

There is a car shelter connecting with the house by a covered walk, and a studio which is approached from the garden. Construction costs were approximately \$9,000.

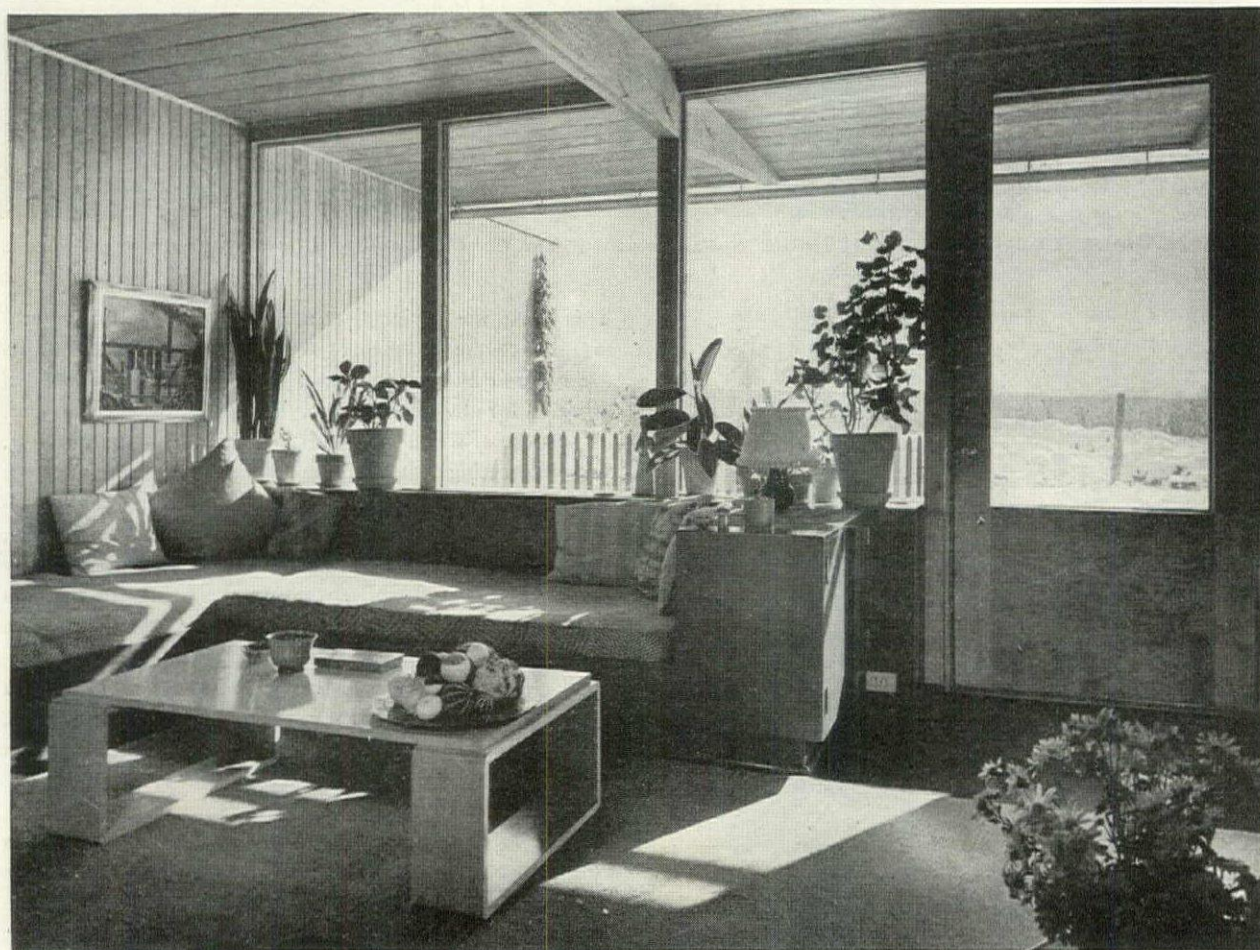
Mortgage: Colorado National Bank, Denver.



**CONSTRUCTION OUTLINE:** STRUCTURE: Exterior walls—structural framing, studs, rock-wool, building paper, fir siding; inside—fir plywood. Floors—concrete slab covered with asphalt tile. Ceiling—T & G fir plank. ROOF—3-ply built-up. INSULATION—rockwool batts. SHEET METAL WORK: Flashing and gravel stops—galvanized iron. WINDOWS: Sash (fixed)—wood; ventilating—steel, Fenestra, Detroit Steel Products Co. Glass—double strength, Quality A, Libbey-Owens-Ford Glass Co. PAINTS—Sherwin-Williams Paint Co. HARDWARE—Russell & Erwin Mfg. Co. KITCHEN EQUIPMENT: Range—bottled gas. Refrigerator—electric. LAUNDRY EQUIPMENT: Sink—Kohler Co. Washing machine—Bendix Home Appliances, Inc. BATHROOM EQUIPMENT: Toilet—Briggs Mfg. Co.; remainder of fixtures—Kohler Co. Cabinet—Dura Steel Products Co. HEATING: Circulating hot water system. Pump—Bell & Gosset. Boiler—Sullivan Valve & Engineering Co. Oil burner—Western Electric & Mfg. Co. Radiators and grilles—Modine Mfg. Co. Regulator—Minneapolis-Honeywell Regulator Co. HEATING ENGINEER: HARRY H. HERMAN. CONTRACTOR: O. E. BRUEGGEMAN.



WIDE OVERHANG IS SUPPORTED BY AN ISOLATED COLUMN. NOTICE SMOOTH-FITTING POSTS AND BEAMS







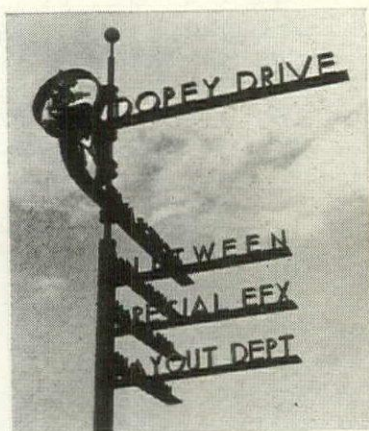
## DISNEY STUDIOS, BURBANK, CALIF.

F. SCOTT CROWHURST, SUPERINTENDENT OF CONSTRUCTION

JAMES LILL, STRUCTURAL ENGINEER: KEM WEBER, INTERIOR DESIGNER



Home of Mickey Mouse, Fantasound, and armed forces training films, the world's largest animated motion picture studio is well equipped for its job of war production.



Baskerville

When Walt Disney moved into his self-styled "entertainment factory," he hired "a gentleman called Myron to massage the kinks out of my neck." This gesture was symbolic of the company's expansive mood at the time of the change-over from the old Hyperion plant with its lack of space and stuffy reviewing room "sweatboxes," to feature-length *Fantasia* and the new studios in Burbank on the edge of Griffith Park. It was a move from the slums to Park Avenue at a single jump. In Burbank's Animation Building there are sweatboxes too, but the name is used for sentimental reasons only. A draftless, humidified air-conditioning system keeps men and celluloid at perfect temperatures twenty-four hours a day.

This improvement in working conditions is typical of the planning that went into the new studios, where labor

accounts for 90 per cent of the cost of any picture. The 51-acre Burbank lot was developed on the assembly line principle. Production flow determined the layout, the circulation, even the arrangement of the individual offices. One building—the largest—was set apart for the creative function from beginning to end. Across the street and connected by an underground passage is the inking and painting building. From this branches the process department, and so on through the camera and cutting divisions to the completion of the master reel. Each function is housed in a separate building and all had to be designed for resistance to heat and cold, dust and darkness, noise, decay and earthquakes.

To accomplish this unusual technical job Walt Disney Enterprises organized a design unit and full-sized construction crew on its own payroll. Housed in a field office which was later to become a studio warehouse, they prepared underground work and foundations while superstructure conferences were still under way. With the public eagerly awaiting feature-length Technicolor pictures, each of which is two years in the making, speed was important. Even so, the production staff and most of the future tenants took time to edit the drawings, so anxious were they to check on the facilities provided.

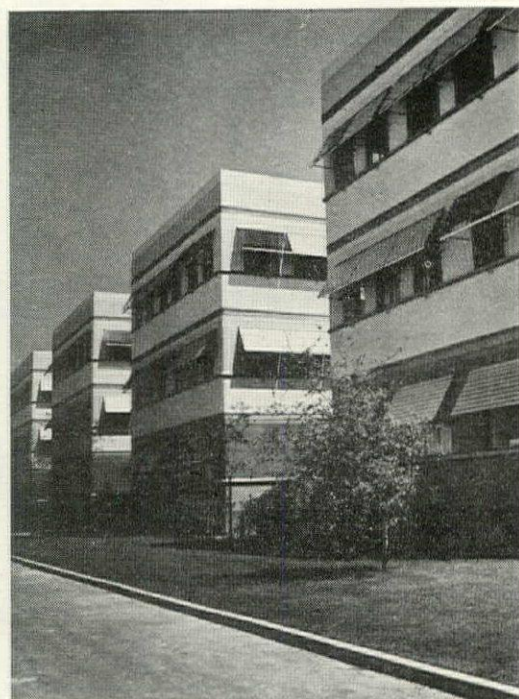
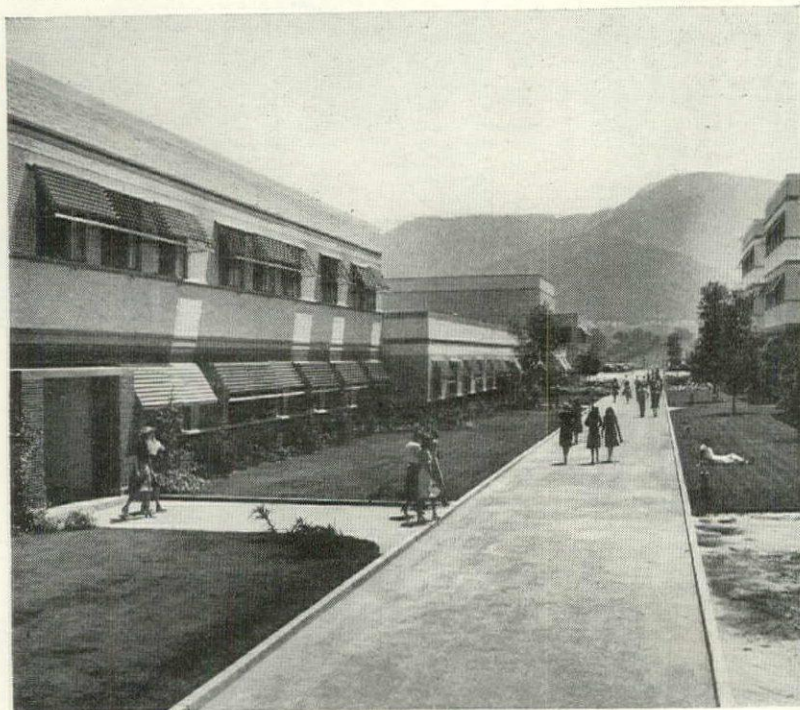
The new studios, consisting of some twenty separate buildings, had to be provided with the amenities of a self-contained community. They also needed the underground utilities of a modern

city and their own streets, storm drains, sanitary sewer system, water lines, underground fire-protection piping, fire hydrants, a private telephone exchange, public address and complete electric distribution systems. They have their own wells for air-cooling, lawn sprinkling, toilets and special processes, supplying 3,000 gallons per minute at peak load for the precooling system alone.

The buildings were placed in a compact grouping on the lot, not too close to the boundaries, to allow for future expansion. With three-dimensional effects, television and the elimination of the inking process all to be developed here in the near future and experiments going on continuously, the final size of the plant can never be foreseen. For another reason, the buildings were placed at an angle to the street on a true north-south axis. This was to provide maximum north light for artists, draftsmen, printers and others. Where windows face south, shutter-type awnings were provided to admit light but eliminate glare. These can be adjusted by the occupants of the rooms.

The more or less uniform finish of the buildings conceals the fact that many types of construction were used: stud frame, steel frame, reinforced concrete frame and masonry bearing walls of concrete or brick. In the case of the Animation Building reinforced brick was adopted. The method was somewhat different from usual practice. No headers were run. An 8 in. cavity wall was built containing vertical and horizontal

ADJUSTABLE METAL AWNINGS SHADE INKING AND PAINTING BUILDING, LEFT, AND ANIMATION BUILDING, RIGHT



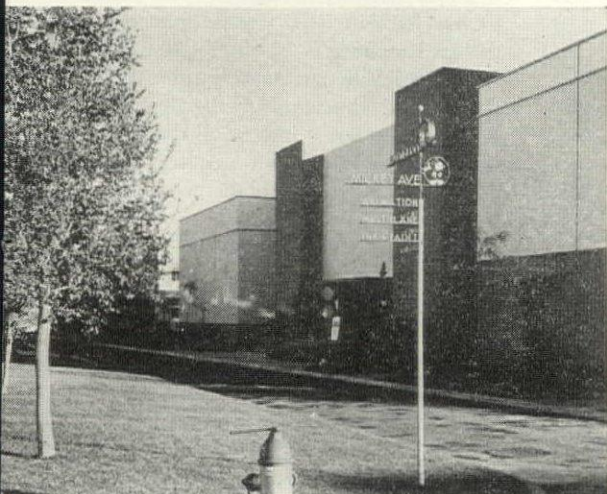




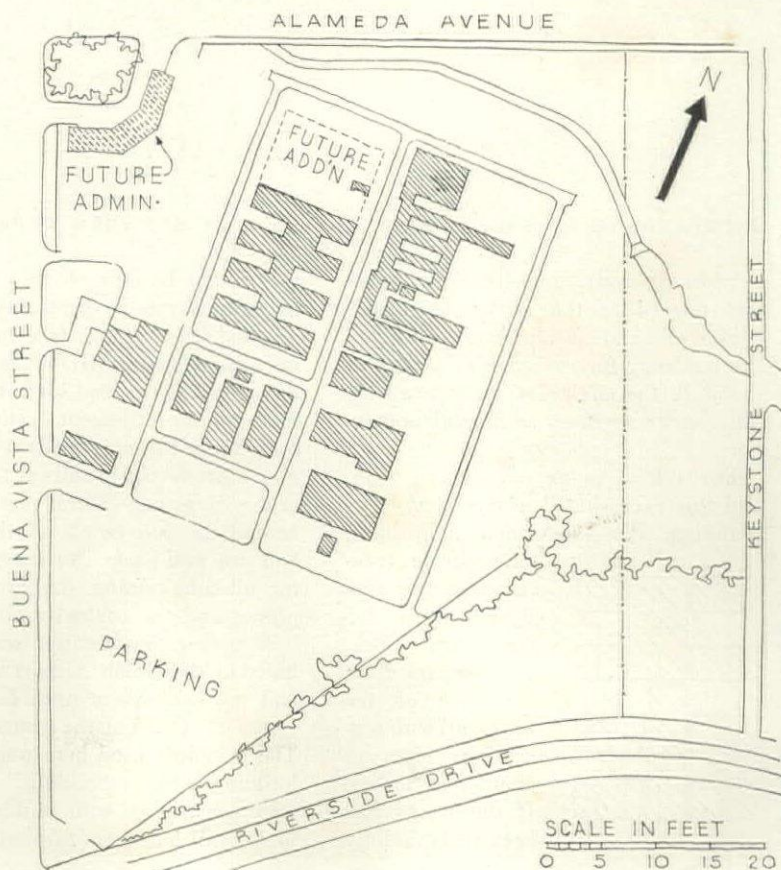
THE FIFTY-ONE ACRE BURBANK LOT LIES ACROSS THE HILLS FROM HOLLYWOOD IN THE SAN FERNANDO VALLEY

The studios were planned in a compact group running diagonally with the lot to obtain maximum north orientation for artists' rooms. Free space on the south side is used for parking. To avoid main road traffic problems, the entrance to the studios is on the side road to the left. An administration building will eventually be constructed here. With the expected development of new processes and techniques and the public demand for Disney features postwar expansion is considered inevitable.

THEATER HOUSES LARGE ORCHESTRA STAGE



Baskerville

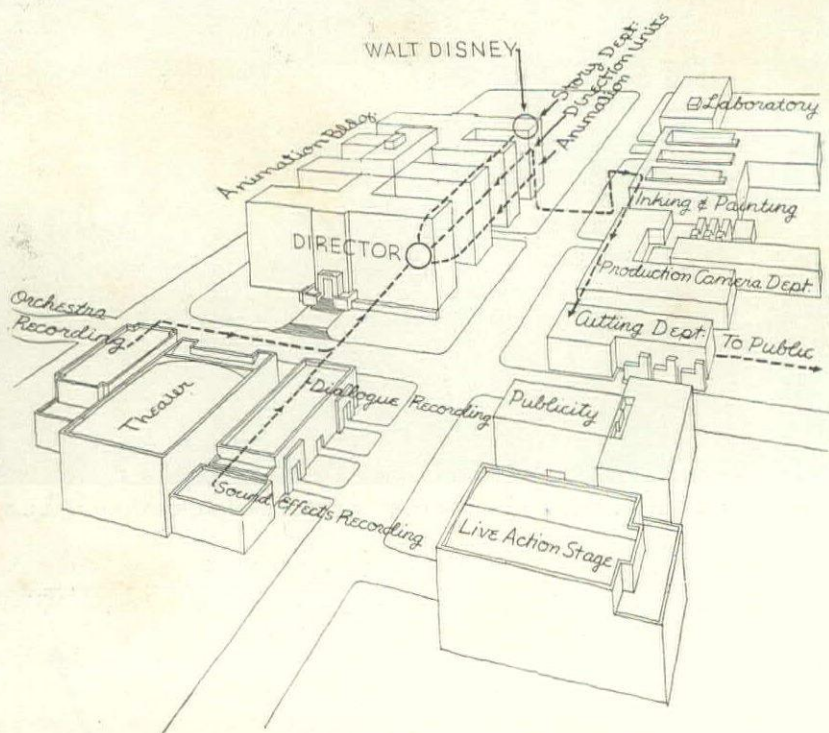






**FEATURE LENGTH MOVIES** and shorts all originate in Animation Building. Left to right, 1. Dance advisors work with a producer-director on authentic steps for a production sequence.

2. A composer rehearses a song hit with the artist who will sing it for the sound track. 3. Background artist creates a scene for "Saludos Amigos."



**UNDERGROUND PASSAGE SPEEDS CIRCULATION BETWEEN DEPARTMENTS**

reinforcing rods; into this the grout was poured as the work progressed. While elimination of headers reduces the tendency for moisture to penetrate the wall, the engineers membraned all inner surfaces as an additional precaution.

Burbank is in an earthquake zone, and this necessitated a special type of planning. For the Animation Building ten separate structures were designed—two for the main block, and a separate one for each of the wings, all with separation joints of about four inches. If the wings had been tied in solidly

they might be torn off in a quake and hammer down the central section. As planned, each unit is free to vibrate to its own period. All foundations were proportioned on dead loads to minimize differential settlement. Dividing the building in this way made it possible to plan eight vertical shafts at the junction of the wings and central sections. These extend the full height of the building and are well-located to carry the ducts for air-conditioning, the fire-protection piping and the control tubing.

A further consideration was the proximity of the Union Airport at Burbank and the consequent need for adequate sound insulation on the recording stages. The principle used here was that of "a building within a building." The stages were constructed with double walls, the inner wall being entirely separate from

the outer. The ceiling of the stage rests on the inner wall. Both walls and ceiling are provided with adequate layers of hard and soft insulating materials to give the desired noise reduction.

Walt Disney was very much a planner in the undertaking, as was his brother Roy, an able business man, who was only heard to grunt mildly when Walt casually added an extra zero to the six-figure budget for *Snow White*. Their knowledge of the production end of the business and the intricate processes which go into the creation of color cartoons largely determined the flow pattern of the Animation Building, the most highly organized unit of the group. Here the production line starts logically on the third floor and works downward toward the ground. The third floor is occupied largely by the Story Department and by designers who develop story characters by sketches, paintings and models. There Walt has his office, since he is concerned with the conception and development of every picture.

On the second floor are Direction Units. Each unit consists of a suite of four rooms, housing a director, assistant, layout artist and secretary. These deal with animation tests and the reviewing process. The first floor is given over entirely to animation experts, who bring to life the fantastic scenes created by the artists above.

With such departmentalization it appeared logical enough to the designers to divide the floors into small communicating offices leading off a central corridor in each wing. While this was a practical solution, it was also the easiest way out and probably could have been improved by using fewer partitions and a better grouping of the technicians. The central corridors are somewhat narrow, and the small office system demands a receptionist in each wing on each floor to check on the comings and goings of the occupants and to see that they are not unduly disturbed.





**GIRLS IN THE INKING AND PAINTING BUILDING** trace pencil drawings onto celluloid squares and then paint them on the back in the proper colors. Humidified air keeps cels in good condition and

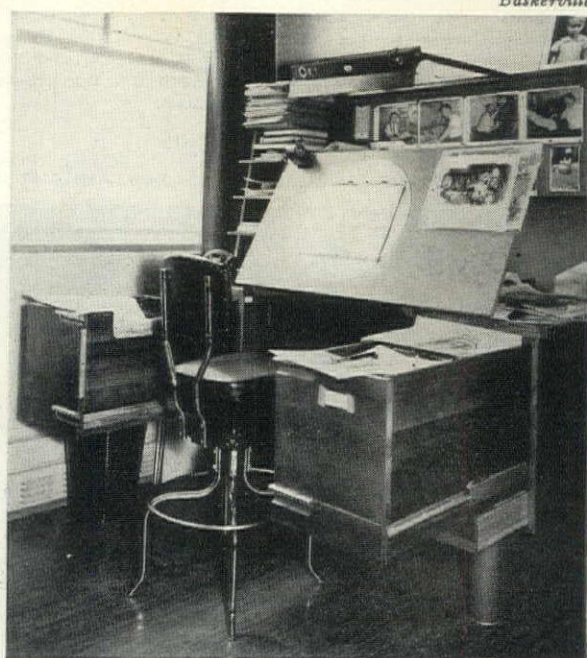
prevents paint from cracking in dry California climate. 2. Specially-designed background desk. 3. Layout desk in the main production building.

In other departments, especially the inking, camera and cutting buildings, special precautions were taken to ensure the cleanliness of air and quarters. One small speck of dust under the glaring lights of the camera can ruin a take and it was decided to use sealed windows and weather-stripped doors, to avoid drapes and carpets, and to provide complete air-conditioning for the maintenance of clean air. Further, both men and materials entering the camera rooms are pre-cleaned. Upon arrival, technicians are exposed to air blasts from twenty different nozzles to remove dust and lint from clothing and a cel-cleaning apparatus brushes off dust accumulated on the painted cartoons by virtue of the electric charge carried by the celluloid. All buildings dealing with film reels are of fireproof construction, and sound tracks are piped to the Story Department, theater and other places, where they can be heard on a relay system.

General Electric engineers devised the air-conditioning, which includes several innovations, and was tried out with bated breath on its completion. Its unqualified success is a tribute to their resourcefulness and ingenuity. The use of steam from the boilers was a gamble, because of the possibility of odors from the vapor, but these were controlled and all nuisance from this source avoided. The combined air-outlet and lighting fixture in the Animation Building was an original design and is claimed to be the first of its kind to give adequate light.

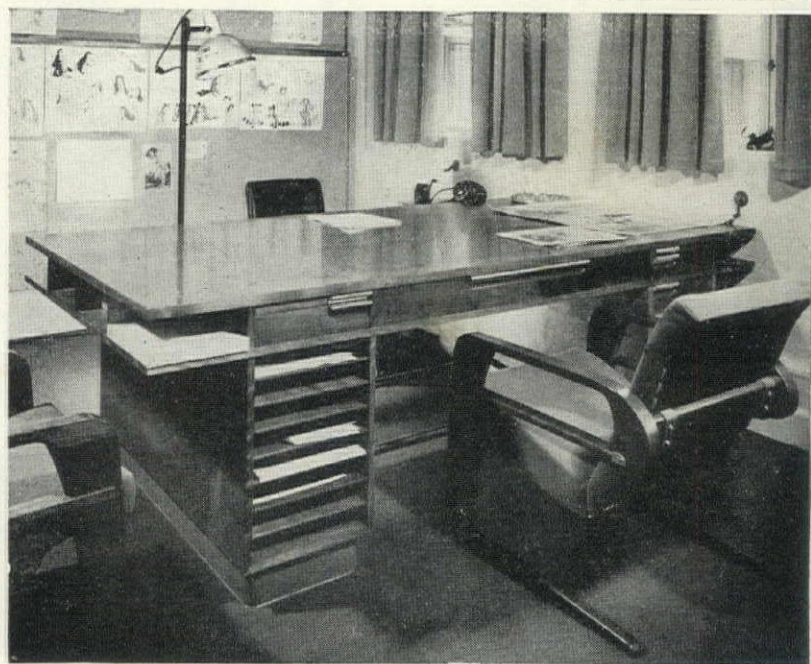
The air-conditioning plant was designed from the premise that some of the buildings would have continuous and some intermittent use. The first group is served from a central heating and refrigerating plant, with heating and cooling facilities piped through water mains to the individual buildings. The second group has separate plants for each building.

(Continued on page 142)



**BIG DRAWER HOLDS PAINT IN BACKGROUND DESK**

CONFERENCE ROOM DESK AND CHAIR WERE DESIGNED BY KEM WEBER



*Baskerville*



**CONSTRUCTION OUTLINE:** FOUNDATION: Continuous spread footings, reinforced concrete. STRUCTURE: Exterior walls — reinforced brick. Interior partitions — wood studs, acoustic plaster, putty finish, Keene cement. Floors — wood joist, diagonal sheathing, plywood over sub-floor. Ceilings — acoustic plaster, Gladding, McBean & Co. SHEET METAL WORK: Flashing, copings and scuppers — 16 oz. copper and copper-bearing galvanized iron, 24 gauge. Ducts — galvanized iron. INSULATION: Walls and roofs — rock-wool blanket, Celotex Corp. Toilets — Bak-A-Namel, Masonite Corp. Sound Insulation — Coast Insulating Co. WINDOWS: Sash — metal, Michel & Pfeffer. Glass — double strength, quality A and B. ELEVATORS — Otis Elevator Co. FLOOR COVERINGS: Corridors, etc. — linoleum, Armstrong Cork Co. Offices — carpet, Alexander Smith & Sons Carpet Co. WALL COVERINGS: Offices — Flexwood, U. S. Plywood Corp. FURNISHINGS — designed by Kem Weber. WOOD AND METAL TRIM: Doors — plywood, hollow core, flush, Woodlife treated, Protection Products Mfg. Co., some Kalamein doors. HARDWARE — Schlage Lock Co. PAINTS — Columbia Varnish Co. ELECTRICAL INSTALLATION: Wiring — 110 v A.C. 60 cycle. Switches — Mercoid Corp. PLUMBING: Fixtures — Crane Co. and American Radiator-Standard Sanitary Corp. Soil pipes — cast iron. Water pipes — hot, copper; cold, galvanized steel. HEATING AND AIR-CONDITIONING: Low pressure steam to General Electric Co. air conditioners. Refrigerant — Freon, E. I. du Pont de Nemours, Inc. Boilers — Babcock & Wilcox Co. Regulators — Johnson Service Co. Valves — Crane Co. and Walworth Co. Water softener — The Permutit Co. Compressors — Worthington Pump & Machinery Corp.



THE DINING ROOM HAS TABLE SERVICE FOR 400

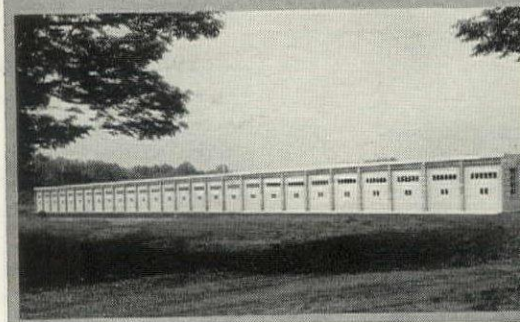
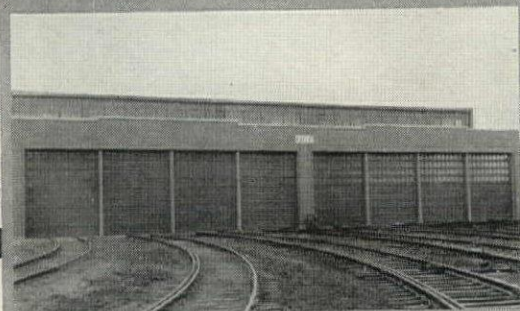
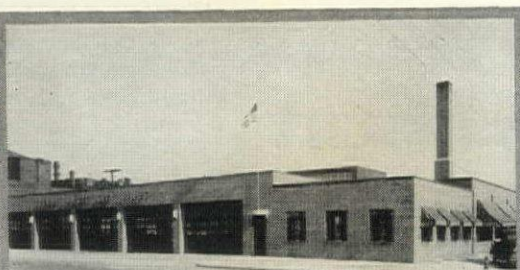
TERRACE AND PERGOLA OF THE RESTAURANT ARE USED BY EMPLOYEES FOR LUNCH - HOUR RELAXATION





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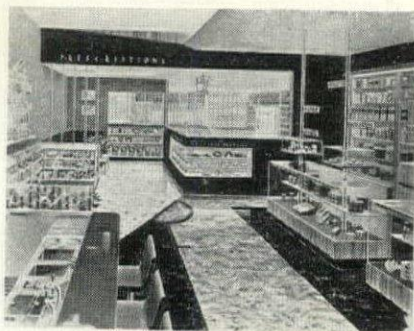
## MONTH IN BUILDING

(Continued from page 80)

chases. On dining room furniture now owned, major complaint was thin legs, making furniture difficult to move. Many said they will buy china closet and buffet with drawer sections going down to the floor, giving at once greater strength and more storage space. Of the 250 women questioned by the *Journal-American*, 131 said they plan to pay more for their postwar furniture purchases, having found cheap pieces a poor investment.

### GLAMOR STORE

Where sarsaparilla and sulfanilamide meet, the U. S. drugstore is as homey as a hotdog—and just about as untouched by modern design. Unhindered by nostalgia, Armstrong Cork Co. last month set about glamorizing this well-loved plain Jane. After lengthy consultations with the National Association of Retail Druggists, Armstrong had achieved a drugstore design looking something like a blend of Elizabeth Arden's 5th Ave. emporium with one of the sets from *Men in White*. Alert to the substantial market for commercial remodeling that



MODEL DRUGSTORE: Armstrong design

waits upon easement of war building restrictions, the makers of Armstrong linoleum last month presented their notion of a dream drugstore in full-page ads in *Time* and the *Saturday Evening Post*.

### RECONVERSION BUMP

Are OPA price ceilings a bigger reconversion hurdle than manpower and material shortage? This question bulked big back of an Associated Press roundup of trade and federal agency thinking on pricing of consumer goods newly put back into production. Surveying WPB, OPA and trade sources, AP found these estimated price increases ranging from 15 to 35 per cent on automobiles, radios, washing machines, vacuum cleaners, refrigerators.

Already many producers were cool to the limited go-ahead offered by WPB's "spot reconversion" order (see *ARCH. FORUM*, Aug. '44). Plain talk had it that selling at a profit was not possible

(Continued on page 132)





Corner of recreation room in mid-west industrial plant, panelled with Douglas Fir plywood and finished with O'Brien's Pen-chrome, Platinum and Bleached Mahogany.

## THIS IS THE WAY TO FINISH PLYWOOD

### Pen-chrome

—THE PRODUCT THAT HAS CHANGED THE TECHNIQUE OF WOOD FINISHING!

- It combines the light modern color of opaque finishes with the easy maintenance of natural wood finishes.
- It minimizes scratching and marring; the finish is IN the wood.
- It provides the soft texture of wax—but it is lastingly washable.
- It subdues natural wild grain, in fir plywood.
- It costs less than opaque finishes.
- It is available in modern BLONDE colors:

SANDALWOOD . . DRIFTWOOD . . PLATINUM  
BLEACHED MAHOGANY . . BLONDE . . MAPLE

Pen-chrome Wood Finishes are entirely different. They offer the preservative quality and easy maintenance of the old stain-and-varnish system, but they give you the benefit of *light blonde tints*. They produce better looking, longer wearing surfaces at important savings. They eliminate the problem of taping joints in plywood panelling.

Pen-chrome is the development of an organization that has specialized in *fine* finishes for 69 years. It has been used with marked success on hundreds of jobs, by many leading architects. Write for full information.

**TEST PACKAGE:** Know from experience what a distinct advance this product represents. Take the time to finish a panel *yourself*. Observation of Pen-chrome's unusual characteristics will suggest many possibilities for finer and less expensive treatments for your post-war plans. A test package of Pen-chrome for this purpose—one-half pint of stain (specify color) and one-half pint of Clear Finish to seal the stain—for \$1.00 postpaid. This is enough to cover 50 sq. ft.

O'BRIEN VARNISH CO., 410 N. Johnson St., SOUTH BEND 21, IND.



**O'BRIEN**  
FINE FINISHES SINCE 1875

Full specifications on O'Brien products, covering a complete line of paints, varnishes and enamels, will be found in the 1945 edition of Sweet's Catalog.

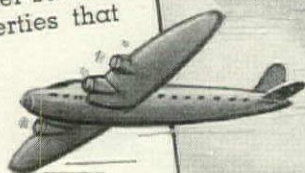


# A New Material for Architects and Builders **PLUSWOOD**

a wood alloy with high aesthetic qualities  
and an exciting weight-strength ratio

**Y**OU will find many stimulating applications for Pluswood, a dynamic new material half as light as aluminum by density, but with the strength of steel. Combined with this extraordinary structural capacity is an unusual aesthetic value, a permanent, glass-like, almost unscratchable wood grained surface to which varnish or wax need never be applied. Pluswood, too, is highly dielectric, highly resistant to fire, inert to mild acids or alkalies and impervious to water.

Add all of these advantages together, and you have a multi-purpose, super-service building material providing properties that should fire the imagination of forward-looking architects and builders. Your ideas for its post-war application are invited, for Pluswood will then be readily available, made to any pre-determined engineering description in a wide range of woods, and at a cost that is less than you might suppose. Back of this new wonder material is the Lullabye Furniture Corporation—since 1897, America's foremost manufacturers of juvenile furniture. Write today for the interesting Pluswood brochure that will give you complete product information.



**PLUSWOOD** Incorporated, Oshkosh, Wis.

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

## MONTH IN BUILDING

(Continued from page 130)

in the double squeeze of OPA's prewar price ceilings and high wartime production costs. OPA countered with the argument that distribution and selling costs on goods in great demand are way below normal. Expected in late August was a formal OPA statement of pricing policy; hoped for by industry was an OPA point of view that would strike a better balance between selling price and a production cost swollen by wage increases, higher material costs and taxes.

### BIAS

"We are a nation with a strong bias in favor of one- and two-family houses," said the United States Savings and Loan League firmly, warning against too great reliance on the multi-family unit as a means of cutting postwar construction costs. Looking into members' plans, a League committee found that "while some savings and loan institutions are gearing their financial machinery to take care of multiple units on a scale they have not attempted before, they recognize that such units are not the ideal or preferred pattern of American living, and will continue to do most of their lending in the single-family field. We would be storing up trouble for ourselves if we hurried too much into apartment building after the war."

In the clear pattern of the past the committee found a "certain guide for future procedure," cited these housing-building facts:

In the 22 years between the close of World War I and the beginning of building restrictions in the current war, 80 per cent of all the new units built were in one-and-two family homes, and 67 per cent were in the one-family group. In the most active year of building multiple-family units, the percentage of new one-family homes did not fall below 56 per cent.

In 1940 and 1941, the biggest building years since 1928, one-family homes constituted over 80 per cent of the new units built.

"Interest rates in the home financing field have dropped at least a third since the boom building period of the 1920's, and if construction costs could be lowered by a like percentage, it would be a great step forward in meeting the problem of housing people with smaller incomes," observed the League committee piously.

### FIRETRAPS?

When fire swept a war workers' dormitory in Richmond, Calif., last year to take a toll of eight lives, when disastrous

(Continued on page 134)



Good Buildings Deserve Good Hardware



*Of Builders Hardware  
and post-war building*

*two things are certain*

1

Good Buildings will deserve  
Good Hardware.

2

You will be able to get depend-  
able, authentic Corbin hardware  
as soon as materials are available.

*For the present*

Let us work with you now on your V-Day projects  
so that they may move ahead promptly. A Corbin  
representative brings you the experience gained in  
supplying good hardware for America's finest build-  
ings for 95 years.

**P. & F. CORBIN**

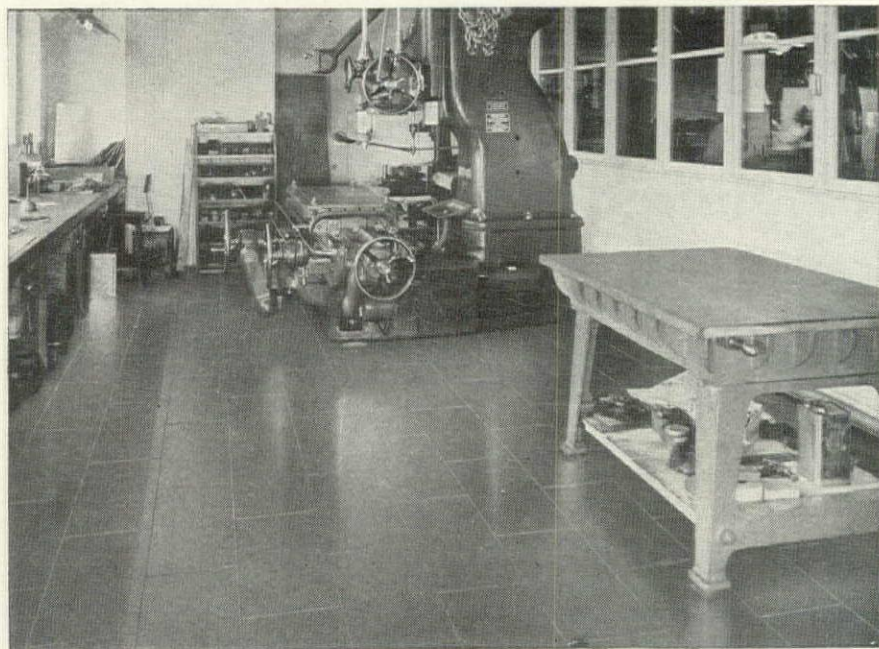
THE AMERICAN HARDWARE CORPORATION, SUCCESSOR

New Britain, Conn., Since 1849



# TUFF-TEX

## will be tougher in 194X



*Superior Tool and Stamping Co., Chicago, Ill.*

From the very first, Tuff-Tex has been enthusiastically accepted by architects and plant engineers. Why?

First, Tuff-Tex is tough! It stands up under grease, abuse, trucking, dropping of heavy objects, and constant foot traffic. Second, Tuff-Tex is easy to maintain. Its smooth, grease-resistant surface can be cleaned simply and economically. Third, Tuff-Tex can be installed quickly—and repaired quickly in case of accident or alterations. Fourth, Tuff-Tex is low in first cost.

Many of America's leading war plants have found Tuff-Tex the answer to their floor problems. They *know*, because they have put Tuff-Tex to the severe test of wartime manufacturing conditions. After the war, Tuff-Tex will be even better—even tougher—even more resistant to the special abuses commonly found in manufacturing plants.

Write us for complete data on this modern industrial floor and a list of leading American corporations who are using Tuff-Tex.

## ★ The Tile-Tex Company

101 Park Avenue, New York City • Chicago Heights, Illinois

## MONTH IN BUILDING

(Continued from page 132)

fires followed in other war housing projects, crowded West Coast cities began to look anxiously at the temporary housing which war need had brought. One of the first to get busy, Oakland, Calif., set up a committee to investigate health and fire hazards of government-built war housing within its boundaries.

Tenants, glad to have any roof over their heads, weren't doing much complaining; but Oakland's building inspector, Ernest U. Roussell, who had had no jurisdiction over the federal construction, was worried about conditions in the projects, as were local fire marshals. Outraged Jack Reynolds, business manager of the Alameda County Building Trades Council, warned that "unless conditions are corrected and unless future construction is more carefully planned, our people will refuse to work on any more firetraps." AF of L unions, with rosters covering many classifications of shipyard workers, threatened to pull members out of the projects.

In February, the Oakland committee wound up its studies, reported a formidable list of fire hazards. Major ones:

- ▶ Heating apparatus housed in a wooden room with no fire-protection on walls.
- ▶ Plywood hot air ducts, which carbonization would make highly flammable.
- ▶ Only one exit for each group of four apartments; high awning type windows that would make emergency exit extremely difficult.
- ▶ Narrow streets, used for parking by tenants, which would provide no easy access for fire-fighting equipment.
- ▶ Inadequate protection of fuel-oil reservoirs.



### FIRE HAZARD: formidable

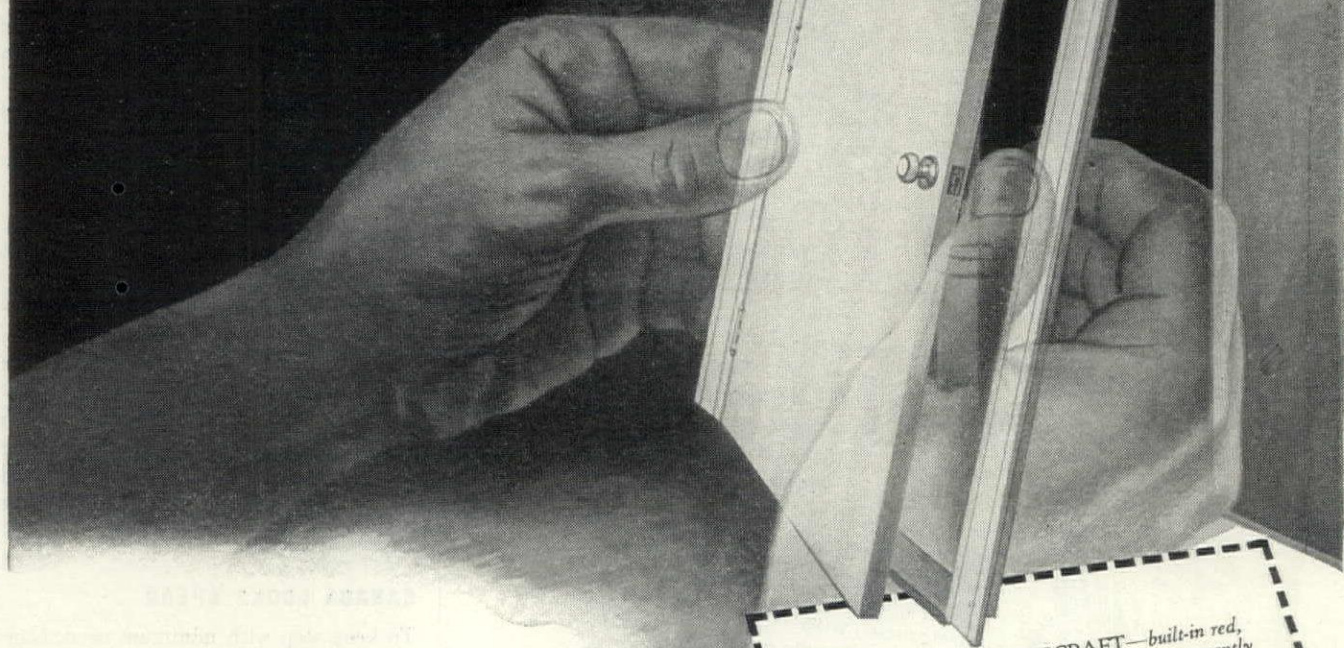
Making careful recommendations for reducing hazards in temporary projects already finished, the committee urged immediate action to correct the same faults in three projects still under construction. The Maritime Commission and the Federal Public Housing Authority, responsible for the temporary building, appointed Berkeley architect John J. Donovan to plan these improvements.

(Continued on page 136)



# Roddiscraft

**NEW PRE-FABRICATED DOOR UNIT  
... A COMPLETELY ASSEMBLED  
OPENING ...**



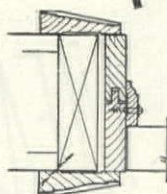
Perfected to meet the needs of the Victory and Liberty shipbuilding programs, Roddis now offers to architects the "door unit"—a new development in keeping with the trend toward pre-fabricated factory-finished parts.

Door — accurately manufactured to size.

Split-jamb — manufactured to architect's detail.

Trim — manufactured to architect's detail.

ALL — finished to approved sample and put together with door hung in split-jamb and hardware applied.



*Split Jamb Construction  
Allows for Variations in  
Wall Thickness.*

Advantages of the RODDISCRAFT Door Unit . . . It insures perfect fitting • Expedites construction • Simplifies the supply problem • Reduces handling at the building site • Saves excessive field labor costs.

The services of technicians who have been intimately associated with the development and manufacture of the "Door Unit" are available to architects now in drawing up specifications.



The sign of RODDISCRAFT—built-in red, white and blue dowel trademark—permanently establishing identity and responsibility.  
The RODDISCRAFT Door Unit is backed by the standard Roddis materials and workmanship Guarantee Bond.  
See Sweet's Architectural File — for complete RODDISCRAFT Door Line and Specifications.

## Roddiscraft WAREHOUSES

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

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

Roddis owns many years' supply of timber, does its own logging, sawing, cuts veneer in the largest hardwood plywood plant in the world — containing the largest hot-plate presses in the world where 50 years of craftsmanship and know-how with wood, are applied in the manufacture of doors, wainscoting and complete door units.

# Roddiscraft

*Roddis Lumber & Veneer Co.*

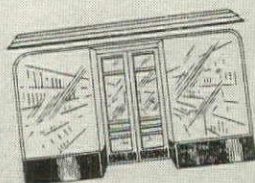
MARSHFIELD, WISCONSIN



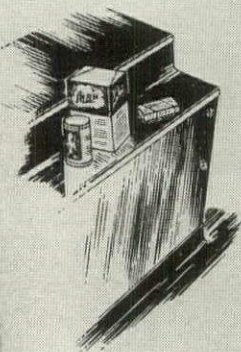


# for ARCHITECTS

## ... WHO WILL DESIGN TOMORROW'S GROCERY STORE



**Whole Store a Window Display.** Stores and shops of all kinds have found that eliminating old-fashioned window displays can do more than almost anything else to step up exterior appearance. Moreover, windows are easier to reach for cleaning. The entire shop becomes an inviting selling display for merchandise.



**Counter Package Rack Saves Space,** makes shopping easier. The rack fits just below counter-level, giving shoppers a place to rest their purchases. It helps keep counters clear for service. This rack can be attached to present counters or included in new counter design. Covered with Armstrong's Linoleum in a pattern to harmonize with the floor, the counter and rack are both smart looking and easy to keep clean.

These and many other ideas are yours for the asking—Our new Ideas Portfolio offers the best ideas of leading grocers as revealed in a recent survey conducted in collaboration with the National Association of Retail Grocers. It includes a full color print of a model grocery. Designed primarily to stimulate interest in future remodeling, this portfolio may help you meet grocers' or other retailers' needs. Write Armstrong Cork Company, Floor Division, 2309 State St., Lancaster, Pennsylvania.



## ARMSTRONG'S LINOLEUM



ARMSTRONG'S LINOWALL • ARMSTRONG'S RESILIENT TILE FLOORS

## MONTH IN BUILDING

(Continued from page 134)

By mid-summer Donovan had completed plans for adding fire escapes from second-floor bedrooms, new heating ducts, baffle partitions in attics. To make these changes in only three projects containing 62 buildings and 700 units would cost \$250,000. Local builders estimate that to bring all temporary war housing in the Bay area up to minimum safety conditions would cost more than \$600,000. But by summer's end the Maritime Commission had given no sign that it was willing to put any more money into the three Oakland projects for which improvement plans were ready. Maritime feeling was that any reduction of hazards would have to be paid for out of operating profits, at present amounting to \$75,000. •

But the Bay area was only a sample. From other cities came protests against the health and safety standards of permanent as well as temporary war housing. Few believed that at this late date there was much hope of changes; some sought an eventual cure in the bill now before Congress (H. R. 4739) which would require any war housing violating local building regulations to be removed within two years after the end of the war emergency.

## CANADA LOOKS AHEAD

To keep step with minimum need, Canada will have to build from 50,000-100,000 houses in the first postwar year and some 700,000 in the postwar decade. Canada believes that the great bulk of this housing will be built by private contractors and corporations. But Canada also knows that "all methods of participation in the financing and operation of housing schemes will be needed and should be encouraged—public, private and cooperative."

This is one of the conclusions of the Housing and Community Planning Subcommittee which, as a part of the Dominion's broad-gauge Advisory Committee on Reconstruction, has been busy over the last year charting Canada's housing future. Convinced that national policies must be ready to boost building to maximum production, the subcommittee recommended these housing steps ahead:

- Codification of all Dominion legislation relating to housing in one statute; coordination of all housing activities in one responsible division of government. "United States experience, which has passed through various stages of diffused action and divided authority, which has now been adjusted by co-ordi-

(Continued on page 138)



Dwellings in these vast FPHA projects at Vancouver, Washington, are KIMSUL insulated. Burton Homes Project (shown at right) has 1,500 units. Contractors: Ford Twaits, Sound Construction Company and Pete Kiewit. Bagley Downs Project (below) has 2,100 units. W. C. Smith, L. H. Hoffman and Howard S. Wright were contractors. KIMSUL insulation was chosen after many others had been considered, because it saves manpower, cuts costs, and because—above all—it keeps the homes warmer in winter, cooler in summer.



## Why architects specify KIMSUL\* Insulation for these huge projects



A great testimonial to KIMSUL...The famed Quonset prefabricated military huts shown above are insulated with KIMSUL to keep our boys comfortable in the bleakest arctic wastes!



KIMSUL defies heat, too! Keeps our fighters cooler in steamy jungles... just as it keeps civilian homes cooler on sticky summer days. KIMSUL is one of the most effective insulations known.



Especially efficient insulation is needed for wartime structures—because they are so often streamlined to save time, cut down on cost, critical materials and manpower. As a result, architects have specified millions of feet of KIMSUL insulation for war housing projects, prefabricated military huts, barracks and other wartime building.

This insulation saves manpower and man hours, for it can be installed with exceptional speed. It is one of the most effective heat and cold stoppers known. Thermal efficiency: 0.27 Btu./hr./sq. ft./deg. F./inch (J. C. Peebles). It is light, easy to handle. Saves

shipping space because it comes in compact, compressed rolls, which users expand to cover a space of five times packaged length.

The KIMSUL Giant Blanket, an extra-wide insulation, is a major time-saver in insulating prefabricated sections.

Because, in addition to these qualities, KIMSUL stands the test of time, it will play an important role in post-war building. Unlike loose, bulk insulations, and ordinary blanket materials, KIMSUL will not settle, shift or sag out of position. Write, or mail coupon today, for information on how KIMSUL fits into your insulation requirements.

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



KIMBERLY-CLARK CORPORATION

Established 1872

Building Insulation Division, Neenah, Wisconsin

☐ Send a representative

☐ Send free booklet

Name.....

Address.....

City.....

State.....

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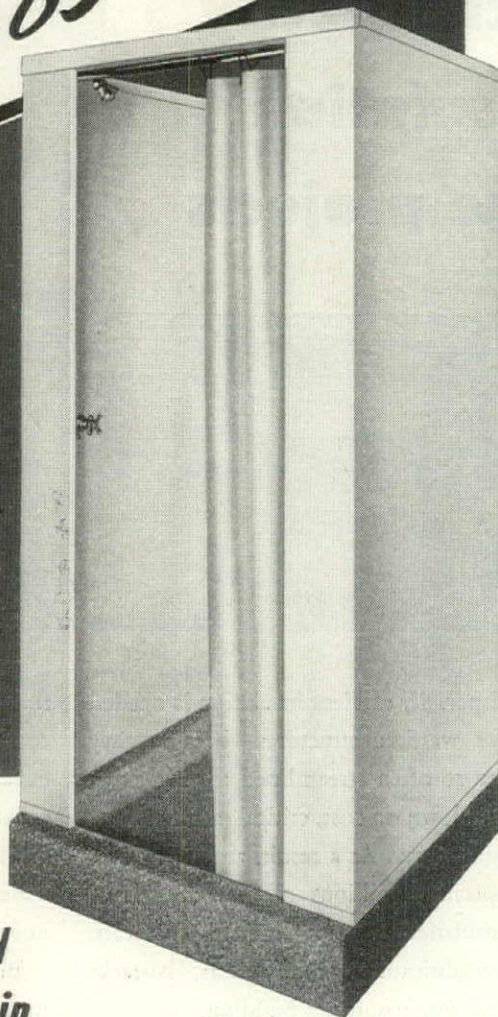


# The Best Shower Made

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.

**FIAT METAL MANUFACTURING CO.**



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



## MONTH IN BUILDING

(Continued from page 136)

nation is conclusive on this (latter) point."

► Establishment of a national Town Planning Agency, closely related administratively to the Housing Division, with the job of promoting and coordinating local activities.

► Legislation enabling the Dominion government to make long-term loans at low interest rates to municipalities for large-scale land assembly.

► Consideration of home mortgage insurance as a supplement to the present program of government home loans and of personal insurance to protect the home purchaser against loss of equity.

► Inauguration of a comprehensive low-rental housing program.

Like the U. S., Canada faces galloping construction costs, seeks every kind of check. "Tariffs on imported materials and equipment should be reviewed," said the subcommittee, also urging examination of the basing point system of transport charges and removal of all sales taxes as the best ways to shave material costs. Labor costs might be revised and restrictive practices eliminated, the policy-makers hoped, if an adequate solution is found for the real heart of the building labor problem. "Development of factory methods, including prefabrication and mass assembly, should be related as far as possible to promoting the dovetailing of labor between construction and production seasons."

To operate the 175,000 low-rent units that Canada believes will be enough to clear its urban slums, the subcommittee recommends that local housing authorities, much like the U. S. pattern, be set up. Loans for capital costs of low-rent projects would be provided by the government at the lowest possible interest rate; subsidies necessary to bring rents lower than economic levels would be supplied by annual grants.

Local housing authorities, the planners suggested, should not be exempted from real property taxation, but should not be taxed above the average level existing before rebuilding, unless density is substantially increased. Project rentals should be graded on the basis of space and type of accommodation, rather than geared firmly to income as is U. S. practice.

## NEWS NOTES

**Pub Planning.** The corner pub may at last come into its own as a community center, if the efforts of Allied Liquor Industries, Inc. have any effect on British planning. City planners subscribing

(Continued on page 140)



IF IT'S FRIGIDAIRE—IT'S DEPENDABLE

*"The fine performance of  
our Frigidaire Refrigerators  
means a lot these days"*

Frigidaire is proud of the performance record of the millions of Frigidaire products, made in peacetime, now serving so dependably under wartime conditions.

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

### **FREE Wartime Booklet— for All Refrigerator Users**



Wartime conditions are placing heavier and heavier demands on refrigerators. That's why everyone who owns or uses a refrigerator (regardless of make) should read "101 Refrigerator Helps"—recently published by Frigidaire. It's a 36-page booklet of suggestions on the wartime use and care of refrigerators. It's available, free, to individuals also, in quantities for distribution to tenants. Ask your local Frigidaire Dealer, Distributor or Branch Office. Find name in classified Telephone Directory; or write Frigidaire, 343 Taylor St., Dayton 1, Ohio. In Canada, address 198 Commercial Rd., Leaside 12, Ontario.

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



LET'S ALL BUY MORE WAR BONDS



## **FRIGIDAIRE**

Division of

## **GENERAL MOTORS**

DAYTON 1, OHIO, AND LEASIDE, ONTARIO

Peacetime Builders of

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



*Drastic*

**FUEL  
SHORTAGE  
AHEAD**

**INSULATE  
NOW!**

Oil is tight. Coal is very scarce. Government authorities say this may be our last War Winter . . . but our worst for fuel. Insulate NOW. Protect your family's health . . . save 25% or even more on fuel. Insulation soon pays for itself. Get the facts.

This is the message we are delivering to home owners in advertisements in national consumer magazines. "Insulation and Your Home" contains unbiased information on all types of insulation. We will be happy to send you a complimentary copy. The coupon is for your convenience.

**USE THE  
COUPON**

NATIONAL  
MINERAL WOOL ASSN.  
Desk A.F.

1270 6th Ave., New York 20, N. Y.

Please send me "Insulation and Your Home"

NAME \_\_\_\_\_

STREET \_\_\_\_\_

CITY \_\_\_\_\_

## MONTH IN BUILDING

(Continued from page 138)

to the lamentable assumption that it is not proper to recognize a tavern as a neighborhood focus might well take a look at "Britain Plans its Postwar Taverns." According to this lively publication, prepared by the liquor firm, post-war pubs will be equipped with swimming pool, bowling greens, tennis courts, a reading room and writing desks. There will also be a playground with swings, seesaws and sandpiles where mother can park the kiddies while she drops in for a beer.

**Engineers' Chess Board.** From now on every Westinghouse Electric plant will be built twice—the first time on Lilliputian scale and in wood. Westinghouse engineers have found miniature factories, built from plans by skilled wood workers, the best way to test their designs. Models of men and of each piece of machinery are placed in the dollhouse sized plant, where they can be moved about like pawns on a chess board. Because the miniatures are accurately scaled, engineers can tell in advance how much floor space each machine needs, how much aisle space there will be, how to place machinery.

**Retail Swell.** Dammed-up by war building and transport restrictions, expansion of retail outlets may play a big part in keeping Building busy in 194X. One sign of what may be ahead came from Firestone Tire & Rubber Co., which said it will build 1,500 retail stores immediately after the war, has plans for an additional 7,500 stores.

**Exhibitees.** There was never a booth to be seen in the floor plans and perspectives supplied by Skidmore, Owings and Merrill last month for the Postwar Building Material Exposition which the

National Association of Home Builders will sponsor in Chicago next January. Reflecting firm opposition to all design bromides, this architectural firm's exhibit technique stole the show at the recent display of New York's plans for postwar works.

**Workpile.** In Milwaukee, Kiwanis and Rotary clubs teamed together to find out how much of a postwar works pile local industry had up its sleeve. Questioning 15,000 firms, the surveyors found that in the first two years after the war, several hundred companies expect to spend about \$30 million on deferred maintenance, modernization and expansion.

### FLOOD

Rising flood waters which inundated a Federal Public Housing Authority project in Arlington County near Washington, D. C. swirled farther than the homes, eddied around the pink ears of FPHA officials, sent Senator Harry Byrd and Representative Howard Smith into a dive for a Congressional investigation. While some 400 tenants were evacuated from their watery apartments by rowboat, County officials shouted that the temporary project never should have been built in that particular spot, a natural basin area subject to flooding whenever heavy rains occurred.

Reluctantly, FPHA admitted the choice of site was not good, but was believed to be one "that could be made to work with some inconvenience." Snapped back Arlington County Manager Frank Hanrahan: Federal authorities had been warned that the project's drainage was insufficient. From a height of blameless innocence FPHA countered with a formal statement eschewing blame for the flood, stating that application for drainage funds had been made but the grant delayed. Opportunity for investigation looked bright to Congressmen Byrd and Smith.

Associated Press



JUBAL EARLY tenants leave by rowboat as flood rises near Washington





**L**OOK to Oil-O-Matic for automatic heating that is in step with the times. In the Victory Era, as in pre-war years, world-wide acceptance of the Oil-O-Matic name will eliminate the burden of pioneering and missionary work. Oil-O-Matic products are time-proved . . . through a quarter of a century. Oil-O-Matic dependability and economy are a matter of record—'round the world. Oil-O-Matic adaptability has been of immeasurable value to architects in every type of installation . . . from cottage to cathedral. However, Oil-O-Matic will bring even

*more* than experience to the design and *precision*-production of Victory Era automatic heating. Today, new men have augmented key positions on the most experienced planning and production staff in the oil heating world. When vital wartime assignments are completed, a quarter of a century of experience *plus* the fresh vitality and thinking of new minds will collaborate in presenting America's most complete line of automatic oil heating equipment. On the basis of functional soundness, on the basis of inspired engineering—you can expect *more* from Oil-O-Matic.

WILLIAMS  
**OIL-O-MATIC**  
HEATING

WILLIAMS OIL-O-MATIC

BLOOMINGTON



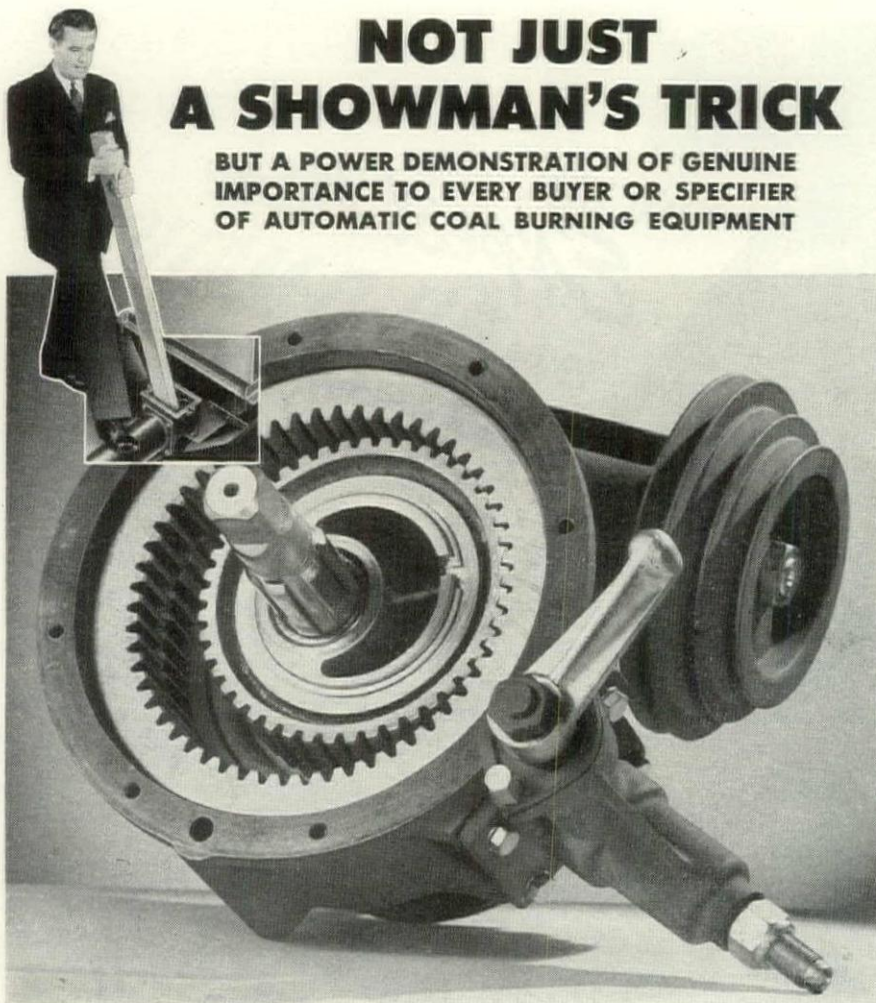
HEATING CORPORATION

ILLINOIS



# NOT JUST A SHOWMAN'S TRICK

BUT A POWER DEMONSTRATION OF GENUINE  
IMPORTANCE TO EVERY BUYER OR SPECIFIER  
OF AUTOMATIC COAL BURNING EQUIPMENT



Showing you how the Feed Screw of a Winkler Stoker will chew a 2x4 into matchwood, or *grind a rock into fragments*, is not a meaningless circus stunt. It is a demonstration of *extra power*! The practical value of extra power is proved by the fact that a Winkler Stoker *crushes* foreign matter in the coal which might otherwise cause a service interruption.

The reserve power in a Winkler Stoker comes from a fully automatic Transmission of exclusive and revolutionary design. Through an ingenious use of *internal planetary gearing*, the Transmission develops a continuous, smooth flow of tremendous energy. Internal gears have a larger arc of contact which means lighter tooth loads, less wear, higher efficiency and *long life*!

Winkler Stoker  
Industrial Model

## IMMUNE TO USUAL OPERATING HAZARDS

In the case of extreme overloads, as might be caused by a metallic obstruction in the feed screw, the Winkler Safety Release automatically disengages and re-sets the Transmission, until the blocking object is removed. Full protection is thus given the motor and stoker without need for a shear pin!

NOW AVAILABLE FOR BUILDINGS USING  
25 TONS OR MORE OF COAL PER YEAR

# WINKLER

*fully automatic* STOKERS

U. S. MACHINE CORPORATION • LEBANON, INDIANA

## DISNEY STUDIOS

(Continued from page 127)

The central plant is a reinforced concrete structure 40 x 175 ft., two stories high. An engineer is on duty here to control the various operations. For example, the system for the Animation Building is shut down at night and started in the morning, whereas in Film Row, where paints must be kept in perfect condition, the operation is continuous. The refrigeration plant consists of seven 50 H.P. compressors serving the Animation Building, and five for Film Row. Separate piping for hot and cold water ensures that one part of a building may be heated while another is being cooled. The extent of zoning for individual temperature control is much greater than usual and the method used (mixing dampers) while not new, was probably never attempted before on such a large scale. There is no recirculation of air, except in the kitchens, which are kept comfortably cool by air drawn from the restaurants. Forty million cu. ft. of air are handled per hour. All of it is drawn from outside and expelled in one operation by exhaust blowers through unexcavated parts of the building and louvered screens. This is claimed to discourage the activities of termites and to protect the flowers at ground level from early morning frosts in winter.

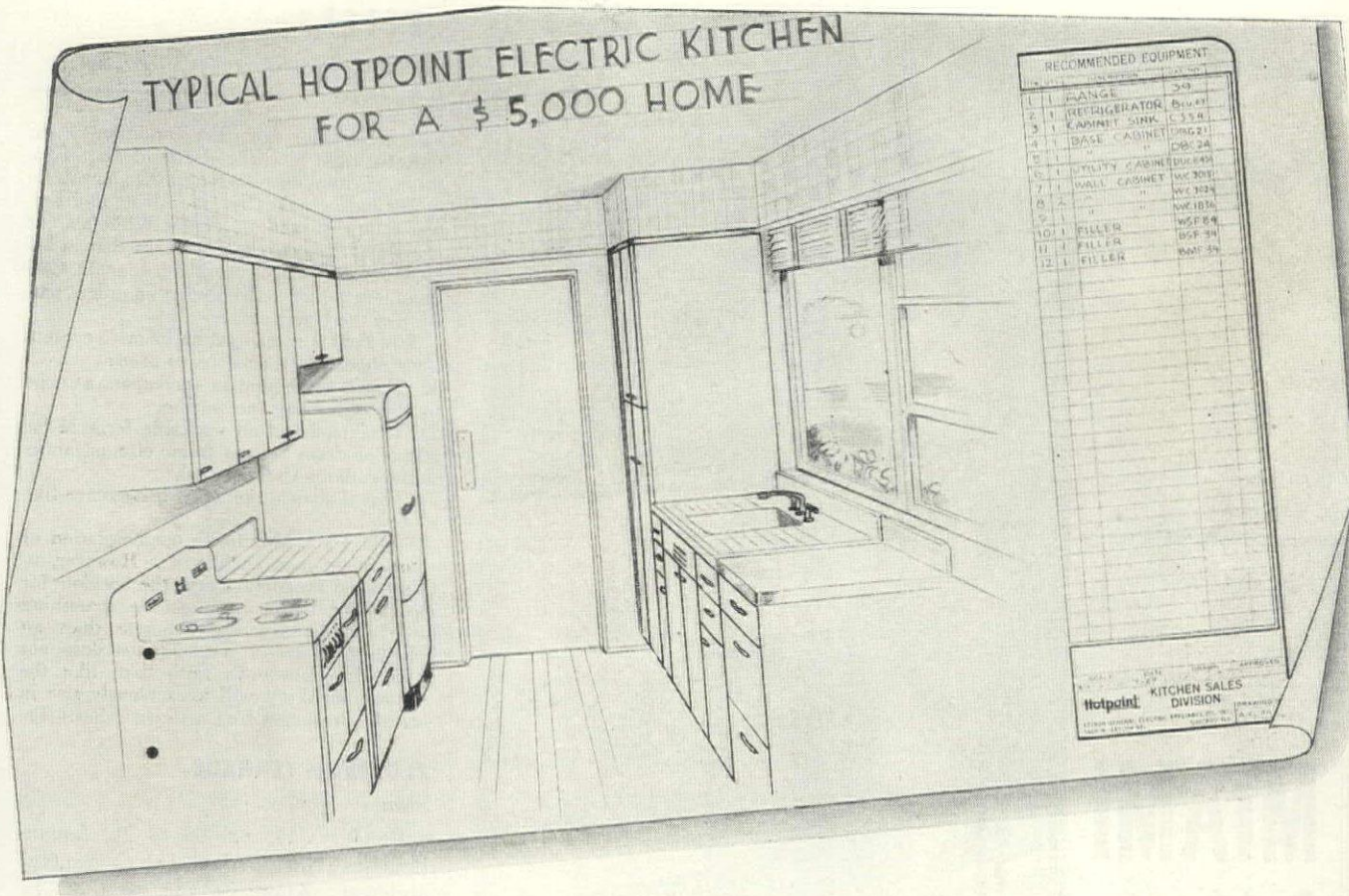
With all these technical devices installed, the change-over from whimsy to war production was made easier for the Disney staff. Happy, Sleepy and Doc are now showing the troops how to clear swamps of the Anopheles mosquito and the animators are using slide rules to figure out the speed of battleships and torpedo planes. There is a new cut-out department and the work of the camera crews has increased eighteen-fold.

During the fiscal year 1942-43 Burbank produced five and a half times its peace-time output of film, 95 per cent of which was on government contract. The war has cut the staff but more than 500 people are still working overtime, and using the four restaurants, the lounges and sun-decks, the gymnasium and the landscaped grounds for recreation. The new plant has given them a preview of postwar production methods, in which the factory will be more than a workshop, and the provision of comfort and convenience a carefully-studied part of the industrial plan.

Disney once remarked that it is stress, challenge and necessity which make an artist grow and outdo himself. The same may be said of architects and engineers. In this case at least, the challenge was well met. The forward-looking technician will be a necessity, not a luxury, in the building program of the future.



## TYPICAL HOTPOINT ELECTRIC KITCHEN FOR A \$ 5,000 HOME



# To Cash in on the Building Boom, Remember

**77%** of Postwar Homes will be priced  
for Electric Kitchens

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

### A Home is as Modern as its Kitchen

Among the other indications of what women want are the thousands of letters in response to Hotpoint's offer of a home-planning file. They give intimate glimpses of Mrs. America's postwar planning—her insistence on having a Hotpoint Electric Kitchen and all the conveniences it means.

Gone are the days when women were satisfied with old-style unfurnished kitchens. This is the *electrical* age of wonders such as radar and television, and Mrs. America knows it.

The average family moving into a new home will need new kitchen equipment anyway. Old appliances in general are well

past replacement stage. Add irresistible sales appeal by showing *complete* Hotpoint Electric Kitchens, whether in plans or in homes for inspection by prospective buyers.

Authorities agree that from 3 to 5 times as many will modernize as will buy new homes. In modernizing, as in building, kitchens are of first importance.

In speculative building, the sales-appeal of modern electric kitchens speeds turn-over, reducing financing costs.

### Hotpoint is Pre-selling Your Prospects

Through the war years, Hotpoint advertising has constantly promoted War Bond savings for postwar homes. That advertising is continuing, making more and more people want homes—and Hotpoint Kitchens. Make use of "Hotpoint Kitchen Planning Service." Edison General Electric Appliance Co., Inc., 5651 West Taylor St., Chicago 44, Ill.



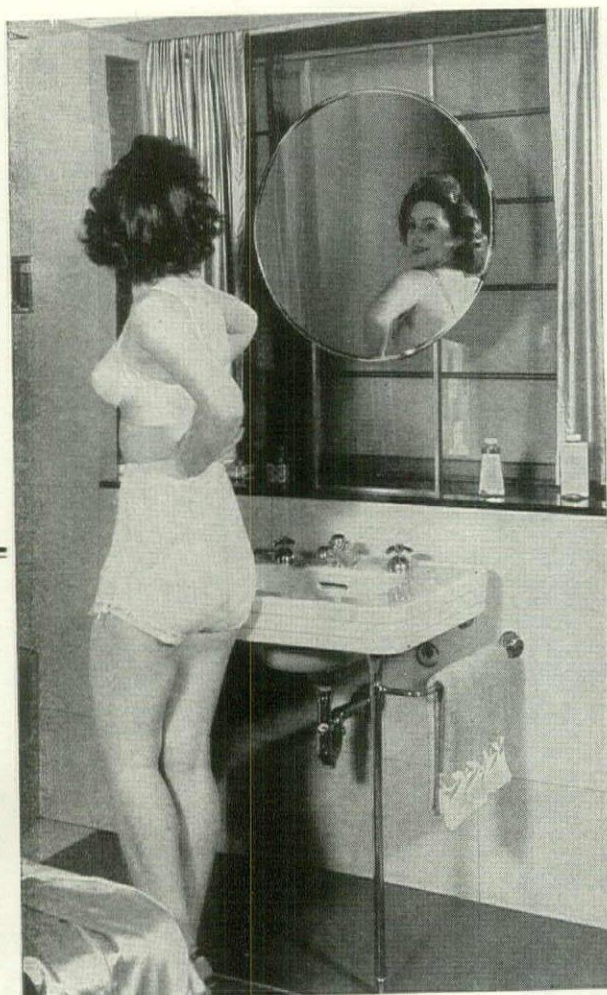
In most states, all Hotpoint Kitchen equipment can be included in F. H. A. loan.

# ELECTRIC Hotpoint KITCHENS

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



Bathroom by Crane



## MIAMI Cabinets

### *Glorify the American Bathroom*

For the past quarter of a century, MIAMI has pioneered in the design and fabrication of Bathroom Cabinets and Accessories.

Replacing the old-fashioned, hand-made, wood cabinets with metal units developed on a production basis, MIAMI has been able to deliver better and better values—year after year.

From OLD to NEW . . .



MIAMI Cabinets, famous for modern beauty and convenience features, are a thrilling departure from unattractive old-time cabinets . . . and advanced as far as that of today's streamlined under-garments over fashions of yesteryear.

We have some "cabinet secrets" awaiting V Day. In the meantime, we are occupied with tasks that are hastening that occasion.

## MIAMI CABINET DIVISION

The Philip Carey Mfg. Company

Middletown

Ohio

## LETTERS

(Continued from page 36)

vating. Judging from the condition of the universe right now, the efforts of Mr. Mumford's spiritual ancestors appear to have been rather ineffectual, Thoreau, Alcott and Emerson notwithstanding. As for Whitman, our critic may be interested to learn that in his monumental work on Abraham Lincoln, Carl Sandburg portrays the poet as an ardent partisan of the Union cause.

THE FORUM stands pat on its main contentions about *The Condition of Man*:

- 1) That it attempted to encompass a scope too broad for any one volume.
- 2) That it offered no workable formula for transition from present tragic circumstances to the author's Utopian goal.
- 3) That it shaped the English language like a pretzel.

We find Mr. Mumford's contemplation of consummate man enchanting. However, in this year of sanguinary orgy the antidote for mechanized barbarism must be something more rudimentary and concrete than an "eloquent protest." THE FORUM does not share Mr. Mumford's faith that, like the phoenix, mankind will miraculously rise in youthful freshness from its own ashes.—Ed.

### ALUMINUM TERRACE

Forum:

Re July '44, pg. 65 to 76, famous Bauhaus (Nazi for Jack Leg Carpentry) architect. Where do you get that "famous" from? If pg. 65 to 76 are the cause for "famous" there should be added the prefix "in" in front of it.

Of all the rankest "*carpenter vernacular renaissance*" this is the most completely asinine mis-use of each and every material, and all proportions disregarded. God, can man be human and do such stuff, and be called "Famous Architect?" What has the noble art of architecture ever done to be so desecrated? Do you know the equivalent of Bauhaus in good old U.S.A. It's "saw and hatchet jack leg." May God forgive you for trying to make a fool out of architecture.

J. JORDON

Galveston, Texas

Forum:

Read with interest July issue presenting the Aluminum Terrace project at New Kensington.

As a newcomer to the Terrace, must admit the exteriors, especially on wash day, and the detour entrance presented opportunity for second thought.

After first week's residence, my wife and I were both praising the designers. Backed with the experience of living in rented houses in six states and an even dozen houses with twice the rent, we can state with assurance the layout is excellent—more power to Gropius and Breuer and convenient living.

R. G. FRASER

New Kensington, Pa.

(Continued on page 146)



**Better daylighting • better ventilation  
with SAFE Psychiatric Windows**

★ *Fenestra* ★



Among the numerous postwar buildings now being planned are many psychiatric hospitals and many general hospitals with psychiatric wards.

Therefore, we feel the time is opportune to invite your special attention to the postwar line of Fenestra Steel Psychiatric Windows.

First of all, these windows will afford, in greater abundance, each of the "three great essentials demanded of all windows": daylight, fresh air and its control, and see-through vision. Their extra large areas will help create that "open" feeling so important to the welfare of mental cases.

Likewise of singular importance in the mental hospital or ward is window safety—the safety provided patients by windows whose ventilator openings are restricted.

But Fenestra Psychiatric Windows will also provide maximum safety for the hospital staff, including the maintenance people. For example, Fenestra Screens will be attached on the outside safely from the inside; and both sides of the glass will be washed safely from within a room . . . The partial list of important Fenestra features, at the right, is worthy of your special study.

Please feel entirely free to call on us for advance information about the various types of "specific purpose" Fenestra Steel Windows, for various types of buildings. They will all be available soon after the war is won.

**DETROIT STEEL PRODUCTS COMPANY**

*Now Chiefly Engaged in War Goods Manufacture*

Dept. AF-9 • 2252 East Grand Blvd. • Detroit 11, Mich.

Pacific Coast Plant, Oakland, California

#### **REMEMBER THESE ADVANTAGES OF FENESTRA STEEL PSYCHIATRIC WINDOWS**

**MORE DAYLIGHT**—less frame, more glass.

**BETTER SEE-THROUGH VISION**—window bars and guards eliminated.

**BETTER VENTILATION AND CONTROL OF IT**—tilt-in vents serve as built-in windguards. When open, deflect drafts upward, shed rain to outside.

**INCREASED SAFETY**—vent openings restricted.

**EASIER OPENING**—steel vents never warp, swell or stick. Also they swing instead of slide.

**SAFER WASHING**—both sides of glass washed from inside a room.

**BETTER SCREENS**—attached or removed quickly, safely, from the inside.

**ADDED FIRESAFETY**—steel does not burn.

**SUPERIOR WEATHER-TIGHTNESS**—precision-fitted by craftsmen, unaffected by weather-changes, they stay tight.

**GREATER BEAUTY**—architectural beauty is enhanced by the neat, narrow lines of the steel windows, and by their attractive hardware appointments.

★ *Fenestra* ★  
**HOSPITAL WINDOWS**



BROAD BROOK COMPANY.  
WOOLENS & WORSTEDS.

*Broad Brook's Letter, Oct. 19, 1904*

## 40 Years of Proof!

1904

Sir,  
Will you send me particulars of your rolling doors, including the cost of doors, installing them etc. We want a couple of doors which would be suitable for our boiler room and we would like to know if rolling doors would be durable in such a place and how they would stand snow and ice in the winter. The doors would have to be opened and closed a dozen times a day. The door ways are 10 feet wide by 10 feet high.

Yours truly  
Benj. S. Hanson. Engineer  
Box 221  
Broad Brook Ct.

1944  
its 40th year!

40 years of daily service . . . maintenance costs nil . . . and still on the job with highest efficiency! 40 years of savings in floor and wall space

. . . of extra protection against fire, theft, wind and weather! Here again is dramatic proof of how ruggedness and economy are combined with smooth time-saving convenience in Kinnear Rolling Doors. Many similar records in the Kinnear files tell of such long, low-cost efficiency. The coiling upward action of the fa-

Also still on the job is Benj. S. Hanson, Engineer who instigated the original purchase of the Kinnear Door in 1904.

mous interlocking-steel-slat construction (originated by Kinnear), plus skilled engineering and fabrication by door specialists, are reasons for the record performance of Kinnear Rolling Doors. They are the right answer to every service door problem! The Kinnear Mfg. Co., 1640-60 Fields Ave., Columbus 16, Ohio.

## LETTERS

(Continued from page 144)

### RULES FOR THE ROBERTOS

#### Forum:

I doubt if the Roberto brothers have bothered to study the classical rules of the proportions, which they claim influenced the design of their IRB building in Rio de Janeiro. (See ARCH. FORUM, Aug. '44.) There is no way in which the building can be judged on this basis. Gottfried Semper's mode of comparing proportions (the most useful of any modern scholar) is to measure the rectangle formed by the horizontal line of the top of the stylobate, the vertical axes of the outer of the four central columns on the front of the building and the horizontal line of the top of the geison. The proportional relations of this rectangle can then be given in terms of the lower diameter of the column. In the case of the IRB building, not only is there no stylobate (unless its place is taken by the sidewalk!), but the architects have dispensed altogether with the geison; in fact there is no semblance of a cornice anywhere to be seen. As for the columns, there is little resemblance to the classical model. None of the fluting which enriches the Greek shafts has been attempted. It is of course possible that the architects used the temple at Segesta as a source; if so, they are obviously not aware that this beautiful shell was abandoned by its builders before the flutes had been incised. But this would still not account for the absence of taper on the "modern" example.

Your suggestion that there is anything new or useful for study in this building is a matter for individual judgment. Among the gems of the Constructivist period (which incidentally may be considered among the most rewarding of the recent styles) Osswald's Tagblatt Tower in Stuttgart provides a more daring solution for the office building, and there are examples of the work of Berlage which deal more adequately with the sunshade, and in a less complicated manner. The Robertos' new architecture seems to me to be closest in feeling to the late unlamented Italian modern style and a far cry from the glorious Brazilian baroque tradition which Mr. Philip Goodwin, in his book, "Brazil Builds," describes so well.

Those who profess an admiration for classical architecture would do well to follow it more faithfully. Sullivan was as fond of the vertical as of the horizontal, if my memory serves me, and was not averse to a little ornamentation here and there, based on classical motifs. In claiming him as their master, the Robertos are acknowledging a heritage which

(Continued on page 148)

SAVING WAYS  
IN DOORWAYS

**KINNEAR**  
ROLLING DOORS



THE *Modern* METHOD OF JOINING COPPER AND BRASS PIPE

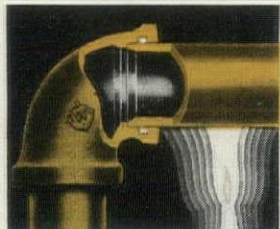
# SIMPLIFY PIPE RUNS

with *Silbraz* Joints

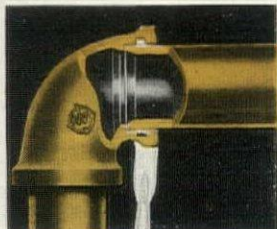
made with

*walseal*

VALVES, FITTINGS and FLANGES



After cleaning and fluxing pipe and fitting, insert pipe into fitting up to shoulder. Then expand pipe by heating with the oxyacetylene flame.



Heat a section of the fitting, directing flame toward pipe or tubing. This causes section of fitting to expand, allowing alloy to flow.



Heat both pipe and fitting with a wiping motion of torch. Remove flame. Fitting contracts, alloy flows and forms ring at fitting edge, completing Silbraz joint



VALVES



FLANGES



FITTINGS

To assure strong, trouble-free joints on copper and brass pipe... and eliminate maintenance and repairs, specify Walseal bronze valves and fittings. These Walseal products make threadless Silbraz joints that are leakproof and permanent—stronger than the pipe or tubing itself. Easily installed by oxyacetylene brazing, Walseal valves and fittings are particularly suited to installation in locations where space is limited.

Silbraz joints cannot creep or pull apart under any shock or pressure which the pipe itself can withstand. Once installed they are good for an indefinite period of maintenance-free service.

For complete details on Walseal bronze valves, fittings, and flanges for making Silbraz joints, send for a free copy of Walworth Catalog 42. It describes the complete line of valves and fittings made by the Walworth Company. \*Reg. Trade Marks.

MAKE IT A "ONE-PIECE PIPE LINE" WITH WALSEAL



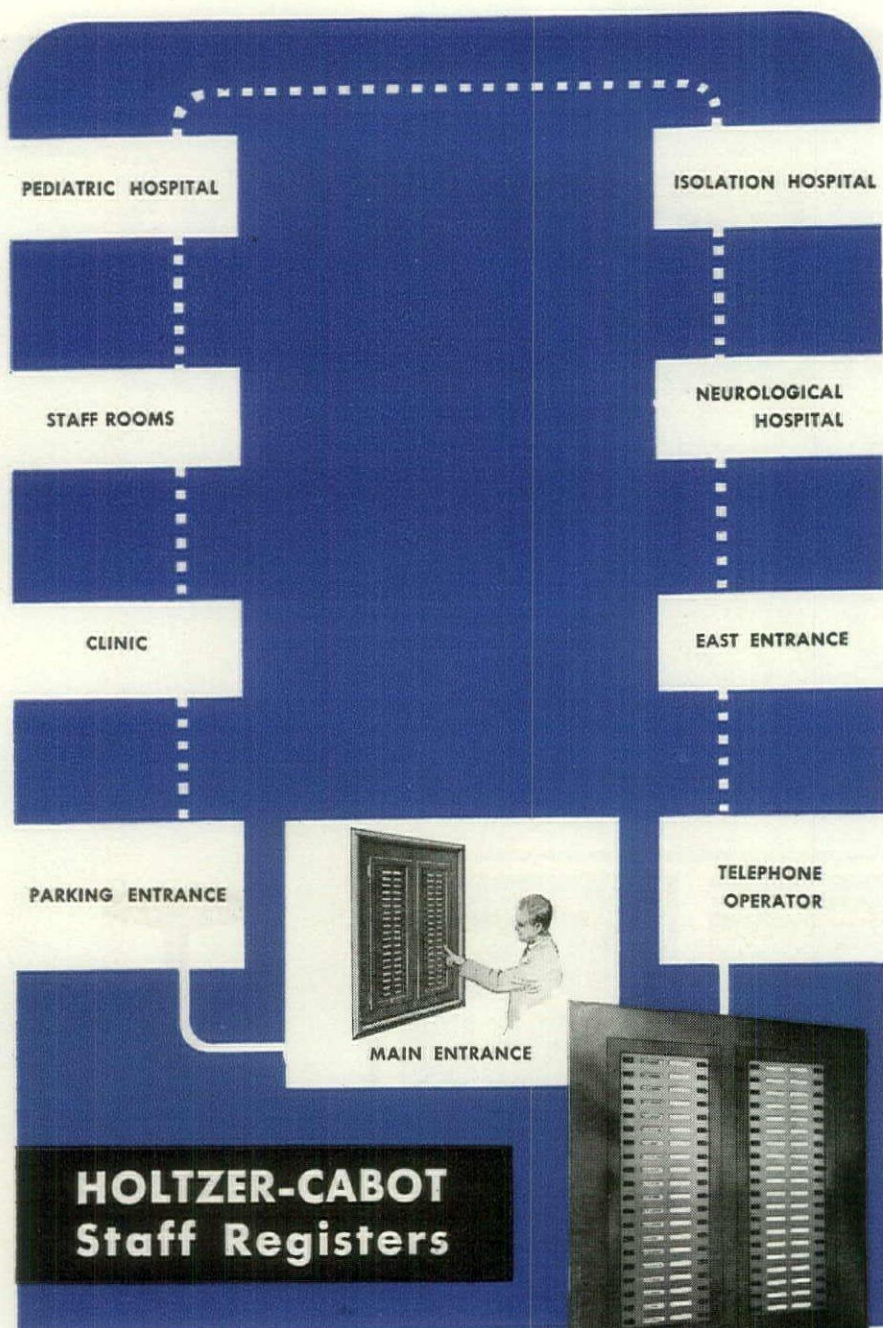
## WALWORTH

valves AND fittings

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DISTRIBUTORS IN PRINCIPAL CENTERS THROUGHOUT THE WORLD





## HOLTZER-CABOT Staff Registers

Holtzer-Cabot Staff Registers provide quick, easy indication of presence or absence of doctors in hospitals. When a doctor enters the building, he turns the switch opposite his name on the staff register. A lamp lights behind his name and stays lighted until he snaps it "off" when he leaves the building. Auxiliary registers, installed at various entrances or in separate buildings also light up the same name at all registers.

Telephone operators can signal a doctor that message awaits him by turning the switch opposite doctor's name to "call back" position. This causes a light to flash "on" and "off" until he has called the telephone operator.

Holtzer-Cabot engineers are always available for consultation on all hospital signal system problems whether they be for new installations or extensions to existing systems. Ask for their services.

Catalog, giving complete information on Holtzer-Cabot Hospital Signalling equipment, such as Nurses' Call, Visual and Voice Paging, Staff Registers, Return Call, Phonocall Systems, will be sent on request.

One Responsibility—Satisfactory Operation of Complete Systems.



## HOLTZER-CABOT

Division First Industrial Corporation

Pioneer Builders of Signal Systems Since 1875

400 STUART STREET, BOSTON 17, MASSACHUSETTS  
Engineers Located in Principal Cities See SWEET'S ARCHITECTURAL FILE

## LETTERS

(Continued from page 146)

they do not possess and you yourselves are encouraging a wilfulness among architects that may lead I know not where. Guide your readers back to Greece and Rome . . . there is no better foundation for the modern world.

CHARLES CARTER SPENCER  
Princeton, N. J.

## OF SMELLS AND VENTILATOR FANS

Forum:

Kitchen ventilation? (See *Publisher's Letter*, May.)

I've cooked in and cleaned exactly 25 kitchens in the past 19 years of life with a husband whose work has moved us all over the country, from Seattle to New York, from Chicago to Como, Mississippi. The kitchens have been big ones and little ones, old ones and brand new ones. But not one has had a ventilator fan!

So I echo Hawaii's wail! we all cook things at times that don't smell as good as they taste, such as cauliflower, cabbage, fish, and chili—oh, for a ventilator fan at those times! We all have many a day of hot, steamy cooking or canning when the heat almost gets us down—oh for a ventilator fan! And the best of us have those bad moments of fat-spattering, scorching, burning, boil-overs, that we'd just as soon not advertise in the rest of the house and neighborhood—oh, for a ventilator fan!

Furthermore, why can't the kitchen be located, in the first place, so that it has at least two-way, and preferably three-way, view and ventilation? This is the room where the average housewife spends the most hours of every day—why shouldn't it have the best in view and ventilation?

For those kitchens that don't have, and these are certainly in the majority, there surely should be wall and/or ceiling fans to help circulate the air that there is in the room.

Also, why do architects persist in violating refrigeration engineer's recommendations that no cupboards be placed directly over or around the refrigerator? This interferes with the circulation of air that is necessary for the most efficient operation of the refrigerator.

Finally, any good housewife wants to buy fruits and vegetables in family-size quantities that save both money and time spent in shopping, but there's so seldom a place to store such quantities: why can't there be a "cool cupboard" in or near the kitchen for storing these apples, squash, potatoes, onions and the like?

MRS. EDGAR F. STUNTZ  
Frankfort, Ind.

(Continued on page 150)



# For Door Specifications

## Douglas Fir Doors Completely Machined on Special Order

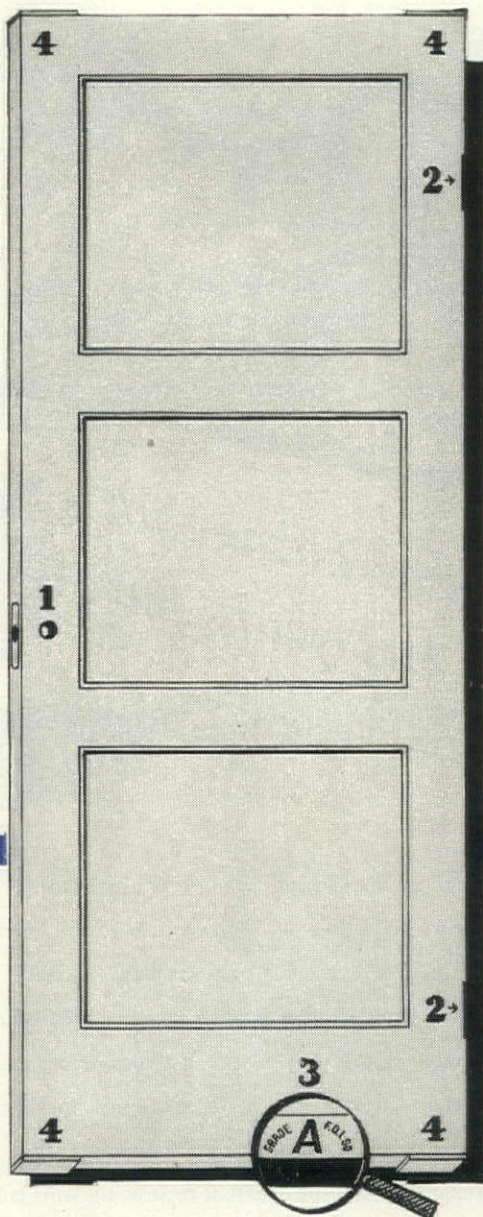
For all doors on post-war projects (or doors for essential building today) you can safely specify "doors shall be Douglas fir of A or B grade as shown in CS73-43, prefit to size, factory machined for tubular locks and for hinges."

Such a specification will not only mean saving of time and labor in building (enough to offset slight additional cost) but will inevitably result in client satisfaction—the door will hang better, paint better, look better, longer.

- |  |  |
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| <b>1</b> FACTRI-FIT doors are pre-fit at the mill, trimmed to size, ready to hang. | <b>3</b> FACTRI-FIT doors (like all Douglas Fir Doors) are edge grade-marked.      |
| <b>2</b> FACTRI-FIT doors may be ordered completely machined at your option.       | <b>4</b> FACTRI-FIT doors are scuff-stripped to protect the precision cut corners. |

# FACTRI-FIT

**PRECISION-BUILT DOUGLAS FIR DOORS**



### Featured 3-Panel Designs

Basic, all-purpose designs are featured in the stock line of Douglas Fir Interior Doors. Attractive, architecturally correct, these Douglas fir designs are ideally adaptable to all types of building.

And remember! The natural beauty and durability of Douglas fir assures the home owner that every Douglas Fir Door will look better—and last longer.

Write for catalog showing complete line of Douglas Fir Interior Doors, Tru-Fit Entrance Doors and new Specialty Items.

Douglas Fir Doors are now available only for essential building. When war needs lessen, they will again help you build better—and faster.

## Douglas Fir DOORS

### FIR DOOR INSTITUTE

Tacoma 2, Washington

**Remember!**  
NATURE MAKES  
DOUGLAS FIR  
**Durable!**

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



## LETTERS

(Continued from page 148)

### ROCK-BASED CHRISTIANITY

Forum:

Accompanying a church design on page 82 of *THE FORUM* for May is an article which includes the following astonishing sentence: "If religion is to play an important role in our lives in the postwar world, it must adapt itself to modern thought and philosophy."

That is a statement which might have been swallowed in a more soft and superficial era. It flattens out in the press of world depressions and wars. Religion today is in a vast upsurge and the tide runs strongest toward that rock-based type of Christianity which has challenged as abortive and suicidal many of the expedienices commonly accepted as "modern thought and philosophy." As a pre-requisite to a thorough discussion, the said philosophy would need to be defined. But the point is, pliable theology is waning.

This should be no source of worry to the creative artist, however, for the more definite the Faith, the more rich is the inspiration and also the opportunity for expression of the same in all times and places, as architectural history well proves.

J. E. MEYER

Lorain, Ohio

### WANTED: CITY PLAN

Forum:

Although I have no direct connection with city planning, I have become very interested in the subject partly because of a personal fury at the condition of New York apartment houses which I, as a white collar worker, can afford to live in. A modest one-room apartment will rent for \$80 a month, while those which cost much less are apt to be virtual tenements.

Placed in inconvenient spots, far from parks, perhaps even in a warehouse district these "homes" make living in New York a horror for anyone but the wealthy. Even more affected by this situation than I are the families with small children who must battle traffic to get to school and whose main playground is the street.

This is why I was so deeply impressed with your "Planning With You" series advocating an over-all plan for cities which would make living and working in them a pleasure for everyone—not just the lucky few. My hopes rose when I read in your News Section of New York's postwar plans (see *ARCH. FORUM*, May '44). On a closer examination of this program I discovered that it was a phony. Apparently a vast

(Continued on page 152)



For more than a century Eagle White Lead has remained the same—*pure* white lead ground in *pure* linseed oil. Since 1843 architects have specified it... master painters have used it... because they know from experience that Eagle *purity* means satisfactory paint jobs.

Eagle is *plenty tough* too. It's time-and-weather-defying... forms a durable, flexible coating that doesn't crack or scale... expands and contracts with atmospheric changes... ages gradually, gracefully, preparing itself for eventual repainting *years* later.

During 1944 all care *must* be taken to preserve existing American homes and institutions. We are glad to be able to say there is enough Eagle *Pure* White Lead for all necessary painting. You can recommend it to your clients with full confidence.

★ *Let's all back the attack — buy another War Bond!* ★

THE EAGLE-PICHER LEAD COMPANY, CINCINNATI (1), OHIO

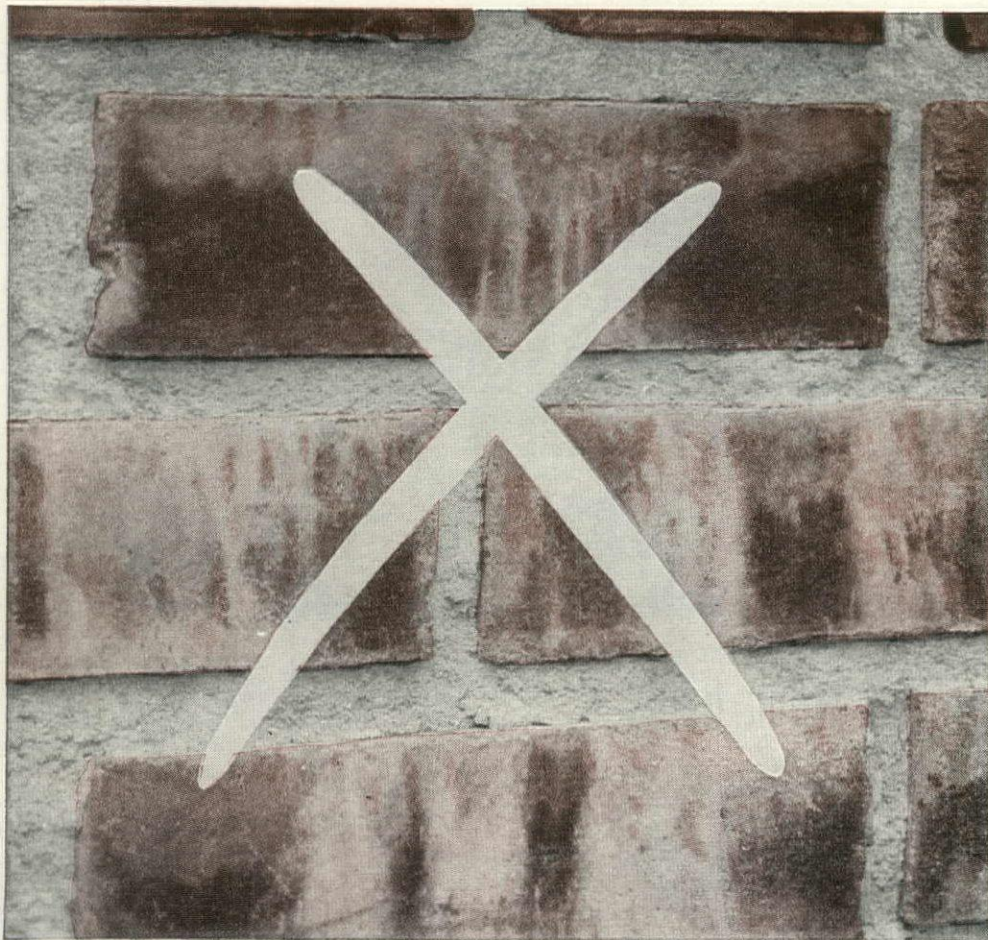
Member of the Lead Industries Association



**EAGLE  
WHITE LEAD**







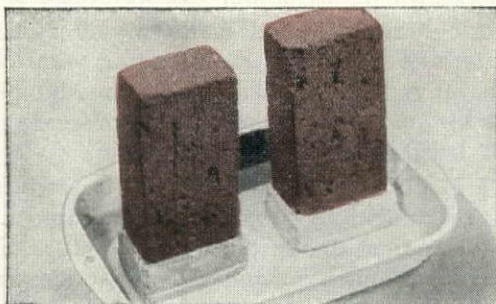
# BRIXMENT Mortar Helps Prevent Efflorescence

● EFFLORESCENCE is an outcropping of minute white crystals on brickwork. When these crystals occur on colored mortar joints, the condition is sometimes mistaken for *fading*.

Efflorescence is caused by the presence of soluble salts in masonry materials. When reached by water, these salts dissolve, and are drawn by evaporation to the surface of the wall.

Brixment itself *does not cause efflorescence* because it is practically free from soluble salts. Even when such salts are present in the sand or brick, the waterproofing in Brixment mortar usually *prevents them from coming to the surface*.

Bricklayers who have used Brixment mortar for years say they have far less efflorescence with Brixment than with any other mortar.



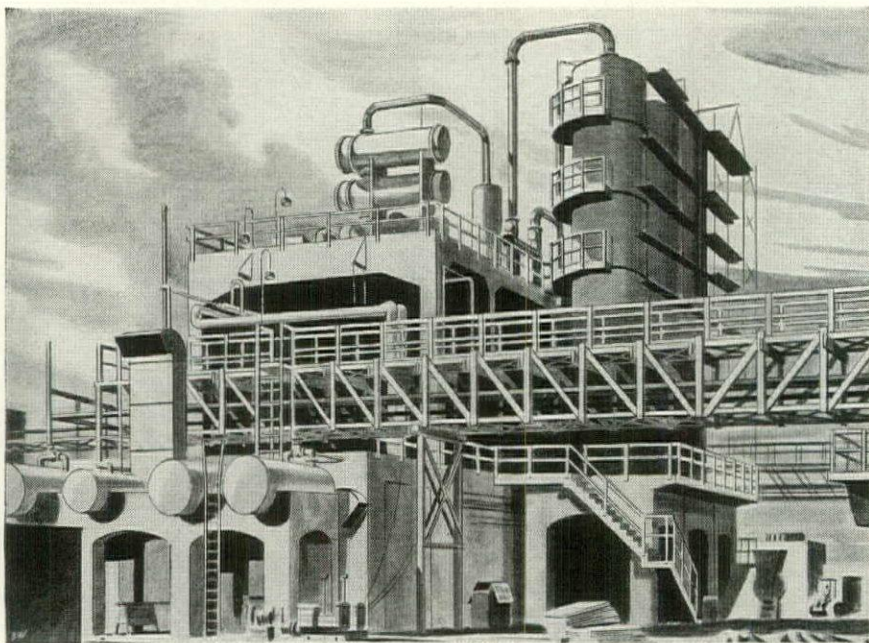
"Cap" one brick with Brixment mortar, and one brick with mortar made with 50-50 cement and lime. After mortars have hardened, place both brick in a pan of shallow water.



Keep about an inch of water in the pan. Even if soluble salts are present in the brick or sand, you will soon be convinced that Brixment mortar helps prevent efflorescence.

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





## Flame-proof wood helps U. S. deliver "home grown" rubber

**SYNTHETIC** rubber plants are using flame-proof wood in their stairways, platforms, supports, walkways and railings. Wood is light in weight, easy to handle and erect. It goes up fast.

**MINALITH\*** fire retardant, driven deep into the wood by vacuum-pressure treatment, enables it to stand up under flash fires. It won't carry fire, simply chars under continued exposure to flame. Structural members retain their high strength without sudden collapse when exposed to flame.

**WIDELY USED** in the war effort for structures where fire hazards exist—warehouses, blimp hangars, loading platforms—this flame-proof lumber promises to be equally valuable in postwar construction. So, too, does Wolmanized Lumber\*: ordinary wood made highly resistant to decay and termite attack by impregnation with Wolman Salts\* preservative. A long history of successful performance proves the reliability of the vacuum-pressure process employed in treating with either compound.

A 4-PAGE FOLDER describes Minalith-treated lumber, as a means of combating fire, and Wolmanized Lumber for protection against decay and termite attack. It illustrates typical construction on which these vacuum-pressure lumber treatments have been employed, and gives the specifications covering both types. For a free copy of this folder, address your request to American Lumber & Treating Company, 1647 McCormick Bldg., Chicago 4, Ill.

\*Registered trade marks

WOOD THAT'S



FOR SAFETY AND ENDURANCE

**AMERICAN LUMBER & TREATING COMPANY**

## LETTERS

(Continued from page 150)

amount of money is going to be sunk in pretentious structures superimposed on a city whose basic faults are completely ignored. If an over-all plan ever does arrive these so-called improvements might become white elephants which would have no relation to the rest of the city.

Why can't New York have a plan at least half as good as Plymouth, England (see ARCH. FORUM, July '44) which sounds like a postwar paradise?

ANN KENYON

New York City

Don't ask us, ask Moses.—Ed.

### WEBSTER PLEASE COPY

Forum:

On p. 136 of your July issue appear the words "ignatron" and "kinatron." Would you please define these words for us? We just don't know what they mean and no dictionary that we have explains them.

Wishing the pleasure of reading more issues as brilliant as your July issue, we are, grateful for your activities,

Sincerely,

J. H. RYDER,

NORM ADVERTISING INC.

New York City

*Ignatron*: a mercury arc rectifier with a pool-type cathode in which the arc is started by a method different in principle from that employed by the ordinary mercury arc tube.

*Kenotron*: a relatively simple electronic tube which may be described as a high vacuum thermionic diode.—Ed.

### LETTER FROM RUSSIA

Forum:

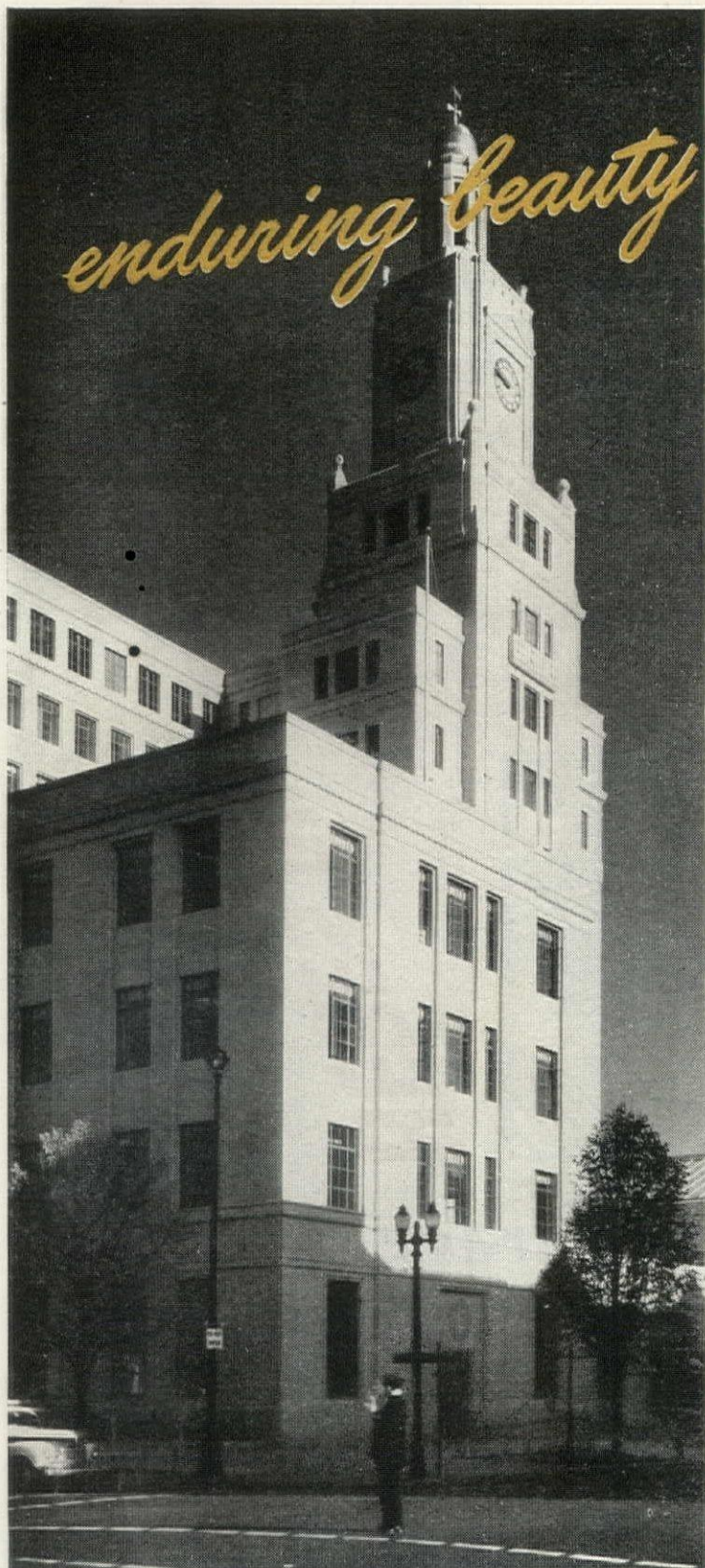
The tremendous scope of the construction work which developed during the period of the ten year economic plan made many demands on Soviet architects. New towns were built and others were reconstructed in which dwelling houses and public buildings, research institutions and libraries, theaters and clubs, were built to meet the growing needs of the Soviet people. Solicitude for the people is the keynote of new building developments in the USSR. To achieve this it was decided to set up a research institution working in the field of architecture to attain large numbers of qualified masters of the building art.

Ten years ago the Soviet government organized in Moscow an All Union Academy of Architecture as an institution to fulfill these research and pedagogical requirements. The chief *raison d'être* of the Academy is provision of higher professional training for architects and research into practical and theoretical problems arising in the

(Continued on page 156)



# HERE AGAIN, BRONZE COMBINES



New England Mutual Life Building, Boston. Cram and Ferguson, Architects. Turner Construction Co., General Contractors.

*and utility*

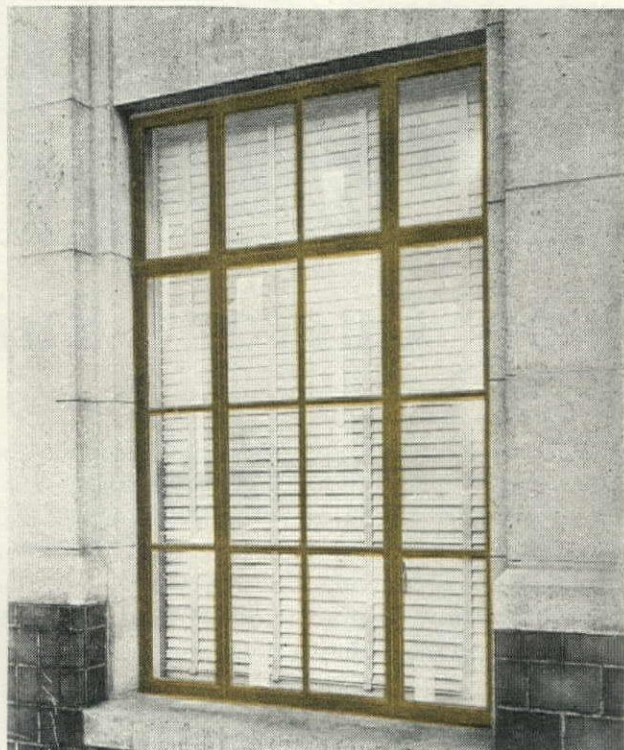
EVIDENCE OF THE architect's intention to build for permanence is seen in the bronze windows of the strikingly handsome home office building of the New England Mutual Life Insurance Company of Boston. Fabricated from Anaconda Architectural Extruded Shapes by the General Bronze Corporation, these windows lend impressive dignity and the enduring, rustless beauty that only bronze can impart.

Even more important, perhaps, is the fact that such windows require no maintenance, no painting, operate smoothly, will never bind or cause panes to fracture from rust accumulation in the channels.

Architectural bronze, traditionally beautiful, increasingly useful, provides long run economy over less durable materials.

4435

BUY BONDS . . . buy more than before to shorten the war

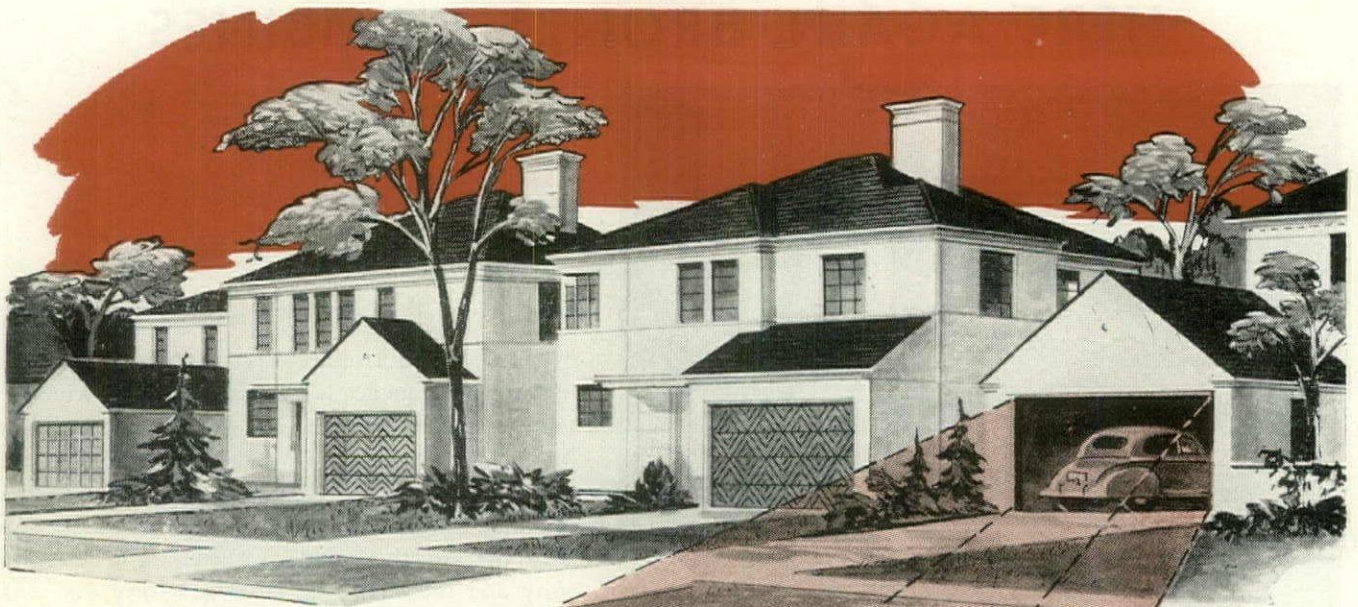


*Anaconda Architectural Bronze*

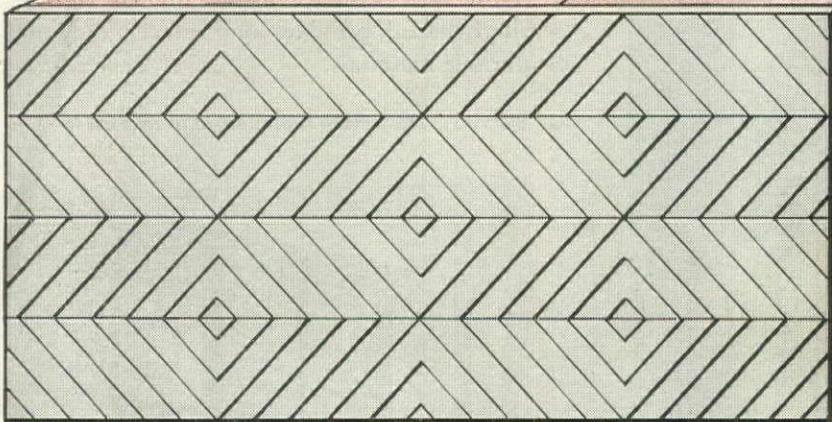


THE AMERICAN BRASS COMPANY—General Offices: Waterbury 88, Connecticut  
Subsidiary of Anaconda Copper Mining Company—In Canada: ANACONDA AMERICAN BRASS LTD., New Toronto, Ont.





This door, custom-built by Crawford, is a four-section, two-car unit, mounted in Crawford standard hardware. The sections consist of a sturdy framework covered with plywood in which the design is reproduced by routing.



**HERE'S OUR SLANT**

## -on Custom-Built Garage Doors...

Although Crawford stock doors for residential garage application are so designed that they fit gracefully into all the popular and accepted architectural styles there will still be in postwar years as in previous years, a certain percentage of instances when doors of individual design will be indicated, especially so when the garage front is an integral part of the front of the house, as in the example illustrated.

Creating garage doors of individual design for mounting in Crawford standard hardware is sound architectural practice because it permits complete latitude in individual expression combined with the structural, installation, operating and servicing advantages of the standard Crawford mechanism which has proved its superiority in so many thousands of installations during the past 15 years.

Crawford Door Company, 401 St. Jean, Detroit 14, Mich.

# Crawford

UPWARD - ACTING

## DOORS

Residential Garage Doors  
Commercial & Industrial Doors  
Hand or Power Operated Doors

★

Craw-Fir Doors

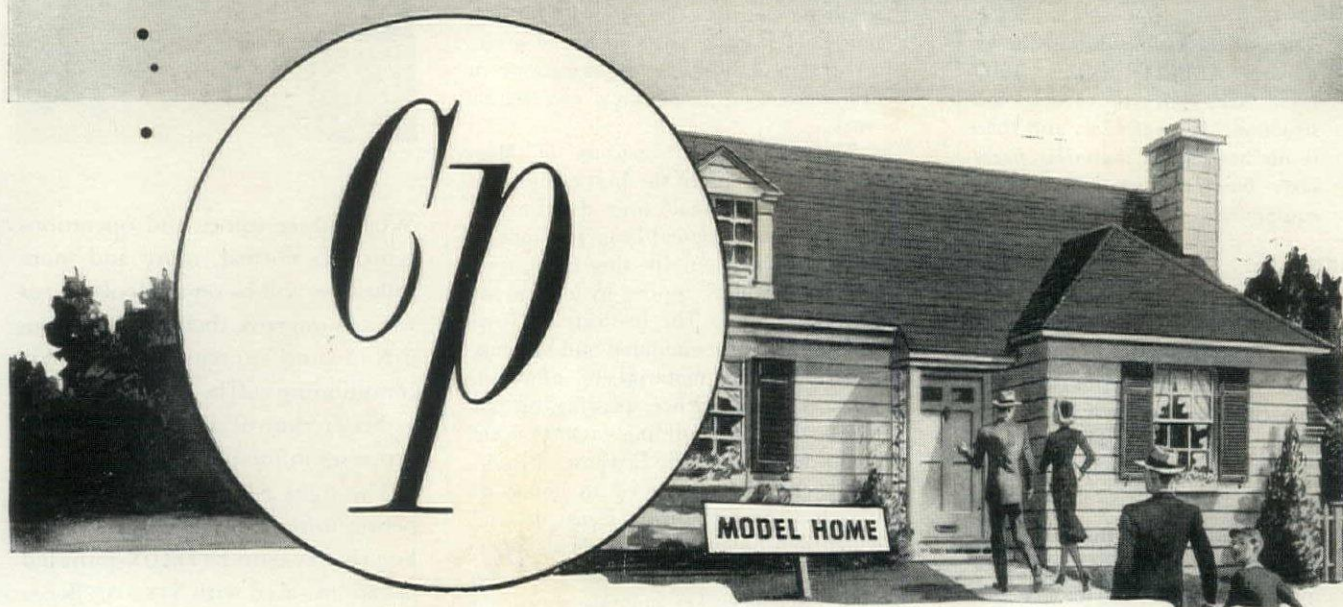
★



# FOR TOMORROW'S GLAMOROUS KITCHENS

## *20 Manufacturers*

### WILL MAKE GAS RANGES BEARING THIS SEAL...



We believe this to be the soundest and most progressive idea ever available to help you select appliances for the glamorous kitchens that make homes easier to sell. The idea is the famous "CP" Seal.

Gas Ranges bearing this Seal will be built by 20 manufacturers to meet the highest performance specifications of engineers and home economists of the entire Gas Industry. But that is not all. Every range bearing this Seal will be tested by the world famous American Gas Association Laboratories to provide an independent consumer buying guide.

No matter who makes these ranges, every one will be *certified* to provide cooler, cleaner kitchens, the latest automatic controls and big savings in time,

food, fuel and money. That's why women will look for the "CP" Seal in the kitchens of the completely equipped homes you design and build tomorrow.

For further information about "CP" Gas Ranges, ask your dealer, Gas Company or write Association of Gas Appliance and Equipment Manufacturers, 60 East 42 St., New York 17, N. Y.

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The Estate Stove Co.	Western Stove Co., Inc.
Glenwood Range Co.	<b>IN CANADA</b>
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Brighten Your Future**



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ONE SAVING WHEN  
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COMPANY**

Michigan City, Indiana

## LETTERS

(Continued from page 152)

sphere of architecture. The Academy has a post graduate institute and a number of special commissions, laboratories and workshops covering such subjects as the theory and history of architecture, town planning, reconstruction, large scale building, etc. There is also a museum with over 25,000 exhibits including such unique items as drawings and models by De la Monte, famous 18th century architect, and original drawings by the Russian architects Bazhenov, Voronikhim, Kazakov and others. The Academy's own publishing house issues books, pamphlets and periodicals on architecture.

During the ten years' existence of the Academy 162 architects passed post graduate courses. The majority of them now hold leading posts in Soviet architectural and building organizations or are conducting pedagogical or research work.

The Academy's "Institute of Mass Building" produced the first designs for standard or "typical" town dwellings.

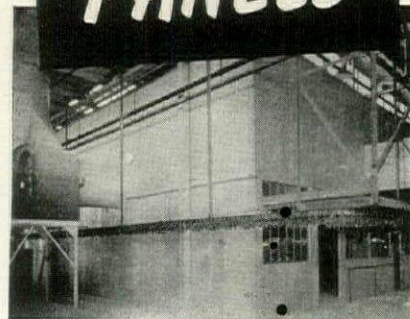
The methodological basis for housing design worked out by this institute is now being widely applied by local architectural studios. The Institute of Town Planning has accumulated and systematized sufficient material to allow its workers to commence drawing up tentative plans for building factory settlements and towns. The Institute of Building Technique has issued an important book "Architectural Construction," which is a handy manual for all Soviet architects and a basic textbook for higher schools. The commission on the Theory and History of Architecture is preparing a history of world architecture and a history of architecture of the peoples of the USSR. The Stone Dressing and Ceramics Laboratory has been able to give our builders considerable help during the past ten years.

Since the war began the Academy's work has centered around problems connected with defense. When large numbers of factories were evacuated into the interior of the country, the Academy of Architecture produced designs for living quarters and essential municipal buildings for the evacuated population. Working drawings accompanied by simple letter-press specifications and a series of pamphlets dealing with simple methods of working up local building materials were published.

Towards the end of 1941 the Academy began sending its representatives to main building sites; they took with them designs for building and rendered architectural and technical assistance to those engaged in erecting new buildings. The

(Continued on page 158)

# Simplify AIR CONDITIONING WITH STEELOX PANELS



When peace comes and operations return to normal, more and more industries will be on the lookout for ways to improve their working conditions and increase output. Air conditioning will be used extensively to better control new products and processes in the postwar era.

The tight STEELOX joints do not permit infiltration of dust or vapor. For this reason STEELOX-paneled partitions, used with STEELOX floors and ceilings, are ideal for air conditioning installations. Humidity, pressure, temperature—and even noise—are more easily regulated and maintained at the desired point in a structure built of STEELOX panels. Sections are strong, light in weight, and can be erected easily and quickly.

Now is the time to get information on STEELOX for postwar air conditioning applications. Just address the Building Sections Dept., The American Rolling Mill Company, 2671 Curtis St., Middletown, O.

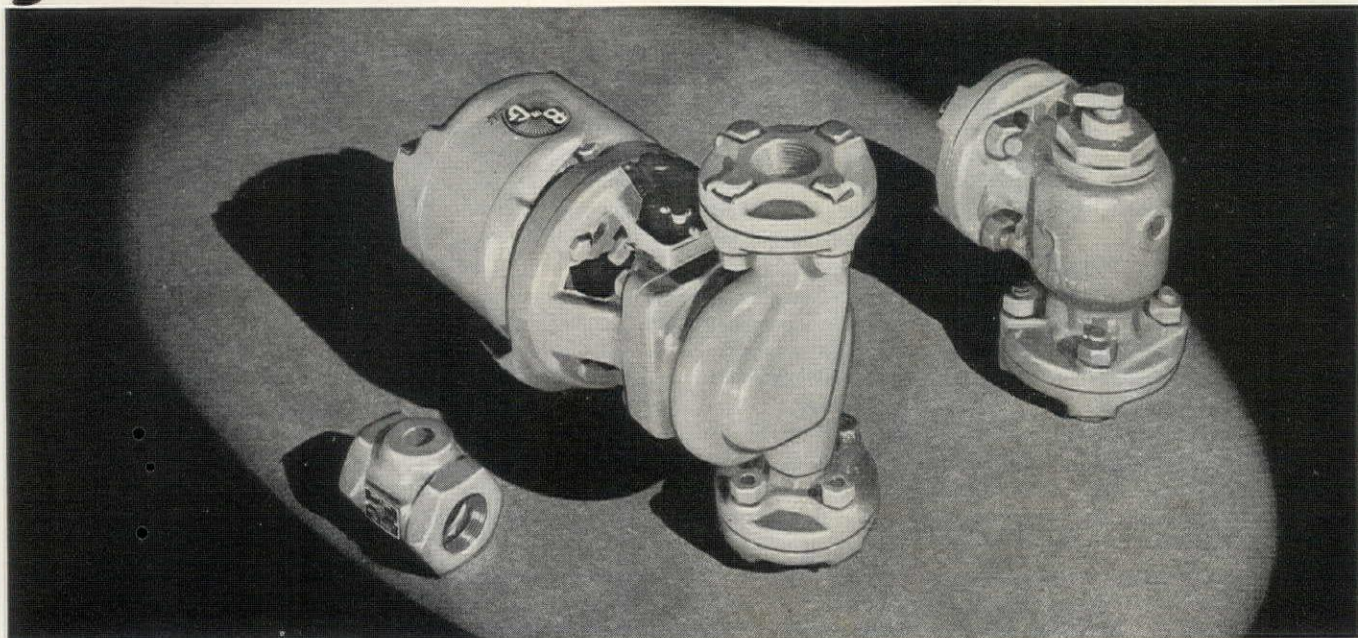
EXPORT: THE ARMCO INTERNATIONAL CORPORATION



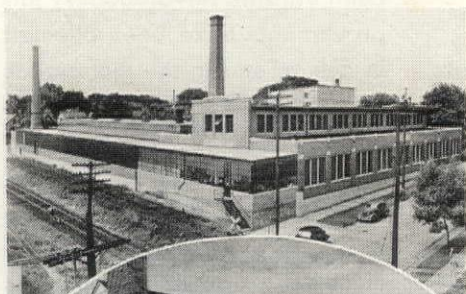
**STEELOX**



# IN THE SPOTLIGHT AGAIN!



**B & G EQUIPMENT RELEASED BY W. P. B. TO AID FUEL CONSERVATION PROGRAM!**  
**FORCED HOT WATER HEAT AGAIN PROVES ITS VALUE AS A FUEL-SAVER**



Of all the war-necessitated activities of this country, the Fuel Conservation Program is today among the most important . . . *fuel is a basic ingredient of production!*

We quote from the "Manual for Winterizing the Home" just issued by the War Production Board—"Defectively designed, fuel wasting hot water heating systems which depend wholly upon gravity circulation may be greatly improved . . . by the installation of forced circulation devices, such as *hot water circulators* controlled by a room thermostat."

That's why B & G Forced Hot Water Heating Equipment is again available for the conversion of inefficient heating plants. Forced Hot Water has proved its case as a fuel-saving heating method.



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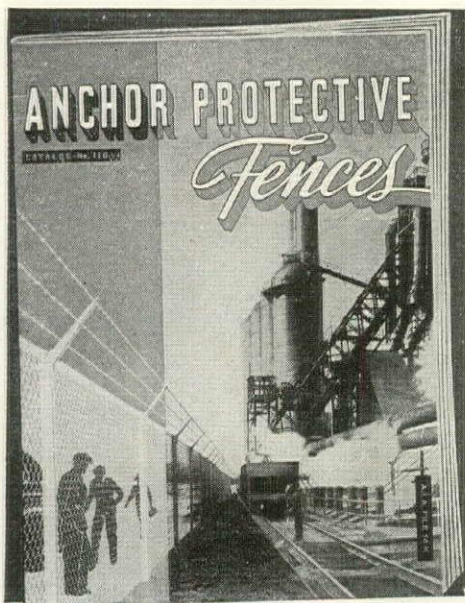
Complete design and installation data on Forced Hot Water Heating Systems and Service Water Heating Systems. Your copy sent on request.

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## LETTERS

(Continued from page 156)

Academy's specialists were sent to Chelyabinsk, Sverdlovsk, Novosibirsk, Krasnoyarsk, Sartov, Kazan and other Soviet cities. These representatives carried out enormous work in introducing lighter types of buildings and working up local raw materials for building purposes and in supplying local engineers with working drawings. At the same time they continued their scientific work through studying local conditions and gathering data on local building materials.

In the autumn of 1941 the Academy was evacuated to Chimkent in Kasakh Soviet Republic and there continued its work. Designs were drawn up for houses in Usbekistan and for various buildings on collective farm cattle ranches of Kasakhstan. The Academy's post graduate students set about a study of popular building methods and architecture of the peoples of Central Asia, the history of whose buildings goes back to very distant times. A 12th century monument of Aisha Bii discovered by Soviet scholars has been measured by academy students; it is a valuable work which casts much light on the problems of early architecture.

At the beginning of the war the Academy opened courses and workshops for training architects in principles of camouflage both at the front and in rear areas. Its "Camouflage Workshop," in which the best civil and military experts were engaged, produced many new simple and effective methods of camouflage and a number of very clever methods of producing pseudo-camouflage effects. A manual on the subject was published.

A great peculiarity of the Academy's development during its ten years of existence is that it had to train specialists and at the same time solve practical and scientific problems connected with building on a nationwide scale. It organized evening, college refresher courses for practicing architects working in Moscow building organizations.

The present task of the Academy is the rebuilding of towns and other inhabited places destroyed by Germans. The Academy of architects are busy on plans and designs for modern towns and villages which will meet all modern demands from a hygienic and engineering viewpoint and which at the same time retain and continue architectural traditions of the various Soviet republics.

ACADEMICIAN VICTOR VESNIN

President of the Academy

Chimkent

Kasakh Soviet Republic, USSR.

## Pre-War KITCHEN EQUIPMENT ☆☆☆ will be obsolete in Post-War ARCHITECTURE

Two years of this war have advanced the science of mass feeding more than the 80 years since John Van produced the first U. S. Army field kitchen for the Union troops in 1863. The benefits of these advances are already available to architects responsible for defense projects. They should be incorporated in all plans for post-war construction.

New and better materials have been utilized. Revolutionary improvements have been effected in design and in the techniques of fabrication. Equipment is more ruggedly constructed with corresponding increase of capacity for long continued, heavy duty service. Safety devices are automatic. Beauty has been enhanced. Costs of operation and maintenance have been reduced.

If you have on your boards or in prospect any projects that include provision for the preparation and serving of food we shall be glad to give you a preview of post-war kitchen equipment and to assist you in detailing the layouts.

We invite your inquiries

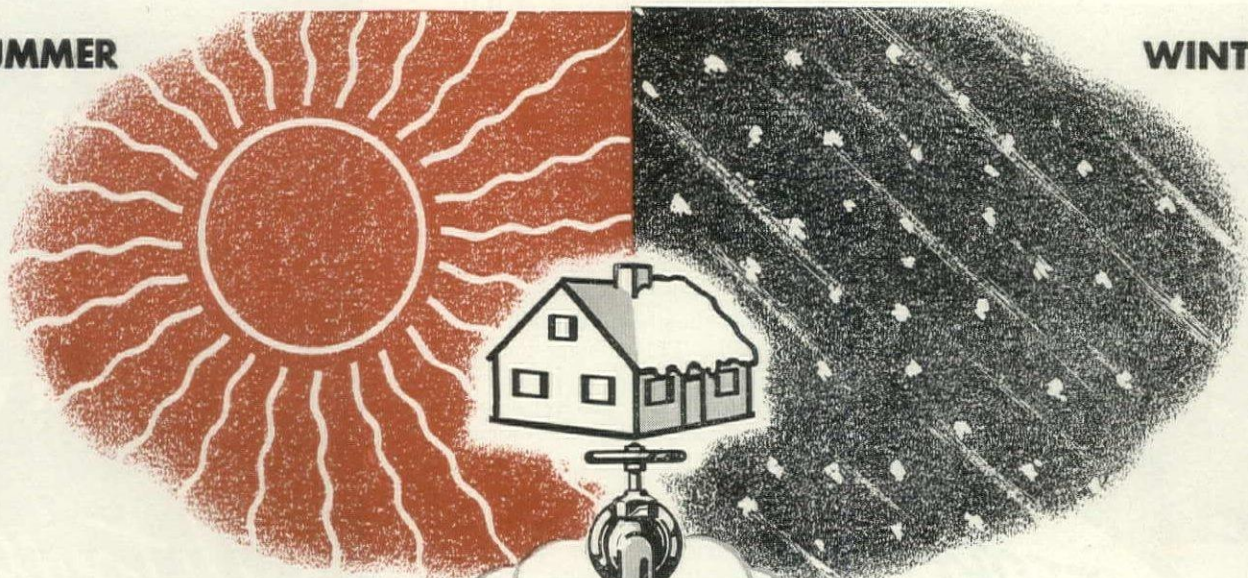
**The John Van Range Co.**  
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SUMMER

WINTER



# RADIANT HEAT

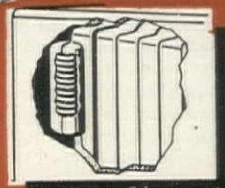
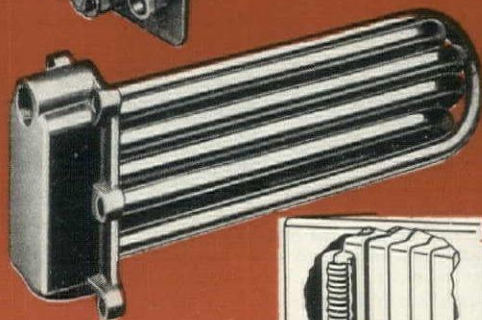
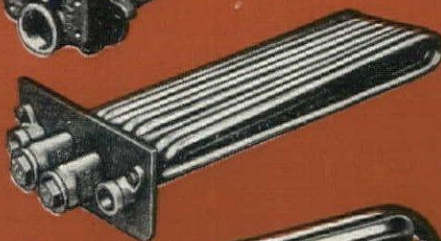
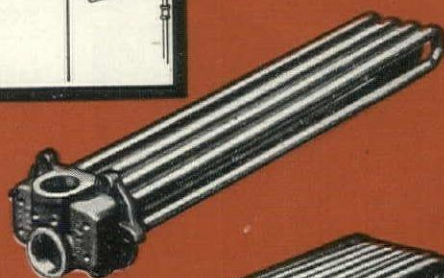
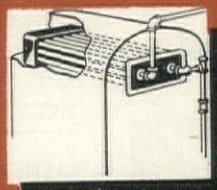
*plus*

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Specializing in domestic water heating, Taco has available over a hundred styles and sizes of built-in water-heaters of the tankless and storage types. Current Taco recommendations include the latest designs of heaters for incorporation in the most modern boilers.



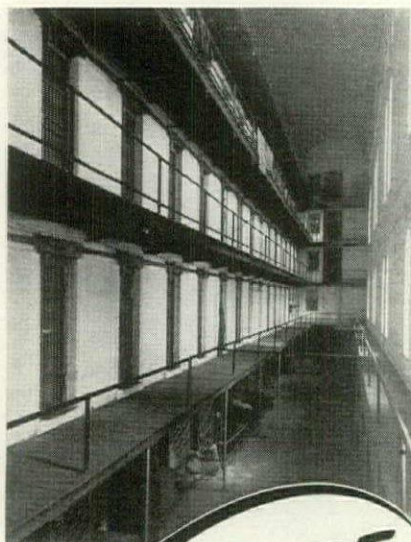
TACO HEATERS, INC., 342 MADISON AVE., NEW YORK 17, N. Y.  
TACO HEATERS OF CANADA, LTD., 24 ADELAIDE ST. W., TORONTO



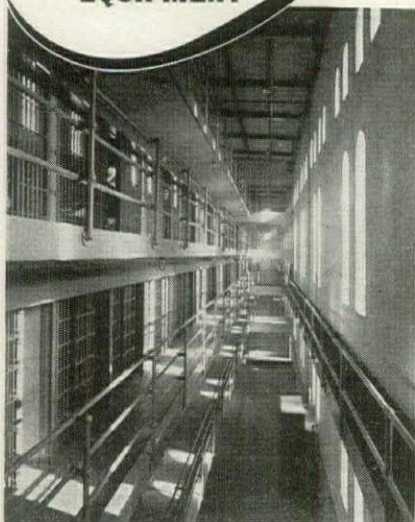
### PEACETIME HERITAGE

One of Taco's contributions 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 full former standards of excellence.





## BEFORE AND AFTER INSTALLING STEWART JAIL AND PRISON EQUIPMENT



The remodeling of this prison, located in a southern state, is a good example of the possibilities of rehabilitation work. All cell work, locking devices, railings and gratings were furnished and installed by Stewart. And although the manufacturing facilities of this organization are engaged in war work, our engineering staff is available to work with architects and builders on plans for new construction or remodeling of old equipment for any size project from a village lockup to a federal penitentiary. The Stewart Iron Works Co., Inc., 1165 Stewart Block, Cincinnati 1, Ohio.

**Stewart** JAIL and PRISON EQUIPMENT

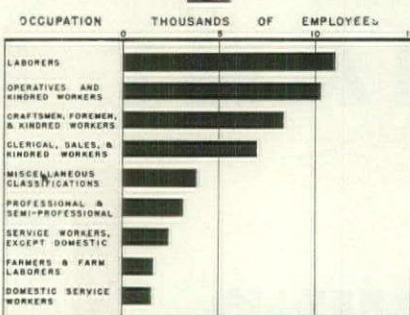
## PLANNING WITH YOU

(Continued from page 96)

Financing the program, for instance, requires the cooperation of every municipality, each with a different financial structure. The county as a whole may safely increase its debt to \$4 million, and a bond issue is suggested as one solution. Another possibility is the increasing of the present 8.5 mill tax rate to 10 mills. Either suggestion would naturally need to be supplemented by state, federal and private money to make up the \$52 million cost estimate.

Another cooperative stumbling block is the fact that actual projects, except in cases under county control, must be

EMPLOYED WORKERS BY MAJOR OCCUPATION 1940



FARMERS, maids, social service workers and professional men are few compared to the great number of industrial workers.

carried out by the local municipalities. The master plan can only present facts and recommendations. However, all units of government in Pennsylvania have already been granted the right to zone, and groups of municipalities to plan. The next step, then is the establishment of a Beaver County Planning and Zoning Commission composed of representatives from each municipality. Also recommended by the planners are a County Air Pollution Commission and an Industrial Commission. Under the authority of these three organizations, supplemented by local commissions, the planning program could be efficiently accomplished. Additional research would be undertaken, necessary changes made in the over-all blueprint and cooperation assured.

Town planning alone is artificial because it deals with one isolated district. Regional planning on the other hand can coordinate many municipalities. Although a County master plan has no go-ahead authority, it is an excellent guide for specific town planning. In addition, it often acts as a shot in the arm for lazy communities. The many subdivisions of Beaver County are fortunate in having the advantages of such a correlated long-range planning program.

## THERE'S A NEW WORD FOR THE SCIENCE OF COLOR IN INDUSTRY

*Optonics*



## SEND FOR THIS BOOKLET

OPTONICS is a new word which describes a new science—the practical, *functional* use of color in industry. A descriptive booklet will be mailed to you with our compliments on receipt of a note on your business letterhead. Write for it today

## THE ARCO COMPANY

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• This factory floor used to be wood. The high temperature of the room below made workers here uncomfortable. So now a concrete floor, Foamglas-insulated, is being laid to prevent downstairs heat from penetrating this room through the floor.

## New floor insulation

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In plants where the precise control of temperatures and humidities is essential . . . where condensation is a problem . . . where insulation must be *permanent* as well as efficient, you can safely recommend PC Foamglas insulation for floors.

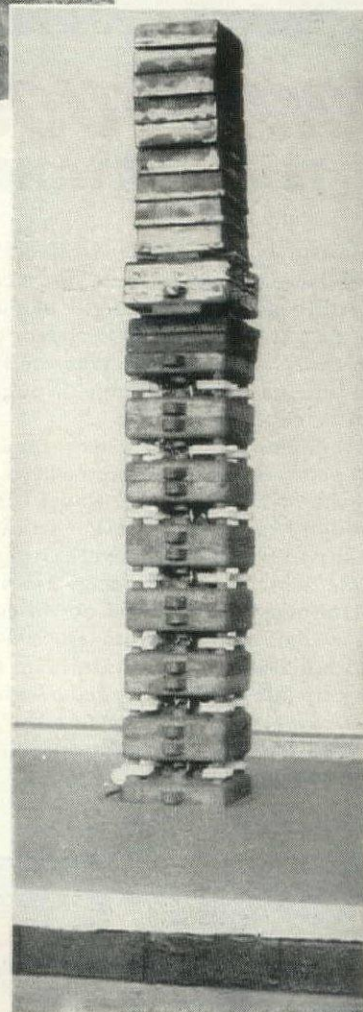
This cellular material is *glass*. It is impervious to common acid atmospheres, moisture, fumes and vapors. It does not deteriorate with age. It eliminates many of the expensive repairs and replacements so common where non-permanent insulating materials are used.

Foamglas is fireproof and vermin-proof, too. And so strong and rigid, despite its light weight, that it can

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You can't beat PC Foamglas for a permanent, all-around insulating material . . . whether for floors, roofs or core walls. Our descriptive literature gives architects detailed data on various typical applications. Write us today for complete information, stating your specific problems. There is absolutely no obligation involved. Pittsburgh Corning Corporation, 2279-4 Grant Building, Pittsburgh 19, Pa.

• 3000 POUNDS on a 13-inch square of Foamglas-insulated concrete floor. Foamglas was  $4\frac{1}{2}$  inches thick. But even this concentrated load failed to cause the Foamglas to show any evidence of crushing.

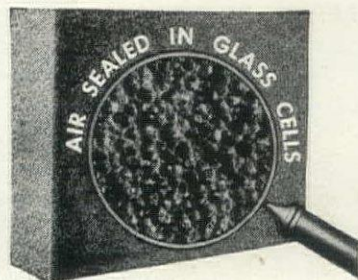


# PC FOAMGLAS

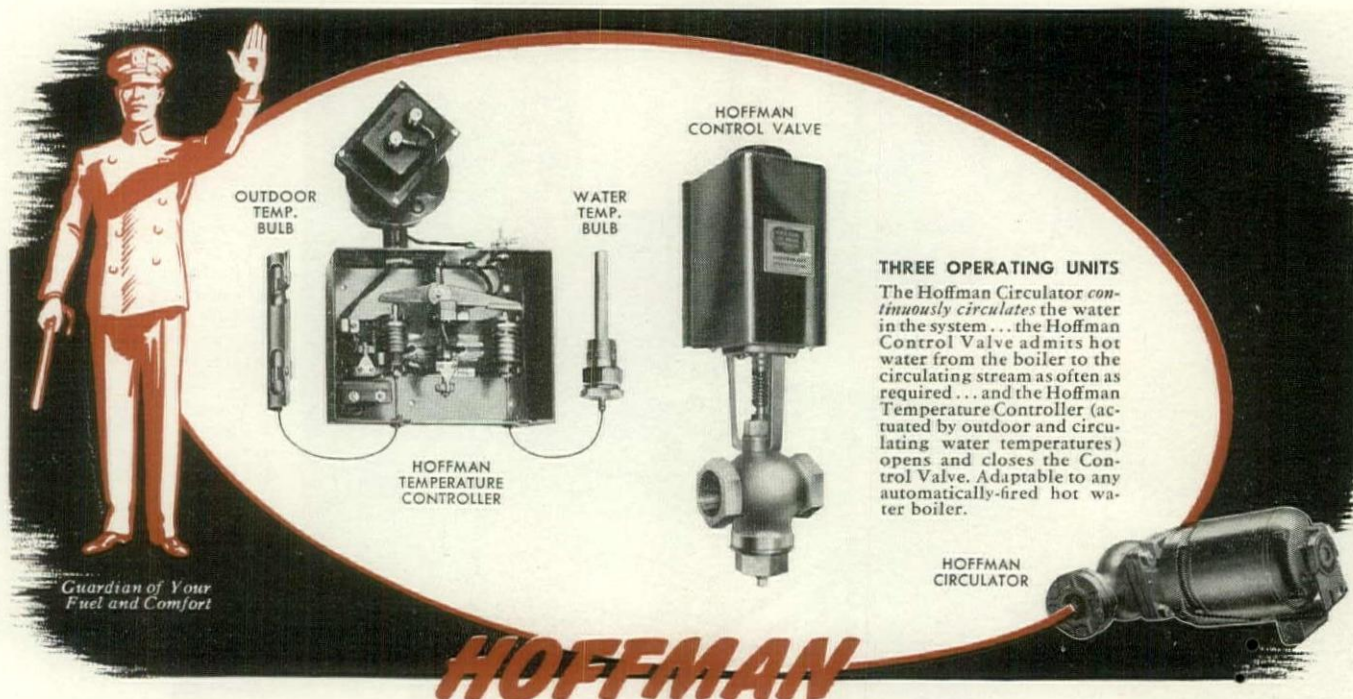
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## INSULATION







### THREE OPERATING UNITS

The Hoffman Circulator *continuously circulates* the water in the system... the Hoffman Control Valve admits hot water from the boiler to the circulating stream as often as required... and the Hoffman Temperature Controller (actuated by outdoor and circulating water temperatures) opens and closes the Control Valve. Adaptable to any automatically-fired hot water boiler.

## HOFFMAN CONTINUOUS CIRCULATION HEATING IS A CERTAINTY FOR THE POST-WAR BUILDING

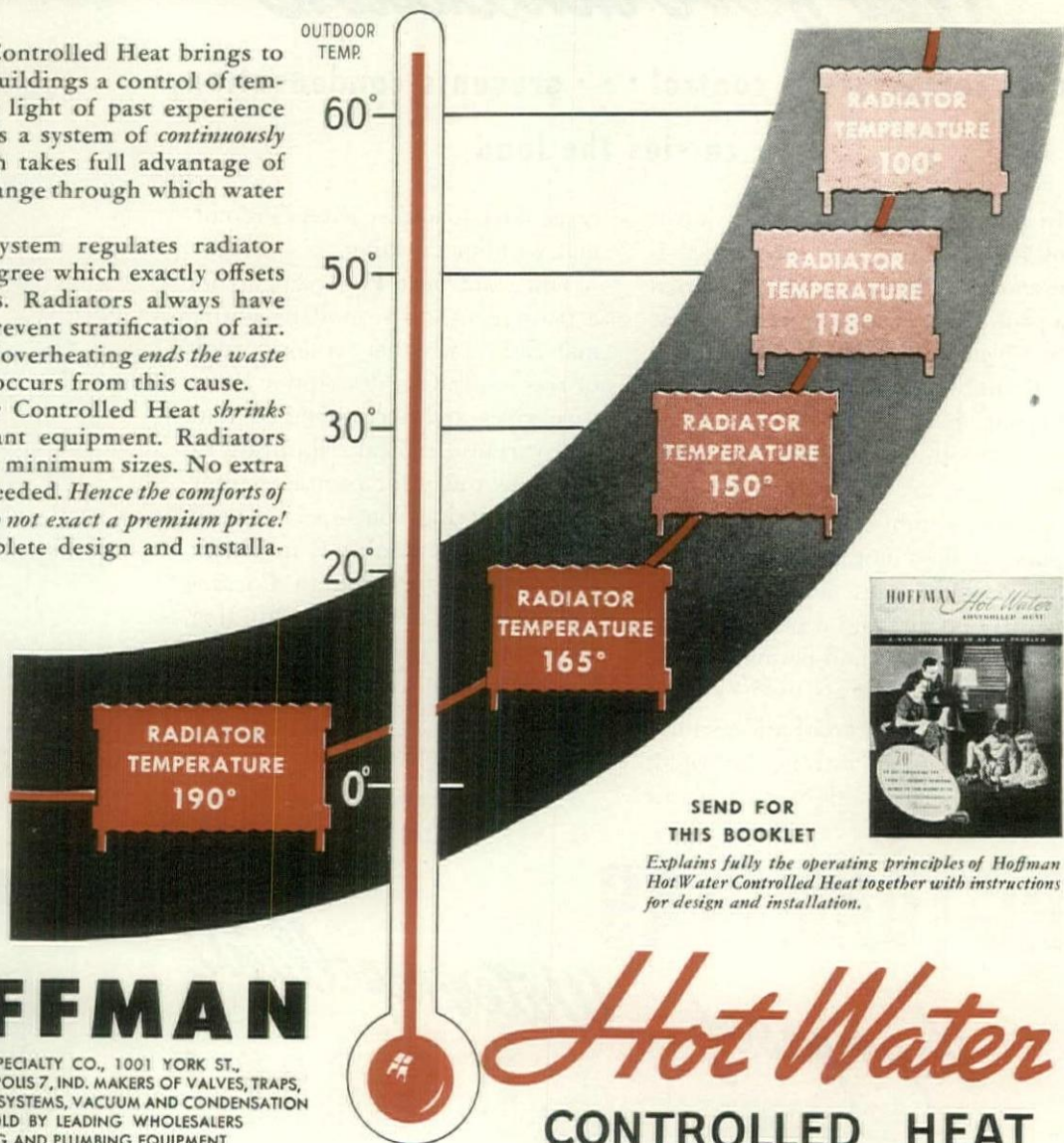
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Explains fully the operating principles of Hoffman Hot Water Controlled Heat together with instructions for design and installation.



# HOFFMAN

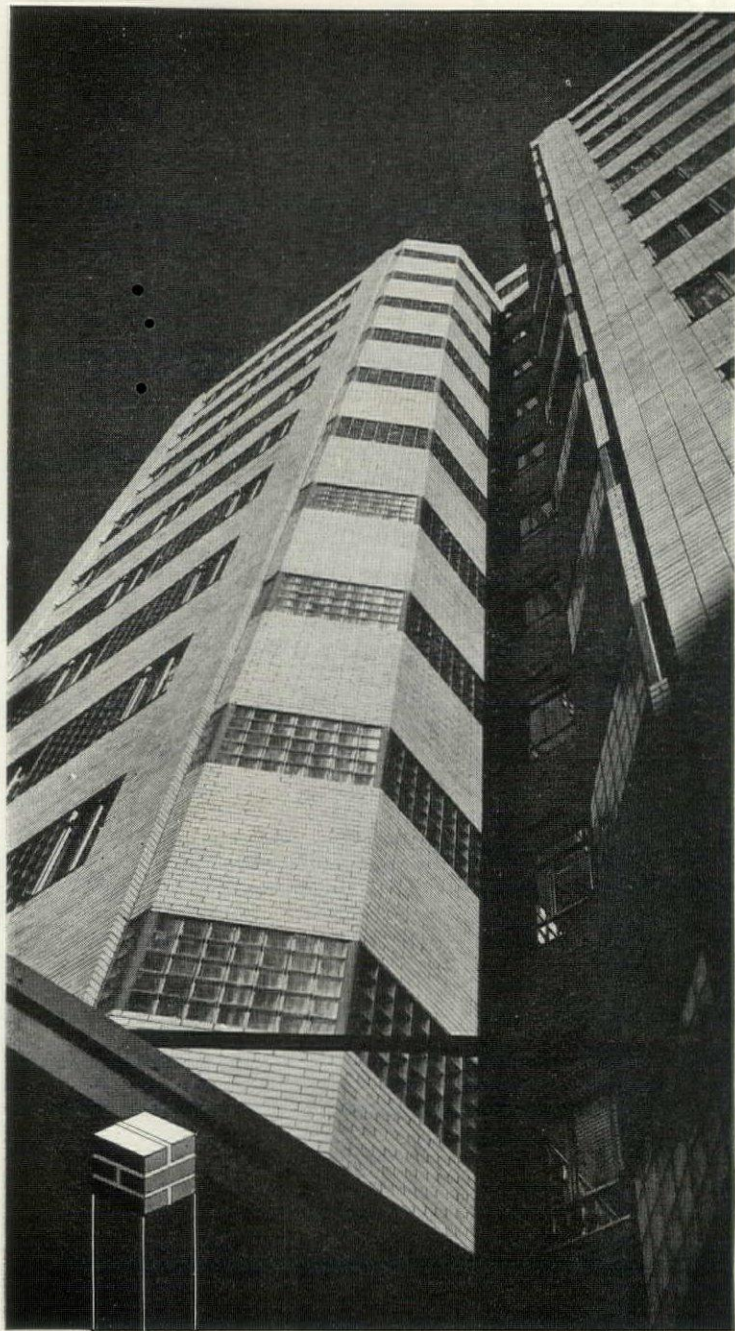
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Write for literature, including complete specifications for facing interiors. Structural Clay Products Institute, 1756 K Street, N.W., Washington 6, D.C.



After the war... it will be built of modular designed

# BRICK AND TILE





## ILG OPENS NEW RESEARCH LABORATORY

DEVOTED TO THE SCIENTIFIC STUDY OF AIR

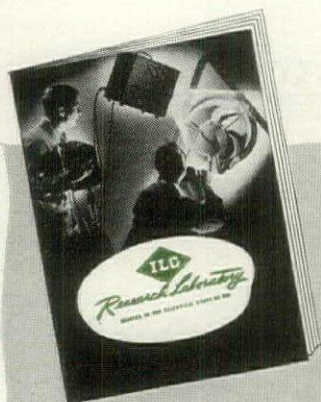
Expanded research facilities, free from production noise and vibration of the main plant, have now been provided in a recently completed, sound-deadened, shake-proof building housing the new ILG Research Laboratory. Equipped with all latest developments in laboratory instruments for measuring air, electricity, sound, light and vibration, including stroboscopic apparatus... separate motor-generators to develop all commercially available types of current... its own boiler plant to provide steam and hot water for unit

heater experiments, to stimulate day and night, year 'round research. And the expert staff has been completely divorced from production responsibilities to concentrate on scientific developments. You are urged to visit this new home of research... to use its complete and modern facilities in solving problems you may encounter in the conditioning and handling of air.



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## And Coleman, America's Leader In Home Heating, HELPS ME DO IT...THREE WAYS!

"Here are three things Coleman Heating Appliances do for me, in helping me create homes people talk about, for their comfort and livability.

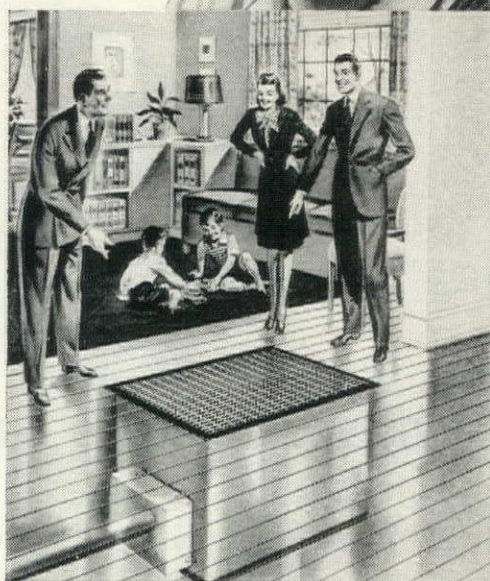
"First, I've found that Coleman provides extra comfort—brings warmth down to the floors and into the 'living zone' where people sit and babies play. This comfort is a vital part of 'livability'—for which the architect gets a good share of the credit.

"Second, Coleman has engineered great heating power into space-saving heat plants. That space economy will help me in designing houses with extra space for living. Also, Coleman gives me a full line of heating appliances to work with—central heating plants,

floor furnaces, space heaters, with models for gas, oil and butane gas. That gives me greater flexibility with more livability in my designs.

"And finally, Coleman enables me to save money in building—money that can go into 'extras' and little niceties people are going to demand in their postwar homes."

Would you like to know why more architects, today, are planning to put Coleman's new home heating appliances to work for them? Would you like to know how you, too, may put them to work for you? Write for new descriptive literature on Coleman's complete line of postwar home heating appliances, showing pictures, specifications and other details you will want for your file. Free on request—write today.



**Here's Just One of Those "3-Way Helpers"**—the Coleman Floor Furnace, a new kind of furnace that is destined to sweep America, that has already made Coleman the leading floor-furnace maker—and won an acceptance for floor furnaces they never had before. Available in gas, oil, butane for postwar building.



## THE "HOT" NAME IN HOME HEATING



# Coleman

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## THE WAR MEMORIAL

(Continued from page 108)

anxious and so precious a principle that it must be kept forever in the front of our minds. We have measured the last fearful cost of it. No longer is it an assured felicity for the nation that does not choose to fight. It is a concern that squarely challenges the wisdom and the religious genius of the race. The very universality of it, however, suggests the danger of its drifting, in a world preoccupied with immediate things, into a vague and indolent sentiment. It must

be accepted as a primary responsibility of the individual nation. We of America will best do our part by cultivating an enlightened awareness of our own nationality.

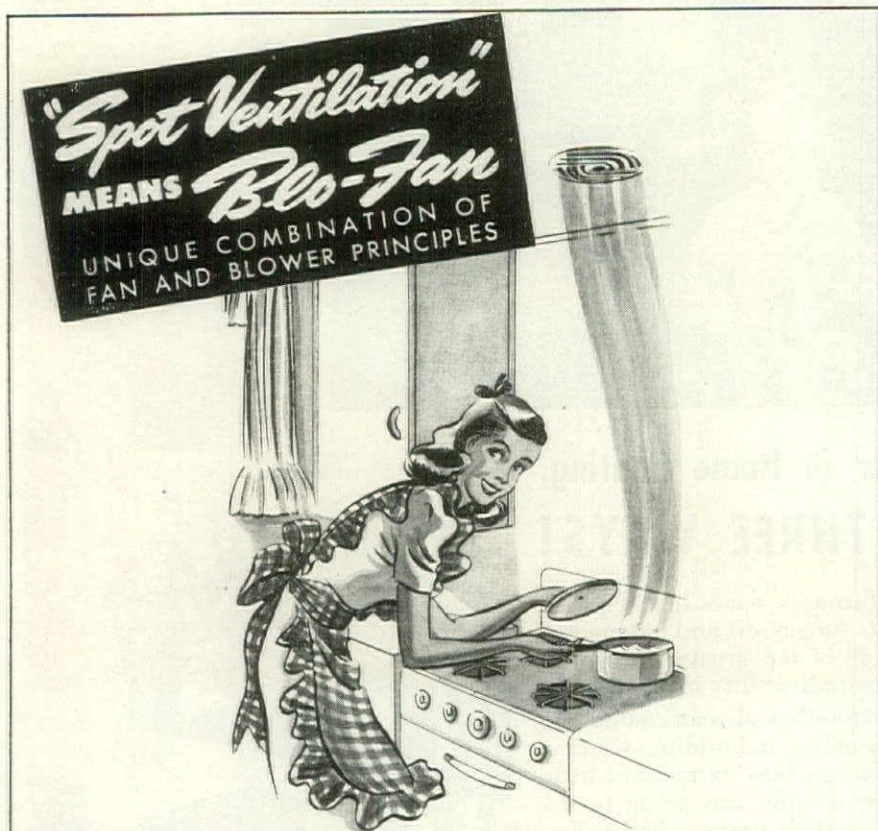
If these are the considerations which should shape the war memorial, their implications give little support to those who assert usefulness to be a chief virtue of it. As a matter of fact, use is the attribute that disqualifies it. The very duality of the idea casts a doubt upon its sincerity. If, for example, a gymnasium be a pressing community need, it should be satisfied as a direct civic obligation. To take unction from the

process by claiming for it the merit of a war memorial is a hypocritical sort of economy which Ralph Adams Cram once likened to the disingenuousness of presenting a pair of rubbers to a child at Christmas. But the deficiency of the useful memorial is more intrinsic than this. No label of dedication can avail to spiritualize its vicariousness. An auditorium in an important city in Massachusetts, built as a monument of the last war, has twice been the scene of dog-shows to the considerable disturbance of the reverent atmosphere intended for it. Less provocative occasions than dog-shows, however, suffice for disqualification. It is known to be practically impossible to protect public halls of assembly against disedifying intrusion. All useful memorials in different degree have this distracting principle for they inevitably take their meaning from their function. The more subjective the nature of the memorial the more is the meaning obscured. Humanitarian sentiment may detect a reasonable symbol in the hospital. It seems unfeeling to question the pertinence of so noble an institution as this which is so capable of honoring the memory of its benefactors. Of all the useful forms it could undoubtedly speak the most eloquently, but who would say it was not an eloquence too ironic for a war memorial?

It seems to me that the intention of the tribute should be as clear and immediate as the gesture of placing the wreath upon a tomb. The instinct which led a Scottish village to commemorate in a cairn of one hundred and forty-two stones the number of its men who fell in the first World War was completely admirable. The most telling memorial is abstract and idealistic and bears the clear impress of its motive. In whatever form, it must be beautiful if it is to be completely valid. The object that lends another grace to the community can never be said to be useless, and no interest is more worthy of patriotism than the cause of civic beauty. The symbols to be sought are those that make acknowledgment to both principles.

We shall look back upon the war with a variety of emotions. In the exaltation over the triumph of democratic ideas the anguish of the sacrifice will not easily be forgotten, nor the resolve that humanity must never again submit to so tragic a sacrifice. A lasting peace is not to be assured to us by forgetting this dreadful episode but by remembering it.

Readers are invited to send us their comments on Mr. MacLeish's and Mr. Maginnis' articles for publication in our Letters's section. Discussion of the Living Memorials problem will be resumed in the December issue.—Ed.



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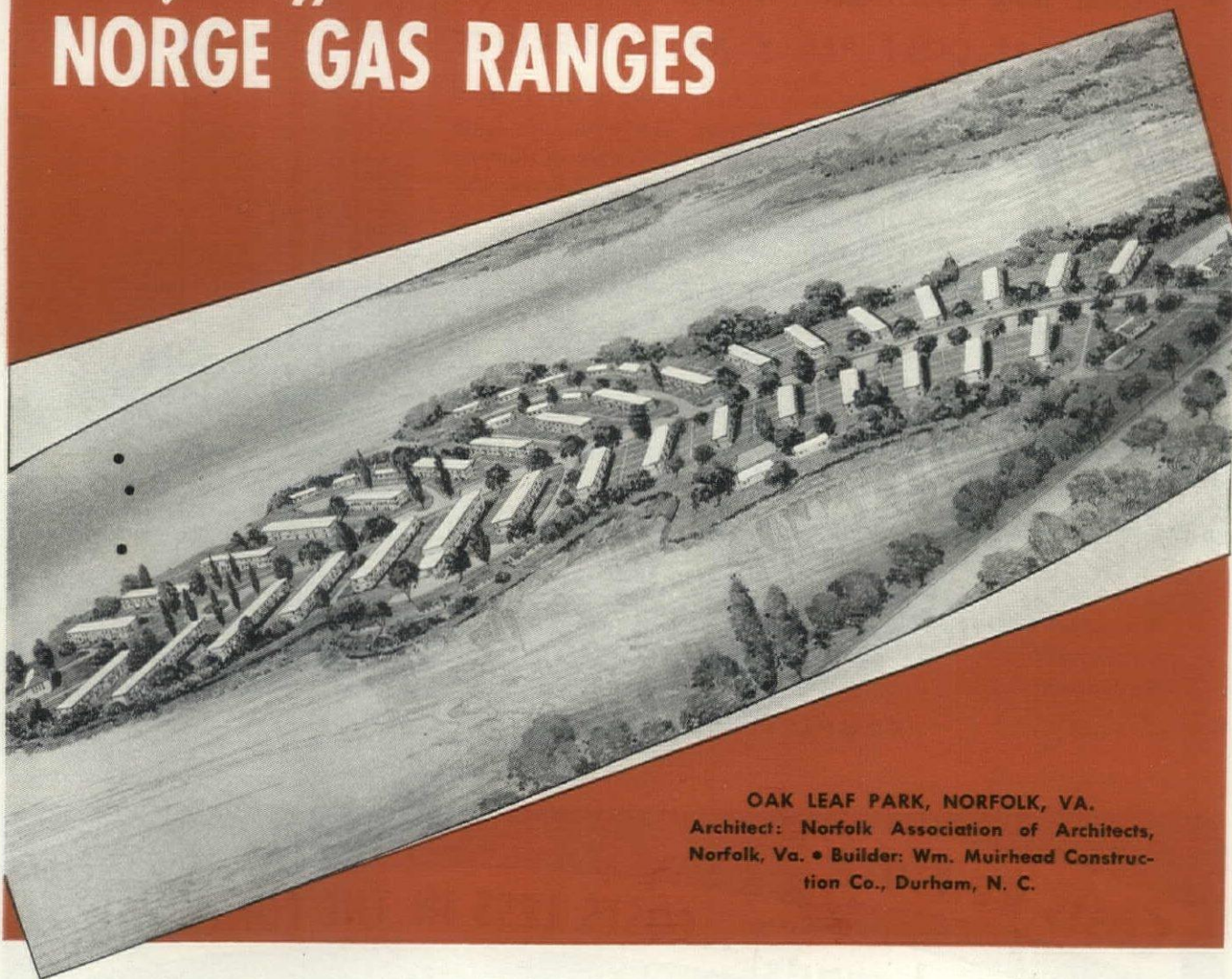
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Architect: Norfolk Association of Architects,  
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**..COSTS LESS IN THE LONG RUN**



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Let these brands help insure your reputation. Both are manufactured and sold through dealers by

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## A switch in time saves...

**T**AKE a tip from Bill Bjones... he knows that a *switch in time* saves his family from avoidable accidents—saves many steps—saves electricity so vital to war production.

In the correctly planned home of the future, it will no longer be necessary to enter a dark room or hallway—grope for the light switch—or leave burning lights behind.

*Multiple control* by conveniently placed switches will permit home owners to “keep light ahead of them”—when and where they want it, at all times.

But multiple lighting control is just ONE of the many conveniences and economies that result from “*better wiring for better living!*”

The Westinghouse Better Homes Department was created to assist the building profession in the planning of postwar housing—and to supply authoritative information on all phases of proper application of electricity in 194X homes.

Specifically, our Better Homes Department housing specialists will be glad to give you free technical advice on:

Placing of lighting controls and outlets.

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## FOR REMEMBRANCE

(Continued from page 112)

accomplish. A second-rate monument is, of all substantial objects, the least visible and the least affective. A monstrosity may be visible in its ugliness, but a mediocre piece is merely not there—as the soldier statues in so many towns are merely not there. A building, on the other hand, which relates to the life of the town—which is part of the life of the town—may survive other and more permanent things and may speak as well as it knows how to speak when they are silent.

It is this relation to the life of the town which counts. But relation to the life of the town, let it be said again, is not the same thing as relation to the town's needs. A town may need a hospital without centering its life in the hospital when it is built. It may need a number of buildings and services. To provide them, no matter how necessary they may be, will not produce a memorial unless the life of the town is in the structure.

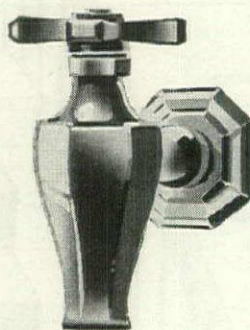
The first labor, therefore, and the most important labor, in the building of a memorial which is to find its commemorative power in its use, is the town's labor and not its artist's or its

architect's. The town must choose for itself, and out of its knowledge of itself, the kind of memorial which will touch its daily life—touch it in such a way that the memorial will become part of its life and part of its consciousness. There is hardly an American community in which some characteristic of the town, some relation of the town to a hill or a river or a harbor, some square or street or corner, has not become by use, by custom, a center of the town's life. These preferences, unconsciously made by generations of men and boys, are the true elections. And they last, with luck, for generations. What must be done first is to consider what these places are, and which of them is nearest to the town's sense of its own identity, and how best this street or building or bridge or park can be used to hold the past in its continuing present.

It is useless, in anything as particular and intimate as this, to talk of types of buildings—libraries, schools, community centers. What may have meaning for one city will be meaningless to another. In one village I know, the best memorial to the boys it has lost in this war could probably be made in the playing field they used. In another, a library room looking down the street that makes the town's center would hold many memories and for years to come. But there are no generalities. The question in each case is a question for the community, and a question only the community can answer.

If the men and women of the American villages and towns would ask themselves: What is there in this town which is most like it? What is there here that speaks of the town most movingly to those who think back to it? What is there here they must have thought of when they thought of home? And what could be done with that corner, that square, that grove, that brook, to make it hold the image of their longing for it so that other later men would feel it also? If the men and women of the American towns would find these answers for themselves, they would build memorials, with the aid of artists or without it, which would "prevail on the hearts of unborn men to remember" for many years to come.

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modern plumbing...**



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hard water into SOFT WATER!**

*Readers are invited to send us their comments on Mr. MacLeish's and Mr. Maginnis' articles for publication in our Letters's section. Discussion of the Living Memorials problem will be resumed in the December issue.—ED.*



# In the School of Experience...

**R**EPRESENTATIVE of the type of structure where Pratt & Lambert Paint and Varnish serve to decorate and protect, is St. Olaf College, Northfield, Minn. Here P&L materials enhance the charm of natural wood finish, beautify and preserve walls and floors, and cut maintenance by reason of their durability and ease of cleaning.

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Whatever type of work you may be doing, the P&L Architectural Service Department can render prompt, practical aid regarding new trends and developments in products and practices. Contact the nearest office.

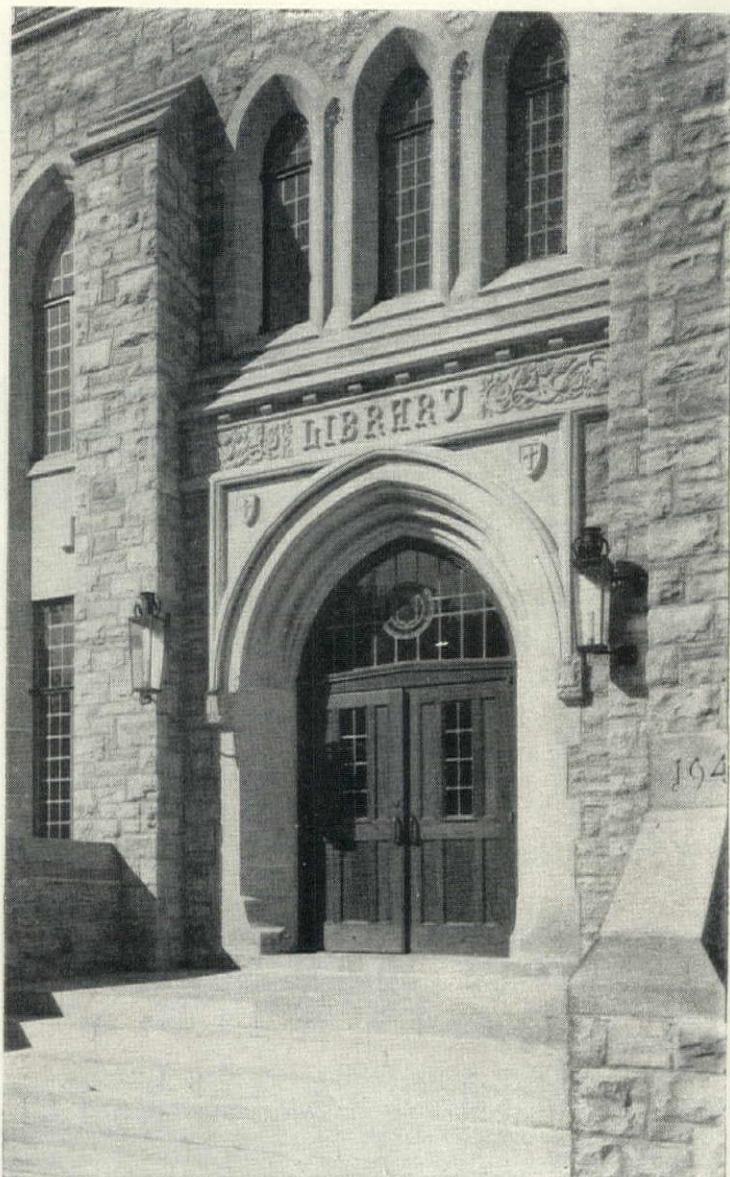
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**LIBRARY BUILDING, ST. OLAF COLLEGE, NORTHFIELD, MINN.**  
LANG & RAUGLAND, Architects, Minneapolis : MIDWEST CONTRACTING CO., General Contractors, Minneapolis : LAKE STREET SASH & DOOR CO., Mill Contractors, Minneapolis : FRED G. ANDERSON, Painting Contractor, Princeton, Minn.

*Photos, courtesy The Allertype Co., Brooklyn, N. Y.*



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Located west of the City of Northfield, a mile from the business section, the 170-acre Campus is well wooded with native trees. The buildings stand on Manitou Heights, 130 feet above

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**LIBRARY BUILDING**

Cannon River. The new Library adds another impressive Norman-Gothic structure to the Campus. Stackroom facilities will accommodate 190,000 books. Two large reading rooms have

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**HAUGE ROOM**

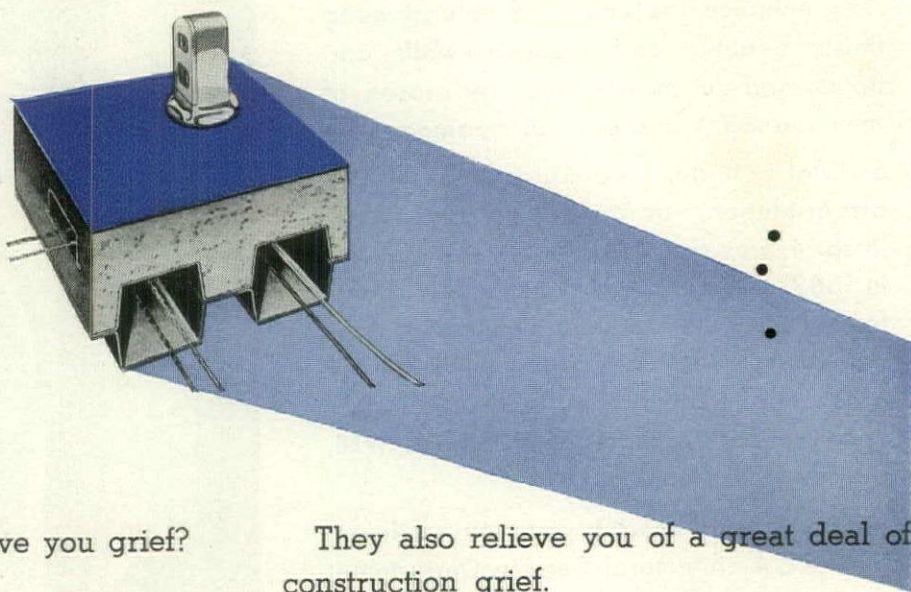
seating for over 300 students. There are six class rooms and two seminar rooms in the building. Anticipated future requirements can be met by expansion within the library itself.

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Tenants to locate electrical outlets themselves



Would such a specification save you grief? And time?

Think what it would mean in client satisfaction if he could point to his new floor and say—"I've changed my mind. I want an outlet here"—and then get it, without trenches, without fuss or woe, in a matter of minutes.

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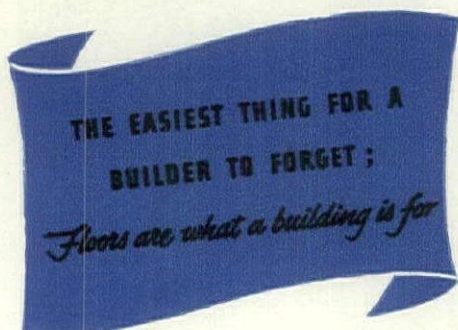
Q-Floors stay modern. They offer unlimited electrical service—fast and clean—as changeable as your client's mind. Q-Floors enable you to cope with the changing, working nature of today's mechanized buildings.

They also relieve you of a great deal of construction grief.

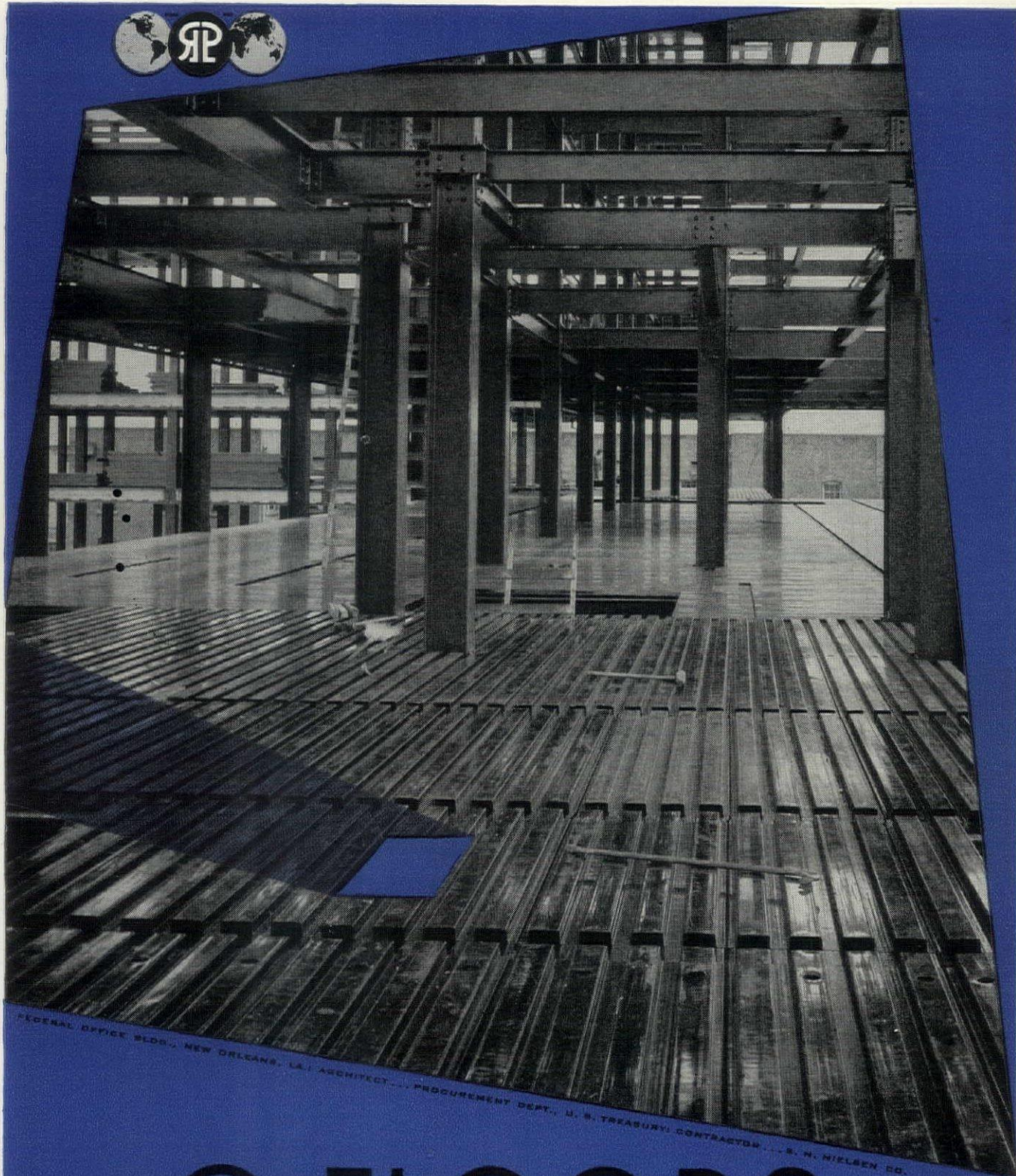
They are fast in. Two men can lay 32 square feet in half a minute. The floors can be completed almost as soon as the structural frame. There are no wet materials to cause delay. The Q-Floor immediately becomes a working platform for all other trades. Installation is quiet, clean, fireproof, with no shoring or forms. Q-Floors are light in weight, which makes possible lighter framework. All these factors reflect favorably in cost.

The matter of cost, in fact, will probably be a surprise. It's well in line! A Robertson representative will be glad to give you detailed information or you can write for

Q-Floor literature. Electrical Fittings for use with Robertson Q-Floors are available through General Electric construction materials distributors.







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# Q FLOORS

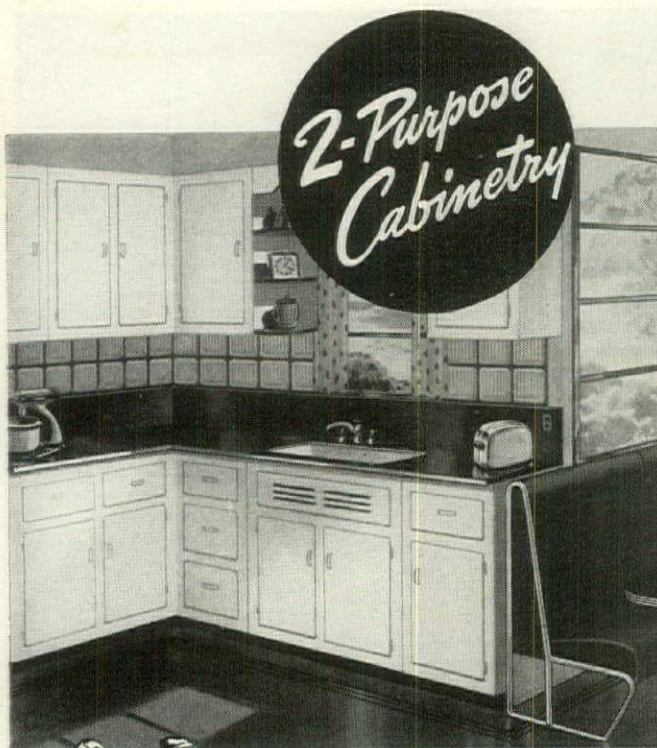
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Available Tomorrow As Well As Today

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- 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!

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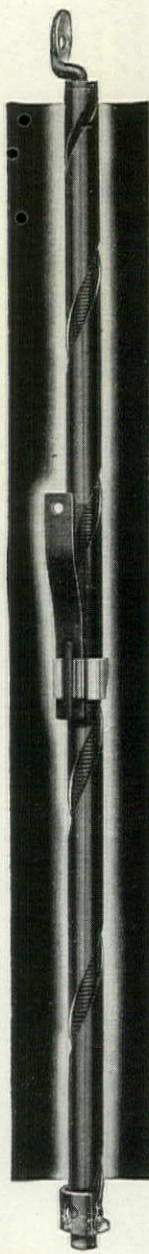
# W I N D O W P L A N N I N G B E G I N S N O W !

The simplicity, rapidity and ease of installation of the Grand Rapids Invisible Sash Balance are among its more commendable features, and are important factors in post-war planning. But, the smooth, dependable performance of this sash balance must 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.



So, planning begins now! When the war is over and building materials are released to a hungry public, time will be doubly valuable, and contractors will be forced to take advantage of every item whereby time can be saved without sacrifice of performance, satisfaction or profits.

Grand Rapids Invisible Sash Balance, now serving in thousands of war housing projects, has demonstrated its practical service. Its place in peacetime building is now assured. Write for information concerning our engineering service.

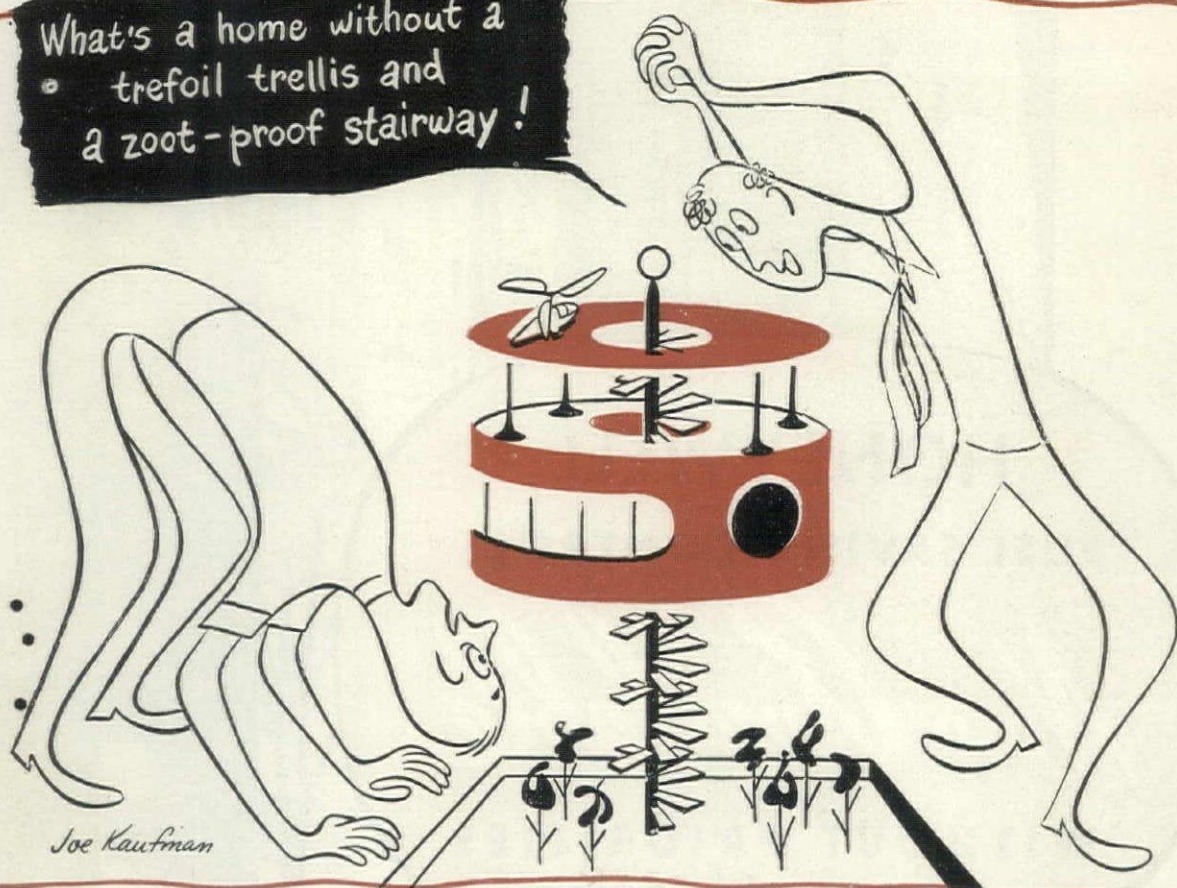


Note: Sash pulleys will be available as soon as materials are released.

**GRAND RAPIDS HARDWARE COMPANY**  
GRAND RAPIDS • MICHIGAN



What's a home without a  
• trefoil trellis and  
a zoot-proof stairway!



## Are you double-talking . . . or straight-thinking about that building boom?

**B**UILDING MEN who know the score say: "Builders must stop double-talking and non-thinking about that postwar building boom."

FOR EXAMPLE, they are worried to find so many builders double-talking as if those 4,700,000 houses Americans hope to build after the war (according to The Architectural Forum) are as good as *built*!

But houses are never built just because they are *needed*—just because they are *hoped for*. Building booms seldom spring from *dreams*.

They grow out of plans that can work—out of plans that are *sold*. To make sure your plans really get across, they must be sold to the kind of people who can afford to start the ball rolling, to the kind of people who have a strong influence over what other people buy. These are the people builders think of when they think of the readers of *TIME*.

**These are the people builders think of when they think of the readers of *TIME***

With twice the average U. S. income, *TIME*'s million families can afford to own more homes and better homes, and to live in the best neighborhoods of their towns. And what's more, the readers of *TIME* are America's most influential families.

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**THE GATEWAY TO THE BUILDING MARKET**





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**WITHOUT PRIORITIES**

### FOR COMMERCIAL BUILDINGS

The national fuel conservation program, recently inaugurated, is an all-out movement to save fuel vitally needed for war production and transportation. And, because they save fuel, Minneapolis-Honeywell Control Systems are now available without priority, for installation in apartment buildings, hotels, office buildings, factories and other large commercial structures.

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You can arrange for a fuel saving survey of any of your clients' buildings by a Honeywell engineer. There is no obligation and in this way you can discuss specifically with your clients just what can be accomplished. Telephone the Minneapolis-Honeywell office in your city and ask for the survey. Or, write Minneapolis-Honeywell Regulator Company, 2740 Fourth Avenue South, Minneapolis 8, Minnesota.

*Back the Attack—  
Buy MORE War Bonds!*

MINNEAPOLIS  
**Honeywell**  
CONTROL SYSTEMS



**Tops**  
*in your*  
**Designs...**



**T**HE roof takes more punishment from wind and weather than any other part of a building.

Covered with Flintkote Thikbut Shingles, a roof has the tough hide it needs to withstand years of frying heat from the sun... driving rain... freezing sleet... winter's ice and snow.

Two layers of heavy asphalt coating... two layers of mineral granules form the butt section of this durable shingle.

This gives extra weather-fighting material where it is needed... on those exposed five inches... an advantage that your client can see and appreciate... virtually two shingles for the price of one.

In this case, added efficiency means added beauty. Flintkote Thikbut Shingles set off your roof designs by adding rich, harmonious color... pleasing highlights and shadows.

Available in standard 12" by 36", three-tab strips, and

a wide variety of rich colors and blends. Also in the attractive Cedartex type... textured to produce pleasing grained lines.

Write for complete specifications and descriptive literature.



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*... another of the*  
**FLINTKOTE**  
*Building Materials*

**THE FLINTKOTE COMPANY**

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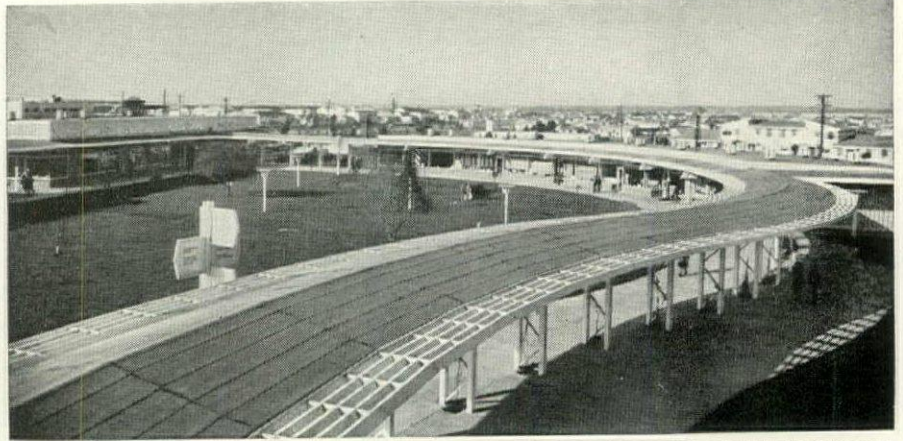


## LINDA VISTA

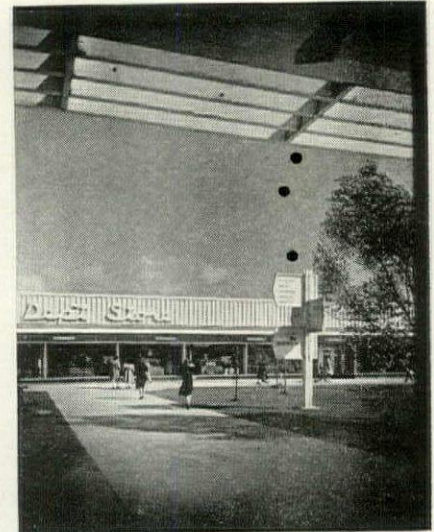
(Continued from page 93)

The following engineers were associated with the architects in the solution of technical problems on the Linda Vista Shopping Center project:

Ernest C. Hillman, Structural Engineer  
Earl Hillberg, Heating Engineer  
Gerald C. Fitzgerald, Civil Engineer  
John L. Partin, Storm Drainage  
C. C. Kimball, Electrical Engineer



COVERED APPROACH SWEEPS IN WIDE CURVE TOWARDS SMALLER SHOPS



CROSS-COURT VIEW OF DEPT. STORE

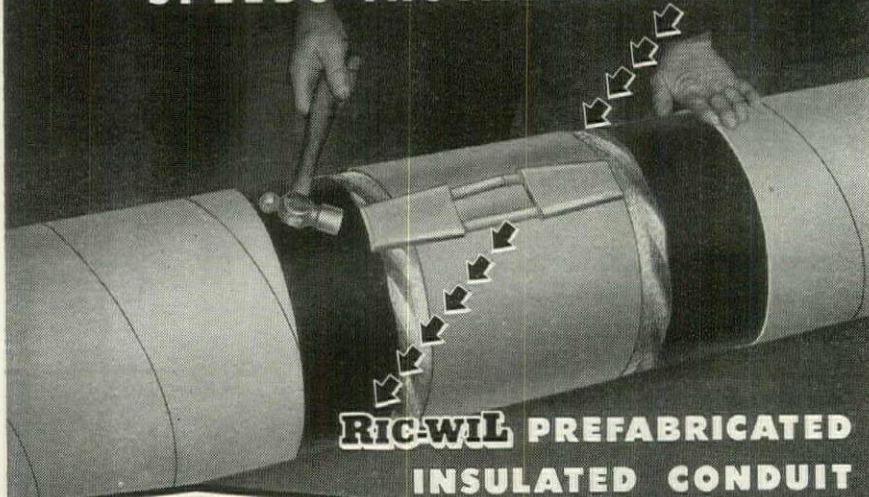
### CONSTRUCTION OUTLINE:

**FOUNDATIONS:** Concrete. **STRUCTURE:** Exterior walls — 1 x 12 redwood vertical with redwood bats, building paper, Kraft Paper Co., 2 x 4 in. studs, gypsum lath and plaster, U. S. Gypsum Co. Columns — Douglas fir. Floors — concrete slab. Ceilings — Thermax, Celotex Corp. **ROOF:** Covering — Pabco composition, The Paraffine Companies, Inc. **WINDOWS:** Sash — wood, Western Lumber Co. Glass — double strength, quality B, Libbey-Owens-Ford Glass Co.; 1/4 in. plate, W. P. Fuller & Co. **FLOOR COVERINGS:** Public spaces — asphalt tile, Armstrong Cork Co. **HARDWARE:** Sargent & Co. **PAINTS:** E. I. du Pont de Nemours, Inc., Pittsburgh Plate Glass Co., Rocktile Co. **ELECTRICAL INSTALLATION:** Wiring system — metallic sheathed cable, General Electric Co. Switches — Trumbull Electric Manufacturing Co. **HEATING:** Warm air furnace. Method of firing — oil fired. Regulators — Minneapolis-Honeywell Regulator Co. Water heater — General Fittings Co.

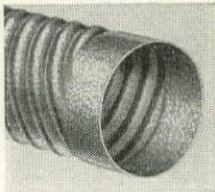
**COST:** (Including architect's fee but exclusive of land, landscaping and furnishing), \$278,507.

KEMP BROTHERS, General Contractors (market). MYERS BROTHERS, General Contractors (balance of work).

## SIMPLE MECHANICAL COUPLER SPEEDS INSTALLATION



**Conduit Ends Expanded Smooth to Facilitate Tight Closure**



Special machines at the factory remove corrugations from ends of conduit for a distance of 3", so that coupler sleeves will make a positive, watertight closure when units are joined in the field. Prefabricated expansion loops, elbows and tees also have ends expanded smooth for joining with straight units. The result is a permanent, pressure-tight system, requiring no maintenance.

**RIC-WIL PREFABRICATED INSULATED CONDUIT for piping steam, oil or process liquids**

Field assembly of Ric-wil Prefabricated Insulated Pipe Units has been greatly simplified by a drive coupler, minimizing the need for skilled workmen, and still further reducing installation time. After pipes are coupled or welded and insulation applied, a split connector sleeve is slipped over the opening. Clamps are driven in place (see illustration) drawing the coupler tightly over conduit ends, from which corrugations have been removed at the factory. An asphalt blanket is then applied with heat over the entire uncovered area.

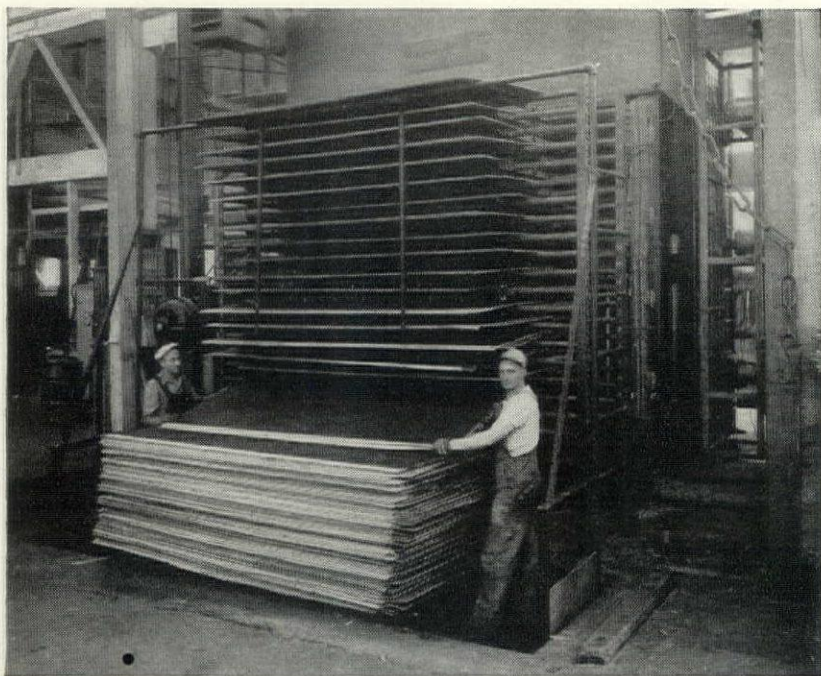
### Saves Time and Labor if Welded Closure is Required

The combination of smooth, round expanded ends and drive coupler makes possible a strong, tight welded connection with a minimum of field labor. Clamps are first driven on channels, holding coupler firmly in place while circumferential seams are welded. Clamps are then removed, and longitudinal seam welded.

Write for the new Ric-wil Catalog

**RIC-WIL** INSULATED PIPE CONDUIT SYSTEMS  
THE RIC-WIL COMPANY · CLEVELAND, OHIO  
AGENTS IN PRINCIPAL CITIES





In giant presses sheets of selected Douglas fir veneer, a bonding agent of heat-set plastic, and a surfacing film of a remarkable new fibrous plastic are permanently fused together. The result—INDERON.

## Facts About

# INDERON

## for Postwar Planners

### WHAT IS INDERON?

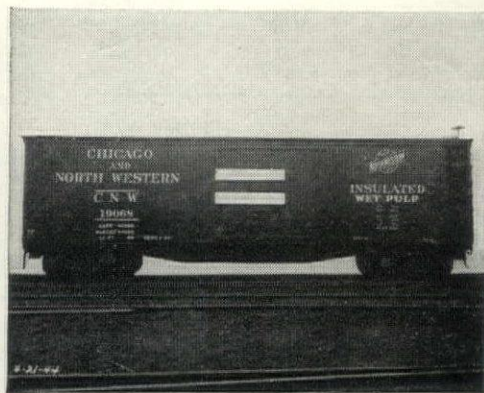
INDERON is a **new** stabilized structural product. Douglas fir veneers, plastic glues and a fibrous plastic film are chemically and infrangibly united under high heat and pressure to produce a complete, finished material in large panel form. INDERON is neither a plastic nor a plywood, but an alloy retaining the better qualities of both.

### WHAT ARE THE PROPERTIES OF INDERON?

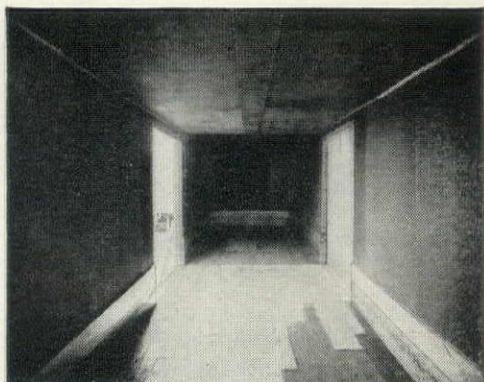
INDERON is waterproof, with a dense hard finish highly resistant to abrasion, impact, vapor permeation and water absorption. INDERON needs no surface protection, no decorative treatment, no structural support. INDERON is stable. It does not warp or twist. It combines BEAUTY . . . STRENGTH . . . DURABILITY.

### IS INDERON CURRENTLY AVAILABLE?

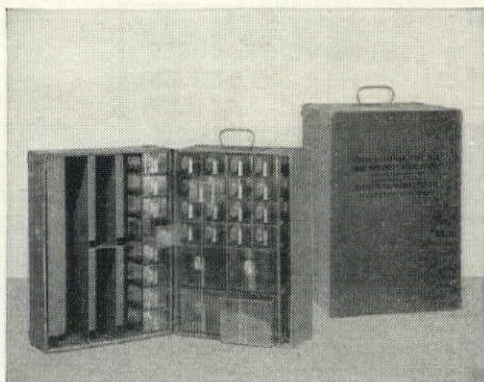
INDERON, developed primarily as a packaging material for the Air Corps, was later adopted by all branches of the services for a wide range of specialized applications, particularly where resistance to tropical fungus, termites and weathering was important. While these vital war needs have taken practically all production, INDERON testing and research have continued—and after the war this unusual product will emerge as a new, distinctly **different** structural material.



The unusual physical properties of INDERON suggest many uses in coach and car construction. As a liner for the Chicago and Northwestern wet pulp car, shown above, all necessary requirements for this difficult type of service were met by INDERON. It is tough, hard, easy to install, low in cost.



INDERON is waterproof, effectively stops vapor transmission, creates an enduring surface, can be installed on both the interior and the exterior of freight cars. INDERON is considerably stronger than plywood, needs no paint or finish.



INDERON is successfully serving the Army Air Corps as the preferred material for packaging many vital parts, medical supplies and delicate instruments. INDERON has also been used for many other important war purposes, and has proven its ability to resist tropical fungus, termites, weathering and water immersion.

## INDERON

THE *Stabilized* STRUCTURAL PRODUCT

**Buffelen Lumber & Mfg. Co.**  
Tacoma 1, Washington

**Washington Veneer Co.**  
Olympia, Washington  
*manufacturers*

**Chicago Sales Office:**  
9 So. Clinton St., Chicago 6



## BOOKS

(Continued from page 28)

industry before. Housebuilding, as it emerges from the war building job, is not the same patient whose pulse is so carefully charted in the valuable statistical data accumulated by Fund researchers. The report, therefore, as published last spring, makes rather better case history than specific diagnosis. Noting that their studies were concluded and "published at the end of an epoch," the researchers diligently nourish the hope that the giant industry may gather

its lethargic members together under the stimulus of warborn demand and technology.

The patient, of course, had been examined before. In 1932 the Hoover administration had assembled a whopping 12-volume report and, more recently, the Temporary National Economic Committee had thumped the industry's chest and muttered ominously at its findings. But nothing had happened. The bulk of the industry's members and the American public seemed still woefully unaware of the over-all picture. What the patient needed, decided the new doctor, was more air, and a fresh viewpoint.

Also needed was a prescription that might reconcile the warring factions advocating either governmental or private industry domination of the field. Accordingly, with a nice feeling for balance, the Fund's trustees selected a Housing Committee of eight, with representatives from capitol, labor, government, agriculture, education and the building industry. As research director, Miles L. Colean, former FHA executive, can take credit for the cogency with which findings are summarized. The Fund's enterprise will undoubtedly provide a spring board for the vast range of research which this sprawling industry is just beginning to accumulate.

Throughout the book, which covers the housing problem from all aspects of production through marketing, the committee bangs away at two themes. First, the housing industry is not an industry at all, but a sprawling, disjointed mess, replete with dismaying barriers and functioning at a medieval level of inefficiency. Second, its problems cannot be resolved by the federal government's piecemeal efforts to patch up the unwieldy old machinery of housing finance. Inevitable leitmotif is the great need for better low cost housing. Here Fund thinkers, like so many other housing probers, flirt hopefully with the industrialized house, which may eventually lower prices to reach the mass market.

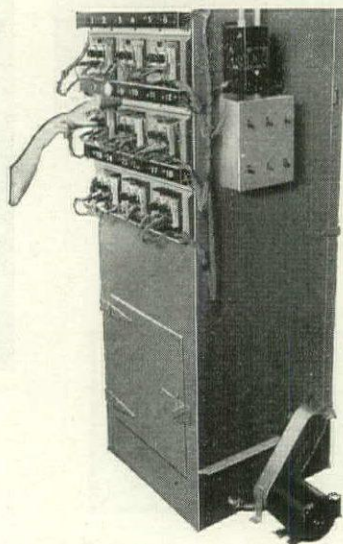
Useful both to housing students and operative builders, the appended statistical material is in the main accurately analyzed and well presented graphically—though there may be some doubt as to the layman's ability to interpret semi-log scales. Much of value is done in exploding the fallacies behind some popular statistical usage. For example, "Average Building Permit Values" are frequently used to show cost fluctuations. Fund researchers point out that average permit value depends on *changing proportion* of high-cost and low-cost housing, as well as on fluctuations in labor and material cost.

The survey is remarkable for its unemotional candor. The Committee announces near the end, with an intimation of weariness, that it is almost just too much trouble to own real property and sell shelter, compared to other investments. Further, it places a finger neatly on one of the housing sore spots by showing the anachronistic financial arrangements in this most peculiar of markets, where consumer and producer financing intermingle. On the one hand, it raps the conservative restraint of the private money lenders whose existing holdings have a remarkably inhibiting effect on their interest in financing new building. On the other, it chides the federal government's myopic toleration

(Continued on page 184)

## HERE IS YOUR ASSURANCE OF ACCURACY

Careful calibration of White-Rodgers Controls is one more reason for their accurate performance.



### 8 EXCLUSIVE FEATURES OF WHITE-RODGERS HYDRAULIC-ACTION TEMPERATURE CONTROLS

1. May be mounted at any angle or position, above, below or on level with control point.
2. Hydraulic-Action Principle incorporating solid-liquid filled bulb and capillary provides expansion force comparable to that of a metal bar.
3. Diaphragm motion uniform per degree of temperature change.
4. Power of solid-liquid charge permits unusually sturdy switch construction resulting in positive contact closure.
5. Heavier, longer-wearing parts are possible because of unlimited power.
6. Dials are evenly and accurately calibrated over their entire range because of straight-line expansion.
7. Controls with remote bulb and capillary are not sensitive to change in room temperature. Accuracy of control is not affected by temperature changes in surrounding area.
8. Not affected by atmospheric pressure. Works accurately at sea level or in the stratosphere without compensation or adjustment.



As a final test to insure the accurate performance of White-Rodgers products, each control is carefully checked under actual working conditions. For example, the fan and limit controls shown here are being adjusted while installed on equipment simulating actual furnace conditions. Thus accurate calibration and positive differential setting is assured.

These tests, and others like them, have been designed to provide accurate temperature control for you and to make the name White-Rodgers synonymous with *dependability* in the control field.



*Fuel-Saving Starts With CONTROL*

**WHITE-RODGERS  
ELECTRIC CO.**

1292J Cass Ave.

St. Louis, Mo.

*Controls for Refrigeration • Heating • Air Conditioning*

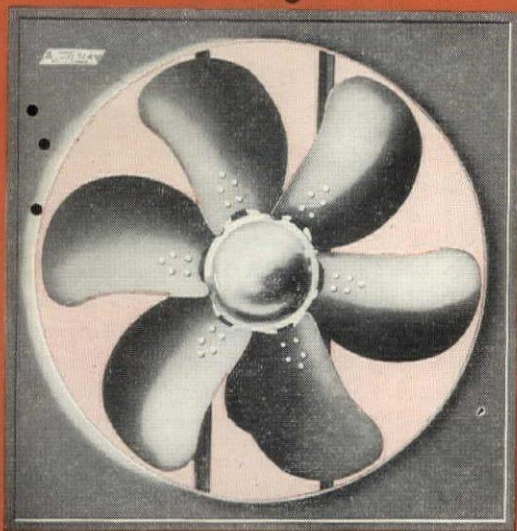


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*for Home and Industry*



By specifying Chelsea Comfort Coolers for immediate or postwar installation, you are assured of inexpensive, quiet, dependable, efficient equipment, backed by 30 years of specialization in fans and blowers for every application. Write for details.

**FREE**

A valuable addition to your library. Our 48 page illustrated manual fully covers the selection, installation and operation of comfort coolers for home and industry. Write for it today.

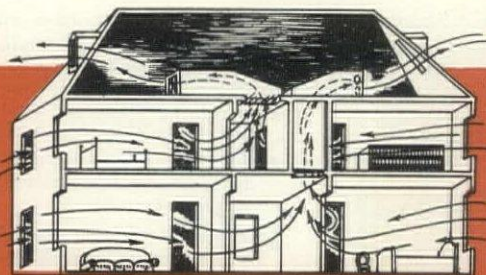


### FEATURES

- 1 NEW STREAMLINE VENTURI ORIFICE — greater volume.
- 2 CERTIFIED RATINGS — as per the ASH & VE method.
- 3 EFFICIENT FAN DUTY MOTORS — low current consumption.
- 4 DIE STAMPED BLADES — precision balance and alignment.
- 5 MOVING PARTS RUBBER CUSHIONED — quietness.
- 6 BALL BEARING ON FAN SHAFT — long life and little attention.
- 7 FAULTLESS ALL STEEL CONSTRUCTION — stability.

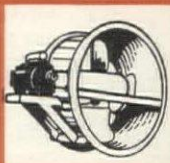
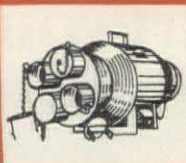


A typical installation of two cooling units operating independently for upper and lower floors.



**CHELSEA PRODUCTS**  
INCORPORATED

1206 GROVE STREET, IRVINGTON 11, N.J.





SIX STEPS OF PROTECTION  
IN THE PUBLIC INTEREST. . . (3rd of a Series)

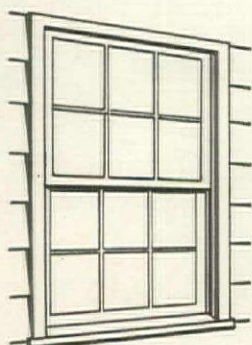


.... "That Mark?"  
—it means lasting  
protection, Mrs. Brown!"

Just a small seal of approval—inconspicuously branded on a piece of woodwork. Yet to the architect, builder or homeowner, it spells confidence . . . confidence that the manufacturer has complied with minimum accepted standards of toxic preservation . . . confidence that the wood product it marks will have lasting usefulness.

Protection in the public interest is the primary objective of the NDMA seal of approval. For this seal provides outward, visible evidence of sound practice in the toxic preservative treatment of building woodwork, such as windows, doors, screens and frames. Backed by the judgment of responsible research chemists, the NDMA seal assures you that wood will continue to demonstrate its long life in the homes of tomorrow.

The NDMA Seal of Approval—available by license to all manufacturers and distributors who conform to the toxic preservative standards of the NDMA—represents these six steps of protection:



1. An efficient test for measuring effectiveness of toxic preservatives
2. Minimum standards governing the toxic preservative treating of wood-work products
3. A seal identifying products treated in conformity with NDMA Toxic Preservative Standards
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NATIONAL DOOR MANUFACTURERS' ASSOCIATION  
McCORMICK BUILDING • CHICAGO, ILLINOIS



*Natural* air movement  
does it . . . gets heat,  
smoke and fumes out of  
factory buildings . . .

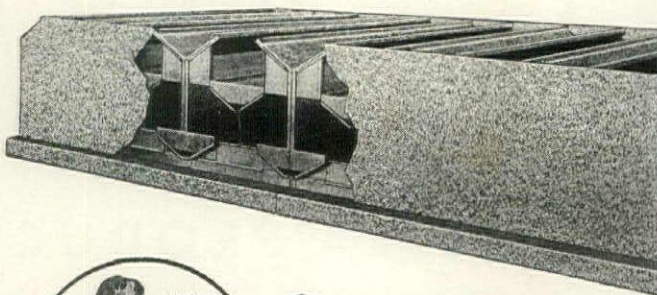
Swartwout  
**AIRMOVER**  
does it easily, economically

• Building owners, engineers and plant managers welcome the AIRMOVER for its adaptability to all roof conditions, its efficiency in handling large volumes of heat-motivated air, its pleasing appearance and low height (only 32" high). AIRMOVER gives you low cost ventilation without complicated structural layouts.

In most cases you need no extra structural members for the AIRMOVER. Installation cost is extremely low. For unusual flexibility, any installation can be custom built if necessary to fit special conditions, although standard units usually fill the need.

Here's the way to get results in large-scale ventilation—results that give you a reputation for knowing the latest and best methods. Before you plan your next job, ask for information on the Swartwout way of adapting *natural* ventilation to the conditions you have to meet.

THE SWARTWOUT CO., 18511 Euclid Ave.,  
Cleveland 12, Ohio



**Swartwout**

Specialists in Air Movement  
by *Natural* Methods





## MY PRE-WAR POST-WAR PLAN

*available now for you!*

I'm not one of these bright post-war planning boys. I'm only the authorized contractor for Kentile in my territory and this means that I have a solid reputation for good work and reliability.

But last week I happened to see a Kentile floor I laid nine years ago and I thought "There's one thing they won't replace after the war." + + + That Kentile floor was in the cafeteria of a school. You can imagine the wear it received. But it's still perfect—clean, smooth,

•colorful—and it will be that way long after this war is in the history books. + + + Well, that suggested a Post-war Plan to recommend. It goes this way:

### A few Kentile facts

—important today and tomorrow!

1. Kentile (laid tile by tile instead of in sheets) offers unlimited pattern and color combinations—floors that are custom-designed for *your* interior.
2. Kentile is so easy to maintain any untrained employee can do it.
3. Kentile floors can always be inexpensively altered in separate areas—tile by tile.
4. GREASEPROOF KENTILE ISN'T AFFECTED OR STAINED BY ANY OIL OR FAT KNOWN.
5. Kentile—one of the lowest cost floors made—is a champion for durability.

(There are 14 different Kentile advantages—ask your dealer)

"Nothing beats Kentile for durability, easy maintenance and pattern possibility. Why not get one jump ahead by snapping up your interior *now* with this ultra-modern floor?" + + + Kentile is available today—its low cost will amaze you—it will be the perfect floor for *years* to come. Want to know *all* the facts?

I'll be glad to show you samples, submit estimates, etc., without any obligation. Just write DAVID E. KENNEDY, INC.

58 Second Avenue, Brooklyn 15, N. Y., and ask for the name of your local Kentile contractor.



**KENTILE**  
Asphalt Tile  
Trade Mark Reg.

FOR A BETTER INTERIOR INSTALL

THE BEST FLOOR!



## BOOKS

(Continued from page 180)

of the competitive jealousies and inefficiency of the FHA and FHLB dualism.

The Committee's prescription for the ailing industry is an amalgam of old and new designs for action. It is specific, but not a blueprint; an outline rather than a battle plan. The Committee discreetly makes no great pretense of accurately predicting the postwar volume of new housing, but makes a strong case for the remodeling and maintenance markets. It recognizes the weakness of the present consumer-financial market,

but makes no prediction of the possibility of establishment of a producer-financed market comparable to that of the automobile industry.

In general, it is doubtful that the survey will penetrate into the outer fringes of the industry, or to the public at large. Useful as such thoughtfully developed research findings are, they all too frequently fail to find their way into the operating practices of industry. The Fund might well now give thought to presenting its findings in abridged form. An adequate presentation might be made by reprinting the conclusions and recommendations in pamphlet form for mass distribution at cost.

**ART IN PROGRESS.** The Museum of Modern Art. New York City. 255 pp. 8 x 10 1/4. Illustrated. \$3.75.

Published in connection with the Modern Museum's 15th Anniversary Show, this book is perhaps the most important survey of the contemporary arts produced in a long time. It covers painting, sculpture, photography, film, theater design, architecture, industrial design and posters and does an extremely thorough job with discrimination. One criticism applicable particularly to the architecture section would be that the selection was too much influenced by the *latest* rather than the *best*. It is also not clear why some of the sections should confine their survey to the U. S. — not always the most fertile field — while others romp around all over the globe. Apart from this, here are some detailed notes on each section:

**Painting.** Uniformly excellent and telling the whole story as completely as it has ever been told. From Thomas Eakins to Picasso and beyond — this is the book's longest and most valuable chapter. Engravings being what they are nowadays, the reproductions are not what they might have been — however they do underline the impressive record of new art developments.

**Sculpture.** Among the missing: Modigliani and Lipchitz's better half. Among those present and at last recognized for what they are: Henry Moore, Duchamp-Villon. The former can teach designers

## Experience...

### ANOTHER LEG TO STAND ON

Consider Sedgwick—for two reasons (there are others, of course).

First—for more than 50 years Sedgwick has designed, manufactured and installed elevators and dumb waiters—drawing on each preceding year's experience to improve succeeding models.

And, second—since the "defense work" days Sedgwick has been designing and manufacturing airplane elevators, ammunition hoists, galley dumb waiters, between-deck elevators, and special lifting and materials handling equipment.

What does this mean to architects, engineers and builders? Simply this. Today's experience has taught Sedgwick much. Added to past experience, the results will take form in improvements in the design, construction and operation of postwar elevators and dumb waiters.

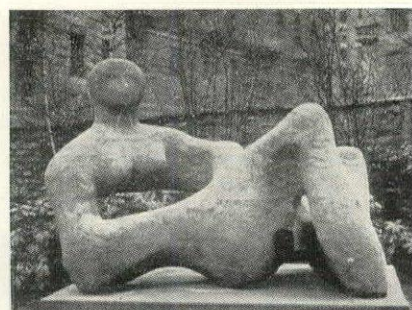
Sedgwick experience plus Sedgwick engineering ability can be of assistance when you are making your plans for the peacetime building boom that is sure to follow the war.

Sedgwick welcomes inquiries regarding elevators, dumb waiters and special lifts for postwar installation.

"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 • HOISTS • ROTO-WAITERS • MATERIALS HANDLING EQUIPMENT



Henry Moore: Recumbent Figure

things about form, space and their plastic interrelation which went out when Le Corbusier was swallowed up inside the "New Order."

**Photography.** Only one Stieglitz and not the best one. Otherwise a very excellent Weston and a nightmare of a Cartier-Bresson (this alone is probably worth getting the book for). Weegee — known to those who read PM with their cornflakes — is present, of course (he couldn't be stopped) and he is about as good a crime photographer as ever will be. But there is no Walker Evans in the book, an unpardonable omission in any survey of photography today.

**Film.** Fine.

**Theatre Design.** Some excellent sketches by Berman, Dali, Chagall. There might

(Continued on page 188)



# UPHOLSTERED IN **VELON**\*

**A damp  
cloth and it's  
clean  
as new!**



Suddenly the expression "impractical color" will vanish from your vocabulary! No matter what the room, any color will be practical with Firestone's new miracle material, *Velon*.

Without fear you can specify yellows, whites, pinks, pale blues, for *Velon* can be wiped clean as new, *easy as dusting*, with a cloth dampened with water or cleaning fluid.

Stainless, non-fading, non-inflammable, nearly 100% non-absorbent, *Velon* resists acids, alkalis, greases and solvents.

And — *Velon* is almost impossible to wear out!

\*Trademark, pronounced VEL-LON

Test installations of *Velon* upholstery in hundreds of public vehicles getting tough wartime use *show no signs of wear after nearly three years!*

Most *Velon* now goes to the armed forces, but after the war you'll call for it everywhere — its countless uses limited only by your own ingenuity. We will be glad to discuss any application you may have in mind.

P.S. For the finest modern seating, make the cushioning FOAMEX, Firestone's foamed latex.



For the best in music, listen to the voice of Firestone, Monday evenings over the entire NBC Network.

ANOTHER CONTRIBUTION TO A BETTER WAY OF LIFE by

# Firestone

REG. U. S. PAT. OFF.



**FOR TODAY** — production  
for the earliest possible victory  
is our aim.

**FOR TOMORROW** — to  
create the finest woodwork for  
America's homes is our promise.

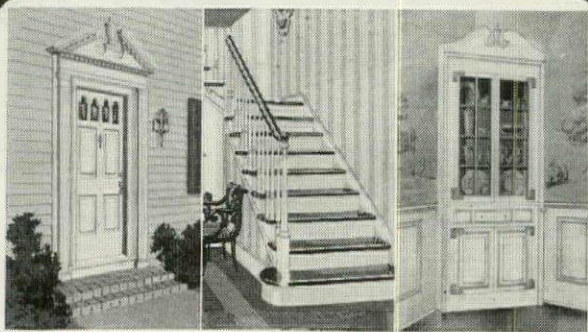
Seventy-eight years ago, America's alert and aggressive leaders in the building industry were well acquainted with Bilt-Well design and craftsmanship in wood. We believed then in the future for quality woodwork and we continue to believe that the combination of artistic design and manufacturing "know-how" are indispensable to the home of Tomorrow.

Throughout the years, we have progressed with America's architects and builders by combining a world of experience with modern designs and methods.

We shall continue to keep pace.

**CARR ADAMS & COLLIER CO.**

Dubuque, Iowa



#### THE BILT-WELL LINE

Bilt-Well Superior Unit Windows • Bilt-Well Colonial Front Entrances • Bilt-Well Clos-tite Windows • Bilt-Well Basement Windows • Bilt-Well Carr-dor Garage Doors • Bilt-Well Lok-Tite Trim • Bilt-Well Stair Parts • Bilt-Well Telephone Cabinets • Bilt-Well Nu-Style Kitchen Cabinets • Bilt-Well Colonial Mantels • Bilt-Well Combination Doors • Bilt-Well Ironing Board Cabinets • Bilt-Well Bathroom Seats • Bilt-Well Breakfast Nooks • Bilt-Well Medicine Cabinets

**BILT + WELL**  
**WOOD + WORK**

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*enters the room...*



*with the wall that moves*



**B**EAUTIFUL Modernfold Doors offer practical advantages that cannot be equaled by ordinary closures. With Modernfold you can divide rooms at a moment's notice to suit the need . . . large rooms into small or small rooms back to the original size. This *wall that moves* operates on an accordion-like principle . . . eliminates swing area . . . and makes every inch

of floor and wall space available.

Its metal frame provides easy, trouble-free operation and forms a firm foundation for the attractive fabric coverings. The wide variety of colors, finishes and textures makes it possible to match any general color scheme. Specify Modernfold in the homes you are planning for tomorrow. Write for helpful literature.



### NEW CASTLE PRODUCTS

1613 I Street, New Castle, Indiana

Modernfold Doors, 424 Madison Ave., New York City

## WHY DO CABOT'S COLLOPAKES

GIVE A

*more enduring*  
**FINISH?**



Architect: Robt. H. Ainsworth, Pasadena, Calif.

The answer is simple. Cabot's patented "Collopacking Process" reduces the pigments to submicroscopic fineness (100 to 1,000 times finer than ordinary paint pigments); disperses them colloiddally in the oil. The result is a paint in which oil and pigment are inseparably united, which shows no brush marks, remains rich and glowing for years.

Today when quality counts more than ever, architects and home owners alike insist upon Cabot's Collopakes—paints which assure extra protection, longer life, and greater beauty.



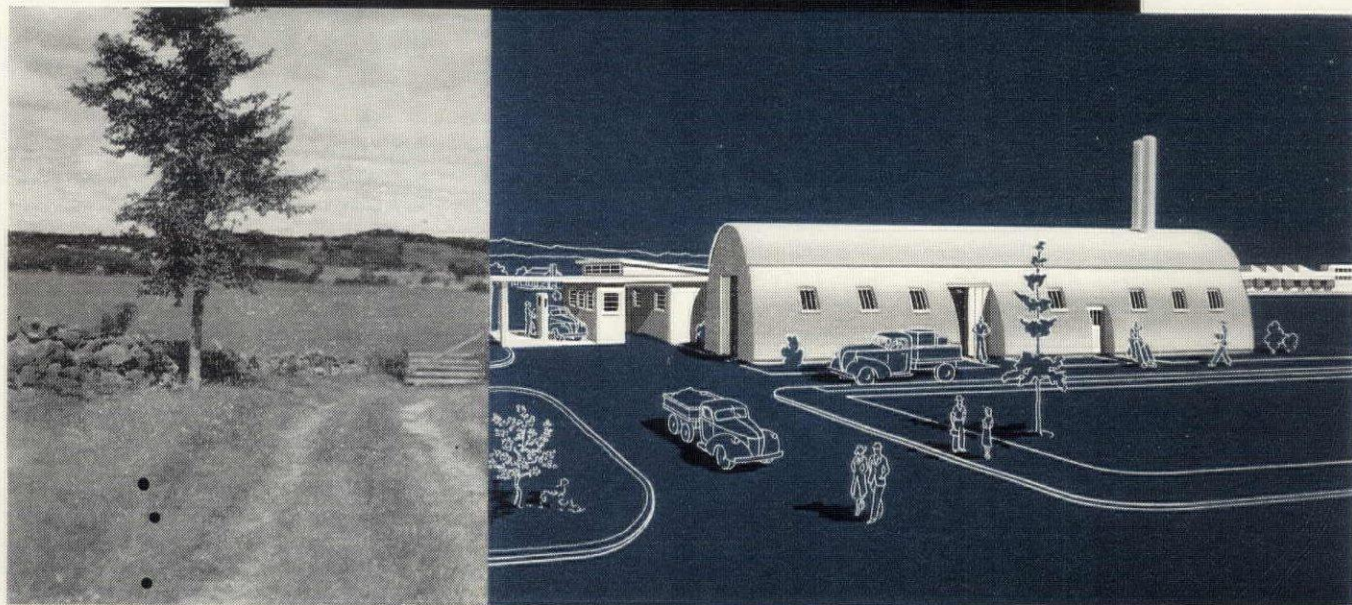
**FREE**—Send today for color samples and the "White Book" giving interesting photographs and factual descriptions of prize-winning houses painted with Cabot's Old Virginia White, Double White, and Gloss Collopakes. Write: Samuel Cabot, Inc., 1273 Oliver Bldg., Boston 9, Mass.

**CABOT'S**

DOUBLE-WHITE and GLOSS COLLOPAKES



# INDUSTRY GOES RURAL



For one reason or another—availability of manpower, economy of supply, improvement of living conditions—the trend of industry is toward decentralized units in rural localities. Yesterday's "whistle-stops" will become thriving and prosperous communities through the construction of processing plants, sub-assembly factories and warehouses.

Stran-Steel is qualified to serve the architects and engineers who will translate this trend into actual buildings. The engineering know-how that gave the armed forces their ubiquitous "Quonset Hut" and other Stran-Steel utility buildings will be applied to the varied needs of industrial development . . . to homes, schools, stores and service establishments, as well as industrial buildings.

Through Stran-Steel experience and research, steel has become a versatile and efficient medium of construction: economical, easy to erect, fire-resistant, rigid, permanent.



*The Navy's Famous Quonset huts  
Are built by*

## STRAN-STEEL

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

UNIT OF NATIONAL STEEL CORPORATION



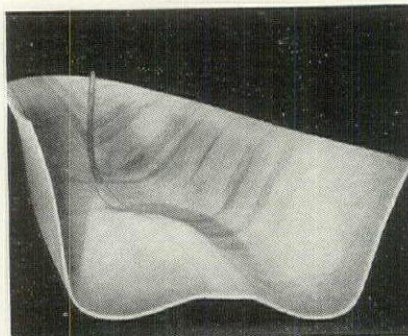
## BOOKS

(Continued from page 184)

have been more of them and less Exter, Berard etc. — but a survey is a survey.

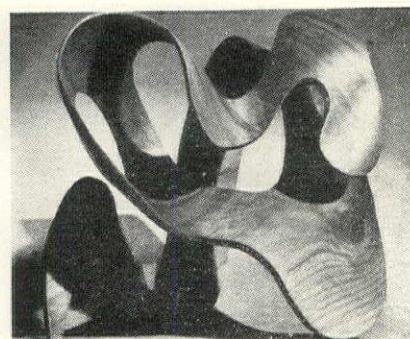
**Architecture.** Main criticism mentioned above. For better photos of the buildings see ARCH. FORUM, May '44.

**Industrial Design.** A really important statement — significantly enough still a statement rather than proof of an accomplished fact. But certain trends of design both bad and good have been analyzed, and this analysis is the starting point of a much more comprehensive job



Plywood ship's hull

than could be done. We will need this section as a reference manual of general principles.

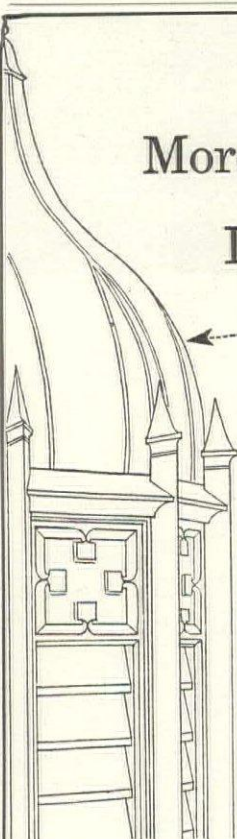


Ray Eames: Plywood Sculpture

**Posters.** As usual, the past is well ahead of the present in this section, with a 1925 Cassandre or a 1935 Herbert Matter pointing out to the Spearmint boys what can be done without recourse to airbrush streamline. Some day, maybe, we consumers will be gently inveigled rather than murderously assaulted.

**A BATSFORD CENTURY.** Edited by Hector Bolitho. B. T. Batsford Ltd., London. 148 pp. 6 1/2 x 10 1/2. Illustrated. 10/6.

Batsford's, the English publishing house of books, among others, on architecture, is one hundred years old, and just so they wouldn't forget it, they printed the story of their century. It is a charming story — the story of a family more than that of a business. Published first in 1943, when most of the Batsford world was collapsing, it was written obliviously



More durable,  
Less maintenance

### FOLLANSBEE SEAMLESS TERNE ROOFING

The weak point in any roofing is the joint. Follansbee SEAMLESS Terne Roofing is made in 50 and 100 foot rolls, eliminating all cross-seaming. This assures an installation of far superior durability and reduces maintenance to a minimum. Physically the strongest roof (tensile strength, 45,000# per sq. in.), the lineal expansion is but .825 inches per 100 feet per 100° F.

For complete data for use in preparing specifications and estimates, write to the general offices.

#### 4 Exclusive Features:

1. Easier to Handle
2. Saves Time and Materials
3. More Durable, Less Maintenance
4. Smooth, Improved Appearance

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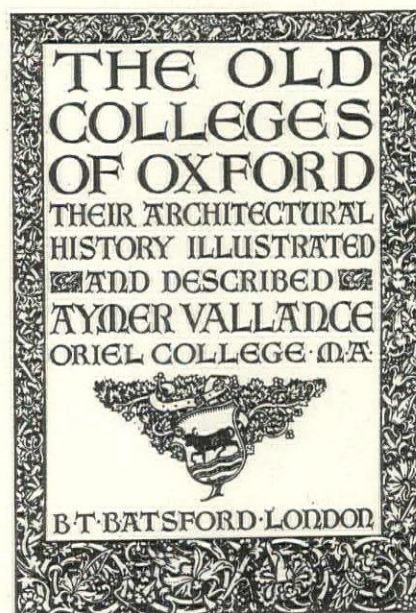
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SEAMLESS TERNE ROLL ROOFING



Title page; by Harold Nelson

in the language of the Manchester School. "I am British, business and bourgeois," writes the present Batsford in this dying language, "and intensely and equally proud of all three . . . once in the *Suk* at Marrakeesh in Morocco I chatted long to an Arab leatherworker, and we found that as producers and sellers we had much in common; we shook hands warmly and parted with mutual understanding . . ." As for us, we would

(Continued on page 192)





**1st Prize \$1500** WAR BONDS\*

**2nd Prize \$1000** WAR BONDS\*

**3rd Prize \$750** WAR BONDS\*

**AND 15 AWARDS OF \$100 WAR BONDS\***

\*SERIES E MATURITY VALUE

# "FLEXIBLE HEATING" COMPETITION

Sponsored by the **BITUMINOUS COAL INSTITUTE**

APPROVED BY THE AMERICAN INSTITUTE OF ARCHITECTS

Conducted by **KENNETH K. STOWELL, A.I.A. Professional Advisor**

**H**ERE is an opportunity for creative imagination!

You are invited to enter this competition to design an ideal basement for the post-war small home, incorporating the principle of "flexible heating" as described below. Competition programs are now being mailed to a list of architects. If you do not get your entry material within a week after receiving this magazine, fill out and send coupon immediately! This competition is open to all registered architects, architectural students, designers, and draftsmen in Continental United States.

## WHAT IS "FLEXIBLE HEATING"?

"Flexible heating" is a descriptive term for a heating plan that will permit the use of *any* fuel. This includes bituminous coal, anthracite, gas, and oil. In view of the diminishing reserves of some fuels, it's simply good common sense to plan homes with a chimney *big enough* to properly burn all fuels. And since bituminous coal is the cheapest, most plentiful fuel in the United

States, its use should be provided for by an adequate chimney in any foresighted new home plan.

To state the case briefly: We do *not* want to exclude other fuels! But we *do* want bituminous coal to have a *fair opportunity* with the others, judged on its own merits! That is the reason for this competition.

## JUDGING . . . PRIZES

All designs will be submitted and judged anonymously. The jury will consist of four architects and one engineer. Decision of the jury will be final. The competition begins September 1st, 1944 and closes at 5 P. M., November 15th, 1944. If you wish to have an *additional copy* of the competition program and other information, fill out and mail the coupon at once. Do not attempt to enter without this material. If you have already received your program (or do so within a week), do not send the coupon; the material you received gives you all you need to enter and win!

**RIGHT NOW IS  
A GOOD TIME TO START!**

**REQUEST FOR ENTRY MATERIAL**

Kenneth K. Stowell, A.I.A., Professional Advisor, "Flexible Heating" Competition  
The Architectural Record, 119 West 40th Street, New York 18, N. Y.

Gentlemen: I have not yet received my copy of program and material for the "Flexible Heating" Competition. Please send me all necessary information, post-paid, by return mail.

NAME

PROFESSION OR OCCUPATION

STREET

CITY AND STATE



## BOOKS

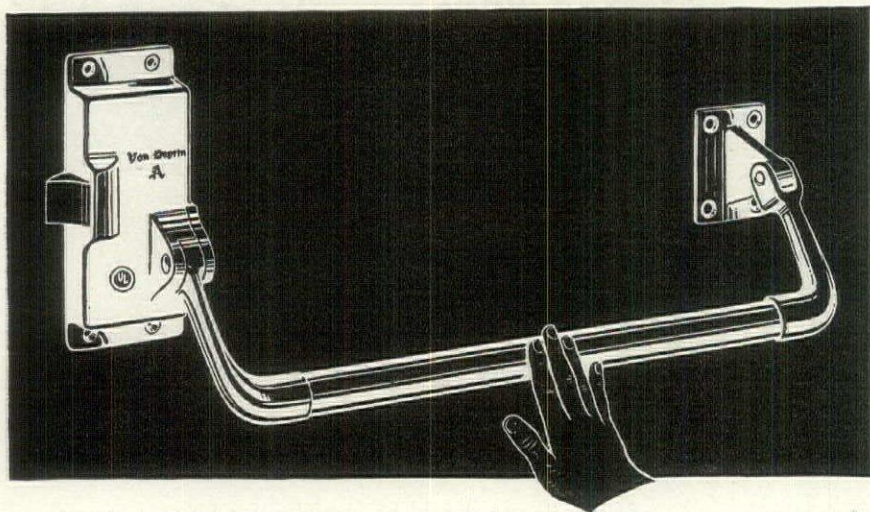
(Continued from page 188)

give a handsome sum to have been present at this little conclave.

Other Batsfords are no less picturesque. There was one of the original ones, Bradley Thomas Batsford, who was in the habit of bellowing at his wife Letitia — a meek girl if there ever was one —: "Woof, woof, woof. What a woman you are!" and who is described as having had a "natural sunniness of temperament" . . . a euphemism explained by the Englishman's meteorological scale.



Letitia Batsford in old age



## Just the Tips of Your Fingers

In every Von Duprin Fire and Panic Exit Device you'll find a precision-built mechanism such as you never expected to see in any lock.

No matter whether the exterior is the black malleable iron of the Victory models or the drop-forged bronze of the pre-war . . . and post-war . . . types, you'll find the same precisely forged working parts of bronze and bearing metals, the same expert fitting and assembling.

This mechanism is the heart of the device. Its workmanship and balance provide both the smooth, finger-tip operation, and the long life for which Von Duprin is famous. It makes the device a real Von Duprin, with the strength to stand up under any emergency, to let the people out of your building safely, surely, quickly—always.

# Von Duprin

TRADE MARK REG.

DIVISION

VONNEGUT HARDWARE CO., INDIANAPOLIS, IND.

Apart from publishing architectural books and patting architects on the back in other ways, the Batsfords helped promote such important writers as Hector Bolitho (who edited this book), Ivor Brown and Christopher Hobhouse, who was killed in the Battle of Britain. The book tells of all this, and illustrates the stories with some delightful old photographs and title-pages of early publications. It's a good book to go through some day—there aren't going to be many more stories like this one to tell.

**ON LIVING IN A REVOLUTION.** By Julian Huxley, M.A., D.Sc., F.R.S., Harper & Brothers. New York & London. 242 pp. 5 x 8. \$2.50.

Julian Huxley is, of course, one of our most civilized contemporaries. Whether it is Darwinism, Spoonerisms, Communism, Bird Life on St. Kilda, the TVA or chasing blitzed zebras back into the London Zoo—Huxley is a formidable expert.

His *On Living in a Revolution* should have been published a long time ago—long before we immersed ourselves in disconnected half-measures and pretty blueprints of palliatives to keep going what we jokingly refer to as "our way of life." What Huxley has to say may ostensibly be a description of how to deal with animal pests or a discussion of education. Actually, however, he is stating very simply the framework within which a new society must and will be built—within which, therefore, our plans must be conceived and laid.

Huxley uses the word "revolution" not as a synonym for "rebellion," but rather in the scientific sense: accelerated evolution. His first point is that we are living in a revolution . . . a fact which most of the U. S. has been very clever at ignoring—very clever in view of such minor earth tremors as World War I, depression, Manchuria, the New Deal, TVA, Abyssinia, Spain, Munich etc. etc. etc. In our complete inability to see a common denominator to all these upheavals we are getting to be isolated from the rest of the world—we are getting to be the new Old World, simply because we have failed to grasp the direct connection between what goes on in, say, a Detroit factory and what was happening in gas chambers in Polish forests. Now, after all hell has broken loose around us, a few say, as Margaret Fuller said: "I accept the universe!" And Huxley quotes Emerson's reply: "Gad, she'd better!"

Huxley's second point is that this revolution tends to produce, within nations, the subordination of economic to non-economic motives, more planning and central control, more social and cultural unity, and a more conscious social pur-

(Continued on page 192)





*DELANY FLUSH VALVE equipped with NO. 50 VACUUM BREAKER, a device that prevents water contamination, telltales back syphonage. DELANY VALVES are noted for their simplicity and freedom from breakdown.*

## **TOMORROW'S PLANNING**

There is a bright future coming for community life in America. The pattern is in the weaving, the plans are on the boards, the funds in committees' hands awaiting the return of peace.

The acceptance of the FLUSH VALVE in private homes is but one of the foreshadowing changes now accepted as fact. War building has proved this. The water economy, efficiency of purpose, and freedom from fault and common maintenance of the DELANY FLUSH VALVES, over past accepted methods of domestic sanitation, earns them a place in your plans for modern community improvement.

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



## BOOKS

(Continued from page 190)

pose. Between nations: less suzerainty (which is pretty specious, anyway) and a higher degree of international organization.

Third, a democratic revolution is more desirable, more permanent—a totalitarian one is self-defeating in the long run.

Fourth, the only criterion of democratic method is the satisfaction of the needs of human individuals (he does not mean a few human individuals).

And lastly, the revolution must be consciously accepted and acted upon. And this is where we, the "planners," regularly stick our heads into the proverbial sand.

Let's admit it. We cannot plan cities in a vacuum—whatever we set ourselves to do now is going to be done for the future—not for the "good old days"—it is going to exist within a future economic and social framework. There may be new systems of landownership, and a new common ownership of what power is produced by our rivers. We cannot practice cooperative society in Europe, say, and then try to quarantine the idea

at Ellis Island. It is ridiculous, therefore, to plan our postwar future by pre-depression standards. We need new terms of reference, and Julian Huxley has stated them as clearly as anyone. More clearly, in fact, because while he is an idealist and a visionary (the kind we used to like to have around a hundred years or so ago)—Julian Huxley is also a scientist, who probably measures human happiness precisely in terms of each individual's increased metabolic rate.

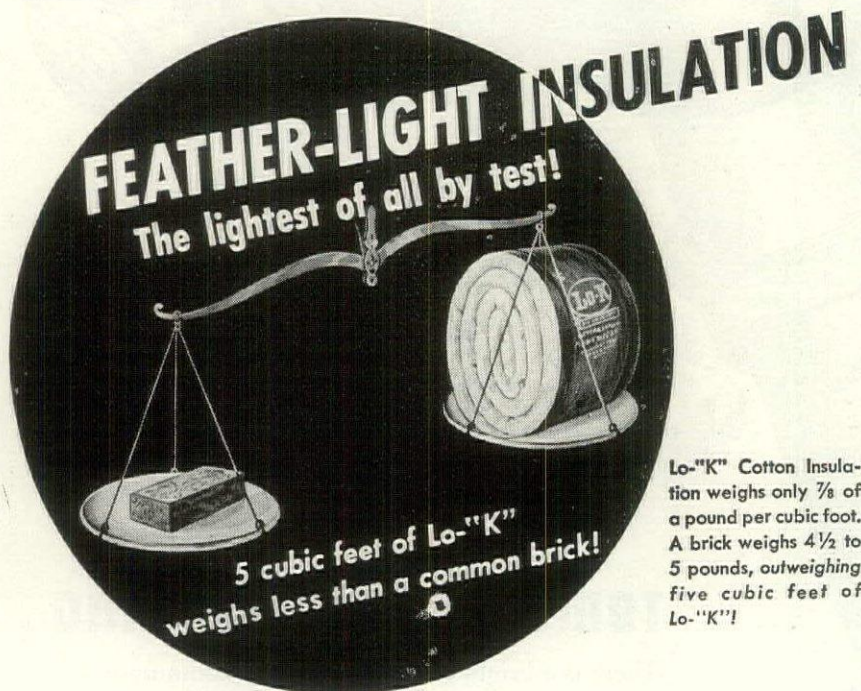
*On Living in a Revolution* is not what we would call light or weekend reading. It is a short statement made up of previously published articles by the author. Some of its style is rather on the heavy side. Sample: an imaginary conversation between Julian and his distinguished ancestor Thomas Henry Huxley: "Julian: 'But what are you?' Thomas Henry: 'A projection of your private fancy.' Julian: 'That's a good working hypothesis, anyhow. . . .'" This is not a particularly sprightly piece of small-talk, but Huxley does atone for it with some very delightful bits of humor. Thus he quotes a young aristocratic Guards' Officer, who said to his companion in the London Savoy during the Blitz, "You know, we're living in a social revolution here. Frightfully interesting, what?" And by God, the fellow was right!

**YOUR HOME.** A publication of the Housing Authority of Vallejo, Cal. Prepared by Hilde Reiss Friedman.

While the yarn about tenants of public housing projects keeping coal in their bathtubs has been proven unfounded and, to boot, libelous, it is still an ingenious and constructive idea to distribute among them an attractive home-maker's magazine. The Vallejo Housing Authority deserves credit for initiating this means of improving community interest and standards. Their pamphlet contains excellent suggestions on design, efficient utilization of space, maintenance, storage, etc.; all interesting, appropriate and practical.

**SLIDE RULE SIMPLIFIED.** By C. O. Harris. American Technical Society, Chicago. 250 pp. 5½ x 8½. \$2.50 (with slide rule, \$3.50).

Strangely reminiscent of the smell of chalk dust in the eighth grade classroom is this textbook complete with exercises and reviews at the end of each chapter. Along with tangents and square root are drawings which show the reader how the most correct calculators hold a slide rule and some particularly corny cartoons which are apparently intended to furnish the light touch. The most astounding feature of the book is that the simple use of the slide rule can be stretched out to cover 250 pages.



**FEATHER-LIGHT INSULATION**  
The lightest of all by test!

5 cubic feet of Lo-"K"  
weighs less than a common brick!

Lo-"K" Cotton Insulation weighs only ⅞ of a pound per cubic foot. A brick weighs 4½ to 5 pounds, outweighing five cubic feet of Lo-"K"!

The extreme light weight of Lo-"K" Flame-proofed Cotton Insulation results in a better insulation job at less cost. It prevents sagging or shifting, facilitates easy handling, cuts installation time.

Lo-"K" is made of soft, fluffy cotton—composed of thousands of tiny air cells, giving it high insulation efficiency and creating an effective moisture barrier. The "k" value of this specially processed cotton is .24, the lowest thermal conductivity of any recognized insulating material on the market today.

Lo-"K" blanket-type rolls are available at lumber or building material dealers. Manufactured in widths to fit all standard frame-work construction.

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Low in thermal conductivity. The "k" factor is only 0.24.

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Flame-proofed . . . will resist a blowtorch temperature of 1800° F.

Easy to handle . . . the blanket-type rolls fit snugly. Cuts labor costs . . . will not cause skin irritation.

Resists moisture, rot, mildew, vermin.

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Fluffy—creates more air cells after installation. Will not sag or settle.

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☐ Architect ☐ Contractor or Builder ☐ Dealer

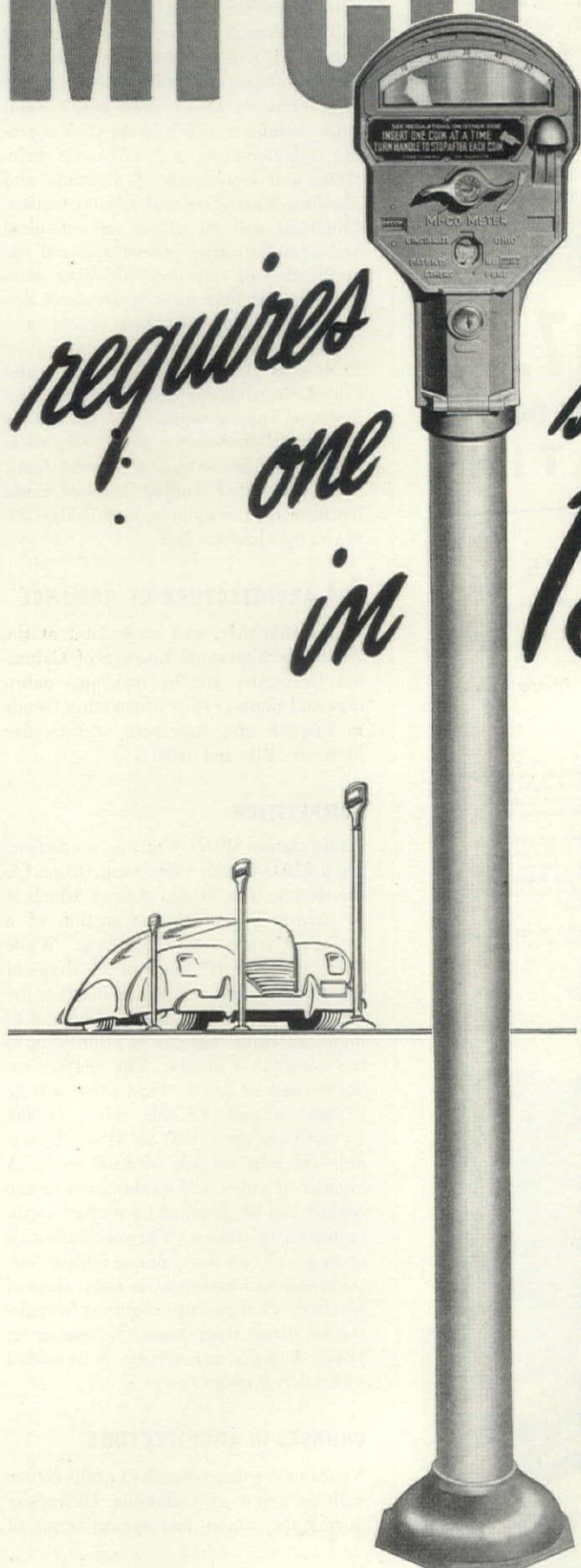
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City.....Zone.....State.....



# MI-CO METER



*requires  
one  
in*

*only  
service call  
15 months!*

For more than a year officials of an east coast city subjected a MI-CO Parking Meter to all sorts of tests. This is a part of their report: "We have had this meter in continuous operation winter and summer with pleasing and satisfying results. *During a fifteen month period we had one service call on the meter.*" Other cities, some with hundreds of MI-CO Meters, report similar experiences. ¶ It's rugged construction and fewer moving parts that enable MI-CO Parking Meters to give such dependable, low-cost performance over long periods of time and under severest weather conditions. They have solved parking problems in many congested shopping areas, and have been endorsed by city officials and merchants wherever installed. ¶ When manufacturing restrictions are lifted, MI-CO Meters will again be available. In the meantime, send for fully illustrated folder which tells more about the advantages of MI-CO Parking Meters.

**MI-CO METER CORPORATION**  
**231 Court St., COVINGTON, KY.**

Manufactured under the patents of F. L. Michaels  
by The Michaels Art Bronze Co., Inc.



## FORUM OF EVENTS

(Continued from page 6)

### EXHIBIT FOR THE USSR

The Architects Committee of the National Council of American-Soviet Friendship in collaboration with the overseas branch of the OWI has completed arrangements for an extensive exhibition of American architecture to be shown in the Soviet Union. It will endeavor to give the Russian architect and public a coherent picture of building in this country, the factors influencing its development and the problems

it seeks to solve. The historic portion will portray indigenous Indian architecture, the rise of colonial cities, the agricultural development of the South, the later westward expansion, and the rise of mechanized industry. The more important contemporary section will examine the most recent trends in public and private building and will also show new community concepts in building and planning such as the TVA.

The organization of the material is under the direction of Vernon DeMars of the NHA, Professor Talbot Hamlin of the Columbia School of Architecture and Dean Joseph Hudnut of the Harvard Graduate School of Design.

### CONFERENCE ON PLANNING

The Massachusetts Institute of Technology announces that its eighth annual conference on city and regional planning will be held from October 16th to 27th. Sponsored jointly by the Institute and the American Society of Planning Officials, it will be open to men and women who have had practical experience in planning or in a related professional field. Seminars will be held each morning and afternoon and will cover principles and techniques of planning and planning legislation and administration. Emphasis will be placed on technical and administrative procedures and the application of improved planning standards rather than on a generalized discussion of various planning problems.

The seminars will be conducted by Professors Frederick J. Adams and Flavel Shurtleff assisted by visiting lecturers on special topics. The fee for the two weeks' conference is \$50. Applications should be sent to Professor Adams, Division of City Planning, Massachusetts Institute of Technology, Cambridge 39, Mass. by October 2nd.

## RUMFORD SAVED 47.5% in Steam Consumption by changing over to HIGH ALTITUDE HEATING

★ ★ ★

### Here's the Record

AC'T'G PERIOD	LBS. STEAM USED 1941	1942	DECREASE
	1941	1942	
Dec.	1,662,000	1,021,000	641,000
Jan.	1,330,400	993,000	337,400
Feb.	1,611,200	749,200	862,000
March	1,375,400	797,000	578,400
April	711,400	443,000	268,400
May	293,600	101,600	192,000

Total 6,974,000 4,104,800 2,869,200  
The average monthly saving in pounds of steam per degree day was 47.5%.

Fuel-Saving  
Starts With  
CONTROL

May we send additional interesting details on High Altitude Heating? Please write for Brochure 632.

### RUMFORD CHEMICAL WORKS

ESTABLISHED 1854  
GENERAL OFFICES AND FACTORY  
RUMFORD, RHODE ISLAND

C. A. Dunham Company  
450 East Ohio Street  
Chicago 11, Illinois

February 10, 1944

Gentlemen:

Attached hereto is a tabulation showing the amount of steam used for heating our baking powder plant and office building during the period we have operated the Dunham Sub-atmospheric Steam System (December 1942 through the spring of 1943), as compared with the same period of the preceding year under our former heating system.

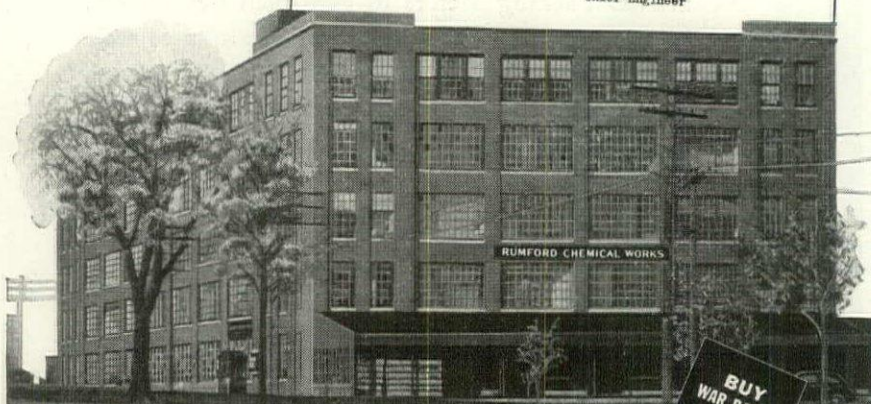
The figures on metered steam consumption for the two periods indicate that the new system saved steam far in excess of the estimated savings. This saving is over and above the saving effected in the preceding season due to other changes made, including regreasing the steam and condensate lines and replacing former valves and traps with Dunham items.

On the basis of these figures, the system will pay for itself within six years and we are, therefore, pleased to recommend it to others.

Yours very truly,

*P. B. Kimball*  
P. B. Kimball  
Chief Engineer

PK:ah



**DUNHAM**  
C. A. DUNHAM COMPANY  
450 E. OHIO ST., CHICAGO 11, ILLINOIS

*makes fuels go further*

Toronto, Canada

London, England

### THE ARCHITECTURE OF ROMANCE

Under this title, and on exhibit at the Avery Architectural Library of Columbia University are 90 drawings, paintings and photographs illustrating trends in English and American architecture between 1810 and 1850.

### COMPETITION

Radio station WGN, Chicago is sponsoring a \$10,000 cash prize competition for the design of a studio theater which is to occupy the northwest section of a proposed twelve-story building. While there are no restrictions on the shape of the theater auditorium, its interior design must allow for adequate support of floors above the theater in a building of the designated height. The seating capacity will be 2,000. First prize will be \$5,000; second, \$2,500; third, \$1,000. In addition, there will be fifteen honorable mention awards of \$100 each. A booklet of rules and explanation of the contest can be obtained by written application to the station. The competition is open to all persons, partnerships, corporations and associations regardless of location. Entrants are required to register no later than noon, November 1, 1944. A registration form is provided with each booklet.

### COURSES IN ARCHITECTURE

Nineteen evening courses in architecture will be given at Columbia University during the winter and spring terms of

(Continued on page 196)



# **IMPORTANT TO EVERY ARCHITECT**

**Here are the facts about one of your  
biggest post-war opportunities**

**Q.** *Is there a real demand for air conditioning in post-war homes?*

**A.** Every survey shows a large and increasing demand. 54% of a group of prospective homebuilders contacted by the National Association of Homebuilders said they would not build nor buy if they could not get complete, year-round air conditioning. McCall's Magazine found 54% of its readers "liked and expected to get" air conditioning, while an additional 29% listed air conditioning as a "must" for their post-war homes. Other surveys confirm this decided trend.

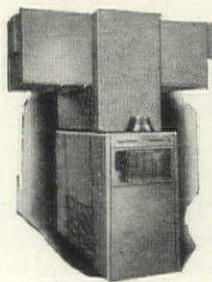


**Q.** *Will equipment be available after the war to meet this demand?*

**A.** Yes, an entirely new and revolutionary *All-Year* Gas Air Conditioner has already been perfected by Servel, Inc., makers of the famous Servel Gas Refrigerators. Developed before the war, it will be available for your homes as soon as materials and production capacity are released from war work.

**Q.** *What's "new and revolutionary" about the Servel Air Conditioner?*

**A.** It's the first and only system that offers—in one simple unit—year-round air conditioning. It heats and humidifies the home in winter, cools and dehumidifies in summer, cleans and circulates air the year-round... all at the touch of a finger.



**Q.** *How can I be sure that this new Servel equipment will meet the demands of post-war consumers?*

**A.** The Servel *All-Year* Gas Air Conditioner has been on actual test in hundreds of homes and commercial buildings throughout the country for the past four years. Users are unanimously enthusiastic about its efficiency and economy.

You'll get the right answers to a lot more questions, too, from the Servel *All-Year* Gas Air Conditioner. When you include this equipment in your building designs, you make it easier for your clients to obtain favorable financing. Recognizing that obsolescence is less on structures equipped with the Servel *All-Year* Gas Air Conditioner, financial underwriters have indicated their willingness to extend larger loans on such buildings.

And, though the inclusion of the Servel *All-Year* Gas Air Conditioner will cost more than adequate heating alone, it is possible, by proper planning, to keep the increase surprisingly low and, in fact, to

effect economies that may offset the additional cost of the air conditioner.

For complete details about this "essential for the home of tomorrow," write Servel, Inc., 2409 Morton Avenue, 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*



## FORUM OF EVENTS

(Continued from page 194)

1944-45. A seminar devoted to a description and analysis of the architecture of New York City will be specially featured. Basic and advanced work in design, materials and methods, mechanical equipment, structural design, descriptive geometry and the history and theory of architecture will also be included. Related courses in psychology, sociology and economics supplement the program. Lectures in architectural design will be given by George Nelson. Eugene Raskin

will give instruction in descriptive geometry. Professor William H. Hayes will direct courses in materials and construction methods. Henry J. Maloy will be in charge of drawing and painting, and Oronzio Maldarelli will teach modeling of wood and stone.

All facilities of the School of Architecture will be available to evening students. The new term begins on September 28th.

### AWARD

Leopold Arnaud, dean of the School of Architecture, Columbia University, announces the award of the annual Warren

medal in construction to John Hugh Clark, senior student from Flushing, N. Y. The problem for this year's competition was the designing of a large garage to be used by a public utility company operating a fleet of trucks and automobiles of varying sizes.

### ANNOUNCEMENTS

DONALD G. SMITH, architect, announces the reopening of offices for the general practice of architecture, alterations and postwar plans at 1101 Lincoln Rd., Miami Beach, Fla.

PHILIP RHINELANDER 2ND, president of the Rhineland Real Estate Co., New York City, announces that Peter C. Haefner has been appointed to succeed George A. Sherron, vice president and general manager of the company, who has retired.

R. A. HOFFER, publisher of *House Beautiful Magazine*, announces the appointment of Mrs. Frances Taylor Heard as home furnishings editor in charge of merchandising activities.

CHARLES S. TELCHIN, architect, announces the removal of his offices to 22 W. 48th Street, New York City.

JOHN WEBER, architect announces the reopening of offices at 415 Lexington Ave., New York City.

SEYMOUR R. JOSEPH, architect, announces the removal of his office to 1841 Broadway, New York City.

HARRY PREBLE JR., industrial designer, announces the opening of a studio for the design and development of consumer, commercial and industrial products at 104 E. 40th St., New York City.

### PERSONAL NOTICE

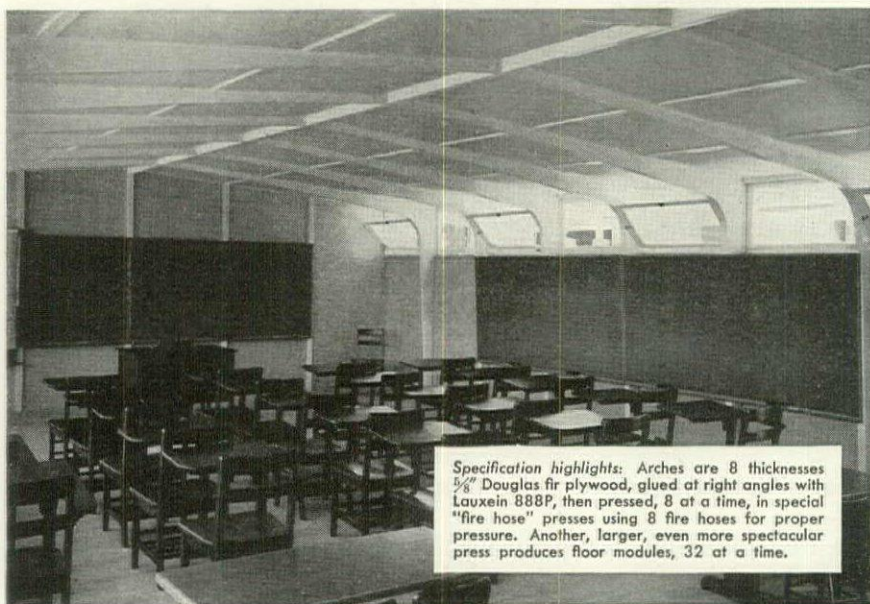
Joseph C. Huber, 1711 Michigan Avenue, La Porte, Ind., desires partnership in a well established firm of two or three progressive members. Mr. Huber's practice in architecture and engineering has been extensive. He will be glad to exchange background information.

### REQUESTS FOR LITERATURE

WILLIAM E. ROBINSON of the engineering department of Wyeth, Inc., 1600 Arch Street, Philadelphia, Pa., desires descriptive literature and samples for the establishment of an AIA file.

JOHN WEBER, architect, 415 Lexington Ave., New York City, desires manufacturer's literature on all building products.

DONALD G. SMITH, architect, 1101 Lincoln Rd., Miami Beach, Fla., desires manufacturer's catalogues and literature useful to his practice.



Specification highlights: Arches are 8 thicknesses  $\frac{3}{4}$ " Douglas fir plywood, glued at right angles with Laxein 888P, then pressed, 8 at a time, in special "fire hose" presses using 8 fire hoses for proper pressure. Another, larger, even more spectacular press produces floor modules, 32 at a time.

## Built in hours . . . to last for years with WOOD AND LAUCKS GLUE

Here's the recipe followed by the Standard Engineering Corporation of San Francisco in producing hundreds of modern, comfortable Pre-Bilt school rooms like this:

Take wood.

Add Laucks construction glues.

Combine with sound engineering design.

Season with advice of Laucks serviceman on best glueing, pressing techniques.

Finish vital parts (sills, plates, etc.) with Laucks Fungiseal (toxic water repellent).

Assemble complete with lighting, heat, ventilation, cabinetwork, in few hours.

*The result: a structure that will last for years...built in hours.*

For more information, if you are interested in the many possibilities of laminated arches and beams . . . plywoods . . . and the use of construction glues in stressed cover structures and dry-built construction . . . write or wire the world's largest manufacturers of waterproof and water-resistant glues.

### I. F. LAUCKS, Inc.

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Lauxite Resins • Laxein Glues

CHICAGO (2)—6 N. Michigan Avenue; SEATTLE (4)—911 Western Avenue; LOS ANGELES (1)—859 E. 60th Street. Factories: Seattle, Los Angeles, Portsmouth, Va., Lockport, N. Y. In Canada, address: I. F. Laucks, Ltd., Granville Island, Vancouver, B. C., or Hercules-Lauck-Merritt, Ltd., Stanbridge, Quebec.







# : "Zoned Heating Solved our Problem"

"Before we installed our new Steam Heating System, discomforts and distractions due to incorrect heating were seriously affecting the efficiency and health of our workers. Our drafting rooms, requiring north light, were too cold . . . Our offices and conference room, on the south side of the building, were too hot . . .

"We chose a Zoned Webster Moderator System of Heating to solve our problem. Now we have correct heat in every department. And we use less fuel!"

## More Heat With Less Fuel

The Webster Moderator System supplies continuous distribution of steam. Through accurate orificing, all radiators receive steam at the same time but in varied quantities,

as needed. An Outdoor Thermostat automatically changes the heating rate to agree with changes in outdoor temperatures.

Seven out of ten buildings in America (many less than ten years old) can get up to 33 per cent more heat from the fuel consumed. This is the result found from thousands of building surveys made by Webster Engineers.

Write for "Performance Facts" if you are dissatisfied with your present steam heating system. This free booklet contains case studies of 268 modern steam heating installations in commercial, industrial and institutional buildings . . . and the savings they are effecting. Address Dept. AF-9

WARREN WEBSTER & CO., Camden, N.J.  
Pioneers of the Vacuum System of Steam Heating  
Representatives in principal cities : Darling Bros., Ltd., Montreal, Canada



Outdoor Thermostat automatically changes heating rate when outdoor temperature changes.



Variator provides desirable manual operation to supplement automatic control.

*Fuel-Saving  
Starts With  
CONTROL*

**Webster**  
Steam Heating



## PRODUCTS AND PRACTICE

(Continued from page 14)

the radio is turned down. Borrowing a trick from the open-front telephone booths in New York's newest subway will help solve the problem. Here acoustical tile lines the three sides of open-front booths, allowing conversation even during the rumble and crash of a passing subway. In the home, a small recess could be built into the wall and lined with a few acoustical tiles. Such a device is needed anyway as a planned location for the telephone and although it might not be 100 per cent effective in isolating sound, it would be a vast

improvement over the common variety of telephone table.

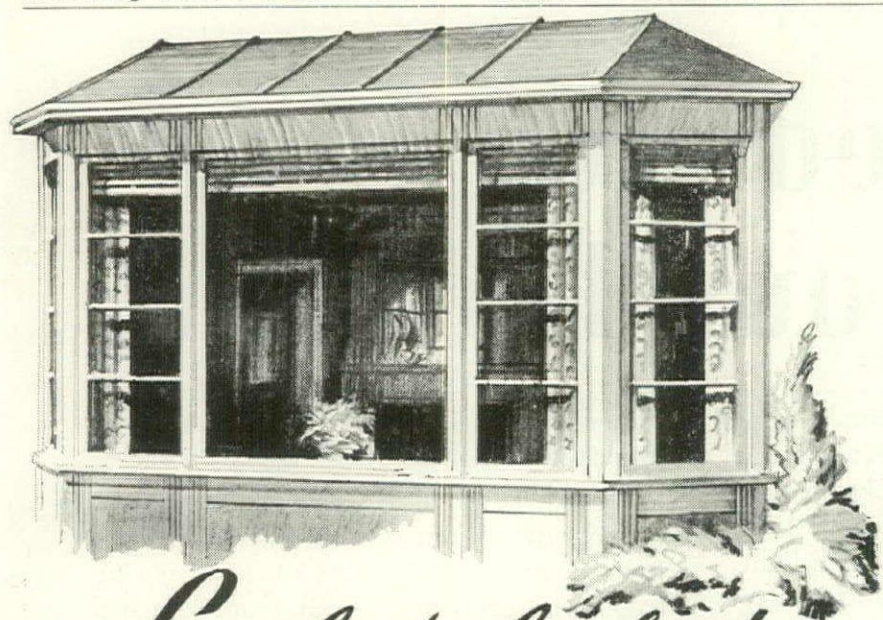
Another tricky problem in acoustics is presented by a family whose members all want to use the living room at once. Mother plans to listen to a symphony concert on the radio, Father wants to go over some reports and Junior has homework to do. An acoustically planned L-shaped room allows all these things to be done with a minimum of fuss. Mother sits beside the radio which is placed at the top of the L. Sound waves traveling the length of the room would ordinarily bounce off the wall and into the alcove where father and son are seated. Acoustical material on the end wall, however, would absorb

much of this sound, leaving the alcove relatively quiet while the radio plays. If the sound reduction from this treatment is not sufficient, extended book-cases can act as additional baffles.

Quite apart from segregation of sound in the living room is the problem of improving its acoustical quality for better radio reception. Since most living rooms are small, they never capture the true quality of a large orchestra which should be heard in a concert hall to be appreciated. A \$500 radio in a small, acoustically bad room is not heard to best advantage. But if the room is acoustically planned for its use the room seems bigger, the tone much better.

This device was used to advantage in Sherman Fairchild's Manhattan town house (see ARCH. FORUM, Apr. '43). Realizing that a good radio sounds only as good as the room it is in, Fairchild demanded an acoustically perfect interior for his specially-built set. In addition to the radio which was placed in one corner of the room, he had two grand pianos. To obtain the best possible tone from his instruments, the living room was treated to sound like a huge symphony hall. The ceiling was made of wood frames, some areas filled with broken pieces of wallboard, others with rock wool to produce irregular reflections of sound. A second cloth ceiling was stretched over this. Rock wool padded one wall behind a grass matting and the opposite wall was made of plywood. Glazed panels, one of which is set at an angle, formed the other two walls. The result in faithful reproduction of sound was extraordinary, and it seems plausible that this technique in varied form could be applied to many situations, although perhaps not in so elaborate a form.

This sort of construction will undoubtedly become more important as the demand for better home acoustics increases. Trends in modern architecture—the openness of design, lavish use of glass, bareness of furnishings and lack of rugs—will also tend to increase demand for acoustical planning where before one could take it or leave it alone. Modern houses will also present a sound transmission problem with their use of lighter materials in place of regular plaster partitions. On the other hand they will offer heretofore unknown acoustic opportunities because sound problems can be solved by the design itself. Walls need not be parallel, glazed panels may be tilted and acoustic materials placed to best advantage. With the development and perfection of such design, sound conditioning can be aimed not only towards remedying the faults of present construction, but towards creating new acoustical opportunities for future homeowners.

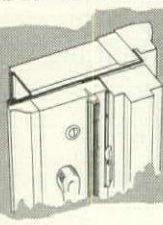


*Lovely to look at*  
**yes, and efficient too!**

**Post-War Window Areas** will no doubt be larger. While generous fenestration offers exciting design possibilities . . . WINDOW EFFICIENCY must be examined more critically. Compare these design features of stock-size Pella Casement Units with the field for **BEAUTY and EFFICIENCY**:



**ROLSCREENS**, original roller-type inside screens. The ultimate in screen efficiency and convenience.



**WOOD and STEEL** combine beauty with strength in Pella frames. Wood is toxic and water-repellent treated. Steel is rust-proofed.



**DUAL GLAZING** is single panel type that mounts on inside of sash. Inconspicuous. Easily removed for cleaning.

**Free FILE FOR ARCHITECTS**—22 loose pages of scaled details on Pella Casement Units for all types installations. Come in handy A.I.A. File Folder. Send for your **FREE** set today! Write:



ROLSCREEN COMPANY, Dept. 294, PELLA, IOWA.

**Pella WINDOWS** CASEMENT \* "AWNING"  
PROJECTED WOOD SASH

Made by Makers of Famous Pella ROLSREENS and Pella VENETIAN BLINDS





36,000 neighbors live in the 12,272 Metropolitan Life Insurance Company apartments that make up Parkchester.

## World's most modern floors prove superior

### in world's largest housing development

12,272 Parkchester kitchens, a veritable city of linoleum, have demonstrated that floors can be beautiful as well as durable. Five years ago, Nairn Linoleum was installed in all the 12,272 Parkchester kitchens. Today, those floors are just as beautiful, quiet, easy to clean as ever. And in these five years not a single replacement nor repair has been required. At Parkchester, the most modern of floors, Nairn Linoleum, has been pre-viewed and pre-tested for your post-war buildings.

*A handbook on linoleum specifications has been prepared for your use. May we send you your copy?*

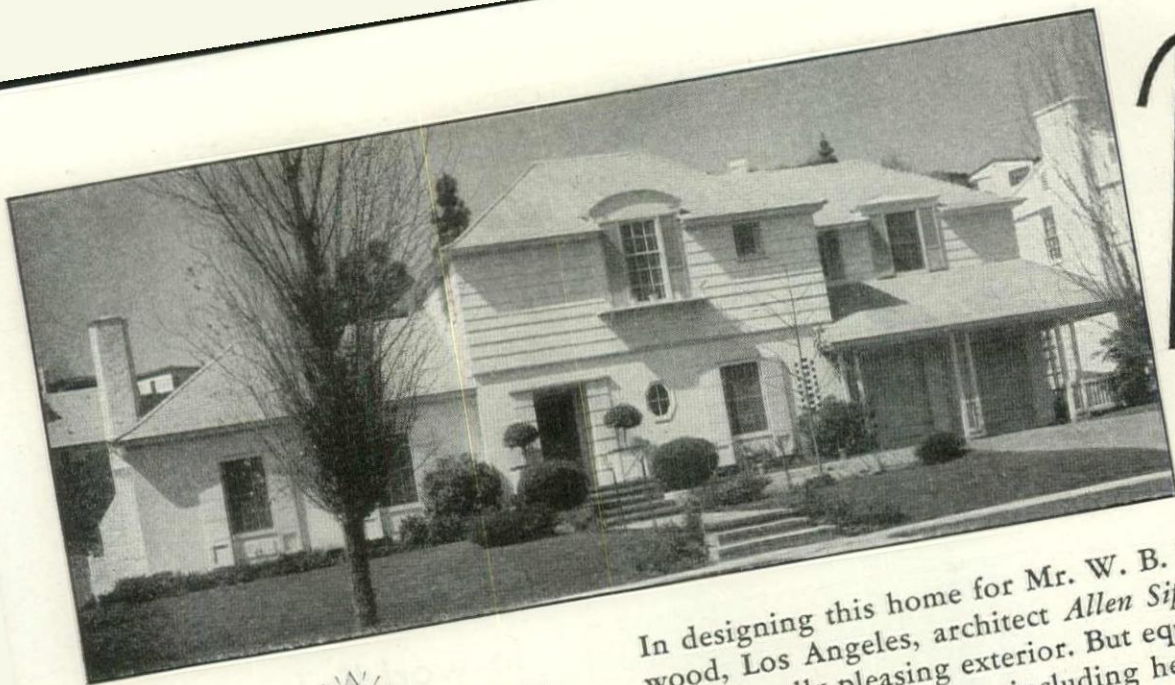
CONGOLEUM-NAIRN INC., Kearny, N. J.

For modern floors and walls  
**NAIRN LINOLEUM**  
easy to maintain,  
colorful, permanent, resilient.



*After five years of continuous wear, Nairn Veltone Pattern #2924 in this typical Parkchester kitchen is fresh, beautiful—like new.*





Beauty.  
OUTSIDE  
AND IN

In designing this home for Mr. W. B. Bailly in Westwood, Los Angeles, architect Allen Siple achieved an exceptionally pleasing exterior. But equal thought was given to design for living, including healthful, carefree warmth. Firmly specified was . . . PAYNEHEAT.

GAS FUEL  
HAS  
EVERYTHING

After the War . . .  
**PAYNE ZONE-CONDITIONING**

New-day successor to old-fashioned central heating. Not available now; we're busy with essential production. But write for new preliminary folder. ★  
Meanwhile, let's all keep on buying War Bonds . . . for Victory. ★

© 1944 PAYNE FURNACE & SUPPLY CO., INC.

**PAYNEHEAT**  
30 YEARS OF LEADERSHIP

Payne FURNACE & SUPPLY CO., INC., BEVERLY HILLS, CALIFORNIA



**Majestic**  
"HEAT-APPEAL" that adds  
"HOME-APPEAL"

In tomorrow's homes, "heat-appeal" will be as much in demand for fireplaces as charm and beauty. Fuel rationing has taught a lasting lesson on this point! And that means a bigger-than-ever demand for Majestic Circulator Fireplaces, because they circulate heat like a warm-air furnace . . . they provide all the heat needed for many Spring and Fall days . . . they reduce heating costs . . . they assure correct, smoke-free operation! Plan now to add "heat-appeal" to fireplace beauty on every job! Write for details on time-saving, materials-saving Majestic Circulator Fireplace Units!

**THE MAJESTIC COMPANY**  
942 Erie St., Huntington, Indiana

**Building  
Necessities**



**Kennebec  
PLYWOOD**

CUSTOM  
MADE

**BIRCH PANEL**

We can make quality panels to specifications—for that particular you want to tackle—even if for facings of special materials!

Our experience manufacturing wood for the Mosquito Bomb us the know-how to meet engineering standards precisely.

Pound for pound stronger

Write today for quotation specifications.

**KENNEBEC, INC.**

THE ARCHITECT



# **Craw-Fir-Dor**

SELF-ENERGIZING • ONE PIECE • OVERHEAD TYPE

## **GARAGE DOOR**

**Post-War hardware for the  
Craw-Fir-Dor is now ready for  
mass production - - with  
outstanding mechanical improvements  
made possible by the Crawford  
Door Company's continuing research,  
plus the experience gained  
through manufacture of precision  
airplane parts.**

### **REMEMBER**

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

For special residential or industrial installations, write

**CRAWFORD DOOR CO.**  
DETROIT, MICH.

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

★ 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.

**FIR DOOR INSTITUTE**  
Tacoma 2, Washington



# Are you going to specify a gleam in some

... or house heating  
equipment with  
proven performance?



Clean air is one of the greatest assets of any community, one of the first goals in community planning. All-gas communities, such as the Emerald Hill Sub-division, Hadden, N. J., have no smoke, soot or residue problem. This is typical of many developments utilizing the benefits of Janitrol gas heat in all housing units.

**A**FTER Hitler surrenders, we still have the task of bringing Tokyo to total submission.

While reconstruction is starting in Europe and fighting still continues in the Pacific, it seems safe to assume that building restrictions will be greatly modified. As this occurs, we believe you will want

1. **Good Furnaces**—proved in service—equipment you can recommend without hesitation.
2. **Delivery Without Delay**—if you are to resume your rightful place in the building world you will have to enter the market quickly.

The JANITROLS we will make in this period will be small, compact, efficient,

fully gas-fired automatic furnaces, beautiful in appearance. Introduced just prior to the war, they have features that most manufacturers are still only promising for their dream furnaces after the war. With Ampli-fire burners and Multi-Thermex heat exchangers, they represent a marked advance in furnace engineering.

In different sizes and types, thousands were installed—in big community projects—in private homes and apartments—in commercial establishments. In addition to conventional basement installations, they were installed in attics, in closets, in kitchens, in utility rooms, or were walled up out of sight in living rooms. With architects and builders, Janitrol engineers worked

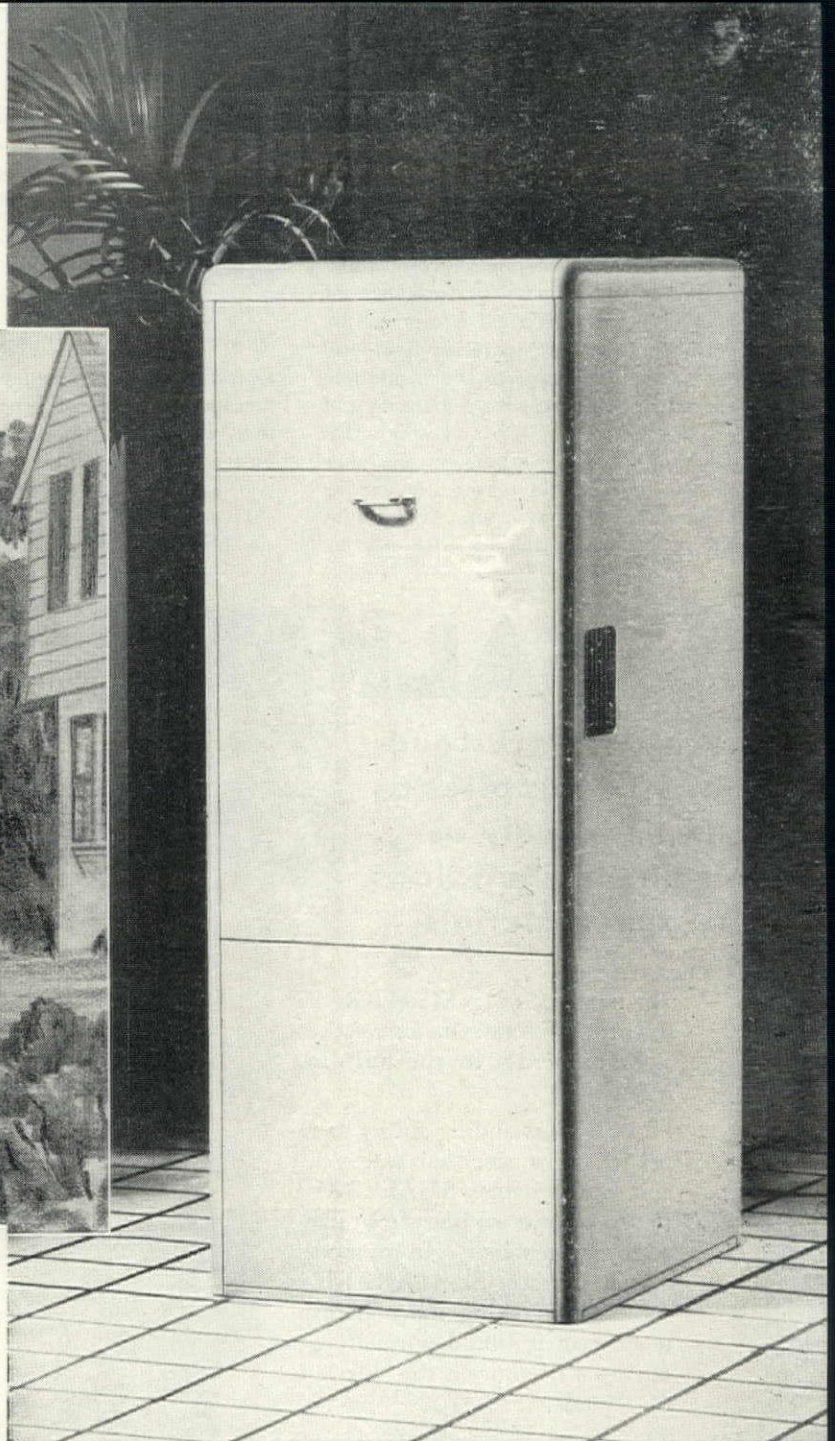
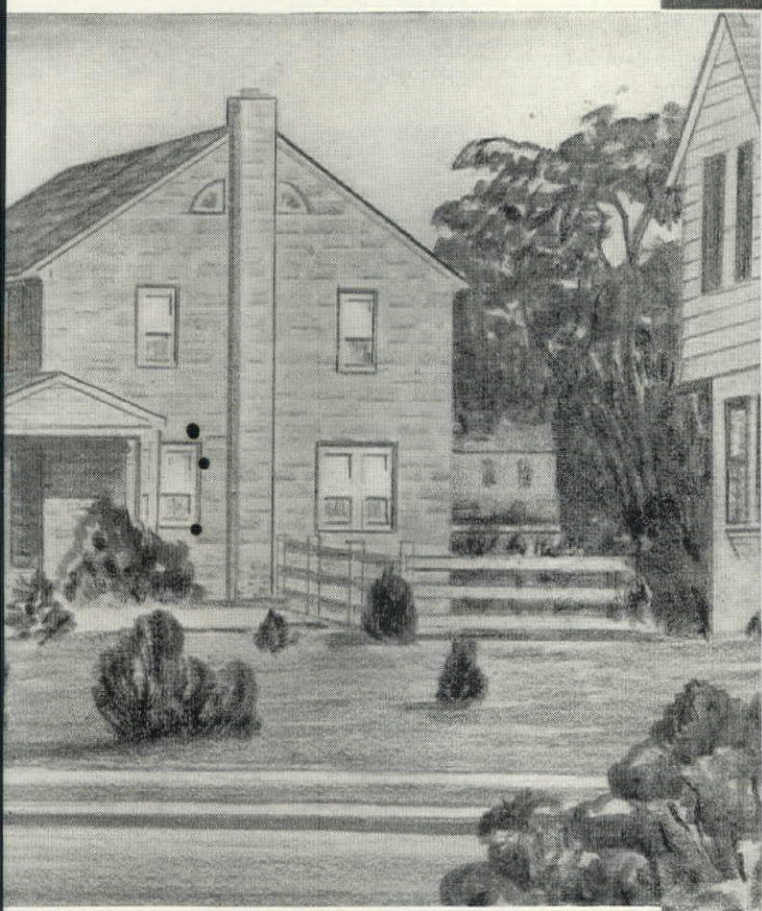
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**SURFACE COMBUSTION • Toledo 1, Ohio**

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# designer's eye



out low-cost efficient installations to give more house with better gas heating for less money.

Now proven by several years of service, these various types of JANITROL gas furnaces are available subject to current WPB production limitations.

Everyone has ideas about miracle furnaces of the future (and we've got a few ourselves) but you can't heat a house with ideas. Remember, no furnace excelled JANITROL before the war, and nobody has had time to make extensive field tests since. For real furnaces with proved performance records, see the JANITROL listings in Sweet's Catalog, or write Surface Combustion for complete data.

Fully automatic, efficient, compact, styled for installations anywhere in the home and tested by three years of wartime service, the new JANITROL winter air conditioner is the last word in proven heating comfort.

JANITROL

*Gas fired*

WINTER AIR-CONDITIONERS  
CONVERSION BURNERS • UNIT HEATERS  
GRAVITY FURNACES

**Offices and Engineering Service  
in Principal Cities**

*Also Makers of Industrial Furnaces and  
Kathabar Humidity Control Systems*



## BUILDING REPORTER

(Continued from page 16)

trial importance. Application of these products makes possible improved reliability, capability and performance of many types of electrical equipment by permitting higher operating temperature without damage to the insulation. Electrical equipment for a given output can be reduced in size and weight because of silicone insulation's resistance to heat. Greatly increased life can be obtained in the same size and weight equipment, and machines with silicone

insulation may be operated in locations where surrounding temperatures are higher than has before been possible. *Manufacturer:* Dow Corning Corp., Midland, Mich.

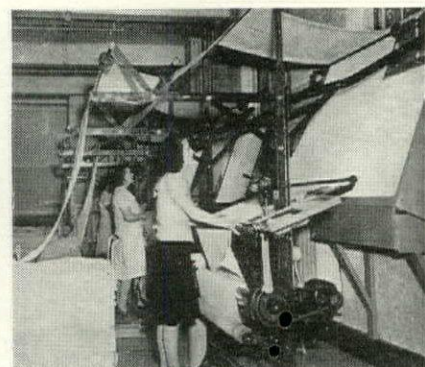
**PIPE GAUGE** measures pipe, electrical conduit and metallic tubing.

*Name:* Three-Point Pipe Gage.

*Features:* This new gauge can instantly measure all sizes of pipe from  $\frac{1}{8}$  in. to 12 in., and all sizes of electrical conduit and metallic tubing. It consists of two pivoted steel plates with edges curved at three points for contact with the pipe or tube to be measured, and

scales which automatically register standard sizes of electrical thin-wall tubing and conduit, and pipe sizes in terms of inside measurement. Another scale shows the right size drill for tapping. Also included is a handy inch rule and metric rule. The gauge, constructed of steel, is pocket size measuring only  $2\frac{3}{4} \times 4\frac{1}{2}$  in. when closed.

*Manufacturer:* Three-Point Gage Co., 3821 Broadway, Chicago 13, Ill.

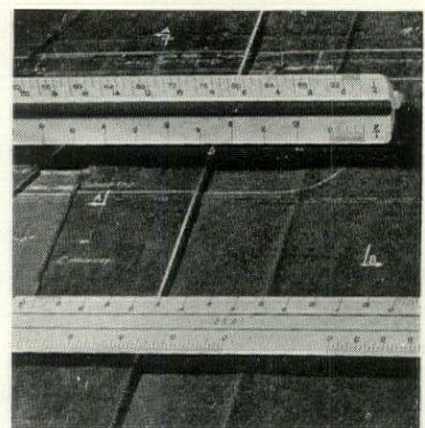


**FLUORESCENT INSPECTION DEVICE** for textile industry.

*Name:* T-1 Sylvania Inspection Fixture.

*Features:* This fluorescent device for inspecting cloth before bleaching, dyeing and printing is replacing former inspection methods with faster and better results. The unit consists of a wooden box 4 ft. long, 3 ft. wide and 1 ft. deep which contains eight 40-watt fluorescent lamps. The face of the box is a large sheet of opal glass which diffuses the light.

*Manufacturer:* Sylvania Electric Products, Inc., 500 5th Ave., New York, N. Y.



**SCALES** of plastic.

*Features:* Architects' and engineers' scales of Tenite plastic are more accurate and less likely to warp than scales of other materials. White with easily legible black lines and figures, these triangular rules have different colored stripes painted on each side to facilitate finding the right one.

*Manufacturer:* The A. Lietz Co., 520 Montgomery St., San Francisco, Calif.

(Continued on page 206)

# SISALKRAFT

**Protects Deck Loads  
of War Supplies as  
Effectively as  
it Shields Buildings  
and Materials**



For nearly 25 years SISALKRAFT has proved its unmatched weather-tight properties in the building industry.

Now, its outstanding ability to repel ice, snow, sleet, salt water, dirt and wind enables SISALKRAFT to protect war supplies from damage by severe weather. In any month of war service, SISALKRAFT is successfully taking more punishment than it would normally get during a lifetime in the sidewalls of a home.

The toughness, tear-resistance and scuffproof qualities of SISALKRAFT make it the ideal packaging for hastily handled war goods — and for wind-tight buildings.

Those very qualities that make SISALKRAFT so valuable in protecting war materials are the very same qualities so necessary in building construction, concrete curing and general job protection. Put SISALKRAFT first in your list of postwar materials!



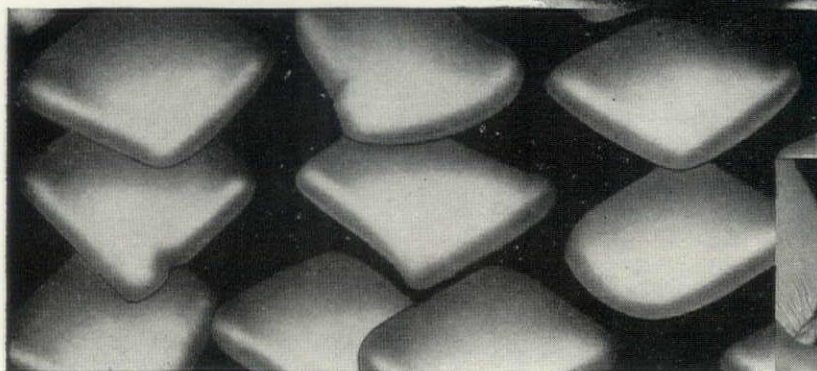
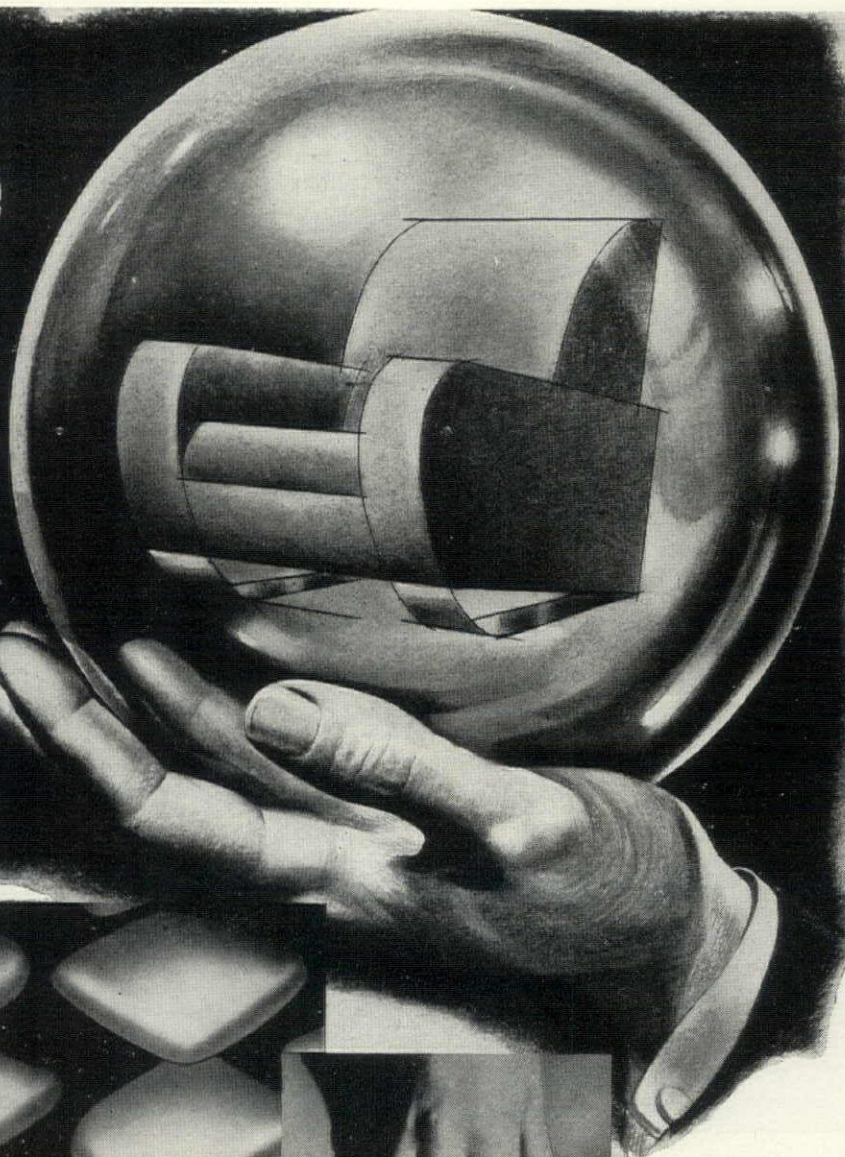
**THE SISALKRAFT CO.**  
205 W. WACKER DRIVE - CHICAGO 6, ILL.  
NEW YORK - SAN FRANCISCO - LONDON - SYDNEY

Manufacturers of SISALKRAFT, FIBREEN, SISAL-X,  
SISALTAPE AND COPPER-ARMORED SISALKRAFT



For the shape of  
furniture to come  
... HERE IS  
COMFORT YOU CAN  
"CUT TO FIT"

"U.S." Koylon is serving  
only war and medical  
needs now but one day,  
like most good things, it  
will be back.



"U.S." Koylon Foam cushioning, with its equalized support  
that fits every form, will be available to the postwar designer,  
furniture builder and seating architect in molded units.

*But there's more to the story than that.*

Besides this wide range of conventional forms, "U.S."  
Koylon Foam will be available in yardage that the upholsterer  
can snip into shape for cushioning the most fancy free designs  
you care to originate. It's comfort..."cut to fit!"

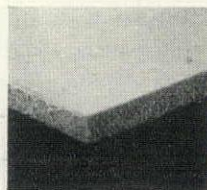
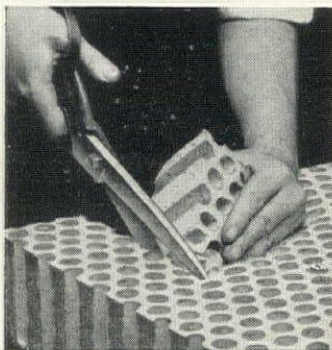
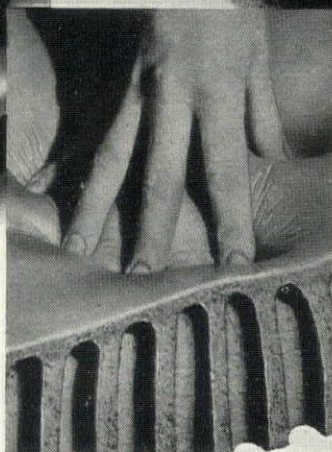
"U.S." *Koylon*  
\*Reg. U. S. Pat. Off.  
FOAM

Serving Through Science

UNITED STATES RUBBER COMPANY

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

*The live resiliency of  
"U.S." Koylon Foam  
cushioning will be ob-  
tainable in standard  
cell-formed sheets and  
in molded units to fit.*





## BUILDING REPORTER

(Continued from page 204)

**NEW PLASTIC** has excellent insulating properties.

**Name:** Polyethylene.

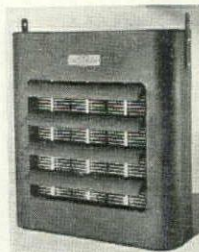
**Features:** Polyethylene plastics used at present in radar equipment are inherently flexible, translucent materials possessing many unusual properties. Tough and resistant to shock, they will absorb only a small amount of water and films of the material will not permit passage of appreciable amounts of water vapor. They are produced under strictly con-

trolled conditions, which can be changed in order to vary the properties of the base resin and satisfy the needs of particular applications. Among the properties which can be varied are tensile strength, elongation at break, tear resistance, and brittleness temperature. Since they are colorless, the resins can be formulated in a wide color range. Light enough to float on water, they can be processed by methods now employed for thermoplastic materials, and may be extruded, molded, or fabricated into sheets and film, and coated on to cloth. Chemical inertness, low moisture transmission, inherent flexibility, and toughness indicate that the resins will be used

in the manufacture of such products as washers, gaskets, and other molded articles, films, coated fabrics and paper, collapsible tubes, tubing, filaments, etc. **Manufacturer:** Carbide and Carbon Chemicals Corp., 30 East 42nd St., New York 17, N. Y.

**ELECTRIC HEATERS** of new design.

**Features:** Fourteen electric unit heater models have patented one-piece finned aluminum sheathed resistors similar to



those in Electro-mode Heaters used on U. S. submarines. They also incorporate recent developments in both enclosure and deflector design. Small models can be used either as

portable heaters or arranged for ceiling or wall suspension. Large sizes are for ceiling or wall suspension only. The BTU's per hour range from 5122 to 204,900, and automatic thermostatic control and contactors are available for use with any size heater.

**Manufacturer:** Electric Air Heater Co., Mishawaka, Indiana.

**DUCT MATERIAL** saves weight in aircraft.

**Name:** Multiflex.

**Features:** An air duct made of fabric, asbestos and a coating of synthetic resin, is 10 per cent lighter in weight than former heating and ventilating air-duct systems used in aircraft. Being pliable it is easily twisted and turned, or completely deformed and restored to its original shape. It is fire resistant and can be used for either hot or cold air systems. Parts are assembled and cemented together with a special synthetic rubber compound. Numerous aircraft applications include keeping bombsights and windshields at exact temperatures, heating carburetors, header ducts, etc. After the war this type of material may be used for heating, ventilating and air-passage duct systems in homes, office buildings, trains, ships and planes.

**Manufacturer:** United States Rubber Co., 1230 Sixth Ave., New York, N. Y.

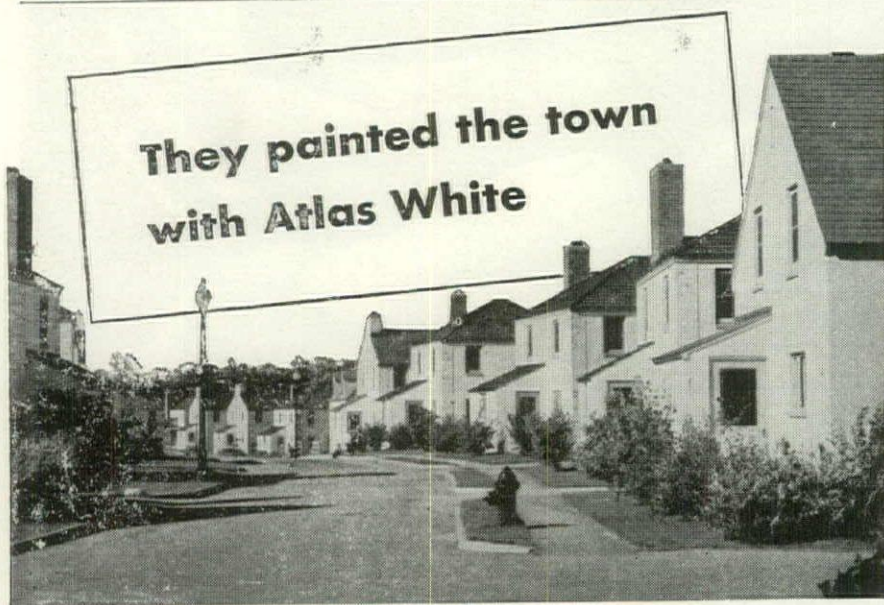
**PHOSPHORESCENT PIGMENT** has brighter afterglow for longer duration.

**Name:** CaS-SrS-2470.

**Features:** This new phosphorescent pigment emits a brighter phosphorescent afterglow for a longer period of time than do similar pigments. Specifically intended for wartime applications such as phosphorescent paints, marking tapes and decalcomanias, it is expected to have many new uses after the war.

**Manufacturer:** The New Jersey Zinc Sales Co., 160 Front St., New York, N. Y.

(Technical Literature 208)



The homes of 600 families in Greendale (a Federal Housing Project near Milwaukee) are beautified and protected by portland-cement paint made with Atlas White cement in varied shades and colors including white, cream, pink and gray.

Originally built, and painted in 1937 with portland-cement paint made with Atlas White cement, this development underwent minor repairs in 1942. Again this same paint was used because of its beauty and performance. For a base of Atlas White gives full color values to pigments used—colors which are as true and durable as is the paint's protective armor.

Portland-cement paint made with Atlas White cement is prepared by a number of manufacturers in a wide range of colors. It is furnished as dry powder

in conveniently sized packages, ready for mixing with tap water on the job. One pound covers from 15 to 25 square feet for the first coat. Second coat covers about 30% more area per pound. Manufacturer's directions for mixing and applying should be followed.

For further information and details, see Sweet's catalog, or write direct to Atlas White Bureau, Universal Atlas Cement Company (United States Steel Corporation Subsidiary), Chrysler Building, New York 17, N. Y.

Factory-prepared paint is preferable

AF-P-4



**ATLAS WHITE CEMENT**  
for PORTLAND CEMENT PAINT



# 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!*

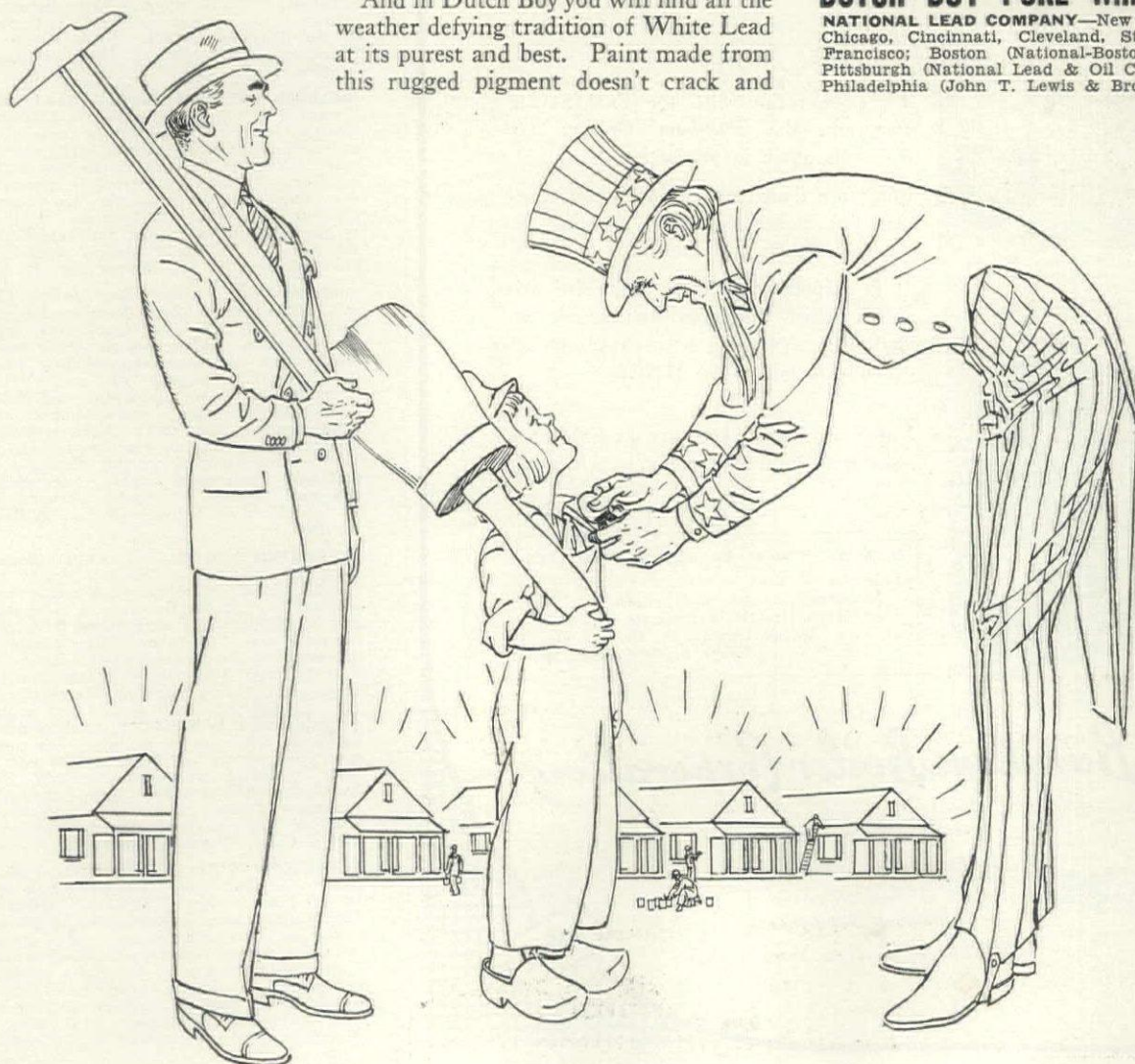


PASTE OR PAINT

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.).





# TECHNICAL LITERATURE

**HOME EQUIPMENT.** *Majestic Building Necessities*, 20 pp., 8½x10¾. This wartime catalog illustrates and describes many Majestic products including attic ventilators, basement sashes, coal chutes, access doors, dampers, fireplace circulators, incinerators, ventilating bricks, etc. Specifications, sizes and dimensions, how the equipment works, special features and installation methods for the various products are covered. The Majestic Co., Huntington, Ind.

**AIR CONDITIONING.** *Hotel Statler, Washington-Conduit Weathermaster System* by Carrier, 20 pp., 9x11¾. Non-technical language, and many illustrations enliven a booklet describing the Carrier Conduit Weathermaster installation in the Hotel Statler, Washington, D. C. The method of ventilation, advantages, operation, architectural treatment, and other angles are covered. Carrier Corp., Syracuse, N. Y.

**RADIO.** *RCA—What it is—What it does*, 42 pp., 8¾x11¼. Answers to many questions on all phases of the Radio Corp. of America are included in this illustrated booklet. Questions on such subjects as the company's pioneering, research and engineering, broadcasting, television, manufacturing, communications, marine radio, and technical training are thoroughly answered and generously illustrated. Personnel, financial standing, and many other questions often asked are also discussed. Radio Corp. of America, 30 Rockefeller Plaza, New York, N. Y.

**ELECTRICAL.** *I-T-E Switchgear Planning Kit*, 9x11¾. Switchgear Planning kit, designed to save time for architects and engineers in laying out power switchboards, is offered as a new aid for electrical projects. It includes two envelopes of gummed cutouts for various types of switch-

gear units, a planning sheet to which the cutouts are to be attached, and data sheets for recording essential information. Instructions for use are supplied including simple rules for determining the necessary interrupting capacity of the circuit breakers. I. T. E. Circuit Breaker Co., 19th and Hamilton Sts., Philadelphia, Pa.

**FENCES.** *Stewart Fences, Catalog No. 79*, 44 pp., 10¾x8. This detailed brochure illustrates and describes many different types of chain link wire fences and iron picket fences and gates. Applications of different style and weight chain link fences are shown, and specifications of fabric, framework, posts, gates, etc. are given for each. Construction details applicable to beam or pipe framework and chain link wire and iron gates for various purposes are also included. Plain and ornamental iron fences for residential, business, and other properties are illustrated and described. A section is devoted to miscellaneous metal specialties, including vases, lawn furniture, lanterns, stair railings, etc. The Stewart Iron Works Co., Inc., Cincinnati, Ohio.

**CONVEYORS.** *Case Histories to Aid You in Blueprinting Conversion to Peace*, 24 pp., 8½x11. Case histories showing the ways in which Lamson conveyors were used in converting to war are offered to suggest how reconversion to peacetime operation may be accomplished. Conveyor installations, as solutions to the problems, are illustrated with photographs and diagrams. Lamson tubes are also covered. Lamson Corp., Syracuse 1, N. Y.

**SCHOOL PLANNING.** *Planning Tomorrow's Schools*, 16 pp., 11x8½. Attractive, modern booklet presents pictorially the various functions which will be performed by sound systems, phonograph and radio equipment, projection facilities, and electronic apparatus in the future school. Sketches show modern class rooms and a library with radio and phonograph installations, the laboratory complete with electronic apparatus and the auditorium with motion picture and sound equipment. Basic requirements for installation of RCA products are discussed in relation to the various duties each is to perform in the educational field. RCA Victor Div., Educational Dept., Radio Corp. of America, Camden, N. J.

**BUILDING MATERIALS.** *Bulletin of the Producers' Council, No. 46*, 48 pp., 8½x11. This bulletin presents factual information on new products and developments and uses of established materials. "Modular Planning as Related to Building Design," is the feature of the current issue—a pamphlet to encourage the use of modular planning in postwar construction. It is edited by the Dept. of Technical Services, A. I. A., and published by The Producers' Council, Inc., 815 15th St., N. W., Washington, D. C.

**LUMBER STAINS.** *Sap Stain Control*, 12 pp., 6x9. Informative folder describes the use of Lignasan, a highly toxic organic compound for the prevention of blue stain on freshly produced lumber, and supplementary handling practices that should accompany its use. Vat construction details are illustrated and described for automatic dipping, semi-automatic dipping, hand dipping, and spray chamber technique. Supplementary handling practices include discussions on log infection, wetting, dipping solution problems, unprotected lumber, pile ventilation and yard practices. Grasselli Chemical Dept., E. I. duPont de Nemours & Co., Wilmington 98, Del.

**LUBRICATING SYSTEMS.** *Farval Centralized Systems of Lubrication, Bulletin No. 25*, 16 pp., 8½x11. How centralized lubrication systems increase the production output of machinery and in addition save time, power and lubricating materials, is the theme of this booklet. The operation of this system, which consists of the Farval Central Pumping Unit, two main supply lines, and a Farval Dualine Measuring Valve for each bearing, is illustrated and explained. An explanation by means of cut-away drawings shows the operation of the valve. The construction and operation of both manual and automatic pumping units are similarly treated. Application photographs suggest methods of locating and mounting pumping units and feed lines on different kinds of machinery. The Farval Corp., Cleveland, Ohio.

**GERMICIDAL UNITS.** *Disinfectaire Ultraviolet Germicidal Units for the Disinfection of Air in Hospitals*, 8 pp., 8½x11. Authoritative catalog starts with an explanation of germicidal ultraviolet, and quickly enters upon a discussion of the use and description of Disinfectaire Units. Illustrations of the units in portable and permanent mounting types, are accompanied by detail application sketches and necessary data about sizes, equipment and prices. Art Metal Co., 1814 East 40th St., Cleveland 3, Ohio.



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- for in your post war kitchen, Victron Ventilation will whisk away the messy heat, the greasy grime . . . enable you to prepare meals in cool clean comfort . . . to be a beautiful cook and a charming hostess. And Victron Ventilation will preserve the beauty of the kitchen itself as well as the woman who cooks in it. Remember Victron Ventilation will cost but a small part of the bonds you are buying today, to buy better living tomorrow.

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Your name on our special mailing list will assure your getting all the information on Victron Ventilation as promptly as available. A post card will suffice. Write today.



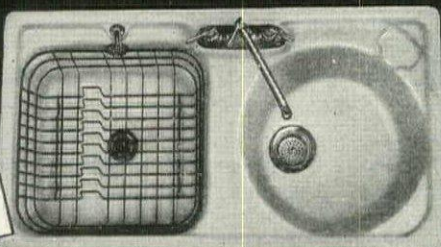
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*Dishwashing*  
**SINK**

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The Sink Women Really Want!

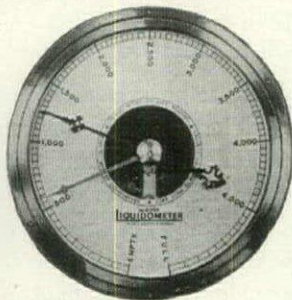


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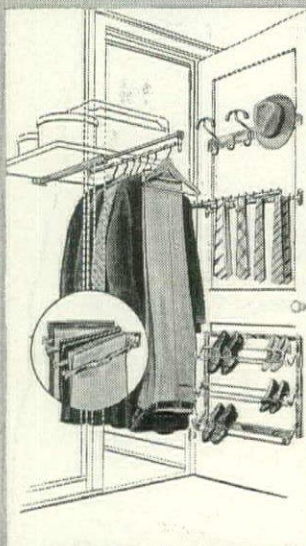
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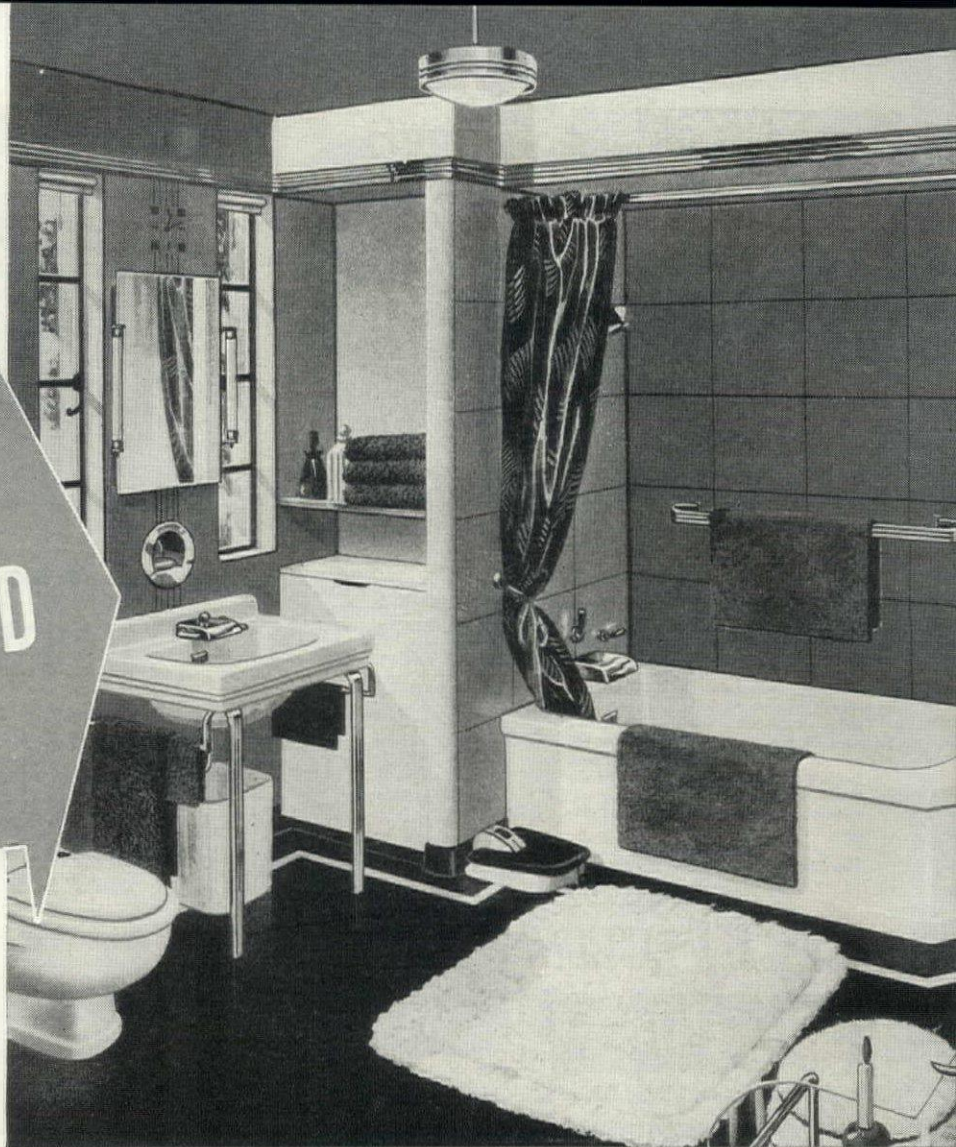
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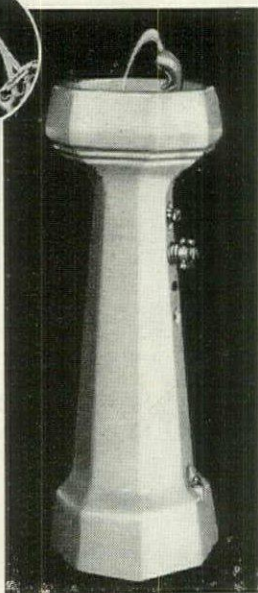


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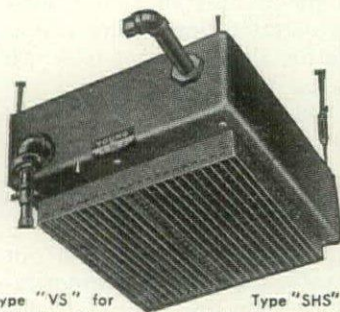
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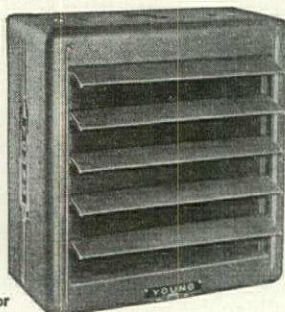


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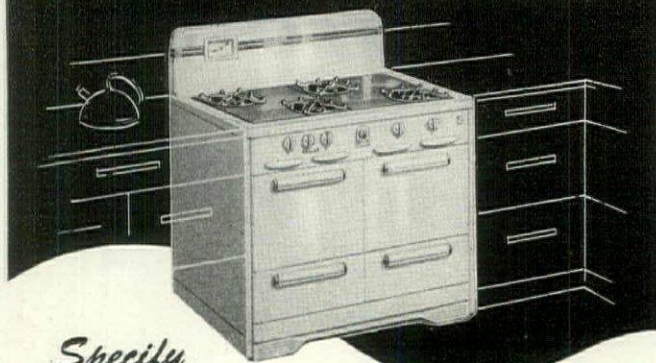
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PRODUCE MORE  
SALVAGE SCRAP  
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*how to be* **SURE!**



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• In creating modern kitchens for your post-war clients, you'll want to specify equipment that has been designed with architect, builder and client prominently in mind.

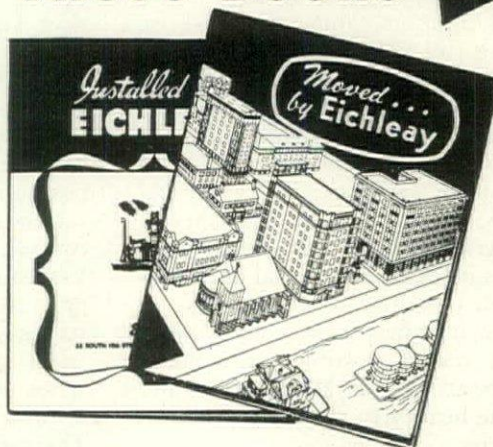
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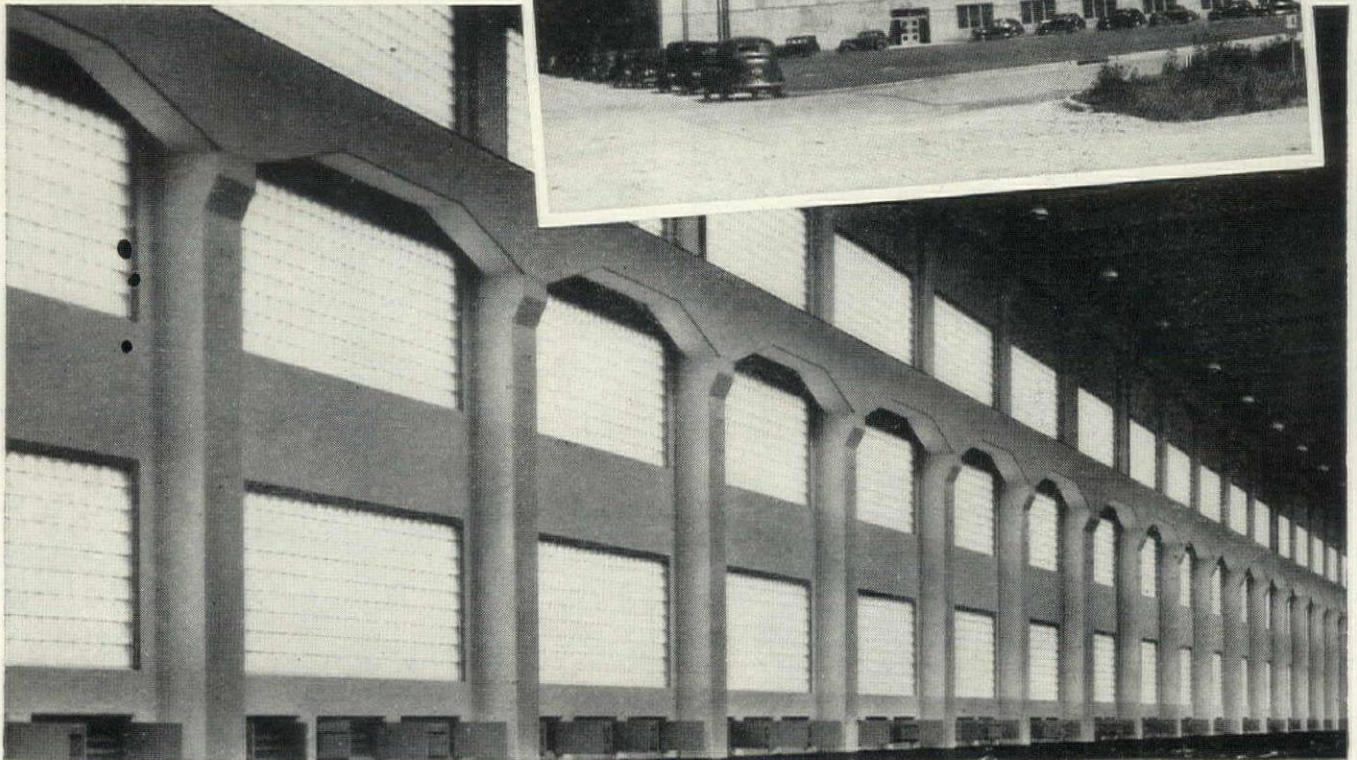
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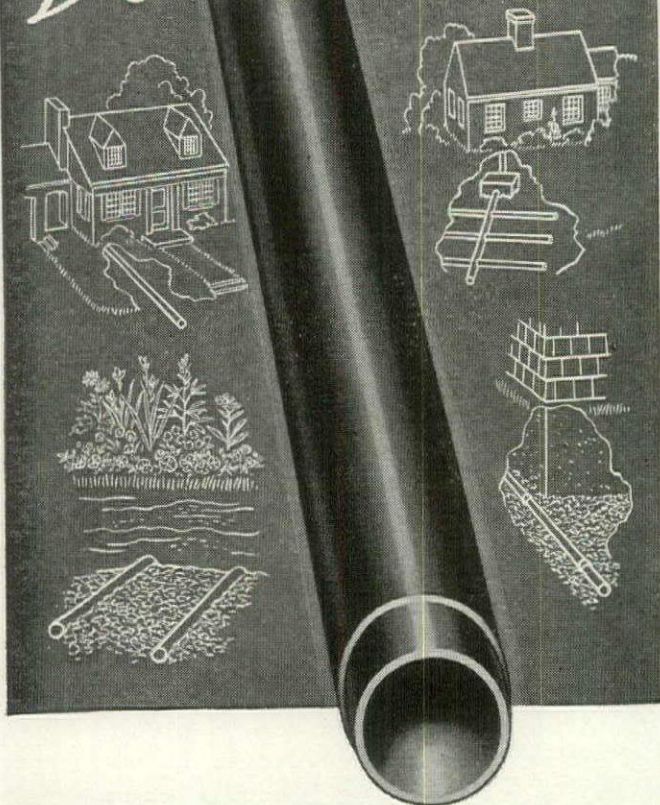
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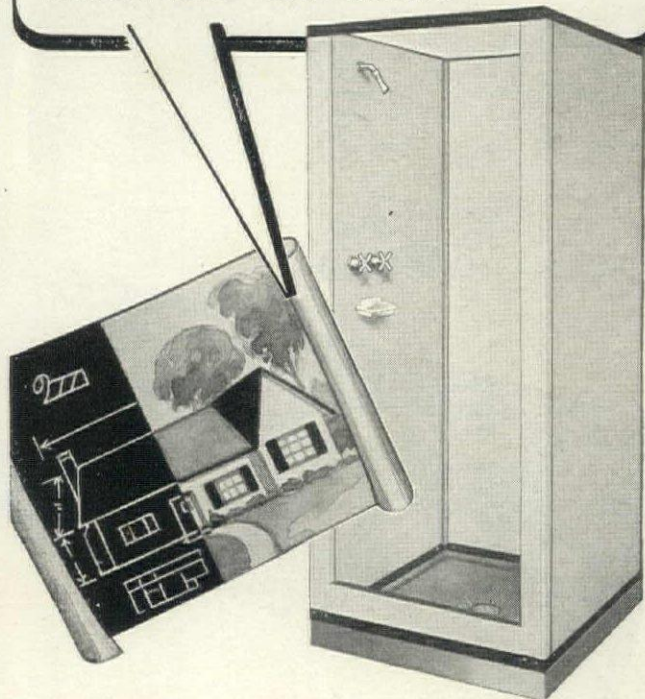
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SHOWER FACILITIES will be on the "must" list of one out of three new-home builders! This *known* demand, plus *taken-for-granted* shower needs on public, commercial and institutional buildings, makes BATHE-RITE SHOWER CABINETS an important factor in your new-building plans.

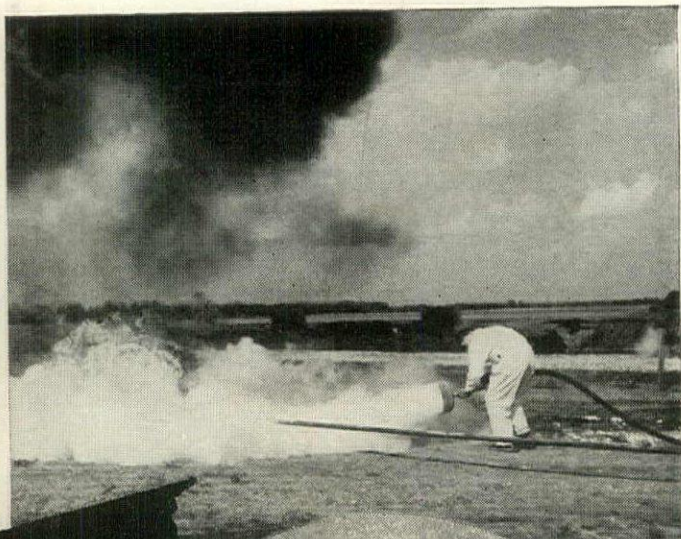
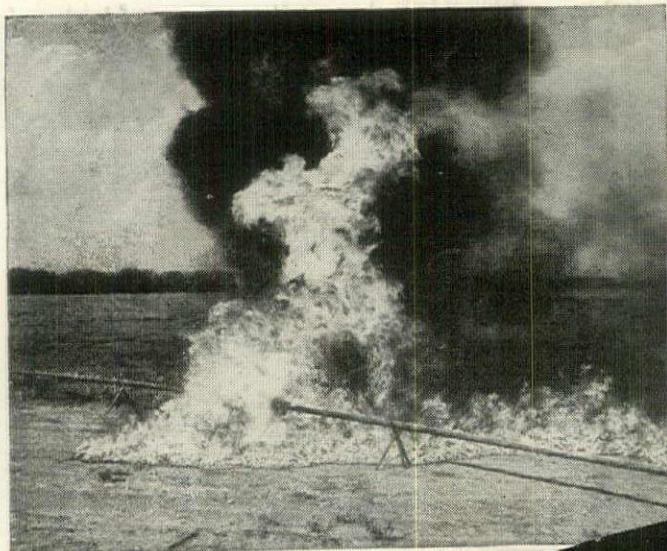
So, for your own future benefits, and for the satisfaction of your clients, you'll want to check the reasons why BATHE-RITE is the *quality standard* in modern prefabricated shower convenience. Their popularity has always been based on superior strength and durability, greater beauty of design, and a wealth of features that speeds up installation. This combination of advantages recommends BATHE-RITE Shower Cabinets for all your new-building plans.

Learn how Bathe-Rite Shower Cabinets can help you in designing bathing facilities. Write for bulletins, specifications and prices.

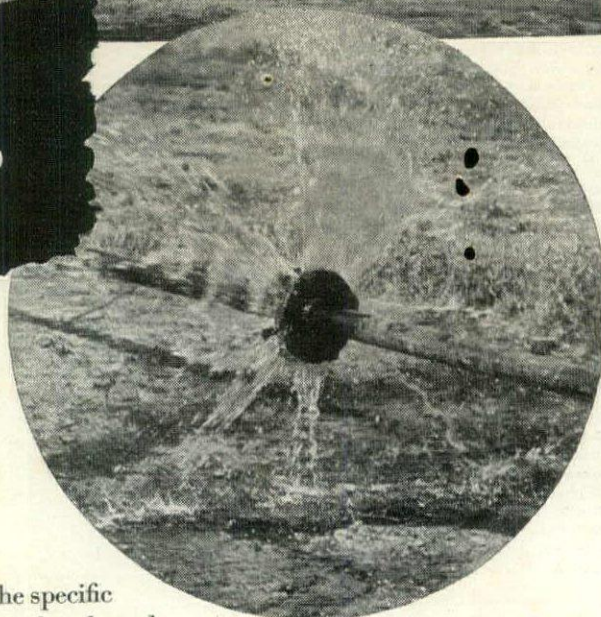
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827-S South 72nd Street  
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Not Very Big . . . but  
**PLENTY "MEAN"**



You can't always judge the *toughness* of a fire by its size. Some relatively small fires fight back so viciously . . . hang on so stubbornly . . . that they are harder to extinguish than many big blazes.

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First picture above shows fire after gasoline had been allowed to spray for a full minute. Yet, Cardox CO<sub>2</sub>, discharged at the rate of 700 pounds per minute from a single Cardox nozzle (as shown in middle picture) extinguished this fire in 20 seconds.

Protecting *hard-to-handle* hazards is the job of Cardox Fire Extinguishing

Systems engineered for the specific hazards and conditions at hand, and of Cardox Fire Trucks that put swift wheels under *tons* of carbon dioxide. Thanks to their distinctive ability to provide *mass* application of Cardox CO<sub>2</sub>, Cardox Systems and Fire Trucks have taken over a roster of the toughest fire assignments in scores of war industries . . . and licked them to a standstill.

#### Enhanced CO<sub>2</sub> Performance

In Cardox Systems and Fire Trucks fast-acting, non-damaging carbon dioxide is given enhanced extinguishing performance because, as controlled and applied, Cardox CO<sub>2</sub>:

(1) Has uniform extinguishing char-

acteristics regardless of plant or atmospheric temperatures; (2) Is available in ample quantity for application at high rate; (3) Provides high CO<sub>2</sub> "snow" yield for increased cooling effect; (4) Achieves effective projection through relatively great distances.

Write on company letterhead for Bulletin No. 694, containing data on Cardox Engineered Systems and Mobile Equipment applicable to protecting oil industry fire hazards.

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CO<sub>2</sub> FIRE EXTINGUISHING SYSTEMS



# Here's a Tip on PLASTICS...

from *Your*  
*Wife!*



IMAGINE YOUR WIFE baking a new kind of cake without a recipe! Or without the exact ingredients the recipe calls for!

Now transpose the situation to plastics—where precision is everything. Here again there's no substitute for the right "recipe" to meet the needs of each plastics application, each group of specific requirements.

Today the mere specification "plastics" is meaningless. Plastics exist in endless variety. Types within types. Each classification joins many desirable qualities. And limitations too. There just isn't any one plastic to meet every need.

We specialize in thermoplastics—the celulosic group—a distinct and versatile class of synthetics covering a wide segment—but a segment, mind you—of the plastics field. This is the group which is the most widely applied to civilian living.

The family name for one group of Celanese plastics is Lumarith, widely known for durability and limitless color range. Included are types of plastics—Lumarith C.A., Lumarith X and Lumarith E.C.—the initials signifying the plastic base. For in-

stance, in these three cases, cellulose acetate, high acetyl cellulose acetate and ethyl cellulose, respectively.

Yet that's only the beginning of precision thermoplastics. The Lumarith C.A. group alone includes hundreds of formulations. Each emphasizes a class of properties in the finished product. Perhaps impact, tensile or structural strength, toughness, heat resistance, moisture resistance, dimensional stability, transparency, color, economical production. All these, and many more, can be had with varying emphasis upon one or more qualities.

Pioneering plastics 75 years ago, the Celanese plastics division has consistently stressed technical service, the key to outstanding results in plastics applications. Painstaking technical service assures precision selection of the right formulations. Architecturally speaking this is fully as important as care in planning the foundation of a building.

The essence of the Celanese technical service is a sense of responsibility for all plastics no matter whose. Here, a misapplication of any plastic is considered a "black eye" for the entire industry. We unflinchingly commend the best material for the job, and we don't hesitate to rule out Lumarith when another material is indicated. In the interests of better products we suggest you urge your suppliers to talk to our Technical Service Department early in their plans. Celanese Celluloid Corporation, The First Name in Plastics, a division of the Celanese Corporation of America, 180 Madison Avenue, New York 16, N. Y.

## LUMARITH<sup>®</sup>

*A Celanese<sup>®</sup> Plastic*



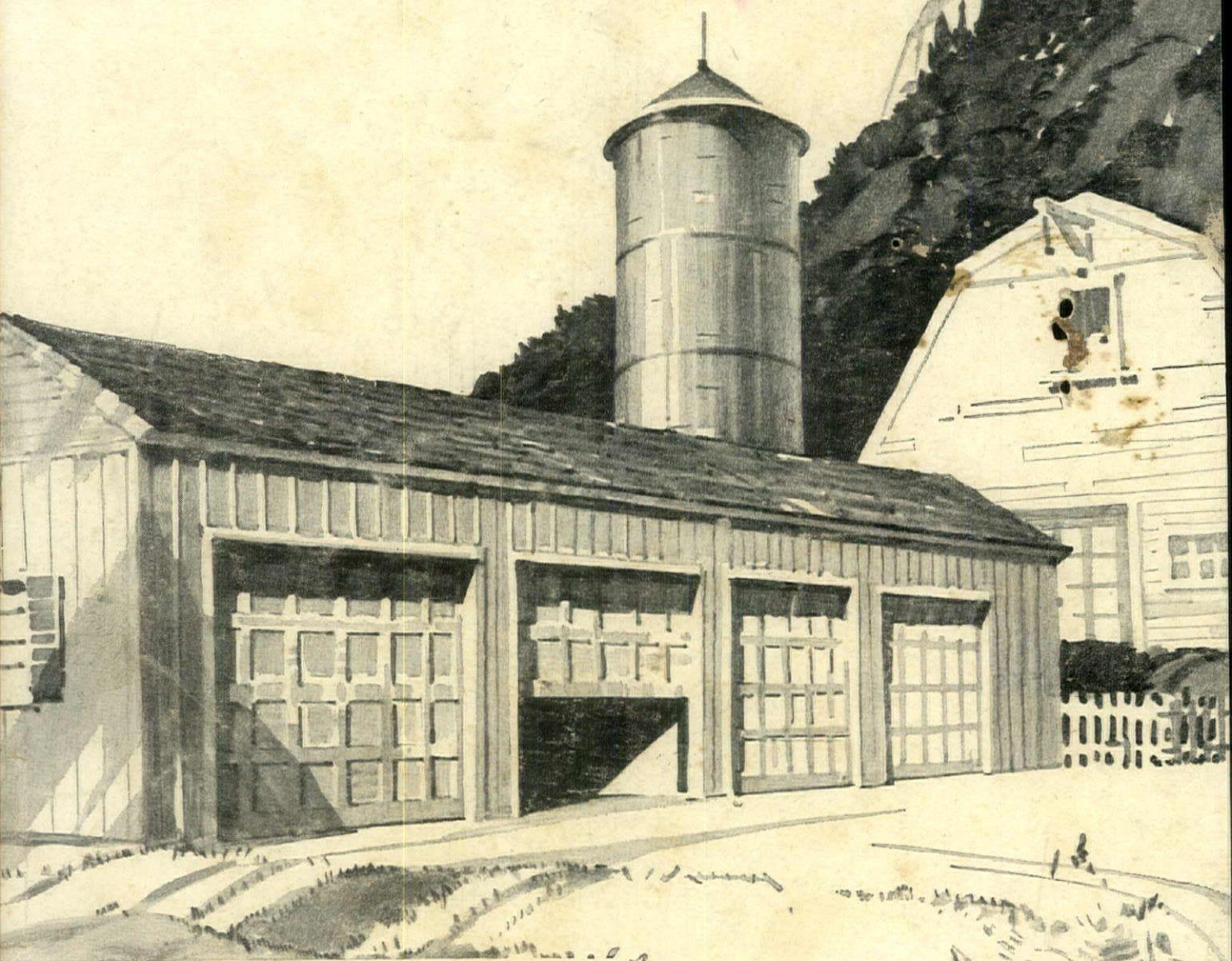
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# EFFICIENCY ON THE FARM



Agriculture, too, demands efficiency. Animals, machines and other equipment need constant attention and good care. The farmer, often working alone, needs every aid modern engineering can give him. The "OVERHEAD DOOR" with the Miracle Wedge will serve him well. This quality door, built as a complete unit to fit any size opening, is available for government, industrial, and commercial use, and for many farm uses.

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