Another Reason Why Leading Architects Specify Acousti-Celotex

SOUND 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.
NEWS

SHOPPING CENTER
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.

PLANNING WITH YOU
Beaver County, Pa.'s master plan interrelates urban and rural problems.

PREFABRICATION
A new system of demountable office partition construction utilizing stressed Masonite panels and a trick connection which works in two, three or four directions.

WATTS BAR STEAM PLANT
The TVA adds another distinguished building to its already long list of achievements in the design of power plants and dams.

LIVING MEMORIALS
Archibald MacLeish, poet and Librarian of Congress, and Charles D. Maginnis, Past President, American Institute of Architects, inaugurate a discussion of the problem of suitably commemorating the heroes of World War II.

HOUSES
A California house with a novel bath-dressing room combination ... a winter residence in Florida inspired by Hawaiian architecture and built around a patio ... and an interesting construction job on a one-story year-round home in Colorado.

DISNEY STUDIOS, BURBANK, CALIF.
Walt Disney Productions build a well-equipped, air-conditioned plant in which the Seven Dwarfs are now teaching the armed forces how to combat malaria.

FORUM OF EVENTS
A tangible development in the evolution of America's nebulous helicopter dream ... Winning design in the FORUM-sponsored Beaux Arts competition ... Postwar design of the month.

PRODUCTS AND PRACTICE
Sound conditioning in the home: a discussion of new design ideas which provide effective and economical acoustical controls for residential building.

BUILDING REPORTER
Technical news ... new products ... technical literature.

BOOKS
Cities of Latin America ... American Housing, Problems and Prospects ... On Living in a Revolution ... Art in Progress.

LETTERS

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 cooperating with the War Production Board on conservation of paper. During the year 1944, these four publications will use 73,000,000 lb. (1,450 freight carloads) less paper than in 1942. In view of the resulting shortage of copies, please share your copy of THE FORUM with friends.

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Please send me a free copy of "The New Open House."

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

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 1/4 in. plywood, the sharp curvature at the rear of the seat is reinforced with extra layers built up to an approximate 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.
In 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 "Redwood" actual wood grains.

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

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THE COMING SUNRISE!

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


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“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.

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ARC WELDING
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 clutter 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 and livability 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 wallboard 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 situation 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 towards 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.
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 3/4 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.

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 floating floors and ceilings and similar devices.

**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.
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 moisture — an aid in eliminating bathroom noise.


dors. 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 sidelong 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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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 3/8 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 5/8 in. thickness are installed horizontally, thinner panels of 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.

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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.

For plastics have made amazing strides in recent years—greater than during the preceding twenty centuries. The Egyptian laboriously fashioning urns of clay... the medieval glass blowers... the early chemists... all worked with a type of plastic. But the development of plastics as we know them today opens an entirely new range of possibilities.

In architecture, the direction in which plastics move is guided by the combined efforts of the architect, the molder, and the producer of basic materials. Working as a team, this practical combination can determine how and where the particular properties of each plastic will best solve existing problems or improve present standards.

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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.

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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.

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.

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 left in original gray finish, painted or decorated.
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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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No investigation has been made by General Electric Company regarding the patent situation on these design or construction suggestions.

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"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 Sketchbook", 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.

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

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

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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.

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STEEL RESIDENCE CASEMENTS
POSTWAR TYPES AND SIZES
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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.

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BACK THE ATTACK ★ ★ ★ BUY WAR BONDS
Books

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

CITIES OF LATIN AMERICA, Planning and Housing to the South.

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 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)
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.
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 housing industry back in 1939, not even the most acute prophets 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 $13.5 billion output in 1942. Nobody could foresee that, with the government as customer, prefabricators would get their first chance at a market larger than piddling size.

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)

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**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.
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Today Weldwood's advertising campaign is acquainting your clients with these advantages . . . creating acceptance for your future designs of plywood paneled homes.

Mangel Flush Door with "Airlok" Grid Core . . . trim to the eye, light to the touch, won't warp or crack.

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SEPTEMBER 1944
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ARCHITECTS SAY:

"This book will help you"
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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," "Re-sale 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.

Architects endorse this useful book

Edwards and Company, Box 390, Norwalk, Conn.
Please send a free copy of the booklet, "How To Plan Your New Home."
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Street: ____________________________
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(Save Postage—Paste Coupon on Penny Post Card)

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

EDWARDS
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for Homes, Offices, Schools, Hospitals

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

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

- Single (4-foot) channel top-housing
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It is now possible to resume the manufacture of this handsome and adaptable series. All models have steel reflectors and employ 40-watt lamps.

- Two 40-watt Lamps
  - C-100 unshielded with pendant
  - C-101 shielded with pendant
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  - C-115 shielded surface-mounted

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

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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, Duo-Lamp Auxiliaries, and Starters—pretested and ready for immediate installation.

- Four 40-watt Lamps
  - C-200S unshielded, surface-mounted, individual
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Leading Manufacturer of Fixtures in the Fluorescent Field

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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: "Cowscheds." In your striving 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, are an inspiration to all. So hats off to The Forum, and may you present many, many more fine issues.

S/Ct. 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:

Loosened plaster usually results from stresses and strains by structural settlement or movement of framing members. Repairs or replastering may not be satisfactory because it does not correct the cause of the trouble. Roof ceilings of Upson Panels can be applied right over old plaster and easily with little muss and bother.

Panels are strong and sturdy, beautifully pebbled hard, and beautifully in keeping with the thousands of fine homes, churches, restaurants, offices and stores where they have been used.

There is a place to come for information to the people who originated and developed this type of application. If desired, a representative will be happy to discuss this topic.

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 Eas1y Identified By the Famous Blue-Center

Upson Crackproof Ceilings of Enduring Beauty
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 pochê brushes divided in the middle like mustaches.

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 numeraries 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

SEPTEMBER 1944

37
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.
Flamenol Building Wire

**Type SNW** for Wet Locations
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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 to resist breakage and 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.

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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.

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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."

Buy War Bonds and keep them.

General Electric

SEPTEMBER 1944
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, 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!"

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- Will be competitively priced

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

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GREAT AMERICAN INDUSTRIES, INC. • MERIDEN, CONNECTICUT

SEPTEMBER 1944
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.
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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THE ACCEPTED LINE FOR EVERY ARCHITECTURAL USE

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... 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 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 Blkg., Toledo 1, Ohio. In Canada, Fiberglas Canada, Ltd., Oshawa, Ontario.

OTHER FIBERGLAS INSULATIONS

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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 900° F. and 1100° 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 2200° Fahrenheit.

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

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8. PF Board — Manufactured in 3 densities from 21/2 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 lbs. density with facing to facilitate nailing. Highly efficient, fireproof, surproof and moisture-resistant board, for application under industrial built-up roofings. Sizes 24” x 48”. Thicknesses from 3/16” to 2”.

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IT NEEDS INSULATION

In cooperation with the Government program to save critical fuel.

For assured lasting efficiency!
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**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.

**Write for the "GUIDE"**

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

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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
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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.

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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.
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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.

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

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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.

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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 administrative 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.

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.

Levee 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 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.

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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.

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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.
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

Revers continues to be the symbol of America. Two hundred years ago, Revers was the first in America to produce copper. The company continues to be a leader in the production of copper and copper products. Revers copper and brass are used in a variety of applications, from architectural elements to industrial components.

Revers has been at the forefront of innovation in the copper industry, consistently delivering high-quality products that are trusted by architects, engineers, and manufacturers worldwide. With a commitment to excellence and sustainability, Revers continues to push the boundaries of what is possible with copper and brass technologies.
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—and then to make it comfortable.

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ZONOLITE CONCRETE and ZONOLITE PLASTER Provide
Fireproof Insulation Against Heat and Sound in
MERCANTILE BANK BUILDING, DALLAS, TEXAS

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.

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2025*
SCHOOL BUILDINGS

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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

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LONG ISLAND CITY, N.Y.

FIVE CONSECUTIVE ARMY-NAVY "E" AWARDS FOR PRODUCTION.
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.

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**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.

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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.

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And when the foundation is set, Ply-
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FOR EVERY BUILDING JOB. Make
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ON THE FIRING LINE OF AMERICA'S WAR PRODUCTION FRONT
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 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.”
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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. Bathubs 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.

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

SEPTEMBER 1944

65
The 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-
prefer the base bid or type of specification

adequately 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."
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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
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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.

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.

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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.
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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.

BRIGGS MANUFACTURING COMPANY

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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.
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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.

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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.
FOLKS 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.

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**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 dilemma 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 housebuilders' 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 doomed 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' 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

G. I. LENDER: Francis Pavesich

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.
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 hyper-centric 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."

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 of the 250-year-old Back 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 mercenaries. With.
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 traffic 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 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."

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 $253/2 billion—a gain of only $51/2 billion over the prewar average of $18 billion.

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

#### Food Expenditures

- **1933**: $6.4 billion
- **1942**: $15.8 billion

#### Transportation

- **1933**: $9.6 billion
- **1942**: $5.8 billion

#### Clothing

- **1933**: $12.8 billion
- **1942**: $15.1 billion

#### Housing

- **1933**: $14.1 billion
- **1942**: $10.6 billion

#### All Other

- **1933**: $18.8 billion
- **1942**: $17.5 billion

*The Bureau of Commerce analysis treats

**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...
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.

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.”

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
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 would have never liked 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 pur-
GRASS ON MAIN STREET” BECOMES A REALITY

SHOPPING CENTER, LINDA VISTA, CALIFORNIA

EARL F. GIBERSON
WHITNEY R. SMITH, Associated Architects
ERNEST E. HEUMLAN, Structural Engineer
HAROLD DANKWORTH, Landscape Architect
A PROJECT OF THE NATIONAL HOUSING AGENCY
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.

1807

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

1. VILLAGE GREEN. 2. COBBLED STREET OF THE EARLY INDUSTRIAL ERA. 3. ANY CAR-CHOKED MAIN STREET TODAY. 4. PLANNED NEIGHBORHOOD SHOPPING CENTER.
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.
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.
Generous parking on the perimeter of the thirteen acre site.

- Parking: 40 cars
- Market
- 5 & 10 cent store
- Main traffic sheet
- Available for future expansion
- Department store
- Service access for stores
- Parking: 53 cars
Separates the Shopping Center from surrounding traffic.
The vigorous design employs unpretentious exterior architectural treatment to 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.

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

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

4. RULE EXCLUDES BICYCLES FROM INSIDE WALKS.
Olive, acacia and eucalyptus trees and a wide variety of plant material are planned to relieve the barrenness.
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.)
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 agricultural areas to and from the county, and the iron and coal industries now employ 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 accentuated 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 was 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 manufac
ENTRATION OF POPULATION (above) and highest land values (dotted) group along the Ohio and Beaver rivers, waterways which from first have influenced industrial growth in Beaver County. Their water and transportation facilities have been a major factor in development of the county's natural resources (right).

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.
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.

CONPOSITION 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 Conveyor 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. Over-all 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 for 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 pipe 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)
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 side of a light wood frame, it produces an easily handled, stressed-skin panel only 1½ 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 rabbed. Glazed sections have fixed or sliding glass set into the regular panel frame.

Wiring, a persistant 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.
INSTALLED 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

SEPTEMBER 1944
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 Bietten
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.
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 inncrtube 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 bedrock, 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.
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

Let 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 picturesque ness 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)
The 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 WARS.

CIVIL WAR STATUARY REVEALS IN REALISM. MONUMENT TO LINCOLN IS REMINISCENT OF BAROQUE WASHINGTON MEMORIAL ABOVE.
Memorials are for remembrance by Archibald MacLeish

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
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)
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
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 horizontalit\textsuperscript{-}y 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.
Jeling 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

VENETIAN BLINDS SHADE MASTER BEDROOM WINDOWS

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.


GENERAL CONTRACTOR: LE BREA CONSTRUCTION CO.
HOUSE AT HOBE SOUND, FLA. Designed for a Pennsylvania family wintering in the

LIVING ROOM HAS ACCESS TO TERRACE ABOVE THE BEACH

Gottsch-Schleisner, Photos

THROUGH PINEs AND PALM TREES CORNER WINDOWS HAVE VIEW OF SEA

SLIDING DOORS TO PATIO OPEN FROM LONG LIVING ROOM

SCALE IN FEET

0 5 10 15 20 25

THE ARCHITECTURAL FORUM
The architects of Doris Duke Cromwell's house in Honolulu re-claimed 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.

HOUSE NEAR DENVER, COL. The simple construction method used by Victor Hornbe...
provide a roomy all-year house for a young married couple proves feasible in the Colorado climate.

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.

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.

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, craftsmen, 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
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 membranated 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 cells 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)
CONSTRUCTION OUTLINE:  
FOUNDATION: Continuous spread footings, reinforced concrete.  
Ceilings — acoustic plaster, Gladding, McBean & Co.  
METAL WORK: Flashing, copings and scuppers — 16 oz. copper and copper-bearing galvanized iron, 24 gauge. Ducts — galvanized iron.  
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 Kern Weber.  
HARDWARE — Schlage Lock Co.  
PAINTS — Columbia Varnish Co.  
ELECTRICAL INSTALLATION: Wiring — 110 v A.C. 60 cycle. Switches — Mercoid Corp.  
BOILERS — Babcock & Wilcox Co.  
WATER SOFTENER — The Permutit Co.  
COMPRESSORS — Worthington Pump & Machinery Corp.

TERRACE AND PERGOLA OF THE RESTAURANT ARE USED BY EMPLOYEES FOR LUNCH-HOUR RELAXATION
Yes—for these four
Types of Construction
Rō-Way OVERHEAD TYPE DOORS ARE AVAILABLE!

Under the M.R.O., Plan of providing maintenance repair and operating supplies, industrial and commercial organizations may extend high M. R.O. Priority Ratings which will speed delivery.

COMMERCIAL BUILDINGS
Ro-Way Doors are available for Freight Terminals, Warehouses, Public Garages—in fact, for all types of Commercial Buildings.

INDUSTRIAL BUILDINGS
Ro-Way Doors can be made for Railroad Shops, Munition Factories and for all other types of Industrial Plants.

GOVERNMENT BUILDINGS
Ro-Way Doors are serving America in Armories, Ordnance Plants, Supply Depots, Cantonment Camps and in hundreds of other Government structures.

AGRICULTURAL BUILDINGS
Ro-Way Doors are practical time-savers when used in Agricultural Buildings, such as Implement Sheds, Cattle, Horse and Dairy Barns. When opened they are "Overhead and out of the way." Cannot be damaged by stock crowding through door openings.

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

ROWE MANUFACTURING CO., 980 HOLTON STREET GALESBURG, ILL., U.S.A.

There's a RoWay for every Door way!
PINNING DOWN RESPONSIBILITY

The execution of any construction job involves many complex and interwoven relationships. The “one contract” method pins down responsibility—centralizes all these varied relationships under one capable and responsible management—that of the General Contractor.

The qualified General Contractor assumes full responsibility to the owner for these important services:

1. Completion at a specified time and cost.
2. Strict adherence to specifications.
3. Purchasing, securing and assembling on the site, of the innumerable materials and equipment required.
4. Direction to, services from and financial transactions with subcontractors.
5. Protection against liens and hazards arising from operations on site.
6. Skilled and non-skilled labor necessary to job.
7. Safety for and non-inconvenience to public.

CONSTRUCTION BY CONTRACT — For Centralized Responsibility

THE ASSOCIATED GENERAL CONTRACTORS OF AMERICA, INC.

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

Skill, Integrity and Responsibility in the Construction of Buildings, Highways, Railroads and Public Works

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. Unhampered 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 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 midwest industrial plant, panelled with Douglas Fir plywood and finished with O'Brien's Pen-chrome, Platinum and Bleached Mahogany.

**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 lasting washable.
- It subdued 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.
**A New Material for Architects and Builders**

**PLUSWOOD**

a wood alloy with high aesthetic qualities and an exciting weight-strength ratio

YOU will find many stimulating applications for Pluswood, a dynamic new material half as light as aluminum by density, but with the strength of steel. Combined with this extraordinary structural capacity is an unusual aesthetic value, a permanent, glass-like, almost 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 alkalines and impervious to water.

Add all of these advantages together, and you have a multi-purpose, super-service building material providing properties that should fire the imagination of forward-looking architects and builders. Your ideas for its postwar application are invited, for Pluswood will then be readily available, made to any predetermined engineering description in a wide range of woods, and at a cost that is less than you might suppose. Back of this new wonder material is the Lullabye Furniture Corporation—since 1897, America’s foremost manufacturers of juvenile furniture. Write today for the interesting Pluswood brochure that will give you complete product information.

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**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 housebuilding 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)
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 dependable, 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 buildings 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, III.

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)
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.

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.

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.
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.

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:

1. 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-
Dwellings in these vast FPHA projects at Vancouver, Washington, are KIMSUL insulated. Burton Homes Project (shown at right) has 1,500 units. Contractors: Ford Twilits, Sound Construction Company and Pete Kvietit. 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.

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
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)
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 196 Commercial Rd., Leaside 12, Ontario.

Listen to
GENERAL MOTORS SYMPHONY OF THE AIR
Every Sunday Afternoon, NBC Network
Insulate Now!
Oil is tight. Coal is very scarce. Government authorities say this may be our last 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.

Drastic Fuel Shortage Ahead

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, postwar 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.

Exhibits. 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.

Worksite. 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.

JUBAL EARLY tenants leave by rowboat as flood rises near Washington
LOOK 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 CORPORATION
BLOOMINGTON ILLINOIS
SEPTEMBER 1944
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!

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.
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.
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.

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.—Eo.

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 decretated? 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)
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
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-Pacific Coast Plant, Oakland, California
40 Years of Proof!

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 famous 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.

Also still on the job is Benj. S. Hanson, Engineer who instigated the original purchase of the Kinnear Door in 1904.

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 Roberto's 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)
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.

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.

MAKE IT A "ONE-PIECE PIPE LINE" WITH WALSEAL

WALWORTH

valves AND fittings

60 EAST 42nd ST., NEW YORK 17, N.Y.

DISTRIBUTORS IN PRINCIPAL CENTERS THROUGHOUT THE WORLD

SEPTEMBER 1944
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-splattering, 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 engineers' 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)
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, prefnt 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.

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

FACTRI-FIT doors may be ordered completely machined at your option.

FACTRI-FIT doors are edge grade-marked.

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

PRECISION-BUILT DOUGLAS FIR DOORS

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.

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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.
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

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 expediencies 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.

Lorain, Ohio

J. E. MEYER

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
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. Structural members retain their high strength without sudden collapse when exposed to flame.

A 4-PAGE FOLDER describes Minalith-treated lumber, as a means of combating fire, and Wolmanized Lumber for protection against 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.

NEW YORK CITY

Don’t ask us, ask Moses.—Ed.

LETTERS

Let's (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?

ANNE 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’etre 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)
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.

BUY BONDS . . . buy more than before to shorten the war.
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.

- 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.

FOR TOMORROW'S GLAMOROUS KITCHENS

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.

These Leading Manufacturers Will Make Matchless "CP" Gas Ranges For You

A-B Stoves, Inc. O'Keefe & Merritt Co.
American Stove Co. Roberts & Mander Stove Co.
Caloric Gas Stove Works Geo. D. Roper Corp.
Cribben & Sexton Co. Standard Gas Equipm't Corp.
Detroit-Michigan Stove Co. The Tappan Stove Co.
The Estate Stove Co. Western Stove Co., Inc.
Glenwood Range Co. IN CANADA
Grand Home Appliance Co. Gurney Foundry Co., Ltd.
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there is more than one saving when you use abesto

first:
there is the saving due to the exclusive abesto cold process method of roofing construction. it saves time, and there is no heating of materials necessary. no transportation of heavy equipment.

second:
roofs built with abesto are built to last! better adhesion assures close bonding of laminations. cured elasticity permits hot weather expansion and cold weather contraction without cracking. resistance to oxidation gives long time service.

these are features that build the kind of roof that, once applied, requires little attention . . . a roof that saves repair bills and makes a satisfied user.

abesto roofs are time tested
many abesto roofs are still giving dependable service even after many years of use.

specifications sheets free
let us send you our free specification sheets which show you the various ways abesto may fit into your roofing needs.

abesto manufacturing company
michigan city, indiana

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.

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abesto assures better roofs at a saving

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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 buzhenov, voronikhin, 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
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.

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

HERE'S YOUR NEW SOURCE OF PROFITS

Every home, apartment, industrial or commercial building with a boiler and radiator heating system is ripe for conversion to B & G Forced Hot Water Heating.
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 Uzbekistan and for various buildings on collective farm cattle ranches of Kazakhstan. 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 Biil 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.
EQUIPMENT FOR THE PREPARATION AND SERVING OF FOOD

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328 EGGLESTON AVE., CINCINNATI, O.
RADIANT HEAT

Plus

YEAR 'ROUND HOT WATER
Built into the Boiler
The Taco Way

Even, healthful heat, automatically controlled, plus an unfailing, year round supply of hot water for laundry, kitchen and bath, produced by a single system—that is Taco's tested contribution to modern living comfort. The Taco-Abbott System.

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-ABBOTT SYSTEM

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.
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.

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 $5.5 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 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.

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SEPTEMBER 1944
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 function 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 diseducifying 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' section. Discussion of the Living Memorials problem will be resumed in the December issue.—Ed.
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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 will 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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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 capital, 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 piccesmial 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 prosers, 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 tolerance.
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MY PRE-WAR POST-WAR PLAN

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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:

"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.

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.
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5. Kentile—one of the lowest cost floors made—is a champion for durability.

(There are 14 different Kentile advantages—ask your dealer)

FOR A BETTER INTERIOR INSTALL THE BEST FLOOR!

SEPTEMBER 1944
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 into the operating practices of industry. An adequate presentation might be made by reprinting the conclusions and recommendations in pamphlet form for mass distribution at cost.

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.

**Experience...**

**ANOTHER LEG TO STAND ON**

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Since 1899 designers and manufacturers of specialized lifting equipment

ELEVATORS • HOISTS • ROTO-WAITERS • MATERIALS HANDLING EQUIPMENT

**ART IN PROGRESS.** The Museum of Modern Art. New York City. 256 pp. 8 x 10 1/2. Illustrated. $3.75.

Published in connection with the 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 roam 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 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 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 be some (Continued on page 188)
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.

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The answer is simple. Cabot's patented "Collopping 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 Collopaokes—paints which assure extra protection, longer life, and greater beauty.

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.
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.

More durable,
Less maintenance

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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 linear expansion is but .825 inches per 100 feet per 100° F.

4 Exclusive Features:
1. Easier to Handle
2. Saves Time and Materials
3. More Durable, Less Maintenance
4. Smooth, Improved Appearance

For complete data for use in preparing specifications and estimates, write to the general offices.

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.


Batsford’s, the English publishing house of books, among others, of 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 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
Here 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!

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

RIGHT NOW IS A GOOD TIME TO START!
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.


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 purpose.
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.
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 stage it for us 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 homemakers' 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. 8½ x 5½. $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.
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.
RUMFORD SAVED 47.5% in Steam Consumption by changing over to HIGH ALTITUDE HEATING

Here's the Record

<table>
<thead>
<tr>
<th>PERIOD</th>
<th>ACT'G LBS. STEAM USED</th>
<th>DECREASE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dec.</td>
<td>1,663,000</td>
<td>1,021,000</td>
</tr>
<tr>
<td>Jan.</td>
<td>1,330,400</td>
<td>641,000</td>
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<tr>
<td>Feb.</td>
<td>1,330,400</td>
<td>662,000</td>
</tr>
<tr>
<td>March</td>
<td>1,275,400</td>
<td>797,000</td>
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<tr>
<td>April</td>
<td>711,400</td>
<td>578,400</td>
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<tr>
<td>May</td>
<td>283,600</td>
<td>268,400</td>
</tr>
<tr>
<td>Total</td>
<td>6,674,400</td>
<td>3,920,000</td>
</tr>
</tbody>
</table>

The average monthly saving in pounds of steam per degree day was 47.5%.

RUMFORD CHEMICAL WORKS

C. A. DUNHAM COMPANY
425 East Ohio Street
Chicago 11, Illinois

February 10, 1944

Cloudmore's services are a tribulation showing the amount of steam saved for heating our building during the period we have operated the Dukin Chemicals steam system (December 1943 through the present), as compared with the same period of the preceding year under our former heating system. The figures for saved steam consumption for the past two years indicate that the new system saved steam for in excess of the estimated savings. This saving is over and above the savings effected in the preceding months due to other changes made, including regrouping steam and eliminate lines and replacing worn subject to traps.

When the results 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,

F. W. Redfield
Chief Engineer

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. Entries 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
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 20th.

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 C. 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 Rhinelander Real Estate Co., New York City, announces that Peter C. Haeflner has been appointed to succeed George A. Sherron, vice president and general manager of the company, who has retired.

R. A. Hoefler, 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 of an AIA file.

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 C. Smith, architect, 1101 Lincoln Rd., Miami Beach, Fla., desires manufacturer's catalogues and literature useful to his practice.
“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.
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 bookcases 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.
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 previewed 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?

CONOLEUM-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.
In designing this home for Mr. W. B. Baily 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.

PAYNEHEAT
30 YEARS OF LEADERSHIP

Payne FURNACE & SUPPLY CO., INC., BEVERLY HILLS, CALIFORNIA

Kennebec
PLYWOOD

BIRCH PANEL

We can make quality panels to your specifications—for that particular job you want to tackle—even if it's for facings of special materials...

Our experience manufacturing birchwood for the Mosquito Bomber taught us the know-how to meet engineering standards precisely.

Pound for pound stronger...

Write today for quotations or further information.

KENNEBEC, Inc.
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 economi-
cal, dependable, easy to install. Archi-
tects, builders and cus-
tomers approve Craw-
Fir-Dor.

For special residential
or industrial installa-
tions, write
CRAWFORD DOOR CO.
DETROIT, MICH.
who make a complete
line of sectional over-
head-type doors.

FIR DOOR INSTITUTE
Tacoma 2, Washington

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

AFTER 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 Amplifire 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

SURFACE COMBUSTION • Toledo 1, Ohio
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.

Offices and Engineering Service in Principal Cities

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.
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 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 1/2 x 4 1/2 in. when closed.

**Manufacturer:** Three-Point Gage Co., 3821 Broadway, Chicago 13, 111.

**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.
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.

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 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.

The live resiliency of "U. S." Koylon Foam cushioning will be obtainable in standard cell-formed sheets and in molded units to fit.

"U. S." Koylon Foam

Serving Through Science

UNITED STATES RUBBER COMPANY

SEPTEMBER 1944

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


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 Co., 160 Front St., New York, N. Y.

(Continued from page 204)
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!

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.).
HOME EQUIPMENT. Majestic Building Necessary, 20 pp., 8½x11½. 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.


RADIO. RCA—What it is—What it does, 43 pp., 8½x11½. 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. Personal, financial standing, and many other questions often asked are also discussed. Radio Corp., 30 Rockefeller Plaza, New York, N. Y.

ELECTRICAL. I-T-E Switchgear Planning Kit, 9x12½. 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 switchgear units, a planning sheet to which the cutouts are to be attached and describes I-T-E Switchgear for the various units, complete with panel mounting and recording essential information. Instructions for use are supplied including simple diagrams for determining the necessary interrupting capacity of the circuit breakers. I. T. E. Circuit Breaker Co., 3510 and Hamilton Blvd., Philadelphia, Pa.

FENCES. Stewart Fences, Catalog No. 79, 44 pp., 8½x11. 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 type of fence, it is stated whether it is possible to be able 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 institutional uses are illustrated and described. A section is devoted to miscellaneous metal specialties, including vases, lawn furniture, stair railings, etc. The Stewart Iron Works Co., Inc., Chicago, Ill.

CONVEYORS. Case Histories to Aid You in Blueprinting Conversion to Peace, 24 pp., 8½x11. This bulletin which Lamson conveyors were used in converting to war is offered to suggest how reconversion to peacetime operation may be accomplished. Conveyor installations, its solutions to the problems, are illustrated with photographs and diagrams. Lamson tubes are also covered. Lamson Corp., Syracuse, N. Y.

SCHOOL PLANNING. Planning Tomorrow's Schools, 36 pp., 11x14½. 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, 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 experiences in the business of the RCA Victor Div., Educational Dept., Radio Corp. of America, Camden, N. J.

BUILDING MATERIALS. Bulletin of the Producers' Counsel, 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 13th St., N. W., Washington, D. C.

LUMBER STAINS. Sag Stain Control, 12 pp., 8½x11. Informative folder describes the Sag Stain Lineasan, 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 spraying. Sag stain control also includes: Supplementary handling practices include discussions on log infection, cutting, dipping solution problems, unprotected lumber, ventilation and yard practices. Grashem Chemical Dept., E. I. duPont de Nemours & Co., Wilmington, Del.

LUBRICATING SYSTEMS. Farval Centralized Systems of Lubrication, Bulletin No. 25, 16 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 13th St., N. W., Washington, D. C.

GERMICIDAL UNITS. Disinfectaire Ultraviolet Germicidal Units for the Disinfection of Air in Hospitals, 8 pp., 8½x11. Authoritative catalogue starts with an explanation of 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 49th St., Cleveland, Ohio.
Not you, Mr. Architect!

Your cooking will be busily confined to planning delectable dishes in the way of new homes. But women will continue to be queen of kitchen cookery. Hence this message to millions of future "new homers" in House Beautiful, American Home, Better Homes and Gardens, and Small Homes Guide.

These women too are making plans of their own you'll want to know about. They're dreaming of kitchens new and spotless... gleaming cabinets and exciting appliances all in their proper place.

And you can be sure that one of the important items will be a Victron Ventilator to preserve the beauty of the kitchen and the woman who presides over it. These women intend to provide a safe, silent exit for messy grease, grime and cooking odors. They've caught the idea of how to be a beautiful cook and a charming hostess.

And to help you help them, Mr. Architect, Victor will have available new designs, improved air moving efficiency in Victron Ventilation of tomorrow.

THE MARK OF QUALITY IN THINGS ELECTRICAL

VICTOR ELECTRIC PRODUCTS, INC.
Dept. BHG-944, 2950 Robertson Ave.
Cincinnati 9, Ohio

An interesting booklet on Victron Ventilation is waiting for you. Write today.

The above is one of a series of messages to future home builders on Victron Ventilation, appearing in American Home, Better Homes and Gardens, House Beautiful and Small Homes Guide.

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.

THE BONDS YOU BUY TODAY WILL BUY BETTER LIVING TOMORROW

SEPTEMBER 1944
America's New Sink Standard

Here's the sink women want in their own homes—whether they're building, buying or renting! And no wonder! Its trim, modern beauty is built around a battery of work-saving features. A patented round dishwashing compartment, a large dual strainer, an extra-long swing-spout mixing faucet, a handy spray fixture, an integral soap dish, non-drip edges and other advantages of design! It sells itself on sight! And it's easy to install. Fixtures are mounted on the flat back ledge—no in-the-wall piping is required. The flat rim insures a watertight fit to any type of sink top. You'll want to be ready now with full details on the sink that will be featured in tomorrow's homes—the EBCO Dishwashing Sink. Write today for information!

The EBCO MANUFACTURING CO.
401 W. Town St., Columbus 8, Ohio

WHAT DO PEOPLE WANT MOST IN THEIR POST-WAR HOMES?

92% want the latest clothes closet fixtures according to a recent survey. K-Veniences are the answer with over 40 metal fixtures (for all apparel) that double the hanging capacity of any closet. Also roller tracks for sliding doors, adjustable shelf supports and extension drawer slides. At Hardware and Building Supply Dealers right after the war. In the meantime, include K-Veniences in your plans and—

Buy More War Bonds!

KNAPE & VOGLT MFG. CO.
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B & T Metal Trims trade-marked CHROMEDGE "hit the mark" every time in adding lasting beauty and utility to modern interiors. And they'll be ready for all post-war building needs!

THE B & T Metals Company
Columbus 16, Ohio
YOUR clients—who will build, remodel or buy millions of postwar homes—will demand bathrooms, kitchens, laundries of colorful, durable, easily cleaned porcelain-enamelled steel.

In retail stores, when it is again possible, many merchants will build new customer-appeal into store fronts, counters, cabinets and shelves, getting full value from the adaptability, the durable beauty and convenience of porcelain-enamelled steel.

In factories, office buildings, hotels, restaurants, laboratories and hospitals, from lavatories to operating rooms, the war-proved versatility of high-grade porcelain-enamelled steel makes its almost universal use a reasonable certainty.

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Are you prepared to give your postwar clients all the latitude of design, variety of color and permanent beauty they got with porcelain-enamelled steel?

Why not get in touch with our Vitrenamel engineers for authoritative information on present and future developments which affect the demand for enamel products? Write today, without obligation, for this technical service.

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CARNEGIE-ILLINOIS STEEL CORPORATION
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MILWAUKEE STAMPING COMPANY
827-S South 72nd Street
Milwaukee 14, Wisconsin

SEPTEMBER 1944

215
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.

**Extinguished in 20 Seconds**

Here’s a demonstration fire in which no punches are barred. Not very big. Just a broken flange on a pipe line, spraying gasoline into the air... 10 gallons a minute, feeding a fast-spreading flaming pool. No sheltering walls and no large surfaces on the flange to retain or make easier the job of the extinguishing medium. Specifications for a fire that’s very tough to handle.

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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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THE ARCHITECTURAL FORUM
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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 unfailingly 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 Celuloid Corporation, The First Name in Plastics, a division of the Celanese Corporation of America, 180 Madison Avenue, New York 16, N.Y.
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