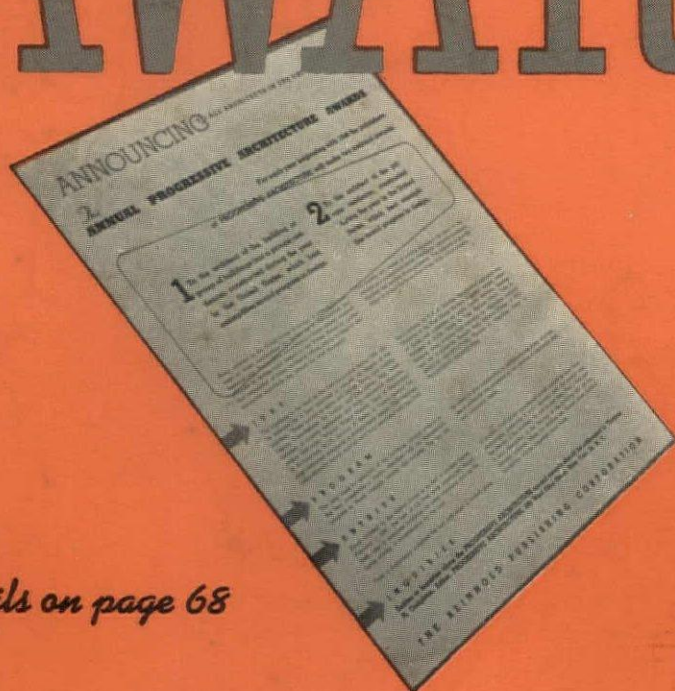


PROGRESSIVE  
ARCHITECTURE  
PENCIL POINTS

*Announcing*

THE ESTABLISHMENT OF THE  
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# AWARDS



*Details on page 68*

JULY 1946

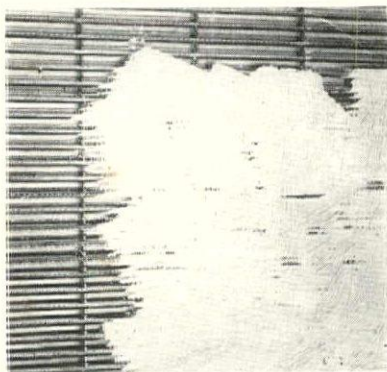


Where your plans  
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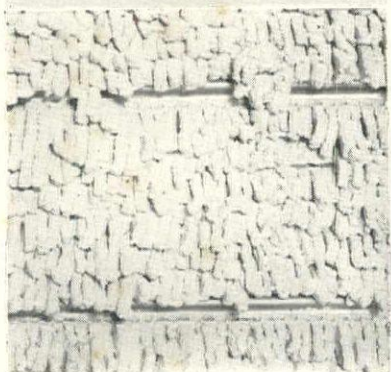


**fire-safety . . . permanence . . . lasting beauty**



• Above: The scratch coat is forced through Milcor Metal Lath so that it is keyed on both sides of the steel reinforcing.

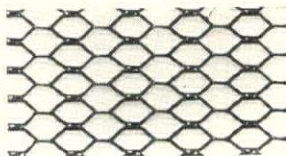
• Below: Note how the back surface of plaster on Milcor Metal Lath becomes permanently "clamped" to the steel.



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Milcor Specialmesh Metal Lath

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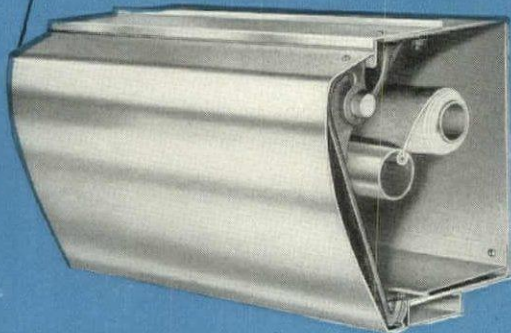


# Kawneer presents

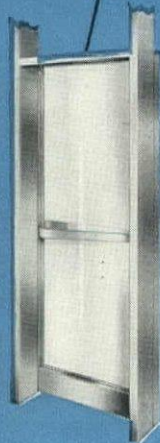
# new

CUSTOM STYLING  
IN STOCK SHAPES

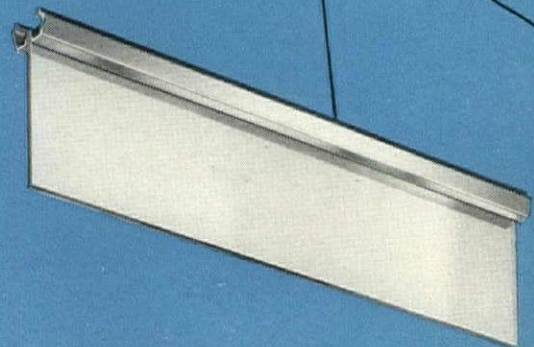
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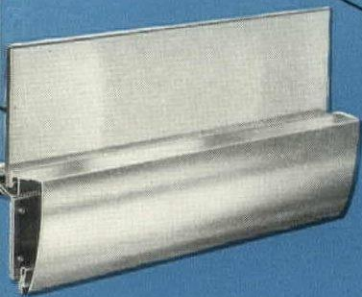
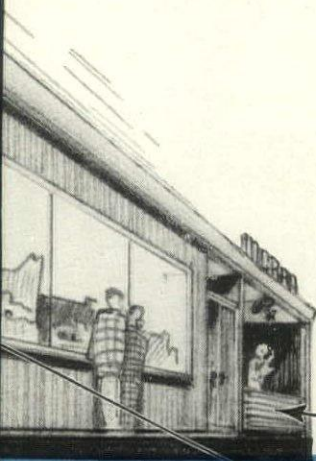
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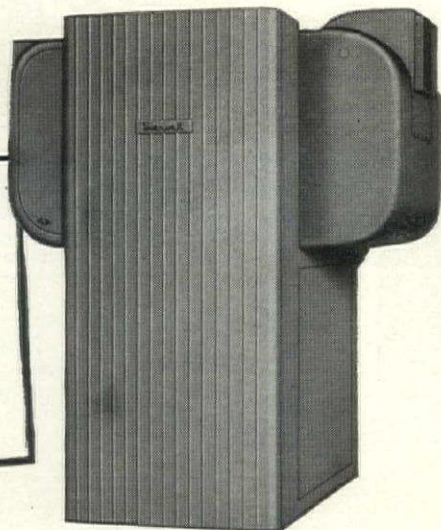


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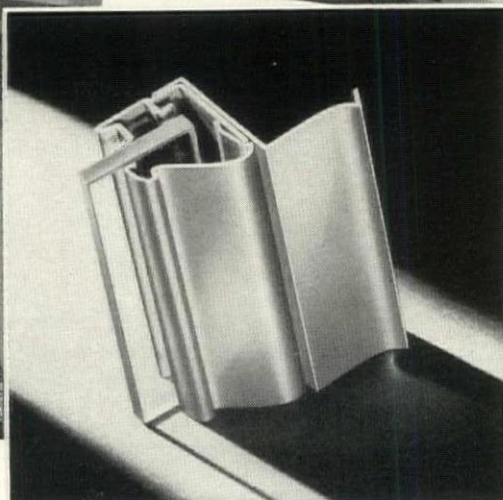
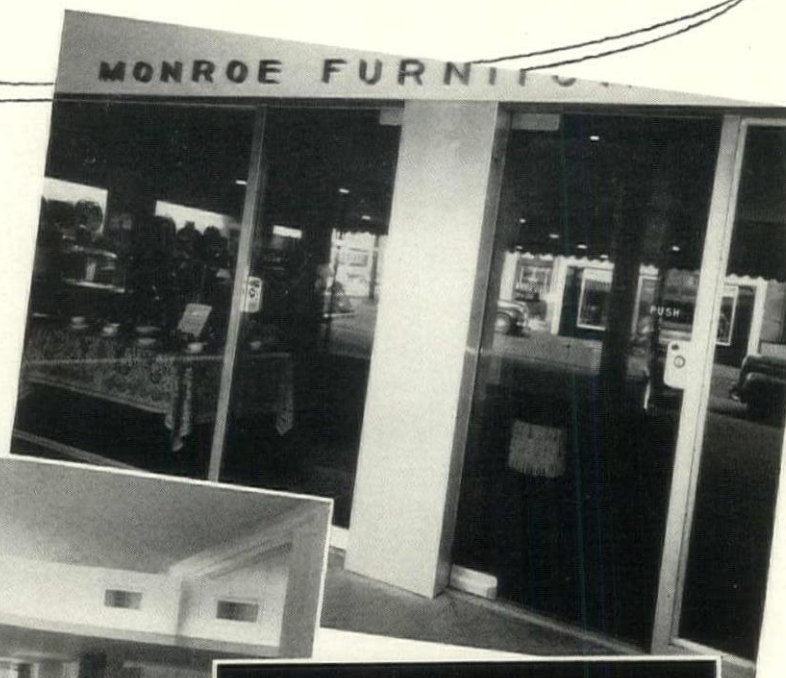
# Glass

**THE CURRENT TREND** toward "open vision" in store design involves large areas of Plate Glass. Twindow, the window with built-in insulation, is a practical choice for applications such as that shown here. Twindow consists of two or more panes of glass with an air space between. It offers exceptional beauty and allows maximum vision. It prevents moisture from condensing and frosting the glass. Material reductions in heating costs are effected by its insulating properties. Gruen & Krummeck, Designers.



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# VIEWS

## ANOTHER U.N.O. PROPOSAL

Dear Editor:

An open competition seems to me to be undesirable now. All offices are busy and are going to be reluctant to set aside a certain number of their staff during this busy period to enter an open competition. Perhaps a way would be, in order to get top-flight architects, to hold an open esquisse-esquisse type of competition and from that select about ten architects who would be paid similar to the West Point competition, for a final competition.

CLARENCE B. LITCHFIELD  
New York, N. Y.

## FIRST—THE IDEAS

Dear Editor:

I am entirely in accord with the thought that any diagram for U.N.O. buildings requires the most earnest consideration. Before a competition develops, and I am strongly in favor of an open one, the actual requirements need thorough analysis. It is reasonably simple to organize this world-wide competition, but the vital question arises as to just what the diagram will be.

I would suggest the possibility of a competition first for ideas as to diagram, possibly in the form of an essay with or without diagrams.

A broad conception of the elements would bring out the relative value of the essentials. I can't see a competition for buildings, until such research be done. One other method of obtaining the diagram is, obviously, that of appointing a small group of men who would undertake the job and do all of the necessary consulting so that some crystallization of thinking could be cleared.

ELY JACQUES KAHN  
New York, N. Y.

## STRONG APPROVAL

Dear Editor:

Concerning an international competition for the headquarters of the United Nations, we would like to express our strong approval of the idea.

We have written to the Australian representative of the British Students' Society, The Royal Victorian Institute of Architects, and to the Architectural Research Group, suggesting that they take appropriate action. We have also written to the Australian delegate at the United Nations Conference urging him to strongly advocate the idea at the next session.

KENNETH R. GREEN  
The Architectural Students'  
Society of the R.V.I.A.  
Melbourne, Australia

## BEST JURY: BEST RESULT

Dear Editor:

I am in full accord with your suggestion that the winner (or winners) of an international competition should be entrusted to design the world capital.

The thought that such a competition might be limited to a few selected or appointed men is unsound and undemocratic. Inspirations and ideas do not necessarily dwell in the minds of a chosen few. If the best possible solution is sought, the widest participation is likely to supply it.

The creation of a competent, effective, and impartial group of technical advisers and jury is the greatest problem by far. In the final analysis the success of any competition is measured by the ability and integrity of both.

JOSHUA D. LOWENFISH  
New York, N. Y.

## TOUGHEST PROBLEM

Dear Editor:

The difficulties of formulating a program and selecting a jury have been exposed, but I haven't read or heard anything yet which seriously discredits an architectural competition. The idea of an evolving continuity of design may be a beautiful sociological formula but would afford no sure protection from the lifelessness of mediocre compromise. The suggestions for some sort of architectural civil service staff and an elaborate research organization, however essential for factfinding and administration, are not substitutes for creative design, which cannot be brushed aside by calling it paper architecture.

The toughest problem of all is the method of judging. Perhaps we could borrow a procedure from medical diagnosis and have five independent juries, each selecting an equal number of solutions and placing them in order of preference. A super-jury advised by a statistician could make the final choice.

HARRISON GILL  
Chattanooga, Tenn.

## COUNCIL'S RESPONSIBILITY

Dear Editor:

If there is any building work necessary to or indispensable to the work of the new "League," it could be and should be handled by the U.N.O. council itself rather than committees of various nationalized professional associations; otherwise, the U.N.O. would get off to a better start by using existing facilities for great sessions—i.e., until it proves itself and its permanence, whereupon buildings could be added gradually to its possessions.

GARRY A. BOYLE  
St. Augustine, Fla.

## NOT A WAR JOB

Editor's Note: A letter received by Isadore Rosenfield from an Australian reader is printed below in part because it clears up an error in one of our captions (page 88, *PROGRESSIVE ARCHITECTURE*, August 1945). CM

Dear Mr. Rosenfield:

In "Mechanical Plants for Hospitals" you show a fine photograph of the Royal Melbourne Hospital, which, incidentally, was designed by our firm. However, the caption to the photograph indicates that you have been misled in the purpose of this hospital. The planning of it was started some 10 years ago, to provide a complete hospital unit of 500 beds, with large outpatients' department, nurses' home, boiler house, laundry, and quite a large section for the Walter and Eliza Hall Laboratories. These laboratories carry out a great amount of research in addition to routine hospital work. The building was commenced before the war and was nearing completion when U.S.A. troops arrived in Australia. The Royal Melbourne Hospital Committee immediately made the buildings available for occupation by U.S.A. medical services, who remained there for some two years.

So far as I am aware, none of the capital cost was provided under reciprocal lend-lease; but upon vacation all reinstatement costs and repairs, totaling some \$250,000, were met from lend-lease funds. During the occupation by U.S. medical services no rent was paid.

In regard to the provision for Australian army patients, and also U.S. army patients, a number of emergency pavilion hospitals have been built throughout Australia, most of them of a temporary nature. However, the Commonwealth Government took the opportunity, during the war, of building large permanent base hospitals in four capital cities to take care of war wounded and veterans. Around these base hospitals grew up some temporary pavilion hospitals which are scheduled to be demolished some five years after the end of hostilities, but if we can judge from the past, they are most likely to remain for twenty years, or longer.

G. L. MOLINE  
Sydney, Australia

## FACTS AND DESIGNERS

Dear Editor:

I wish to take this opportunity to congratulate you on the wonderful job you are doing in your revitalized PENCIL POINTS under the heading of *PROGRESSIVE ARCHITECTURE*. I find especially helpful the compact, graphic presentation of building facts under the section Materials and Methods. Such factual information so clearly presented will prove of invaluable aid to architectural designers in understanding materials with which they will have to work.

MORRIS M. GADDIS  
El Cerrito, Calif.

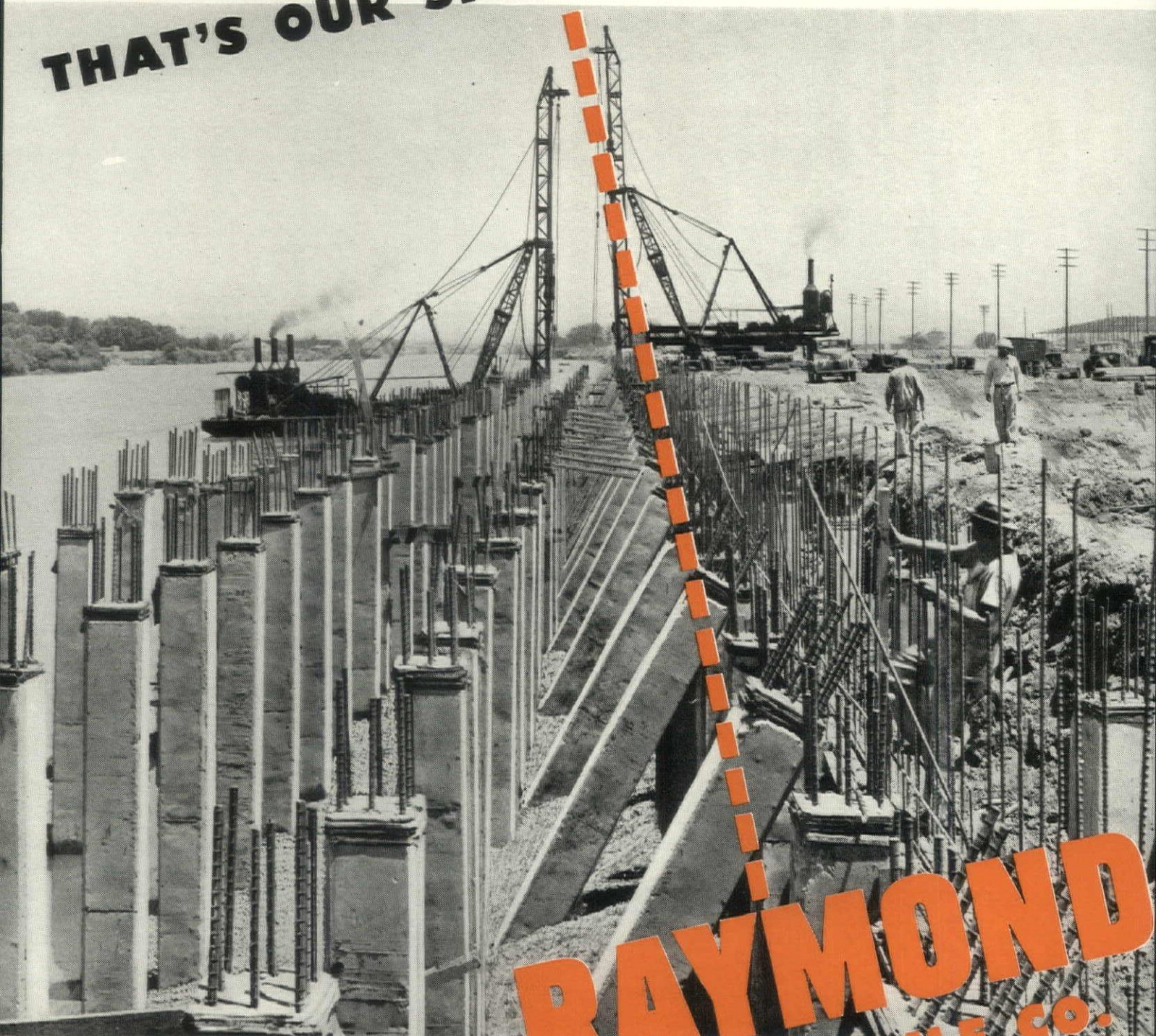


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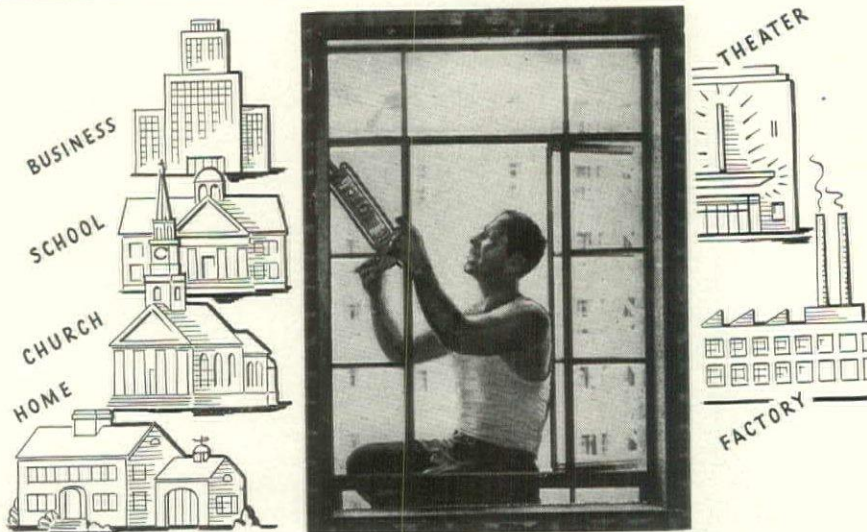
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(Continued on page 12)



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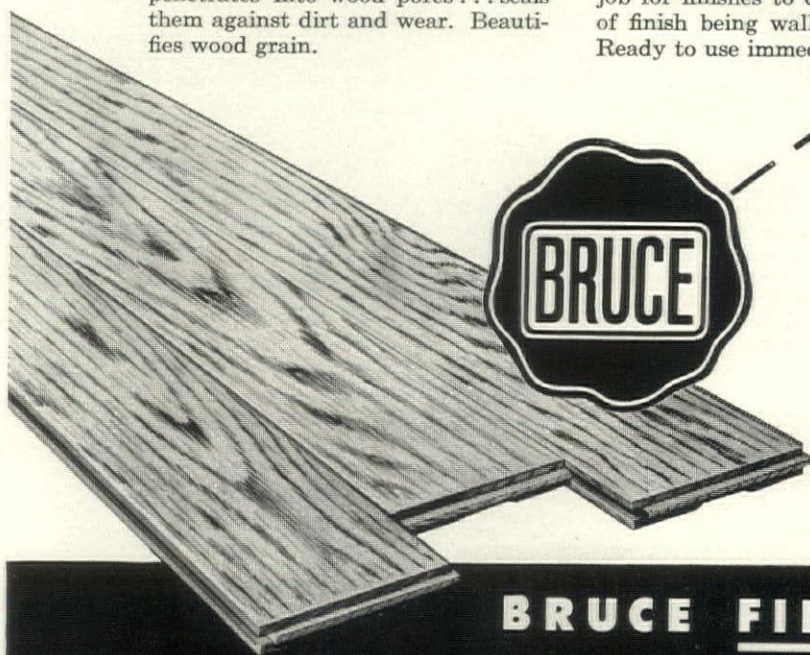
**4. Thorough Sealing**—Bruce Finish penetrates into wood pores... seals them against dirt and wear. Beautifies wood grain.

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## JOBS AND MEN

(Continued from page 10)

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ence on large commercial and industrial projects. Preferred locations, California or Florida. Box 283, PROGRESSIVE ARCHITECTURE.

### NOTICES

KEMP, BUNCH, and JACKSON, Architects, have opened offices in the Florida Theatre Bldg., Jacksonville, Fla.

The office of BERYL PRICE, Architect, has been reopened at 1911 Pine St., Philadelphia, Pa.

EARLE S. DRAPER, former Deputy Commissioner of the Federal Housing Administration, is now president of Housing Trends, Inc.

ROY A. KAZEBIER, Architect, has opened offices at 15 Euclid Bldg., 111 West B St., Ontario, Calif.

JESSE T. JOHNSON, Architect, has reopened offices at 713 Sycamore St., Columbus, Ind.

VINCENT KLING, Architect, has opened his office at English Village, Cranford, N. J.

MICHAEL T. KIPINSKI and JOHN A. VALTZ announce the opening of the architectural firm of LIPINSKI and VALTZ, 14 Central Ave., Lynn, Mass.

RUDOLPH J. MOCK has joined the TVA Department of Regional studies in Knoxville, Tenn., as Staff Architect.

FREDERIC H. LEUBUSCHER and JOHN H. LINDSTROM, JR., have formed a partnership for the practice of landscape architecture and civil engineering at 243 Lorraine Ave., Upper Montclair, N. J.

ROLLIN WOLF and WILLARD S. HAHN, Registered Architects, have formed a partnership with offices at 459 Hamilton St., Allentown, Pa.

A. C. LYRAS, Architect, has opened his office at 28 W. 44th St., New York, N. Y.

The new firm of MACNEIR & DYKEMA, Architects, has offices at 2520 E. Las Olas Blvd., Fort Lauderdale, Fla.

KENNETH H. RIPNEN Co., Inc., Management Counsellors in Space Administration, announces the return of its President, KENNETH H. RIPNEN, Major, A.U.S.

ROBERT A. MILLER, Architect, has opened offices at 616 Stock Exchange Bldg., Portland 4, Ore.

H. EUGENE GRIESHABER, JR., and JAMES F. NEILAN have formed a partnership for the practice of architecture with offices at 302 State St., New London, Conn.

ROBERT WOODS KENNEDY and THEODORE JORDAN have opened an office for the practice of architecture at 687 Boylston St., Boston, Mass.

VICTOR L. S. HAFNER has re-established his offices for the practice of architecture at 101 Park Ave., New York, N. Y.



## The Barcol OVERdoor on Residence Garages

Barcol OVERdoors have a number of distinctive features which are important where you want a garage door that will close tightly yet work easily. Tailored twin-torsion counterbalancing springs are used, mounted on the wall directly above the opening. They are neat in appearance, quiet, safe, and can be individually and accurately adjusted. Self-latching bolts, which engage automatically when the door is pulled down, add much to the efficiency, speed, and ease with which the Barcol OVERdoor can be opened and closed. Roller-crank closing action provides tight and weatherproof closing. At the same time, this Barcol feature prevents the door from jamming when closed, or sticking and binding when in motion. Continuous vertical track brackets not only increase the structural strength and durability of the supporting framework, but also give added protection as they cover the cables that carry the door weight. Only the Barcol OVERdoor has ALL of these features. For lasting satisfaction, specify and install the Barcol OVERdoor on all types and sizes of residence garages.



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OSGOOD  
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It's resin prime coated to assure factory finish and smoothness, and is obtainable factory machined for standard tubular locks and hinges.

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LOS ANGELES OFFICE . . . . .	922 So. Flower Street, Los Angeles 15, California . . . . .	Phone: Vandike 6326
TACOMA OFFICE . . . . .	1216 St. Paul Avenue, Tacoma 1, Washington . . . . .	Phone: Main 8101



## THIS MONTH

Architects of the first two buildings of the series presented in this issue—designed to serve the business world—are not unfamiliar to our readers. The office building (p. 42) for American Discount Company in Atlanta, Georgia, was designed by Burge & Stevens, well known architects of that city. Just recently (May *PROGRESSIVE ARCHITECTURE*, p. 16), we included a biographical note on Pietro Belluschi, Portland, Oregon, architect of the shop for Wherrie Tailoring Company also featured in this issue. Both these buildings are notable for their forthright handling of familiar commercial problems.

Designer of the adroitly disposed private office for a business executive (p. 46) was **Morris Lapidus**, Architect, of New York. His present competence in design for business is the result of years of commercial work in a succession of architects' offices. He describes his architectural training at Columbia University as "completely along academic lines," and that probably accounts for his success in his very first position—designing Spanish villas and elaborate cartouches in the office of Warren & Wetmore!



MORRIS LAPIDUS

Planning and executing commercial work from coast to coast is the specialty of Gruen & Krummeck, designers of Grallen Kamp's shoe store (p. 48), but they also engage in residential work and some industrial design. **Victor Gruen** and **Elsie Krummeck** began their collaboration late in 1939 when they opened an office in New York. Two years later they opened their Hollywood office. Miss Krummeck had gained



VICTOR GRUEN



ELSIE KRUMMECK

## NEXT MONTH

● Harris Armstrong, St. Louis architect well known for his progressive work in the midwest, furnishes the lead feature of the August issue, a suburban department store project. In this case the client, one of the leading merchants of the city, has sensed an opportunity to extend his downtown facilities and serve directly the needs of a fast-growing satellite community. This is one of a series of presentations selected to make our next issue general in scope. It also will include a Tennessee church by Gill & Bianculli, Architects; an Alabama hospital by Charles McCauley, Architect; a South Dakota hotel by Harold Spitznagel, Architect; a branch library in New York by Louis Allen Abramson, Architect; a San Francisco city house by Dinwiddie & Hill, Architects; and a second house—in suburban Seattle—by John T. Jacobsen, Architect. The editors regard all of these as efficient, candid answers to the varied requirements of this range of building types.

● Of international interest is a provocative proposal by Lewis Mumford for establishment of United Nations headquarters within existing world capitals—rather than creating an entirely new architectural center. This will be discussed at some length for our readers, who thus will be informed of Mumford's ideas at the same time that he is seeking support for the proposal at a session of the Royal Institute of British Architects, convened to honor this distinguished American critic and author.

● The first part of a comprehensive discussion of insulation principles and theories by Paul D. Close, technical secretary of the Insulation Board Institute, will be featured in the Materials and Methods section. This contribution will be concluded in the September issue. Ben John Small, New York specification writer, whose "Specification Surgery" appears this month, has assembled information on types of waterproofing and dampproofing products which he will discuss in the August issue. His illustrated article will include data on membrane methods, integral methods, and plaster methods; available materials for each with appropriate specifications and designations.

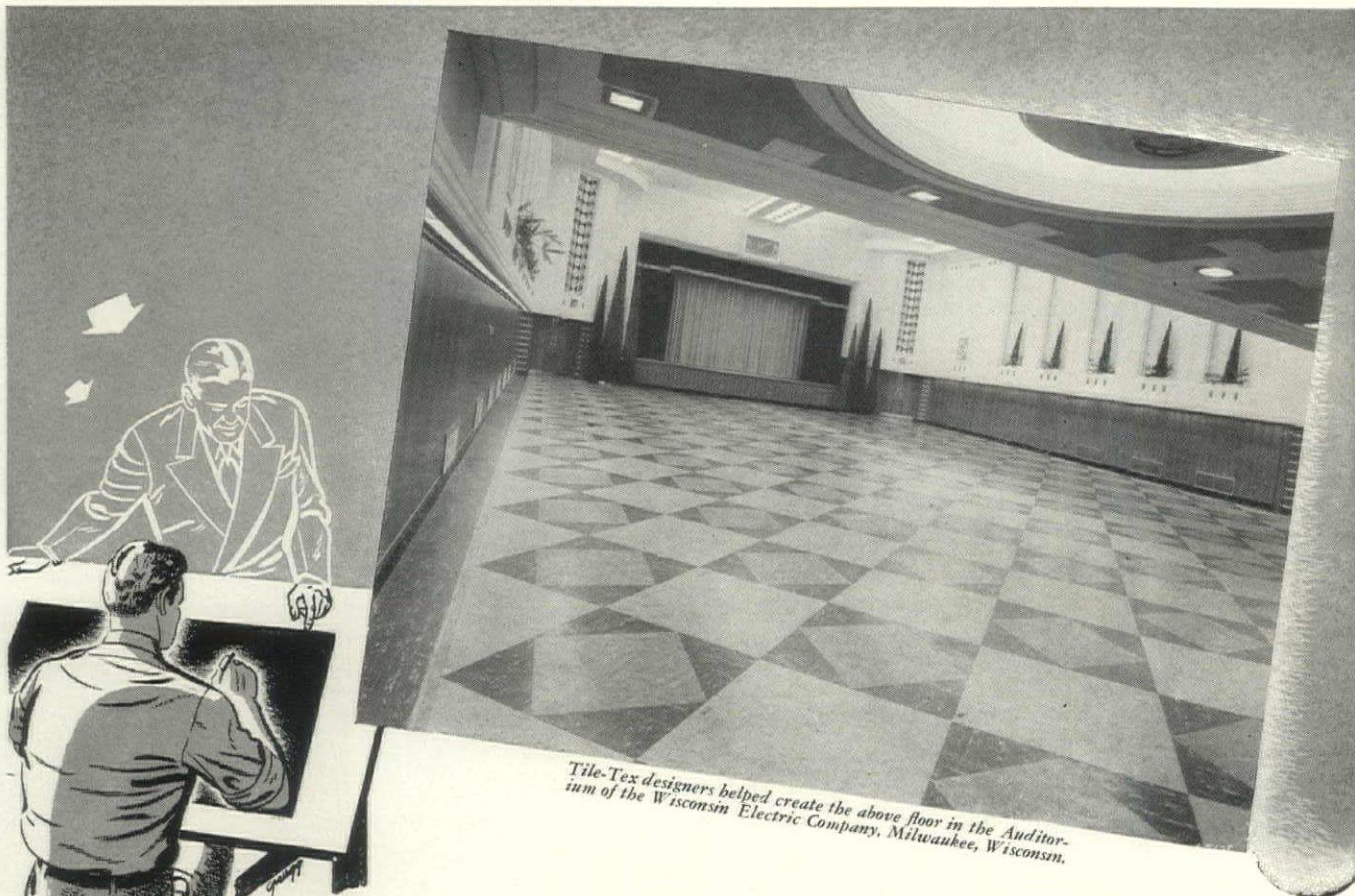


DONALD DWIGHT WILLIAMS

experience in exhibition work at the Chicago and New York Fairs, automobile shows, and other display assignments. Gruen practiced architecture in Vienna prior to coming here in 1938.

(Continued on page 16)





*Tile-Text designers helped create the above floor in the Auditorium of the Wisconsin Electric Company, Milwaukee, Wisconsin.*

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For over twenty-one years, The Tile-Text Company has spent a great deal of time and money on the problems of floor design in relation to its asphalt tile flooring. We have tried to make a product not only functionally valuable but architecturally correct from a design standpoint.

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At our home offices, we maintain a Design Department, whose sole purpose is to co-operate with and help architects and owners in the proper

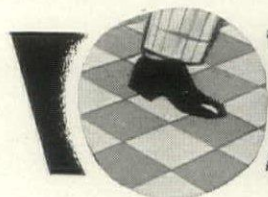
selection of colors and designs in Tile-Text Asphalt Tile. Perhaps we can help you in this respect—if so, this department is ready, willing, and anxious to serve you. Write us if we can be of assistance to you in this matter or any other problem pertaining to asphalt tile floors.

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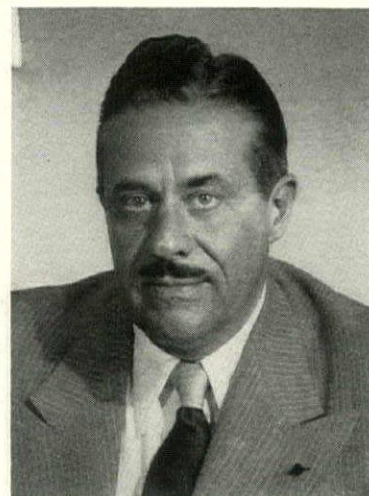
## THIS MONTH

(Continued from page 14)

Resuming his architectural practice in Seattle after two years in the Navy, including 16 months as an officer aboard an LST, Donald Dwight Williams confides that he is "somewhat confused by present building conditions and costs" but sees a brighter future. His building for Radio Station KRSC (p. 53) is an example of his skill in integrating varied elements of a highly specialized structure. His architectural training was received at the University of Nebraska and University of Washington.

New York offices for Eversharp, Inc. (p. 57) were designed by Julian von der Lancken, Architect with Raymond Loewy Associates, industrial designers since 1928. This organization of 180 designers, architects, and engineers maintains offices in New York, Chicago, South Bend, and Los Angeles, and is currently retained as design consultant for 78 corporations in the United States, Britain, and Sweden. The work of the organization is in five fields—transportation design, product design, retail development and planning, package and container design, specialized building design—further expanded during the war years for military assignments.

Raymond Loewy came here after World War I from his native France, where he had received his engineering train-



RAYMOND LOEWY

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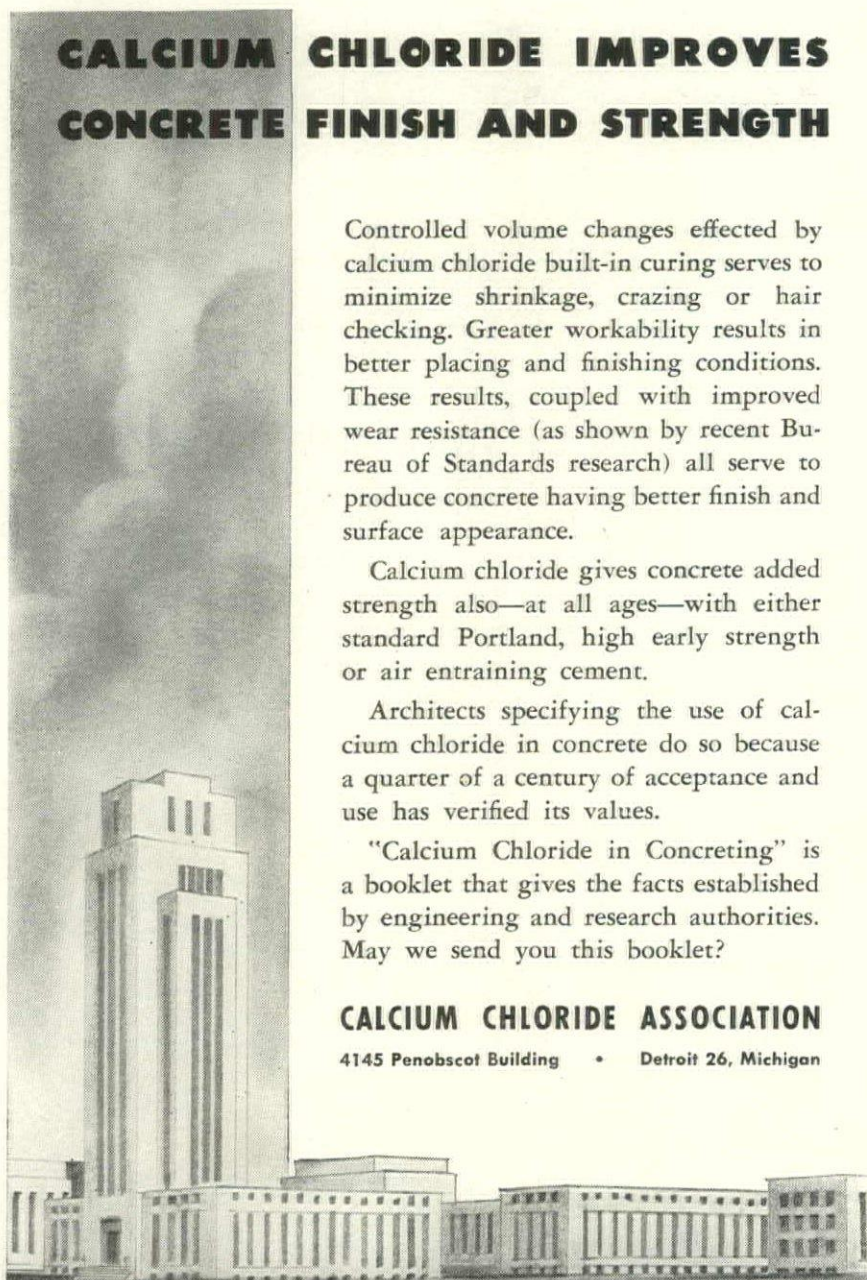
Calcium chloride gives concrete added strength also—at all ages—with either standard Portland, high early strength or air entraining cement.

Architects specifying the use of calcium chloride in concrete do so because a quarter of a century of acceptance and use has verified its values.

"Calcium Chloride in Concreting" is a booklet that gives the facts established by engineering and research authorities. May we send you this booklet?

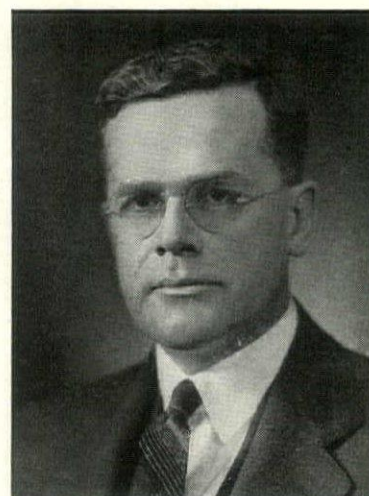
### CALCIUM CHLORIDE ASSOCIATION

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GEORGE N. THOMPSON

ing. He began his career as a fashion illustrator but established himself as an industrial design pioneer in 1926 with a design for a nationally known automobile. He has since contributed to the design of virtually the full range of industrial products—receiving numerous awards and honors for his work.

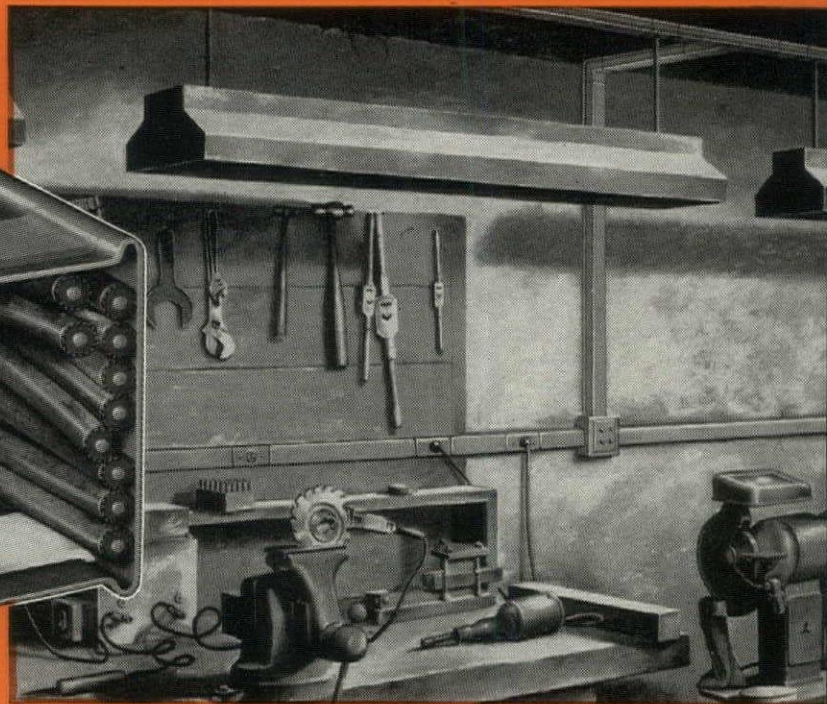
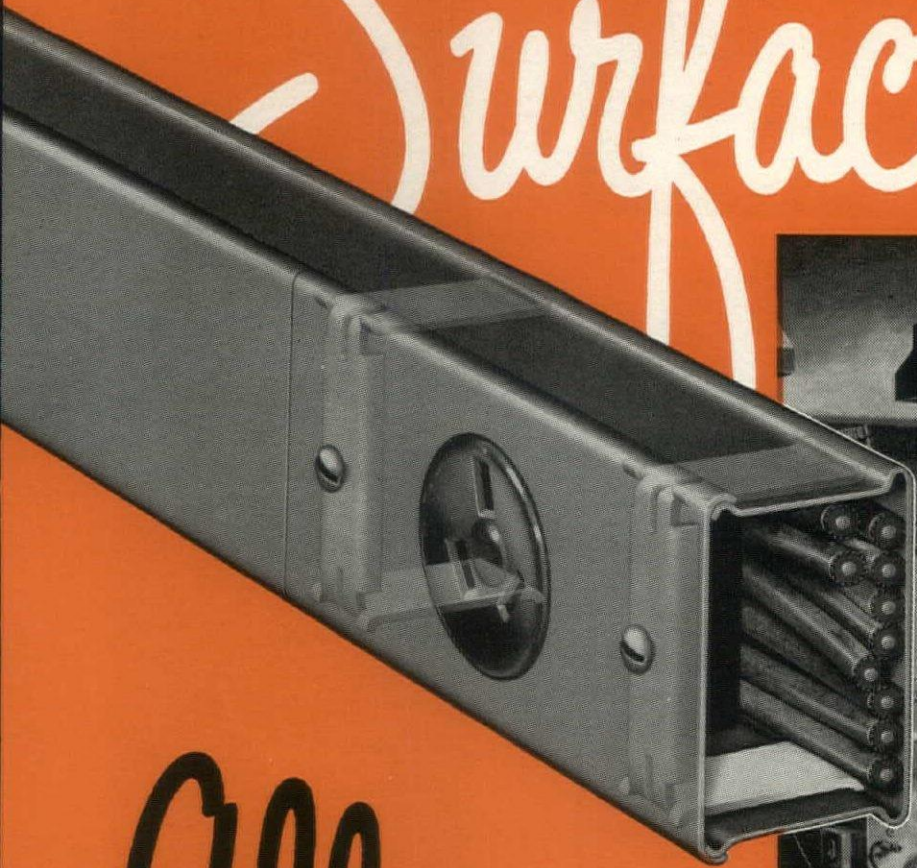
The author of the building code article on page 77, George N. Thompson, has been connected with the National Bureau of Standards since 1924, except for a brief period when he was associate director of the Research on Slums and Housing Policy project sponsored by the Phelps-Stokes Fund of New York. He had previously engaged in civil engineering and real estate studies, and as a member of the staff of the Committee on Seasonal Operation in the Construction Industries, had published a report on the possibility of reducing seasonal fluctuations in building activity. After serving in a succession of official capacities, he became chairman of the Building Code Correlating Committee, American Standards Association, in 1944. He also is chairman of committees on Building Code Requirements for Minimum Design Loads, and Standard Specifications for Fire Tests of Materials and Construction.

(Continued on page 18)



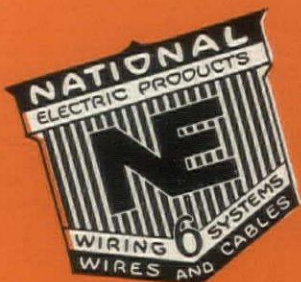
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The experienced Auth representative near you can save your time by helping you plan the job right. Just ask him.

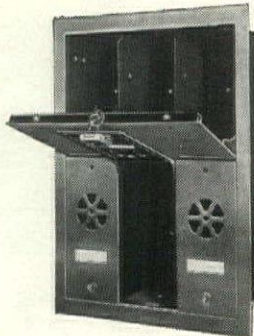


Apartment  
Telephones

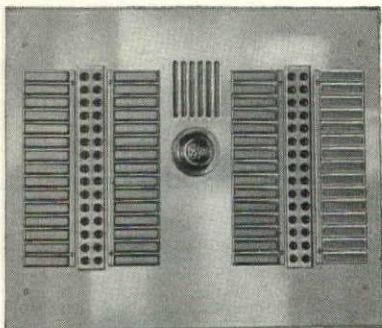


Electrical  
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Tonal Beauty.  
Also Manually  
Operated Door  
Chimes

Government-  
Approved  
Mail  
Boxes



Lobby  
Telephones



## THIS MONTH

(Continued from page 16)



GEORGE FRED KECK



WILLIAM KECK

The Wisconsin house (p. 64) by George Fred Keck and William Keck, Architects, of Chicago, demonstrates an application of the solar-design principle that has interested these brothers for some years. George Fred Keck opened the office in 1926, following office and teaching experience, trips to Europe, and service in World War I. He had been trained at University of Illinois. In addition to his work as an architect, he has been a consultant to associations and manufacturers, such as Greens Ready Built Homes of Rockford, Illinois, for which he is now developing a manufactured house, and Clay Products Association, for which he is developing a new system of radiant heating. He also found time to help Moholy-Nagy establish the School of Design in Chicago, although he severed his connection with the institution two years ago. His brother, William Keck, has been associated with the office since he graduated from the University of Illinois and now is an active partner. During the war he was in the construction division of U. S. Engineer Corps, then a Navy officer (1943-1946).

**AUTH ELECTRICAL SPECIALTY COMPANY, INC.**

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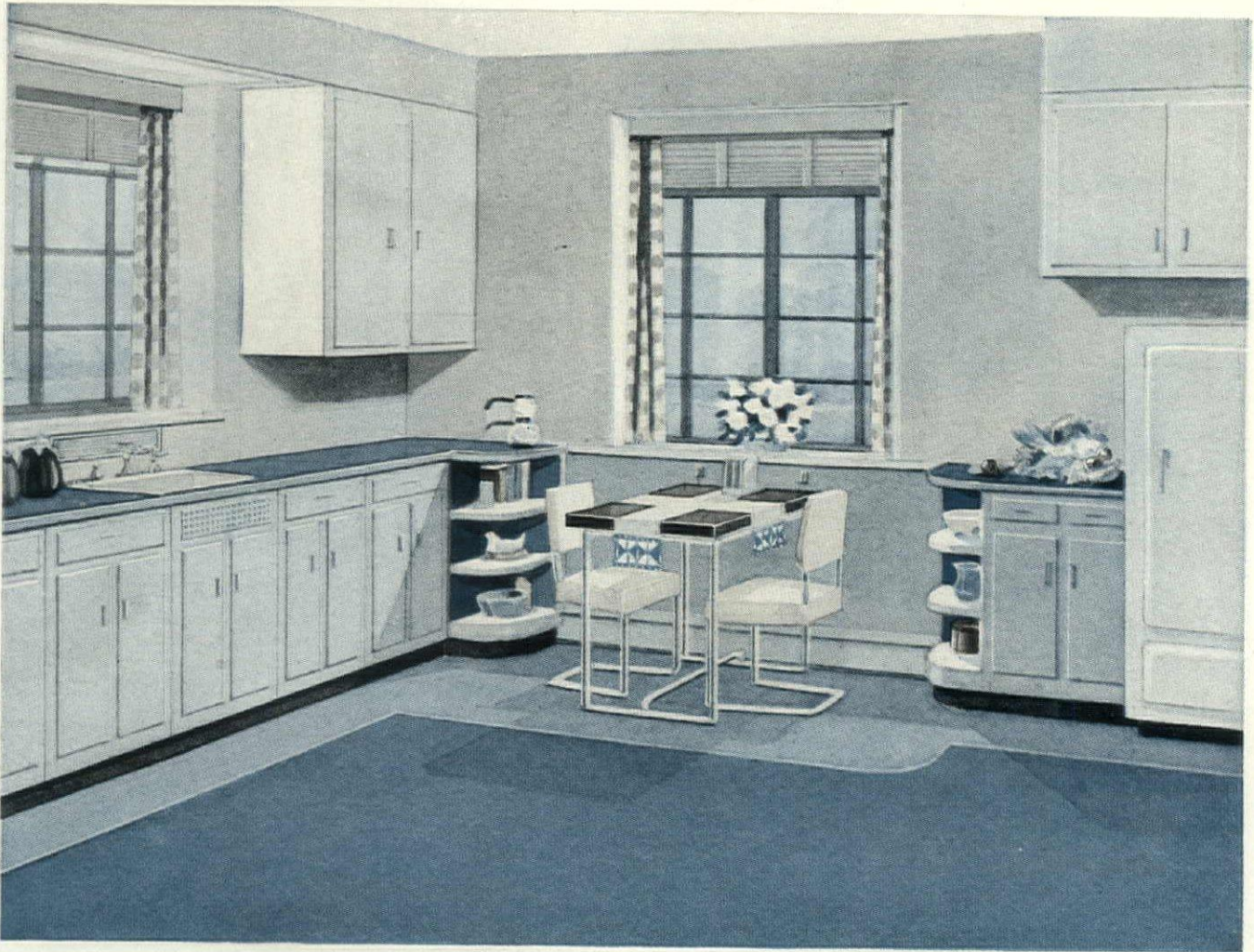
Principal Cities

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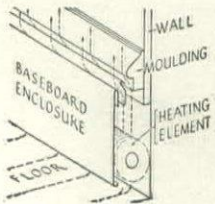
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plans for interior decoration or furniture arrangement. And the absence of radiators adds considerably to the usable space in the room.

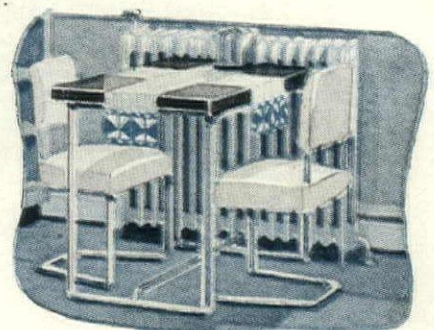
Tested installations of this new Webster Baseboard Heating show a variation of less than 2° from floor to ceiling. No cold corners. No hot spots.

Webster Baseboard Heating has been under development for several years and has met the most severe operational tests.

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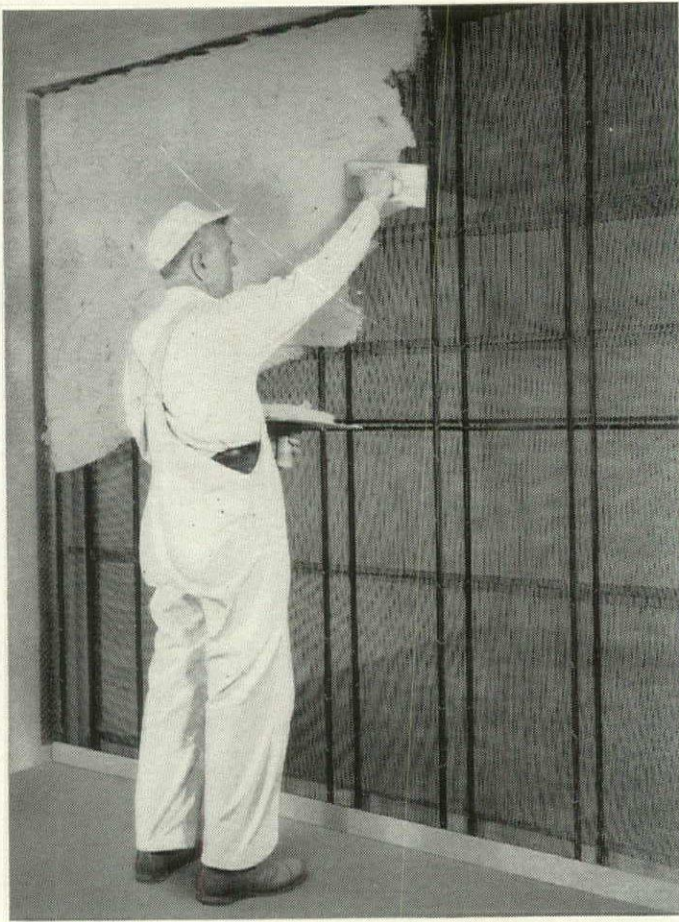
**Make this test:** Cut out illustration of radiator at right. Place cut-out picture in position under window in the illustration above. See how the presence of a radiator in the room interrupts the scheme of decoration.

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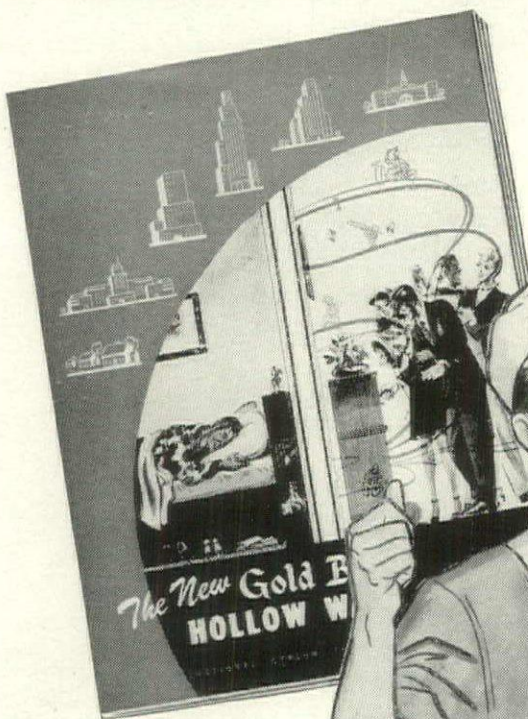
# SMOTHER ROOM-TO-ROOM NOISE



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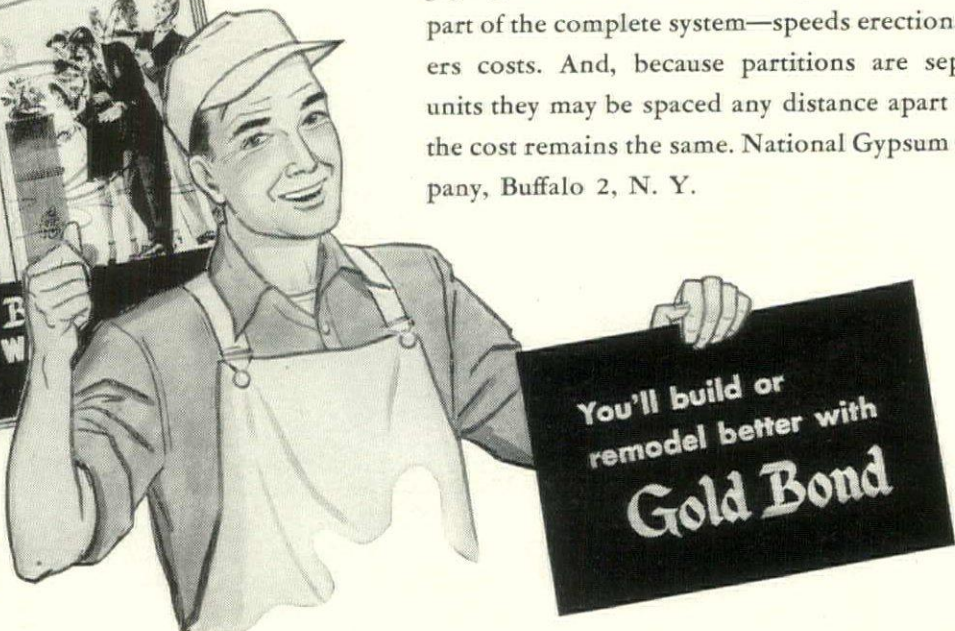
**L**OOKING for a low-cost way to build lightweight, sound-insulating partitions? Then you'll want to know about the New Gold Bond Hollow Wall System. With this method of construction a  $4\frac{3}{4}$ " wall reduces room-to-room noise as effectively as an 8" solid brick wall plastered both sides...a space saver for apartments, schools, hospitals, hotels, offices and housing projects.

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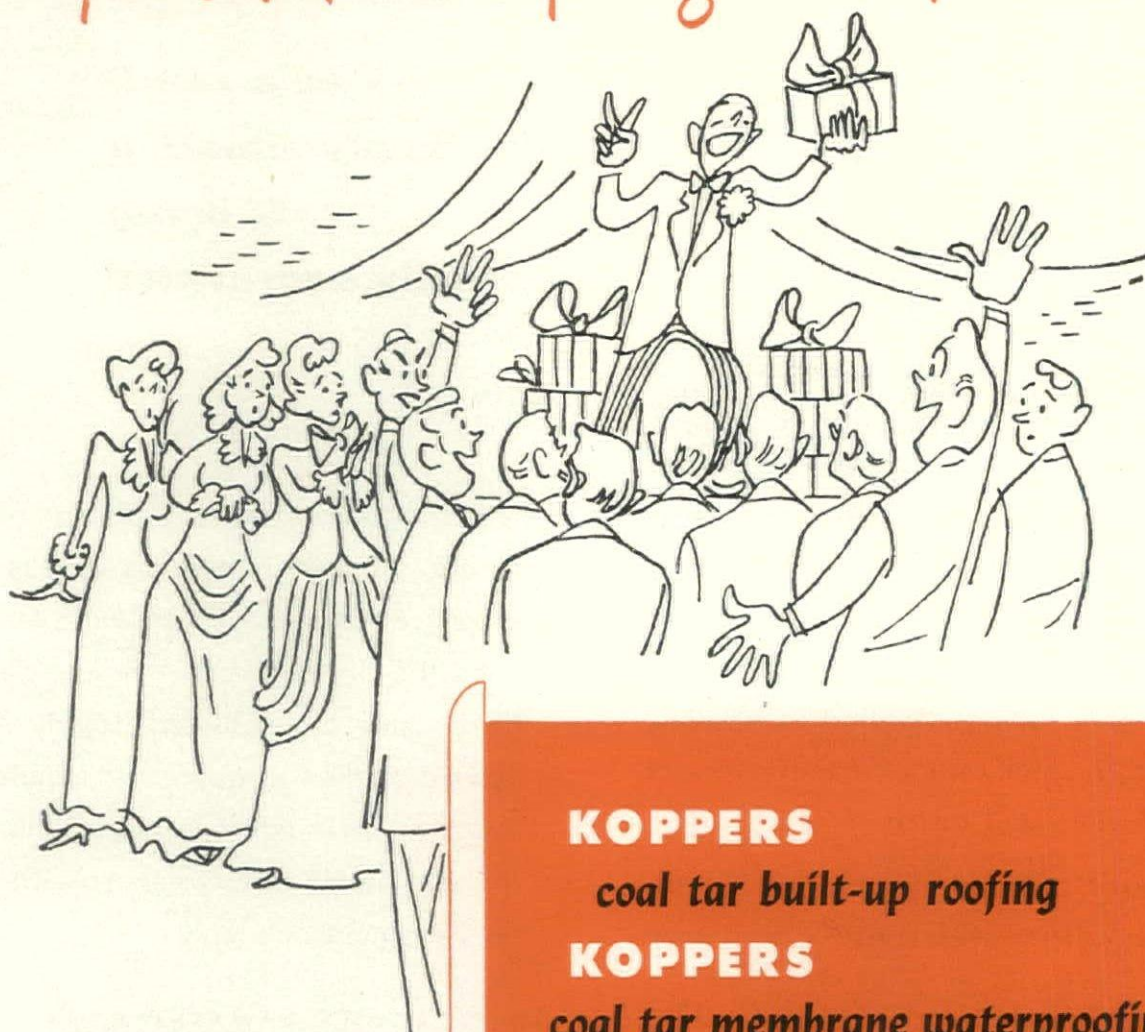


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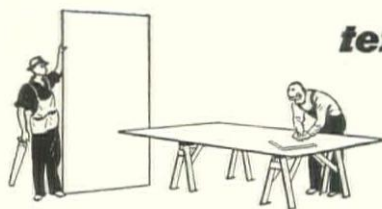
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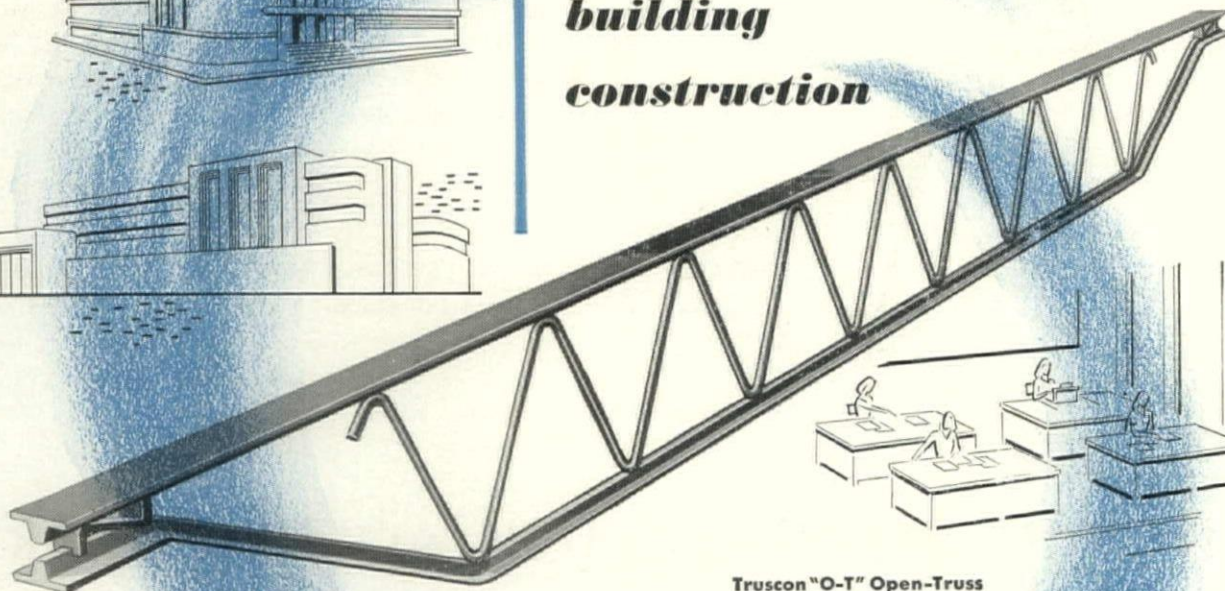
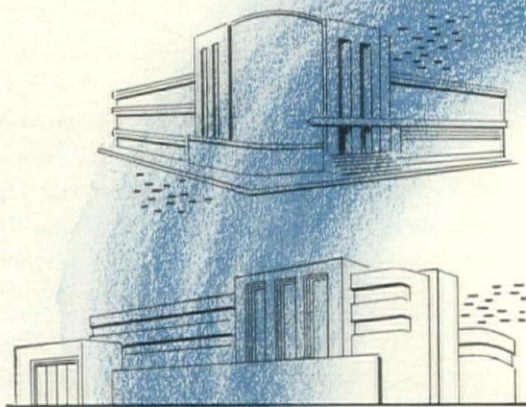
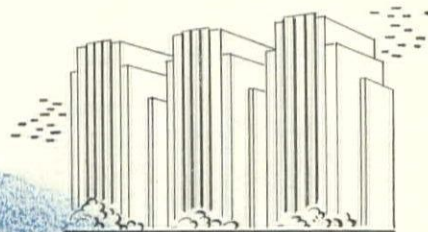
*offer*

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*for all types of*

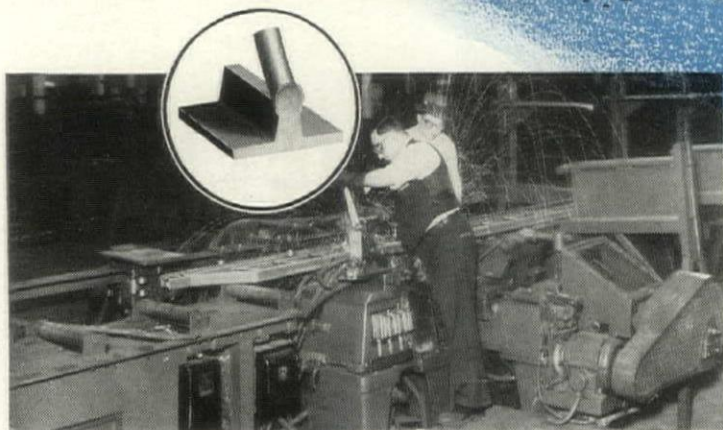
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*construction*



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This illustration shows a Truscon "O-T" Open Truss Steel Joist being welded in an automatic electric pressure welding machine, and the view of the cutaway section shows the resultant homogeneous welded joint.

## TRUSCON STEEL COMPANY

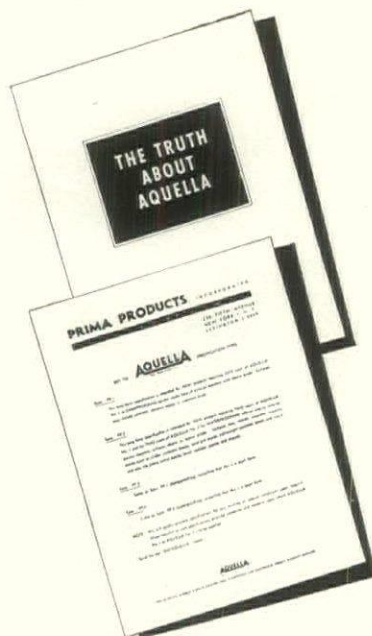
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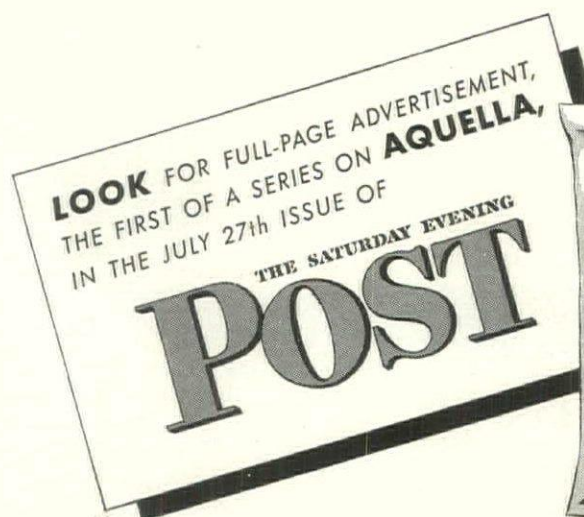
**SEND FOR "KEY TO AQUELLA SPECIFICATION TYPES"**. Here you will have a handy reference sheet that will simplify the preparation of specifications for both waterproofing and damp-proofing of all types of porous masonry surfaces. It outlines scope of work...materials...workmanship and application...preparation of surfaces...mixing and application.

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**RADIANT HEATING...**

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**Y**OU'RE designing for *lasting* appreciation. So, for the radiant heating system, be sure to include *copper tube* in your specifications. The great durability and long-range economy of Chase Copper Tube mean a satisfied client, and satisfied clients build business and prestige for you.

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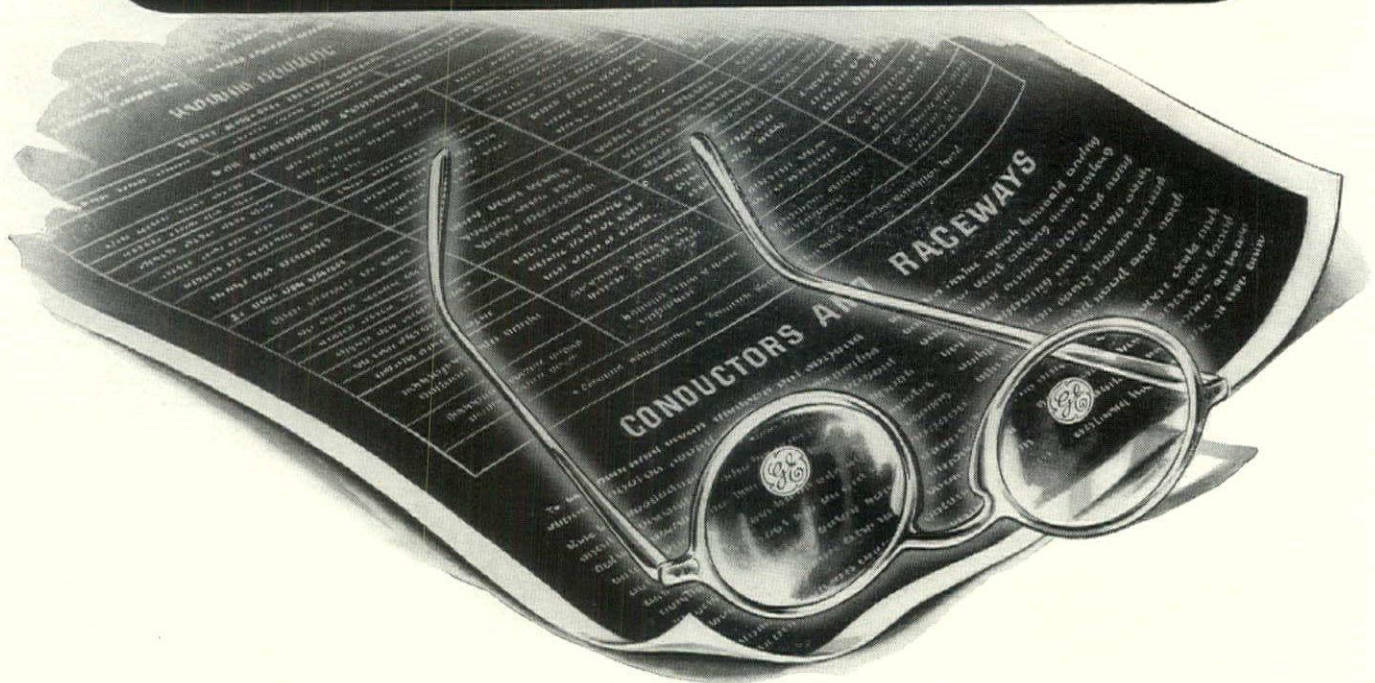
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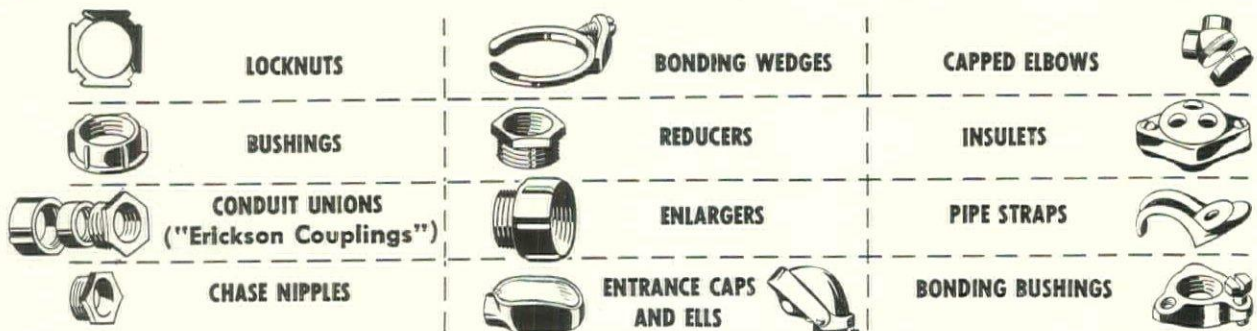


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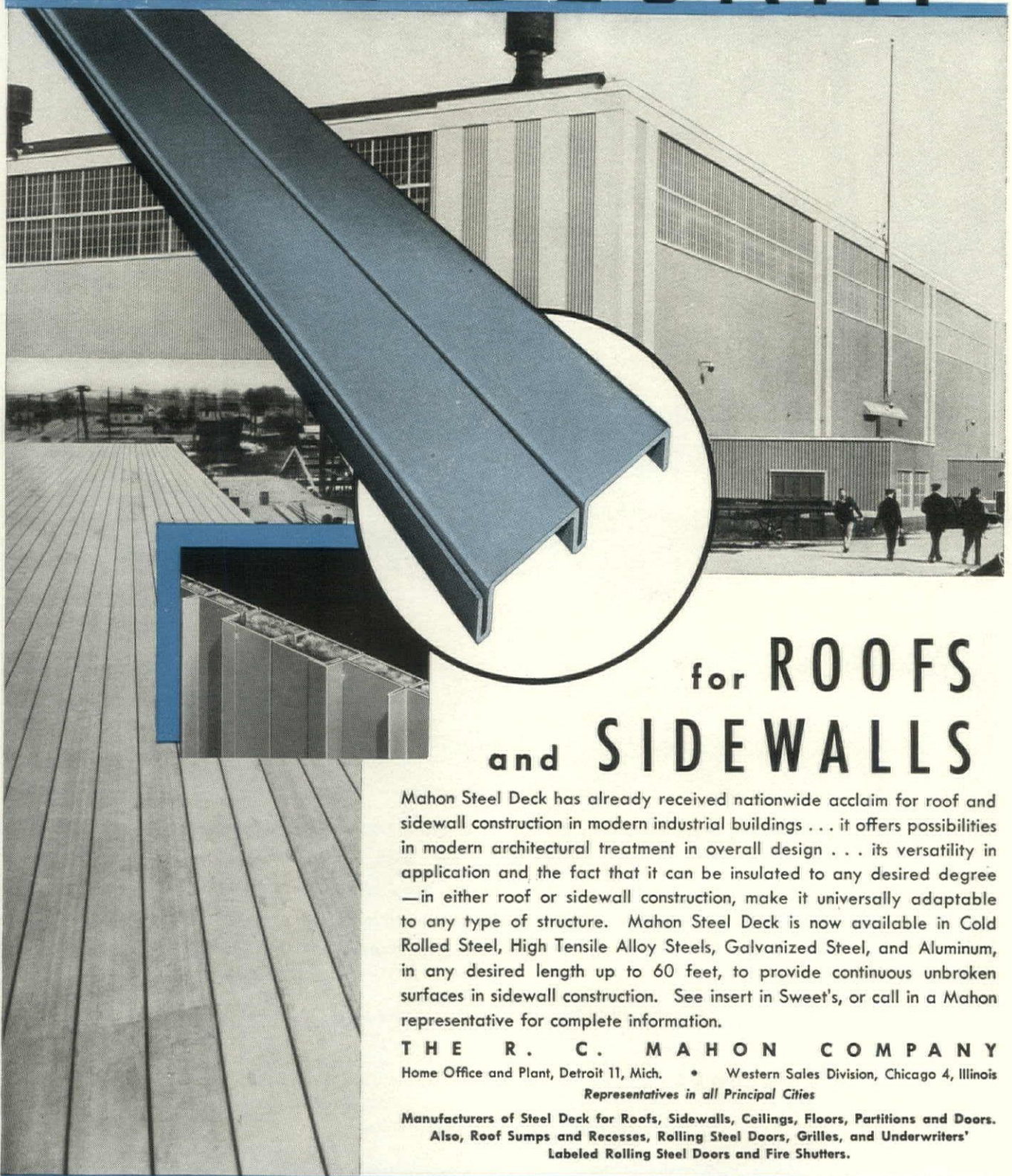


Ask your local G-E office for information, or write to Section C2-7-142, General Electric Company, Appliance and Merchandise Department, Bridgeport, Conn.

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Mahon Steel Deck has already received nationwide acclaim for roof and sidewall construction in modern industrial buildings . . . it offers possibilities in modern architectural treatment in overall design . . . its versatility in application and the fact that it can be insulated to any desired degree—in either roof or sidewall construction, make it universally adaptable to any type of structure. Mahon Steel Deck is now available in Cold Rolled Steel, High Tensile Alloy Steels, Galvanized Steel, and Aluminum, in any desired length up to 60 feet, to provide continuous unbroken surfaces in sidewall construction. See insert in Sweet's, or call in a Mahon representative for complete information.

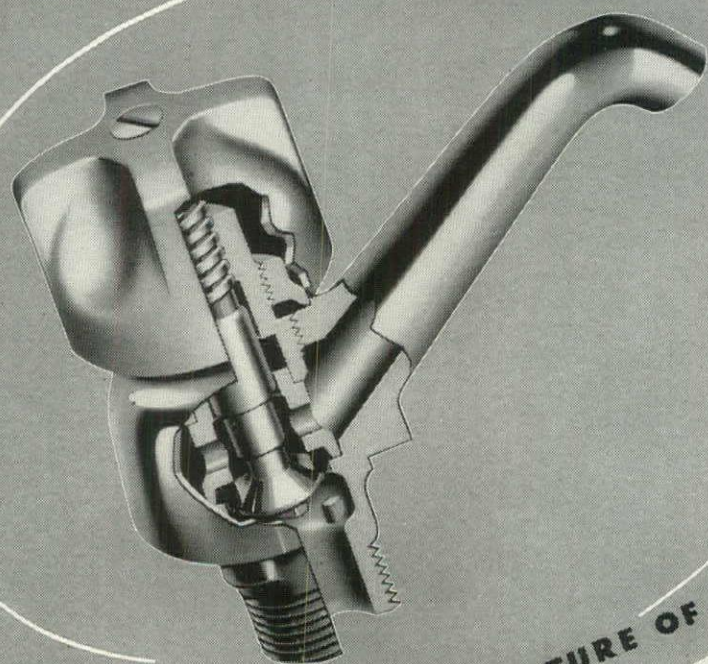
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Home Office and Plant, Detroit 11, Mich. • Western Sales Division, Chicago 4, Illinois  
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Manufacturers of Steel Deck for Roofs, Sidewalls, Ceilings, Floors, Partitions and Doors.  
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*Dial-ese* A FEATURE OF ALL CRANE FAUCETS

Dial-ese adds to the convenience of Crane quality equipment for low-cost homes.



Users appreciate the way new Crane faucets open and close at a finger's touch, thanks to *Dial-ese*. Seats are easily replaced and single unit fits all Crane faucets, simplifying maintenance.

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- Stem threads are lubricated.
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- Stem packing below threads prevents corrosion.
- Lock nut prevents turning—keeps packing joints tight.
- Entire unit replaced quickly like a cartridge.
- One unit fits all Crane trim.

# CRANE

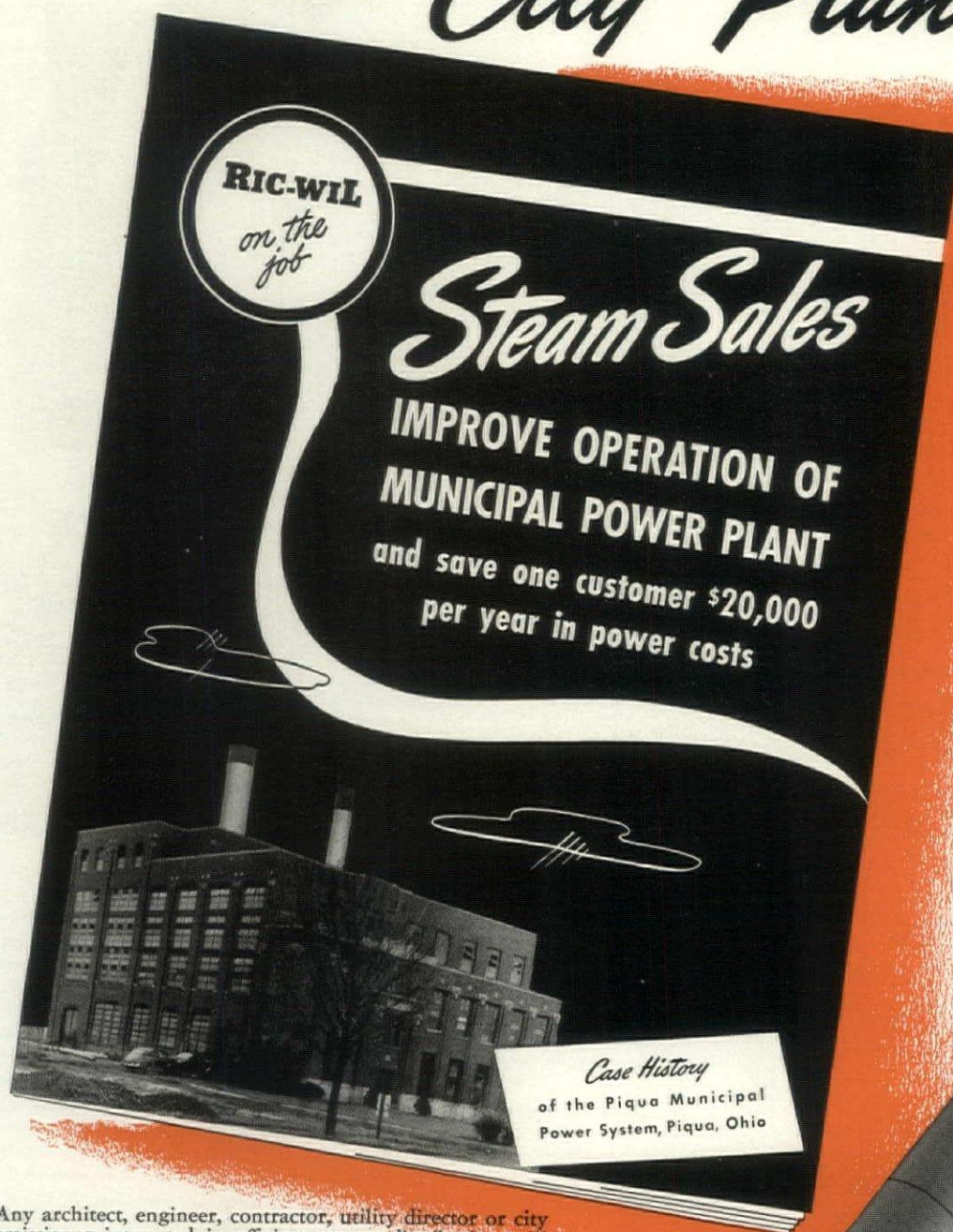
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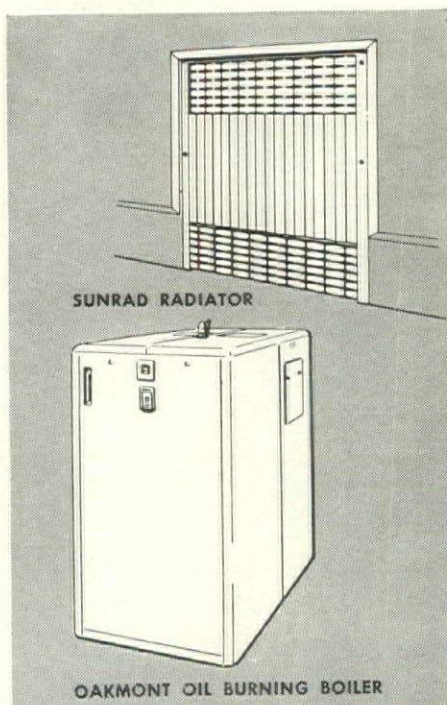
● Any architect, engineer, contractor, utility director or city commissioner interested in efficient power distribution will find this case history extremely helpful. It shows how, by adding steam sales, the Piqua Municipal Power system was able to plan a long range expansion program on a sound basis—at the same time bringing to the community all the benefits of "Central Heating"—smoke and soot abatement, reduction of fire hazards, fuel and manpower savings resulting from elimination of individual heating plants and of private coal delivery and ash removal. It also shows the important part Ric-wil played by providing a modern steam distribution system.

*Write for your copy today.*

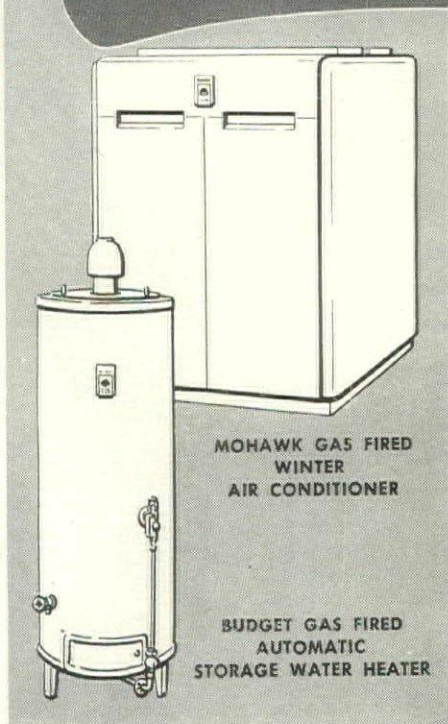
**RIC-WIL** INSULATED PIPE CONDUIT SYSTEMS  
**THE RIC-WIL COMPANY** • CLEVELAND, OHIO  
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**AMERICAN-Standard** quality products cost no more than others



**YOU** can have quality heating for the low-cost or moderate-priced homes. For when you specify American-Standard you get the finest heating equipment money can buy. The units illustrated are among those particularly fitted for today's big market of small and medium sized homes.

Whether you want Radiator Heating, Warm Air or Winter Air Conditioning there is an American-Standard product to fit your installation requirements. Over fifty years of engineering experience and constant advancement have

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We suggest that you check with your Heating and Plumbing Contractor. He will be glad to advise you on the current availability of the products you desire . . . also to explain our convenient F.H.A. Time Payment Plan for modernizing work. **American Radiator & Standard Sanitary Corporation**, P. O. Box 1226, Pittsburgh 30, Pa.

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# This Book

*tells you how to make a finer stucco for SMALL HOMES*



Create interesting and pleasing effects . . . add character and charm . . . give individuality to your small homes by the use of stucco. And to make a finer stucco, use this fingertip reference book, "A Guide to Finer Stucco".

When you design in stucco, specify Medusa Waterproofed White Cement for the finish coat. Only white cement can give that clean-cut, distinctive white appearance that makes a stucco house stand out in any crowd. And Medusa Waterproofed White Stucco stays white because dirt is washed off instead of absorbed by the stucco—eliminating stains. That's why, for

more than 38 years, architects have depended on Medusa White for lasting beauty. Benefit from their experience.

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**LEARN** about stucco's adaptability for color and texture.

**CHECK** coverage tables for easy estimating.

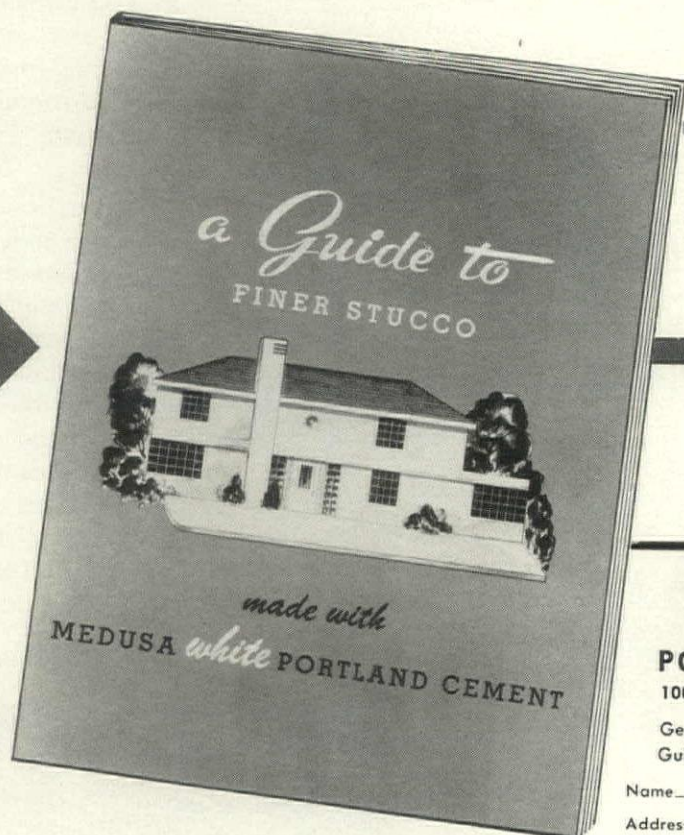
**GIVE** individuality to small stucco homes.

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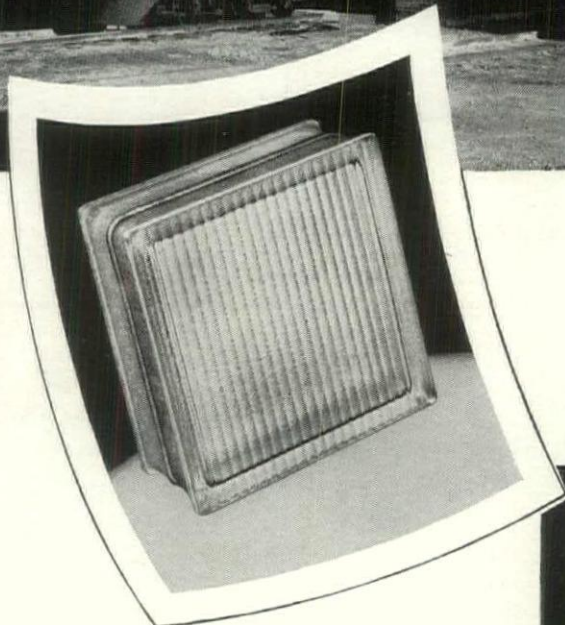
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Generous supplies of natural light—directed into remote areas — increase productive working space and reduce lighting costs.

The dead air-space inside the PC Glass Blocks gives even the larger panels sufficient insulating value to reduce heat losses, to decrease wear and tear on heating equipment, to effect savings in fuel costs.

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When your clients are ready to go ahead with new buildings or to remodel present plants, you can safely recommend PC Glass Blocks. For the results will be improved appearance, better working conditions, long, trouble-free service—and *actual money savings*. Write today for complete information on PC Glass Blocks. Pittsburgh Corning Corporation, Room 345, 632 Duquesne Way, Pittsburgh 22, Pennsylvania.

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## GLASS BLOCKS

*Distributed by*

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



Junior's hot,  
dry and mad...



INSTALL STEEL PIPING  
ADEQUATE FOR TOMORROW'S NEEDS

Because Sallie's  
running her tub first!

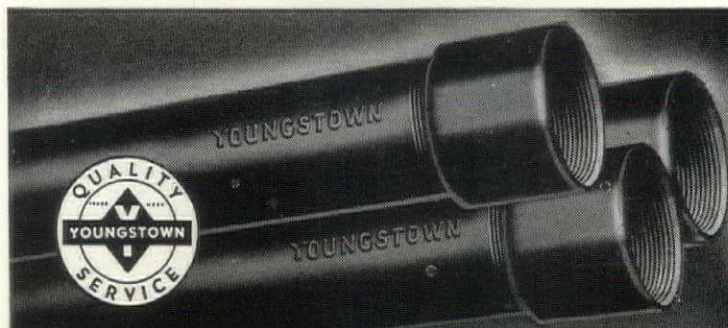


**Y**OU can't blame Junior for "burning up" when Sallie beats him to the draw and starts running her bath while he's stranded high and dry in the shower.

When Junior decides on a quick shower before dinner, let nothing block his plans—not even the tub of water that Sallie is already running. And it certainly is a block to plenty of free-running water if the pipes are so small that a stinging shower becomes a dismal drip when somebody else in the house turns on the water.

You, who are responsible for the plumbing and water systems of America's millions of new homes—who will renovate America's old homes—have a responsibility to your clients to estimate a greatly increased use of water. Remember that city water pressures are constant—it is the size of the pipe in the building which determines whether you're planning a water shortage or an adequate supply of water for growing family needs. Install steel piping of larger diameter... pipe that might have been called "oversize" a generation ago, but which is a vital necessity today.

Let your future planning provide for the modern equipment your clients will want—automatic laundries, dish-washers, garbage disposal units, lawn sprinklers, extra lavatories and showers—all of which depend on a steady flow of freely-running water for operation. Plan now, to give Junior and Sallie all the water they'll want—when they want it—where they want it—with adequately sized steel pipe.



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# Veteran Vinson was Vexed . . .

**BUT NOT FOR LONG**

***His Architect and Builder  
Turned to Ceco...Construction  
On His Home Went Ahead***

In a foxhole on Okinawa, Veteran Vinson made a promise to himself. When he got back he was going to build a home of his own. And he kept that promise. He watched the basement and foundation walls go in and then it happened. Previously specified materials suddenly were unavailable. But his architect and builder were alert. They called on Ceco. New designs were drawn and available products substituted. Construction was resumed—he obtained a better home.

**CECO ENGINEERING PLUS CONSTRUCTION KNOW-HOW . . . MAY HELP YOU WITH YOUR PROBLEM.**

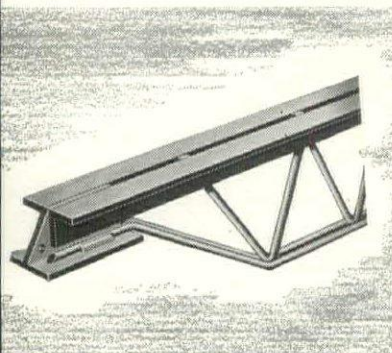
Ceco does more than design and manufacture fine construction products. Besides their wealth of technical engineering knowledge there is constantly available to you construction know-how gained by many years of experience on the job, in the field. In 23 offices strategically located from coast to coast, Ceco stands ready to help solve your problems without delay and with technical skill. In these days of shortages, Ceco often can show you how to adapt available products so the job can go ahead. In the matter of hard-to-get materials, Ceco is doing all it can to rush production for you.

**CECO STEEL PRODUCTS CORPORATION**  
GENERAL OFFICES

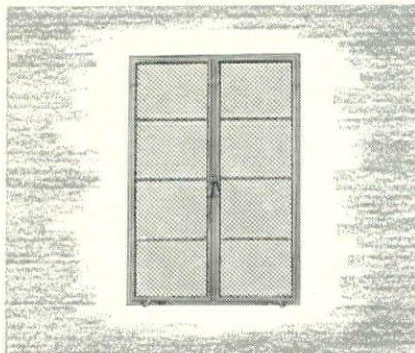
5701 W. 26th STREET, CHICAGO 50, ILLINOIS

Offices, warehouses and fabricating plants in principal cities

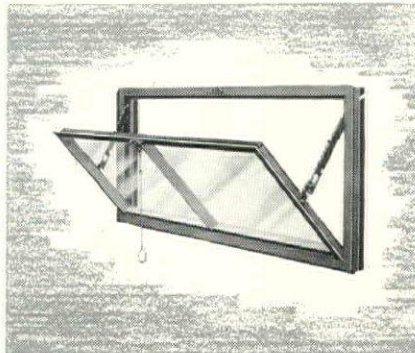
**HERE ARE THE CECO PRODUCTS THAT HELPED  
SOLVE VETERAN VINSON'S PROBLEMS:**



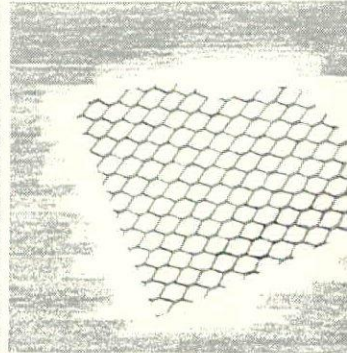
Open Web Steel joists  
for floors



Metal casements and screens  
for window openings



Metal basement windows  
and screens



Metal lath and accessories  
for ceilings and partitions

*In construction products* **CECO ENGINEERING** *makes the big difference*



*It's in the handle!*

## THE TOOL YOU WANT

*and a Plastics Story  
you should know*

Slip the proper bit into the swivel chuck and you are ready for the job at hand! These Hollowell kits are time and space savers for industrial workers, repairmen and home mechanics.

To match the ruggedness of the metal section, the plastic handles are injection molded of LUMARITH ethyl cellulose. This battle-tested Celanese synthetic is outstandingly tough even at temperature extremes...is color clear through...is comfortable to the touch in cold weather...is electrically shockproof.

These kits show how Celanese plastics can do a job for product improvement and exert sales influence with the consumer. Handles are stamped, "MADE OF CELANESE PLASTIC"—a phrase that means something to the buying public. Celanese Plastics Corporation, a division of Celanese Corporation of America, 180 Madison Ave., New York 16, N.Y.

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

# LUMARITH<sup>\*</sup>

*A Celanese<sup>\*</sup> Plastic*



The Hollowell line of Speed Tool Kits manufactured by Standard Pressed Steel Company of Jenkintown, Pa., includes the Auto Kit, the Socket Wrench Kit, the Socket Screw Kit, Home Kit and others. They are obtainable at suppliers throughout the country. Lumarith handles are molded by Arnold Brillhart, Ltd., Great Neck, Long Island.





# PEOPLE

who count  
with those  
who sell in  
the Building  
Field

HUGH STUBBINS JR., Architect,  
Cambridge, Mass., winner of  
first prize in the Georgia House  
Competition sponsored by Rich's,  
Inc., Atlanta, and described in  
the April issue of PROGRESSIVE  
ARCHITECTURE.

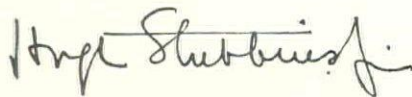


"OF primary interest to me as an architect are the overall analysis and solution of building problems. Basic solutions must be translated into physical form — an activity that requires a fundamental acquaintance with many details and many techniques.

"Good architecture, in my opinion, is based on a thorough understanding of the basic problems involved and on a free and inventive approach toward finding the best solution. As has always been true, fundamental new forms in architecture are an outgrowth of new construction ideas and methods.

"Personally, I am more interested in architecture than in any particular segment of it, and I wish to avoid becoming a specialist in a single building type. Therefore, it is essential that I have direct access to the latest information on new materials, equipment and structural techniques applicable to all types of buildings.

"I find PROGRESSIVE ARCHITECTURE an invaluable aid in keeping abreast of important developments in the field of building techniques and their relation to today's design problems."



**PROGRESSIVE ARCHITECTURE**  
**Pencil Points**

A REINHOLD PUBLICATION • 330 WEST 42nd STREET, NEW YORK 18, N. Y.

This advertisement is  
one of a current series  
in business publications  
read by more than a  
quarter-million sales and  
manufacturing executives.



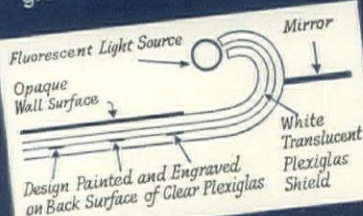
For  
brand new  
lighting  
ideas

—transparent

**PLEXIGLAS**

Here's how Plexiglas "pipes"  
light in Radiant Walls

Light, visible at sides of mirror, is also "piped" through clear PLEXIGLAS shield, escaping only at design-engraved surfaces.



Reflection Room of the PLEXIGLAS "Dream Suite" features radiant walls made entirely of the plastic that "pipes" light.

**Radiant walls point a trend in illumination . . .**

A new technique in lighting is a feature of the PLEXIGLAS "Dream Suite," a three-room "apartment-of-tomorrow" currently touring leading department stores and architectural centers. In warm-colored walls, artistic patterns "etched in light" glow softly with realistic three-dimensional effect.

These radiant walls of edge-lighted PLEXIGLAS have a richness and visual appeal never before approached. With the overall, glare-free illumination they provide, the "low-brightness contrast" so long sought by lighting engineers finally is achieved.

Would you like to know more about the possibilities of the plastic that "pipes" light? Just write our nearest office: Philadelphia, Los Angeles, Detroit, Chicago, New York. Canadian Distributor: Hobbs Glass Ltd., 70 York Street, London, Ontario.

**Only Rohm & Haas makes PLEXIGLAS**  
PLEXIGLAS is the trade-mark, Reg. U. S. Pat. Off

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*News!*

**L·O·F ANNOUNCES**

**STANDARD**

*Thermopane*

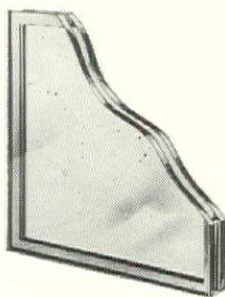
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**SIZES**

**for Picture Windows**

The growth in popularity of the Picture Window has been phenomenal. *Thermopane*, L·O·F's transparent, multiple-pane insulating unit, has won wide and enthusiastic acceptance as the ideal glass for large window openings.

★ ★ ★



*Thermopane*—the L·O·F windowpane that insulates. Dehydrated air is hermetically sealed between its panes with the metal-to-glass Bondermetic Seal. *Thermopane* helps cut heating bills, adds comfort and reduces the possibility of condensation on the glass.

The following sizes have been established as standard for *Thermopane* manufactured with two lights of  $\frac{1}{4}$ " Polished Plate Glass separated by  $\frac{1}{2}$ " air space:

48 $\frac{1}{8}$ " x 35 $\frac{1}{2}$ "	50" x 96 $\frac{1}{2}$ "
48 $\frac{1}{8}$ " x 55 $\frac{1}{4}$ "	58" x 64 $\frac{1}{2}$ "
48 $\frac{1}{8}$ " x 75"	58" x 72 $\frac{1}{2}$ "
50" x 48 $\frac{1}{2}$ "	58" x 80 $\frac{1}{2}$ "
50" x 56 $\frac{1}{2}$ "	58" x 96 $\frac{1}{2}$ "
50" x 64 $\frac{1}{2}$ "	58" x 116 $\frac{1}{2}$ "
50" x 72 $\frac{1}{2}$ "	60 $\frac{3}{8}$ " x 35 $\frac{1}{2}$ "
50" x 80 $\frac{1}{2}$ "	60 $\frac{3}{8}$ " x 55 $\frac{1}{4}$ "
60 $\frac{3}{8}$ " x 75"	

By adopting the above sizes, which have been established by manufacturers who make sash units for *Thermopane* and which are based on American Standards Association 4" modular construction, design, supply and installation will be simplified. Libbey-Owens-Ford Glass Co., 4376 Nicholas Bldg., Toledo 3, O.



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Pipe Obtainable at Moderate Price . . .”**




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THE ABOVE RECOMMENDATION was made by The American Brass Company in 1927...after exhaustive experiments which required 10 years to complete.

The performance of Anaconda 85 Red Brass Pipe in countless industrial, commercial, institutional and residential applications through the ensuing 19 years has fully justified this recommendation.

Anaconda 85 Red Brass Pipe can be specified for hot and cold water service in any type of building...with confidence that no more durable material is available at comparable cost.

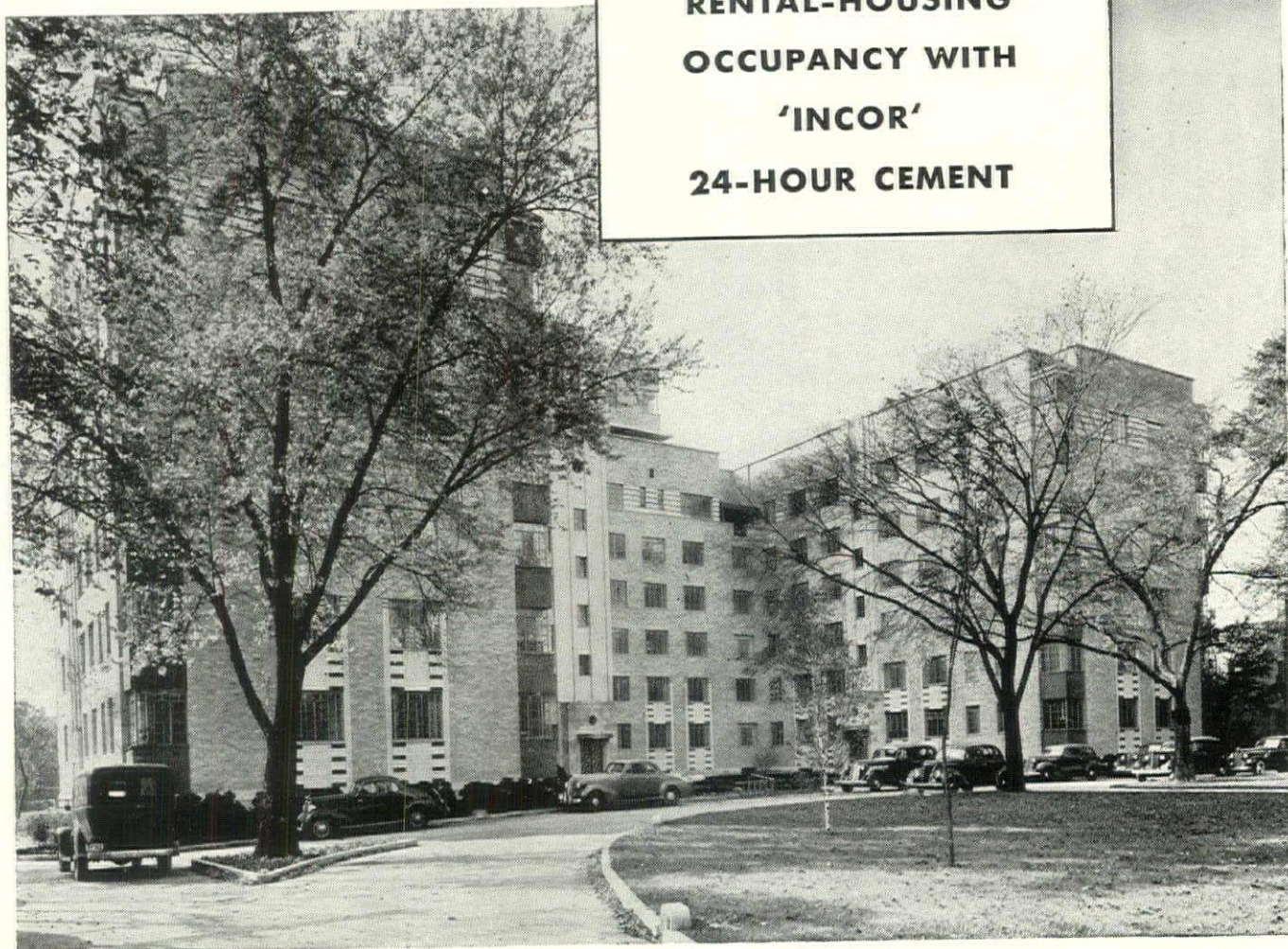
4070



**Anaconda**  
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OCCUPANCY WITH  
'INCOR'  
24-HOUR CEMENT**



Rental-housing is needed in a hurry. Speed construction with 'Incor' 24-Hour Cement. 'Incor' concrete is service strong, ready to strip, in a fraction of the usual time . . . Result, faster erection speed at substantially reduced cost. On Royal York Apartments, Columbus, Ohio, 'Incor' saved one complete form-set and two sets of shoring. Erection time was advanced by 1½ months, worth \$10,500 in rentals to the owner. And 'Incor' actually saved the contractor \$900 net, when this job was built, in 1937. At TODAY'S peak lumber and labor costs, this 'Incor' saving would amount to at least \$2070! Specify 'Incor',\* America's FIRST high early strength Portland Cement . . . save 40-60% on form material and make-up, cut time and overhead, get earlier completion at less cost. Write for "Cutting Concrete Costs" . . . address Lone Star Cement Corporation, 342 Madison Avenue, New York City 17, N. Y.

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## THE SMALL HOUSE DREAM WORLD

Architects can design better small houses than anybody—but with few exceptions they claim always to lose money on such jobs. Why, then, do they continue to kid themselves and the public by undertaking what often costs the client more than he thinks it is worth and costs the architect more than he is paid?

Several reasons occur. First, there is the undeniable fascination of the small house problem, which like a tantalizing puzzle promises a thrill of satisfaction when one finds the right solution for a tight set of conditions. Second, there is the altruistic impulse which makes the professional man feel that something must be done to improve the standards of small house design and that he is the man to do it. Third, there is the ever-present possibility of doing such a successful job that its merit will lead to larger commissions.

These are all understandable lures, yet under the conditions of this moment they are somewhat unrealistic and not very effective in leading to the provision of the hundreds of thousands of good small houses that are so sorely needed throughout the country. Architects in general are too busy with more substantial work to be expected to put much of their time into unprofitable activity.

There are various well-known ways—some good, some bad—whereby some architects have attempted to get better small homes built for America's ordinary people. They have worked directly for the developing builder to whom they have sold site plans and designs of several basic houses out of which to compose a group. They have worked for and with the prefabricator to pass on to the public the savings of mass production. They have provided stock plans through plan services sponsored by professional groups, magazines, material dealers, etc. A few have become small house specialists who know the problem so thoroughly that they can work economically and efficiently within a limited time budget and thus make a decent and honest living on small houses alone. But all of these methods are comparatively marginal in their rewards and often questionable in the quality of their results. There is, we think, a better way.

Most logically the architect could go all the way into the business of providing completed small houses for sale. Here he could show his superior skill as a designer, his common sense as a practical planner, his ability as an organizer, and his integrity as a professionally trained man. If this practice were adopted by a substantial number of men throughout the country, not only would the small home public get better value for its money than could be had in any other way, but there would be assurance of a fair profit for the men who furnish the creative thinking. Those who would frown on such procedure as unorthodox are living in a dream world. The urgent needs of these times must be met somehow, and, if there is truth in the oft-heard contention that the architect should be the master-builder, here is his opportunity to become one in a very real sense.

*Kenneth Reid*





AMERICAN DISCOUNT CO

1175

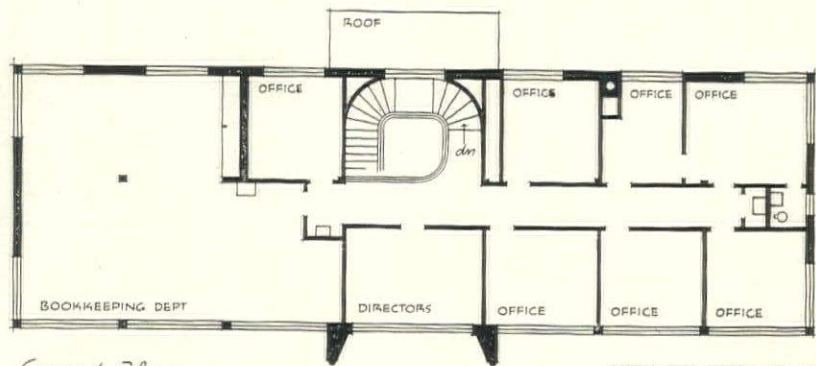


# AMERICAN DISCOUNT COMPANY, ATLANTA, GA.

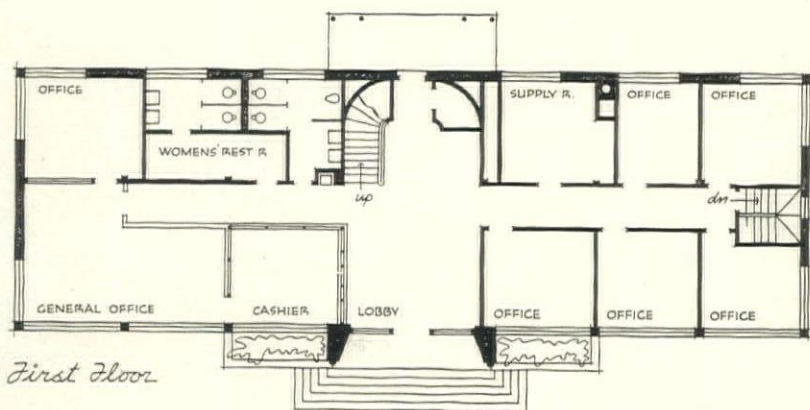
BURGE & STEVENS, Architects and Engineers

The independent office building often reaches for impressiveness through pompous architecture, with twentieth-century working needs fitting in as best they may. Here, such a design assignment has been handled on the basis of simplicity, ease of access, good light conditions for the conduct of business, etc.

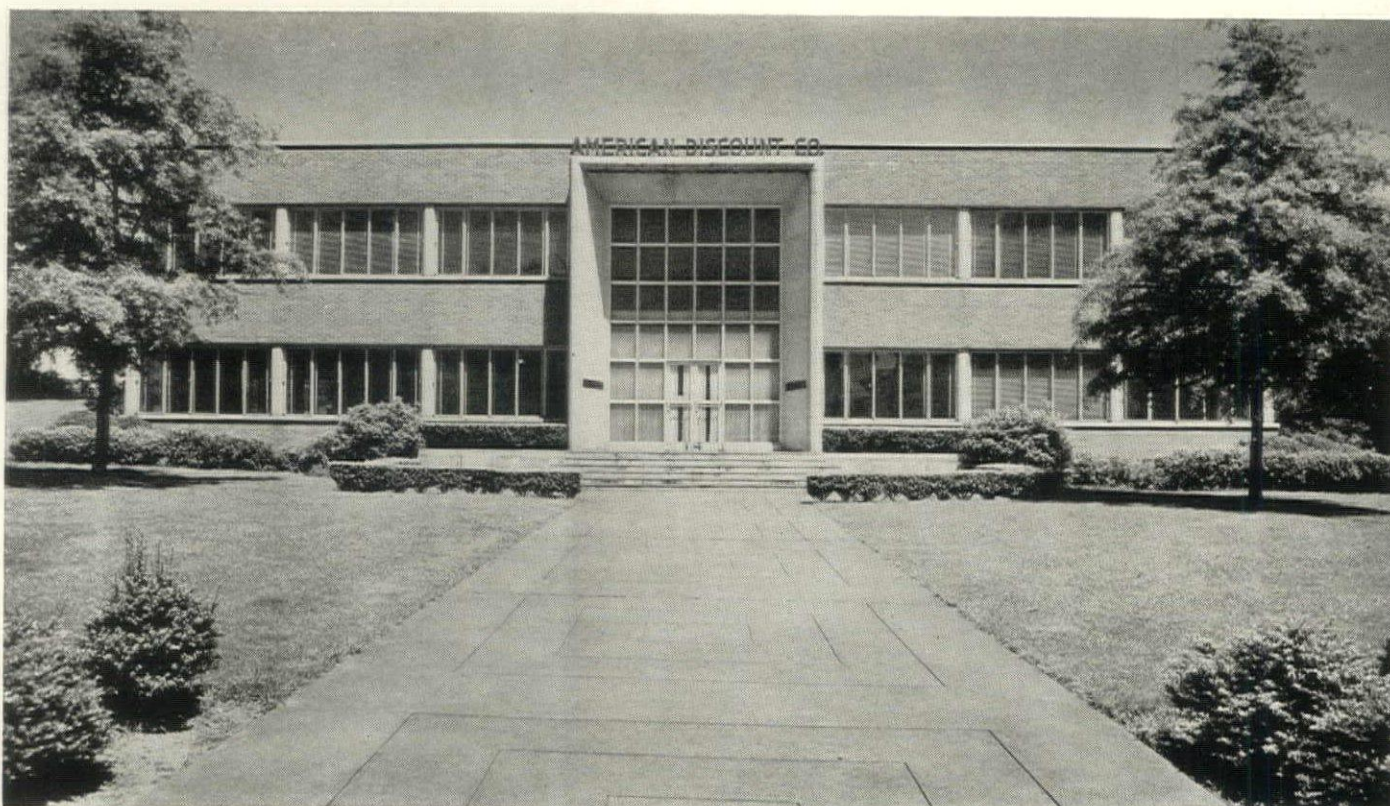
Designed for an automobile-loan company, this building is used by appraisers, clerical workers, and officers of the company. The location is away from the crowded downtown area. Central entrances at both front and rear assist the direct transaction of business by customers whether they arrive on foot or by car. A spacious parking area at the rear is provided for both customers and employees. Both the general and private offices are simply disposed around a central corridor. The continuous windows on the front allow partition rearrangement without basic structural alteration.



*Second Floor*



*First Floor*



Photos by Rodney McCay Morgan



AMERICAN DISCOUNT CO.

ATLANTA, GEORGIA

BURGE & STEVENS

Architects and Engineers

There is a striking contrast between the design treatment of the front and rear of the building. Toward the street, at the end of a landscaped approach, the full-height, on-center entrance is flanked by continuous window bands at both floor levels. At the back, facing the parking area, the treatment is almost residential in character, suggesting in design the "family entrance" as opposed to the more formal, public entrance.

Standard practice is followed in the construction of the building. Structural steel is used for columns and beams; the joists are wood. Exterior surfaces are of brick or limestone; inside, floors are linoleum surfaced, walls are either plywood or plaster, and the ceilings are finished with acoustical material. The building is year-round air conditioned.



STREET FRONT.



LOOKING ACROSS THE PARKING AREA.



The well lighted main lobby with information and public-business desk. Linoleum floor; plaster walls; sound-conditioned ceiling.





Photos by P. A. Dearborn



## SHOP FRONT, PORTLAND, ORE.

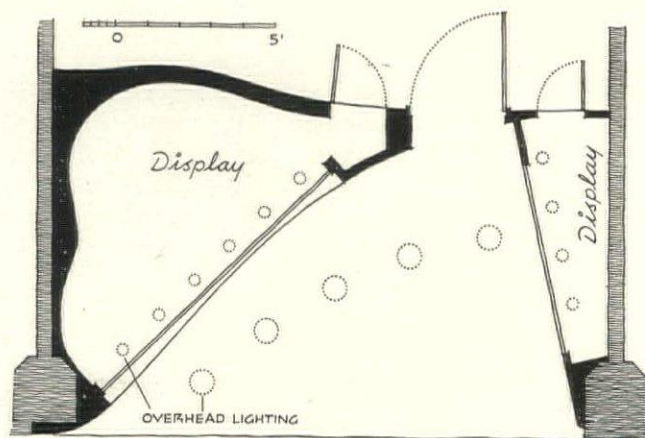
PIETRO BELLUSCHI, Architect

**A shop-front remodeling job in which wood is a major material.**

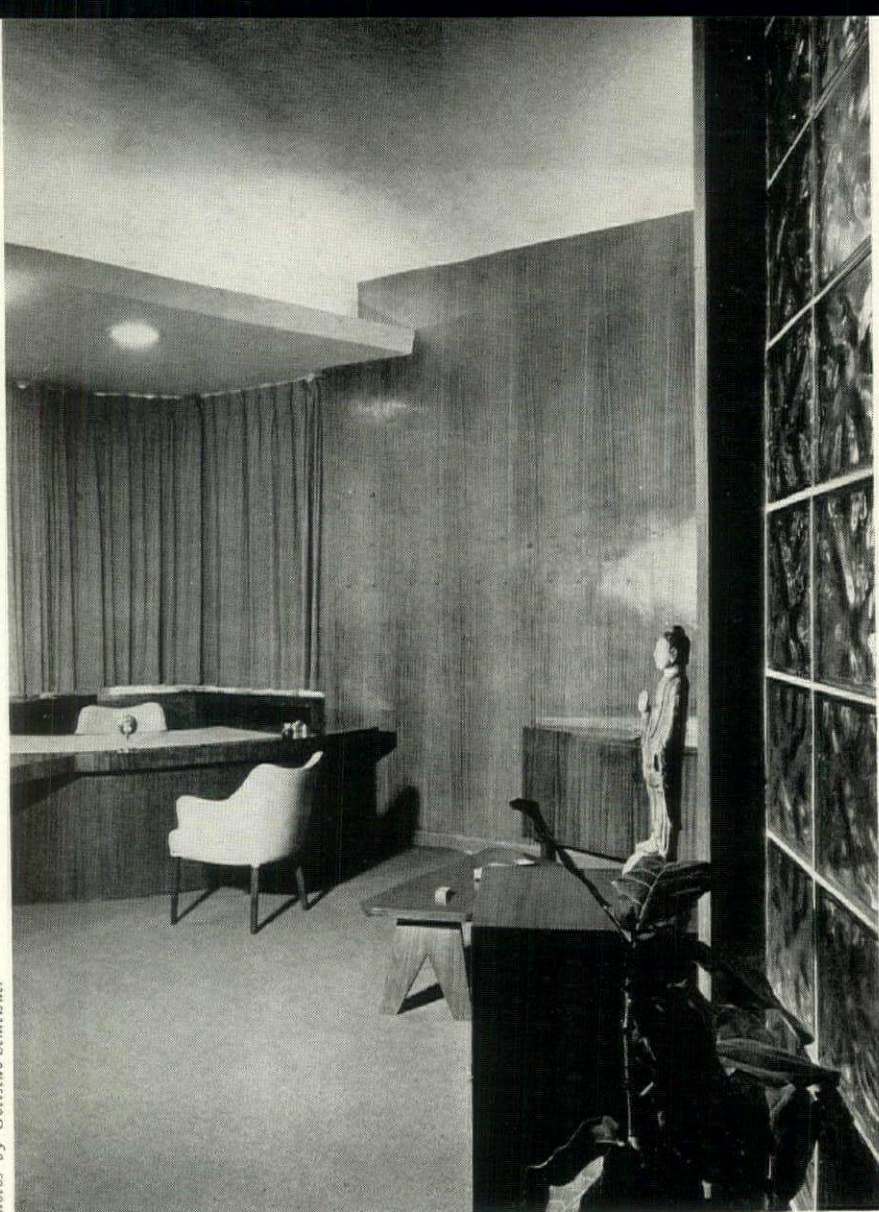
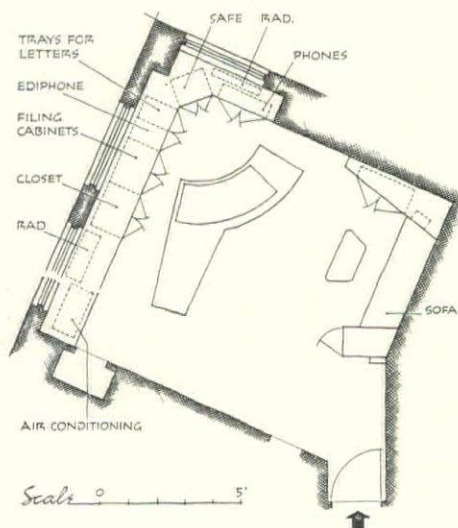
The structural columns at either side of this standard shop space in a Portland office building are 14 feet, 6 inches, on center. Within this area, the architect has developed a three-dimensional scheme that makes window-shopping an almost automatic act, brings the prospective customer actually within the store rental area, and dramatizes the company name.

The simplest of materials and devices were used. Narrow cedar matched boards applied on nailing strips surface the irregular-shape display wall at left. The base is oak. The company name is worked out in relief with wood lettering. A special city permit was required to allow this use of wood, which, the architect reports, "has stood up remarkably well under sidewalk abuse."

Concealed wall outlets above the window heads illuminate the display windows, and the vestibule itself is night lighted by recessed down lights installed flush with the vestibule ceiling. This ceiling and the right-hand wall are painted plaster. Total cost: \$1,350.







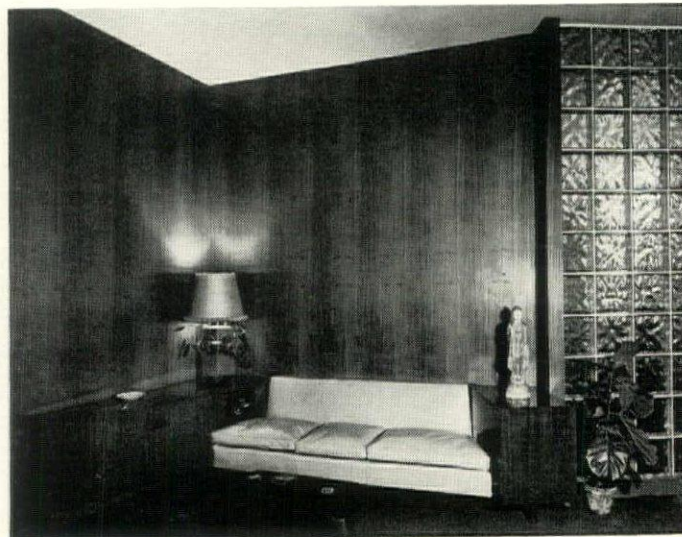
Photos by Gottsche-Schlesinger

Glass-block partition borrows light for a secretary's office.

## CORPORATION EXECUTIVE'S OFFICE, NEW YORK CITY

A background for business, with an extraordinarily versatile piece of furniture.

In addition to the usual needs of a large private office for the president of a large company, the client wished his office to serve as a meeting room for various business, charitable, and civic groups of which he is a member. A prime requisite, therefore, was that the room could be quickly transformed into a board room or a room for informal entertainment. The remarkable desk and surrounding built-in units shown in the photographs answered this need. A sliding top conceals two correspondence trays at a moment's notice; cabinets for files may be closed out of sight; by swinging the chair around, the desk extension becomes a board-meeting table with the desk position at the head of the table.



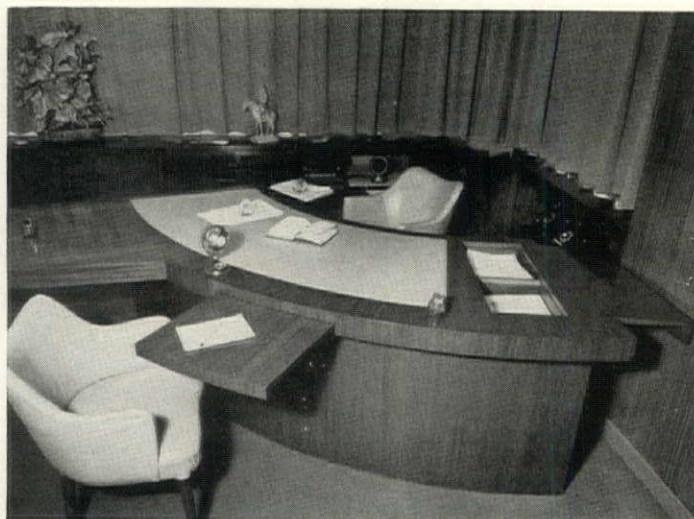
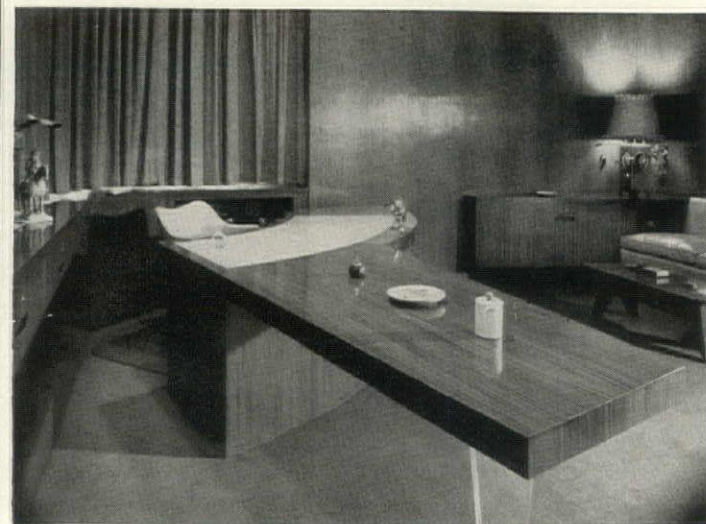
A sofa, small bar, and radio occupy one corner.





To shield the view, yet allow ventilation, top and bottom glass hinge louvers were installed over existing windows.

MORRIS LAPIDUS, Architect



Furniture and wall veneer: natural-finish Philippine mahogany; draperies, carpet, and furred down ceiling: apple green.



## GALLEN KAMP'S SHOE STORE, LOS ANGELES, CALIF.



Photos by Baskerville

This store is an interesting solution to the familiar problem of organizing effective display and sales units and company offices within a rather awkward existing structure. The gracious Southern California climate has prompted the development of a novel open-front scheme that is quite literally "open."

The existing, leased five-story building was 137 feet deep and only 24 feet wide. Building regulations required the maintenance of the applied fire escape on the front. In basic organization, the first floor, balcony, second and third floors are given over to merchandising; executive offices are located on the fourth floor, and the top floor accommodates general business offices.

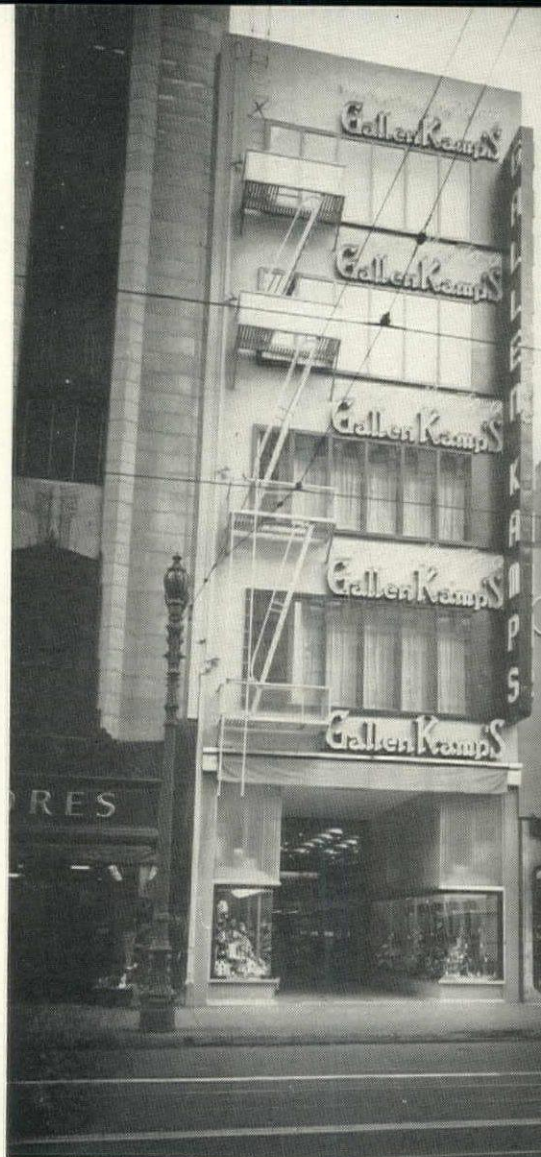
The main sales floor and balcony are given strong





AND KRUMMECK, Designers

emphasis in the design, the scheme for the building being made up of a combination of the raised device of the show-window and the open-front, entire-store-display principle. A particularly notable element (which depends largely on exceptional climate) is the treatment of the entrance unit itself. The doors, transoms and entrance frames are arranged as a suspended panel which may be raised by a mechanical device wholly out of sight, up into the second floor. In actual use, this unit is always so raised except in bad weather and at night. Thus, the doors and the shop interior are wholly open to the passer-by, inserts in the shape of entrance steps are made a part of the pattern of the floor.

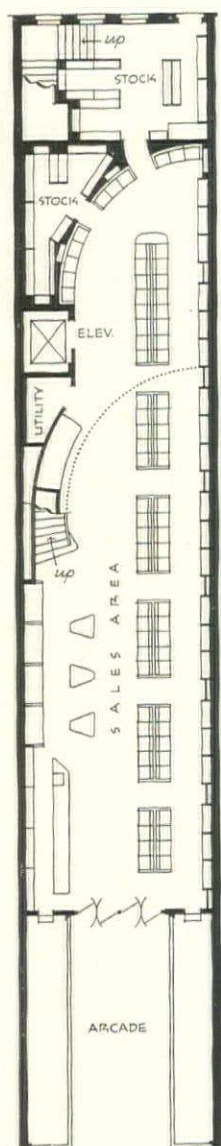




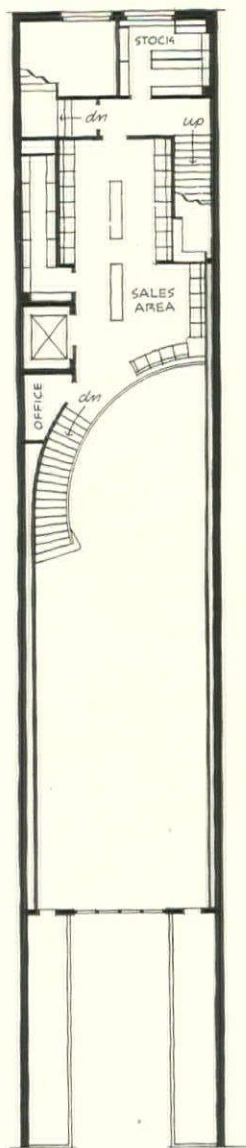


Pairs of show windows balance the entrance doors, which are here raised out of sight, permitting an unhindered view of the shop interior.

In addition to the plans shown, the second and third floors are merchandising floors, and the general business offices are located on the fifth floor. The fourth-floor executive offices are rather elaborate, including two private bathrooms with showers, a small kitchen, and a living-room type of study-office for the woman owner of the firm.



First Floor



Mezzanine



Fourth



## GALLEN KAMP'S SHOE STORE, LOS ANGELES

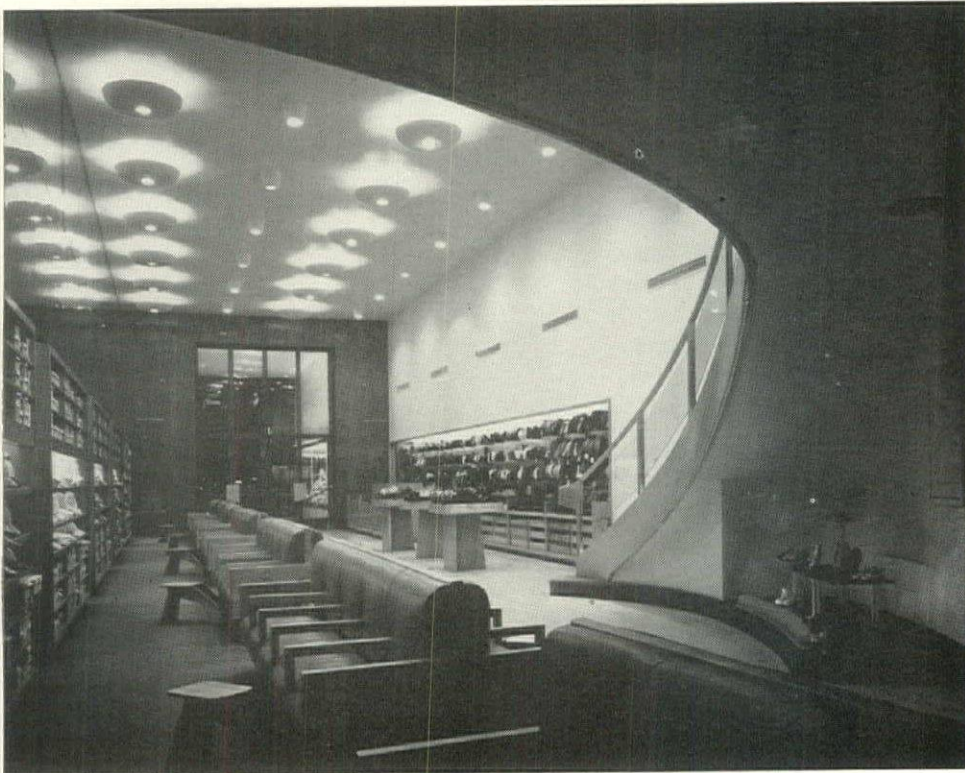
GRUEN AND KRUMMECK, Designers

The area above the show windows is closed off with back-lighted translucent corrugated glass; the window frames are finished with maroon structural glass. To double the apparent size of the narrow sales floor, the whole right-hand wall is mirror surfaced.

The exterior wall of the building is yellow; window frames and projecting sign are maroon. Walls and ceiling of the main sales floor are maroon; woodwork is natural primavera, and hunter's pink is the color of the carpeting as well as the walls and ceiling of the balcony area.



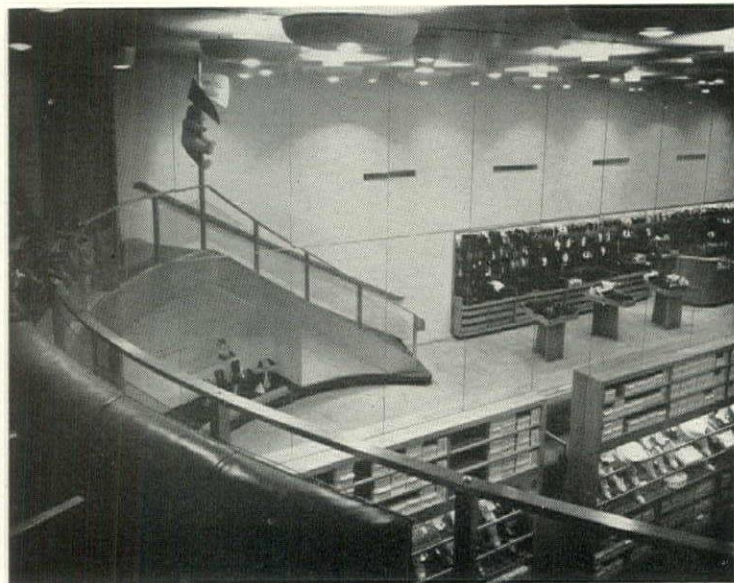




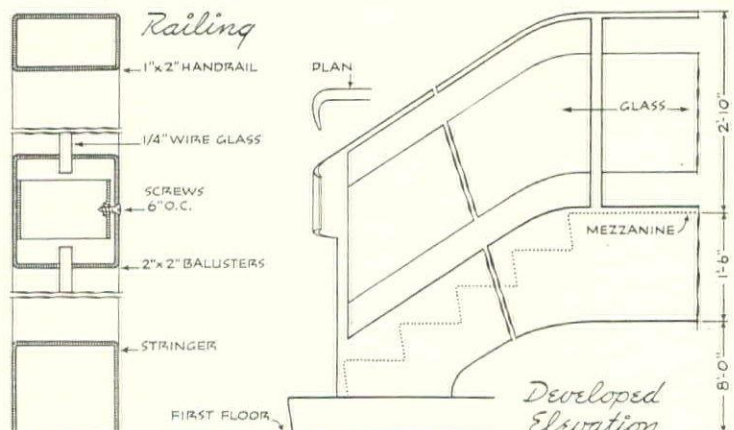
VIEW FROM UNDER THE BALCONY toward the entrance.

**GALLEN KAMP'S SHOE STORE  
LOS ANGELES, CALIF.**

GRUEN AND KRUMMECK  
Designers



Looking down on the main  
sales floor from the balcony.



DETAIL of the balustrade  
and balcony railing.



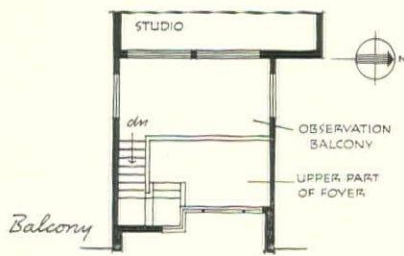
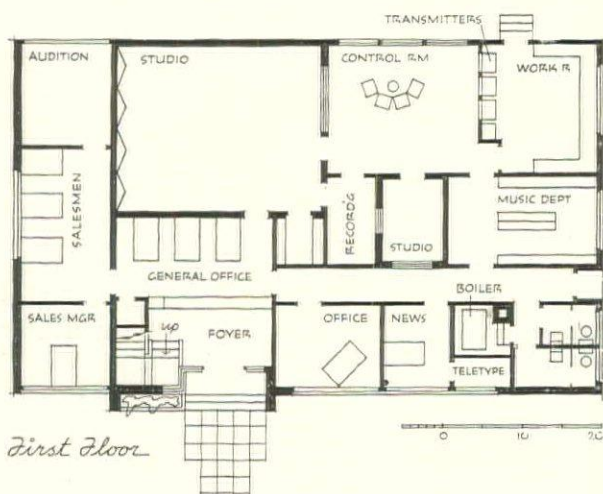
Photos by P. A. Dearborn

## RADIO STATION KRSC, SEATTLE, WASH.

DONALD DWIGHT WILLIAMS, Architect

The independent radio station in a building of its own is one of the newest of building types. Efforts to arrive at suitable design expressions have shown the inevitable awkwardness of growing pains—from makeshift locations in any available old buildings, to pompous and sentimental “temples of entertainment,” to occasional blossomings out in the latest trappings of “modern style.” It is refreshing to present here a simply conceived unit which makes no pretense of being anything it is not and which achieves a definite character of its own.





#### THE PLAN

A well lighted and ventilated control room, surrounded by work shop, studios, and storage for thousands of recordings and transcriptions. The upper level takes care of the visitor problem.



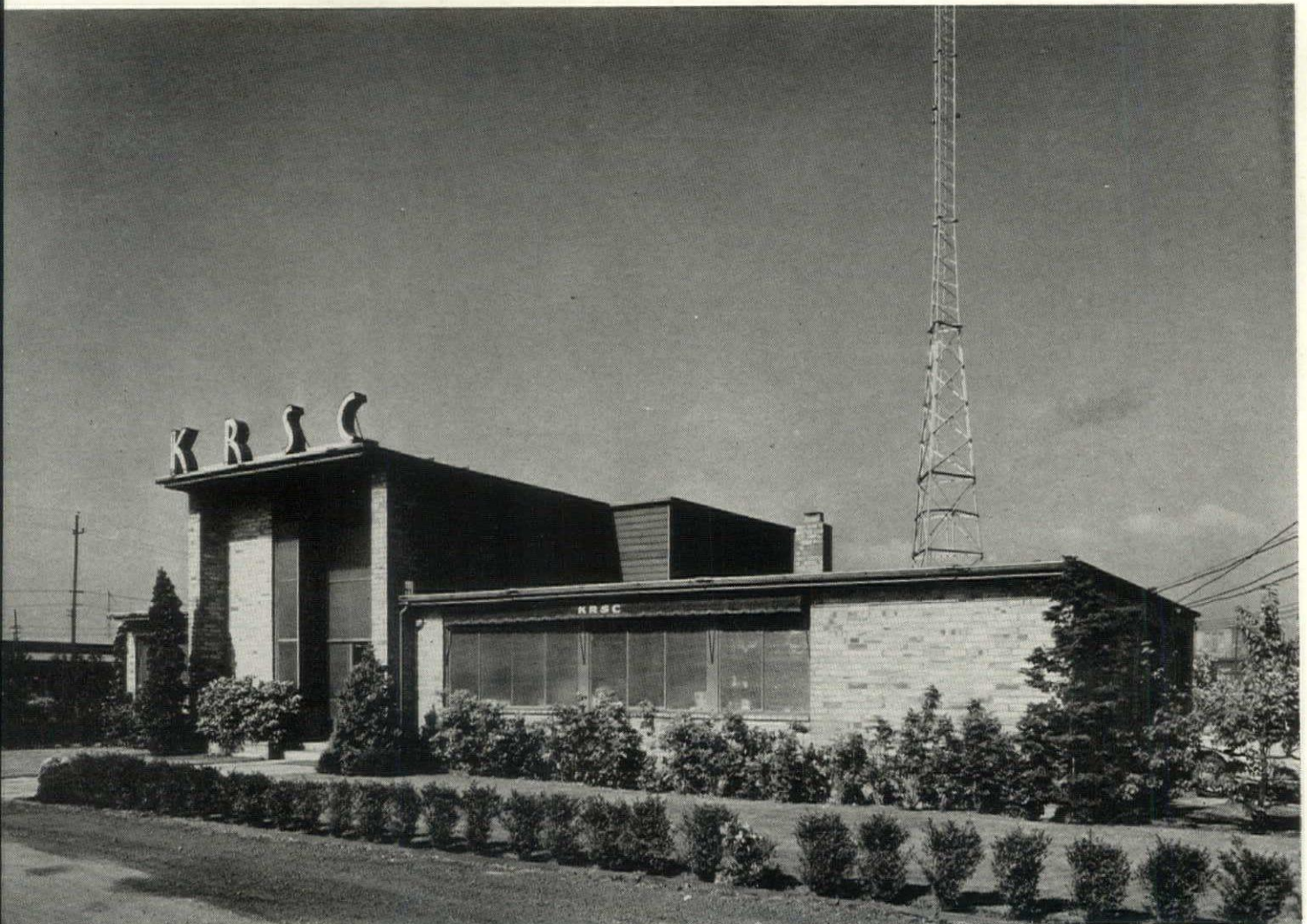
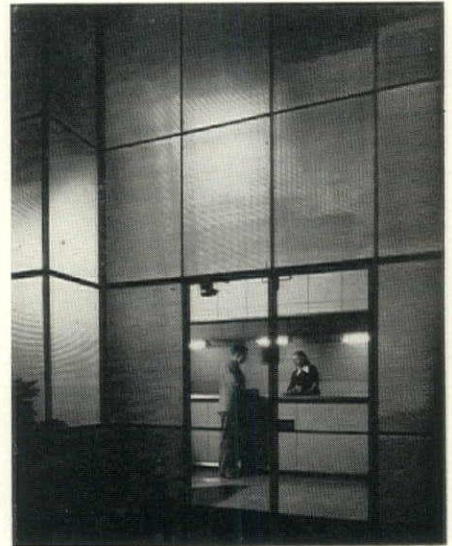
## RADIO STATION KRSC, SEATTLE, WASHINGTON

DONALD DWIGHT WILLIAMS, Architect

The design problem for KRSC, Seattle's only full-time independent, 1,000-watt station, was to work out a specialty building that, in addition to being functional, would have the distinction required of a semi-public institution.

It was desirable to have a location fairly close to the main business section; yet a good ground for the antenna tower was essential. The solution was a site that was originally tide lands (involving 8 to 10 feet of fill) but which was only a short drive uptown. Inclusion of all essential services in the scheme results in economical centralized control.

The main studio's balcony provides for public viewing of live shows though the public never actually enters any working area. Construction is frame and brick veneer; interior walls are dry built, finished with acoustical materials.





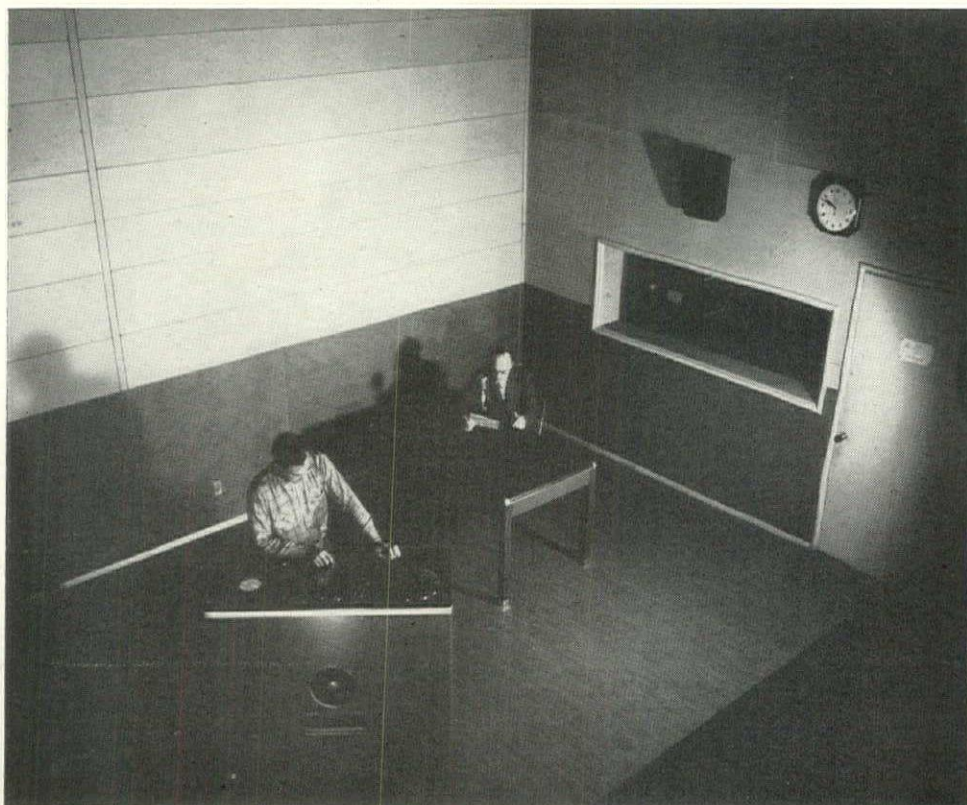
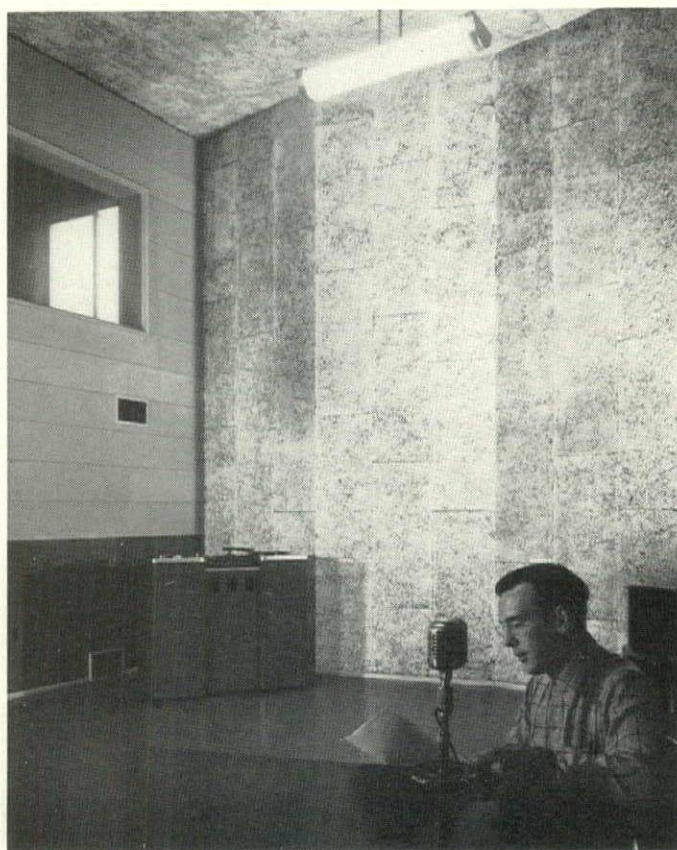
**STATION KRSC  
SEATTLE, WASHINGTON**

**DONALD DWIGHT WILLIAMS**  
Architect

**MAIN STUDIO**

The north wall of the studio is finished with hard board and high gloss paint to provide a sound-reflective surface; the south wall, arranged in an irregular plan, is of acoustical plank, providing desired absorption.

The balcony window for visitors viewing live shows appears at top left of photograph.



The window to the control room is double glazed.



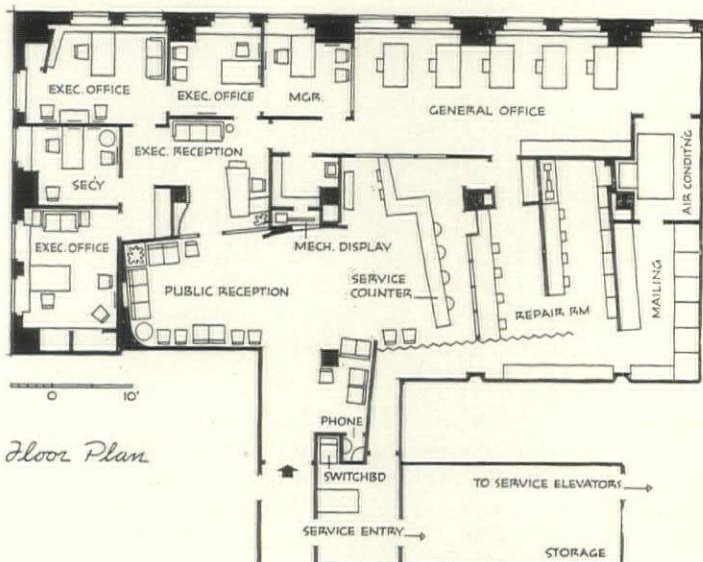


FACING THE ENTRANCE is a panel with a mobile display. Executive offices at left; repair department at right.

*Photos by Gottscho-Schleisner*

## OFFICES FOR EVERSHARP, INC., NEW YORK CITY

Designed Under the Direction of JULIAN VON DER LANCKEN, Architect, RAYMOND LOEWY ASSOCIATES



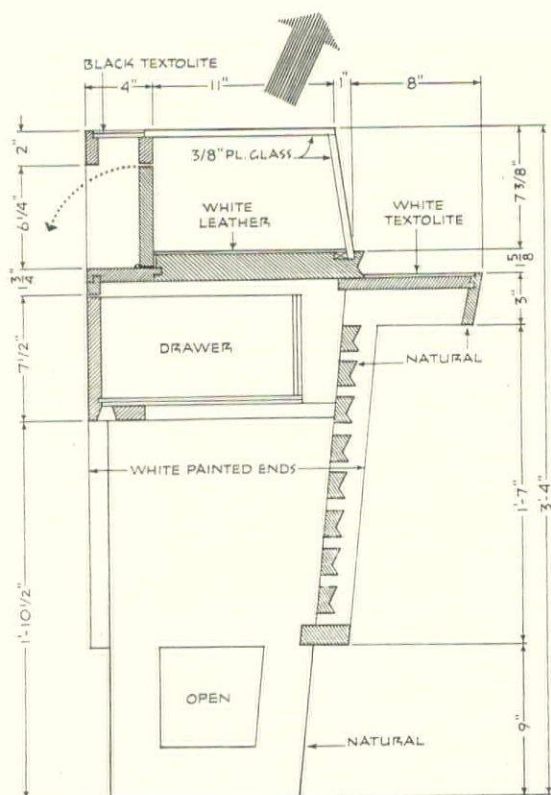
A triple-use plan worked out within standard office-building space.

Organization of this leased space in the Empire State Building was complicated by the fact that the entrance was at the end of an office-building corridor, and a bank of elevators (to serve other floors) projected to form a barrier between the leased space and the service elevators provided for this floor. Separation between the executive suite and repair department was accomplished by locating these two main areas to the right and left of the entrance. The service entrance was worked out by partitioning a corridor at the left of the interrupting elevator block and continuing it around to the service rooms by means of a less-than-full-height, sawtooth acoustical panel.





SERVICE COUNTER.



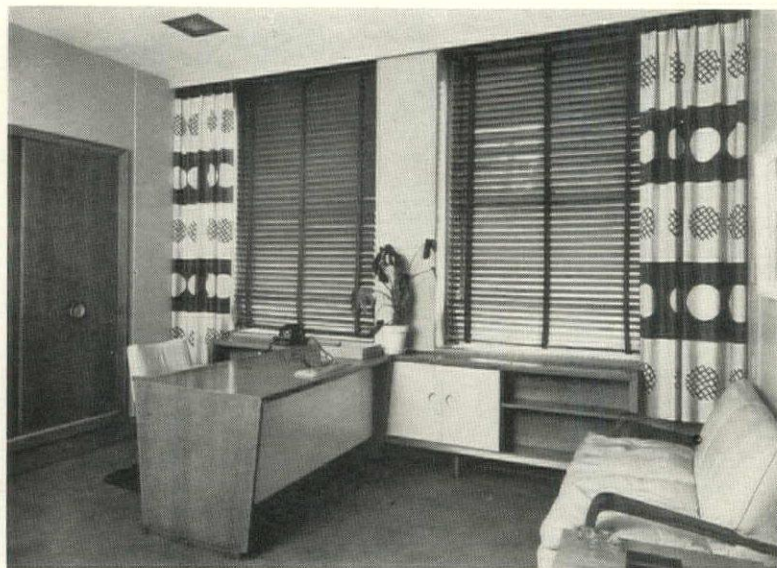
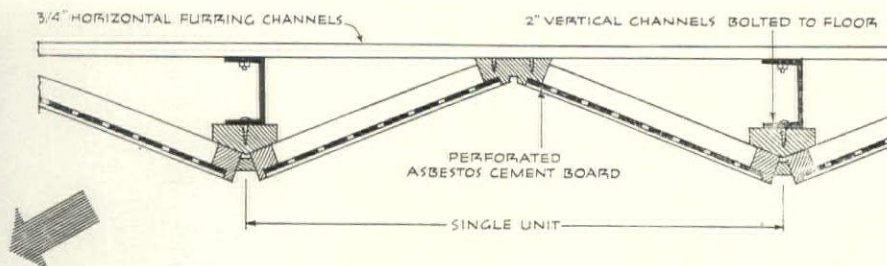
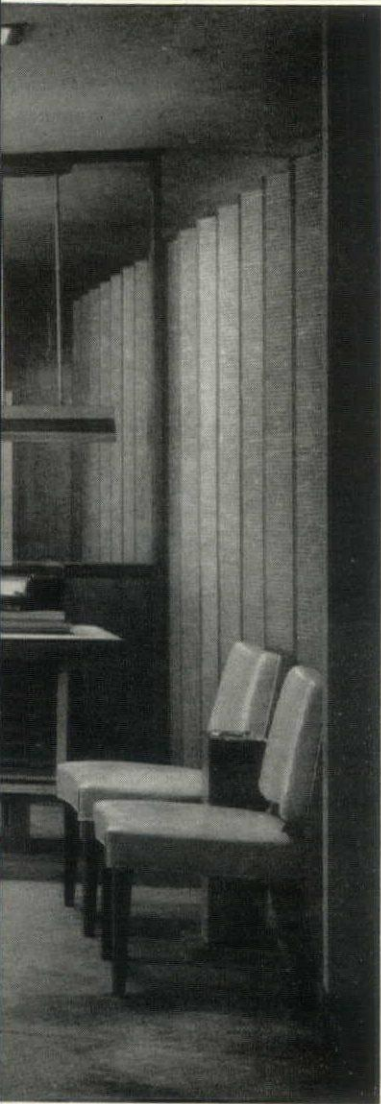
## OFFICES FOR EVERSHARP, INC., NEW YORK CITY

Designed Under the Direction of  
JULIAN VON DER LANCKEN, Architect  
RAYMOND LOEWY ASSOCIATES

In the main reception and service-counter area (photos above and at bottom of facing page), walls are painted gray; woodwork, including the slatted counter, are of natural-finished oak; the carpet is a pale gray-green, and the chairs are predominantly yellow and jade-green leather. Behind the service counter is a glass screen allowing full view of the repair section. When the latter is not in use, a curtain is drawn across this glass screen.

The sawtooth partition at the right of the counter (shielding the passage from the service elevator to the repair and mail rooms) is made of perforated acoustical board. Since this partition is less than ceiling height, it assists natural ventilation as well as providing desirable sound control.



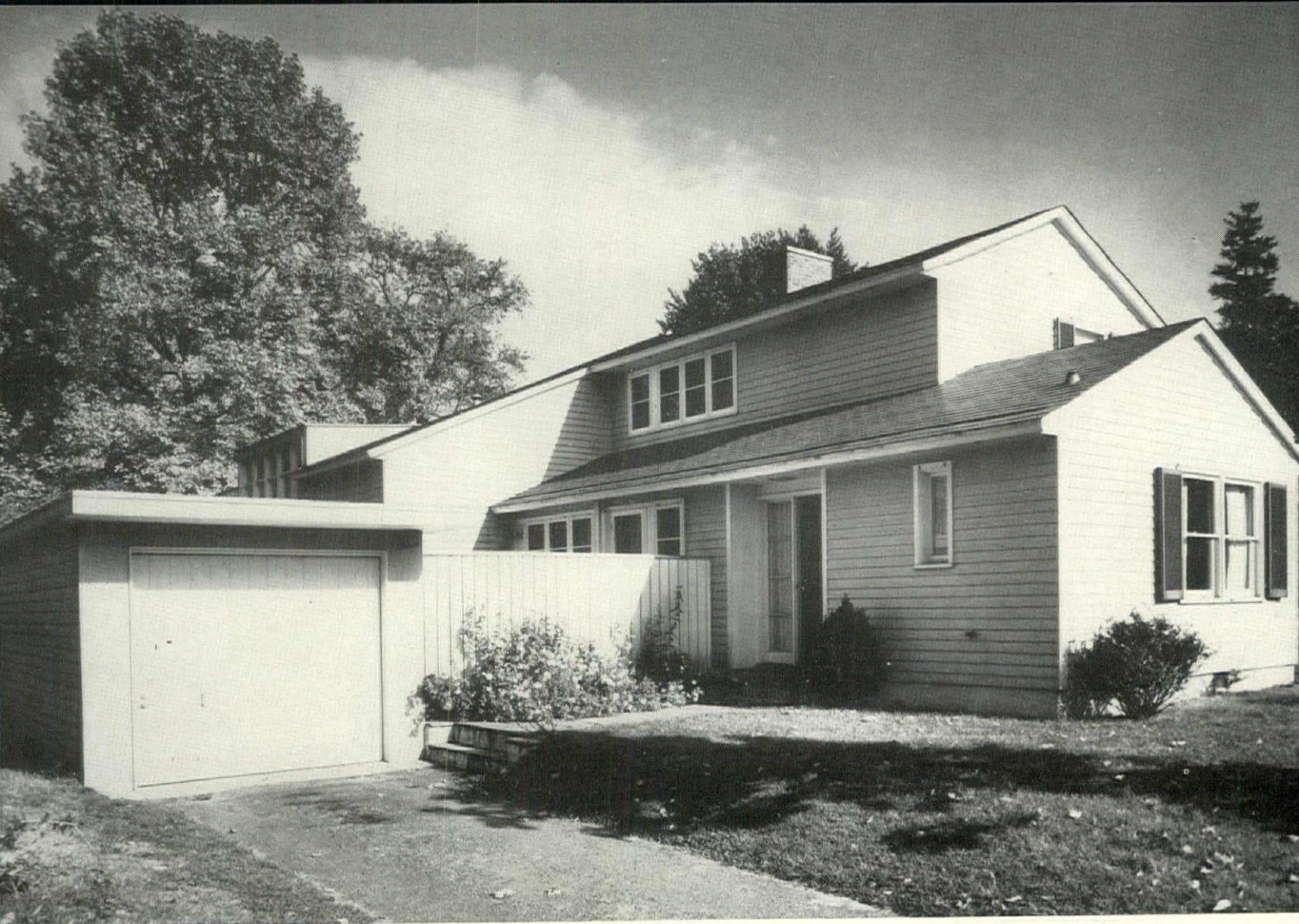


EXECUTIVE'S OFFICE.



RECEPTION AREA  
outside executive suite.





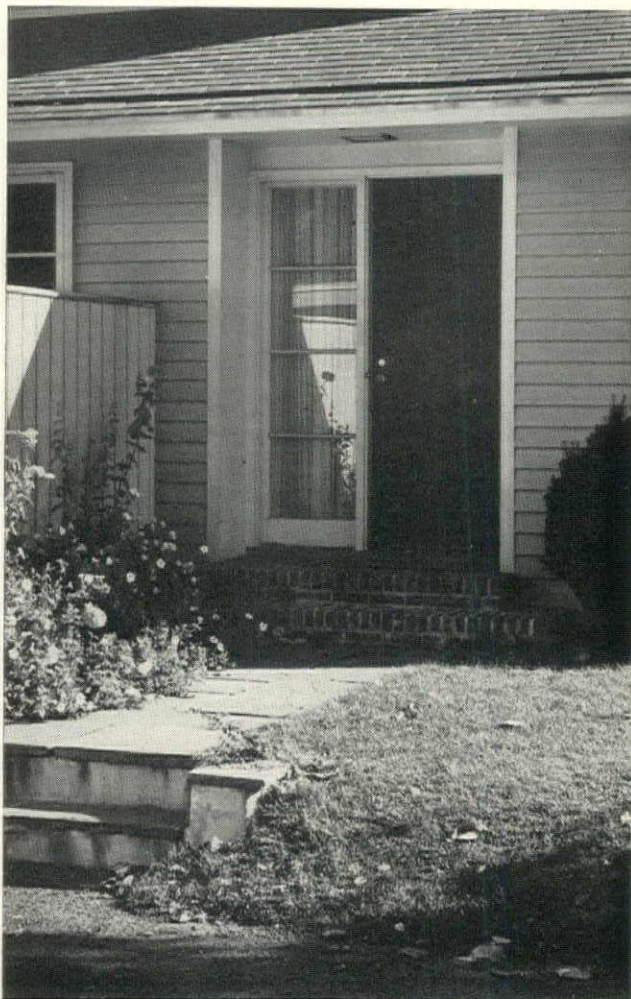


# HOUSE IN PRINCETON, NEW JERSEY

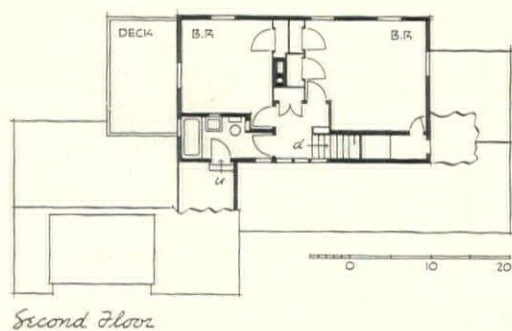
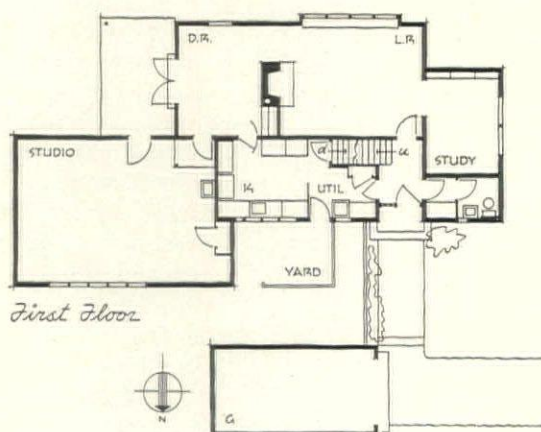
RUDOLF MOCK, Architect

Illustrative of the type of residential work usually referred to as "transitional," we feel that this is an instructive example. Blending as it does two design philosophies, it is nonetheless thoroughly contemporary in planning and amenity, and it helps prove that good architecture is good architecture, whatever its surface treatment. In this case, it seems to us, the required details have been employed simply, without serious compromise.

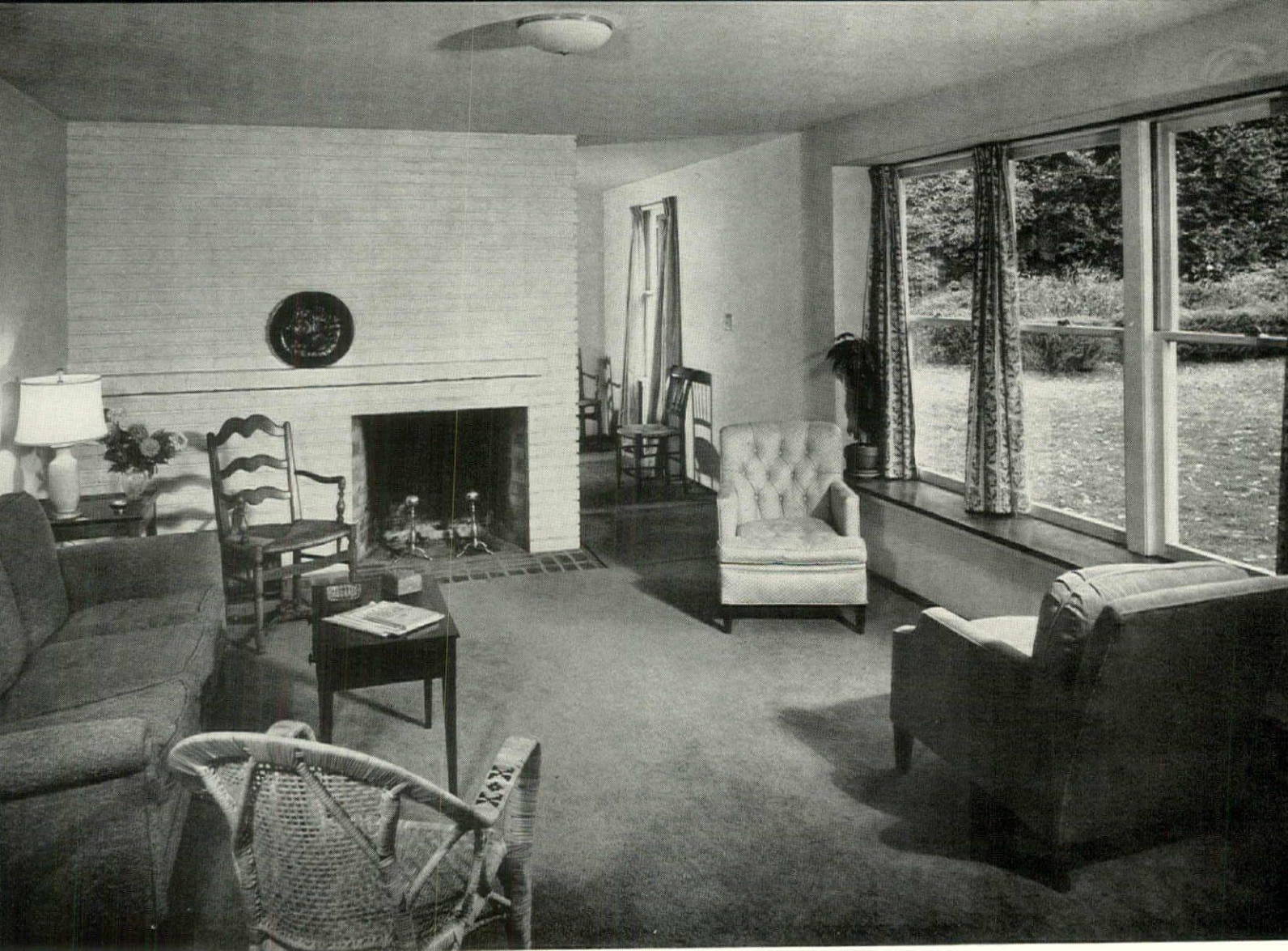
Arranged along the south wall of the house, the living and dining spaces flow into one another with only the projecting fireplace wall as a partial separation. The north-lighted studio was provided for the artistic interests of the owner's wife. The arrangement of the garage and the fence connecting with the house provides a desirably shielded kitchen yard.



Photos by Rodney McCay Morgan



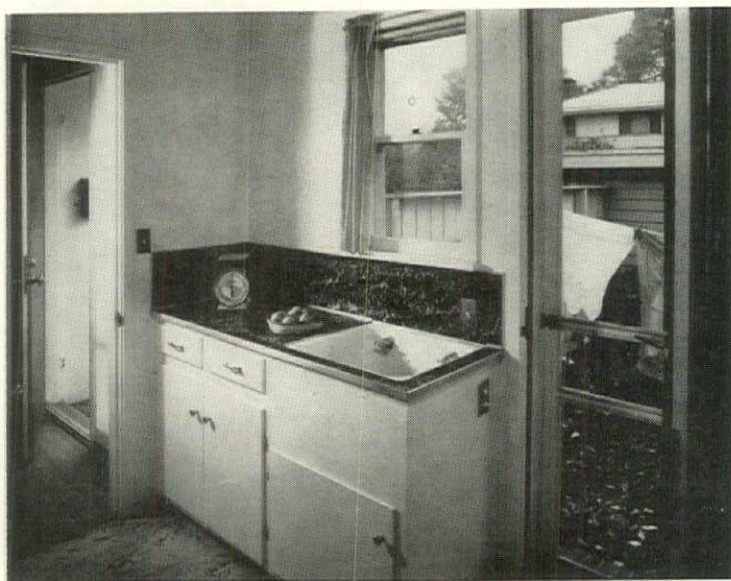




LIVING ROOM, looking toward dining room.

## HOUSE IN PRINCETON, NEW JERSEY

RUDOLF MOCK, Architect



KITCHEN. Front door, at left; drying yard, through door at right

Though the exterior of the house, painted gray, with white trim and dark-green shutters, has a slightly reminiscent look, the interior takes advantage of some of the principles of open planning, utilizes daylighting in line with contemporary principles, and is entirely free from dictates of the purely picturesque. That the continuous fenestration used on the living-room side of the fireplace wall is not repeated in the dining room comes under the heading of client preference. Interior walls are sand-finished plaster, painted; the fireplace wall is painted brick. The house is of frame construction, with insulating board sheathing and bevel siding. A gas-fired hot-air system heats the house.



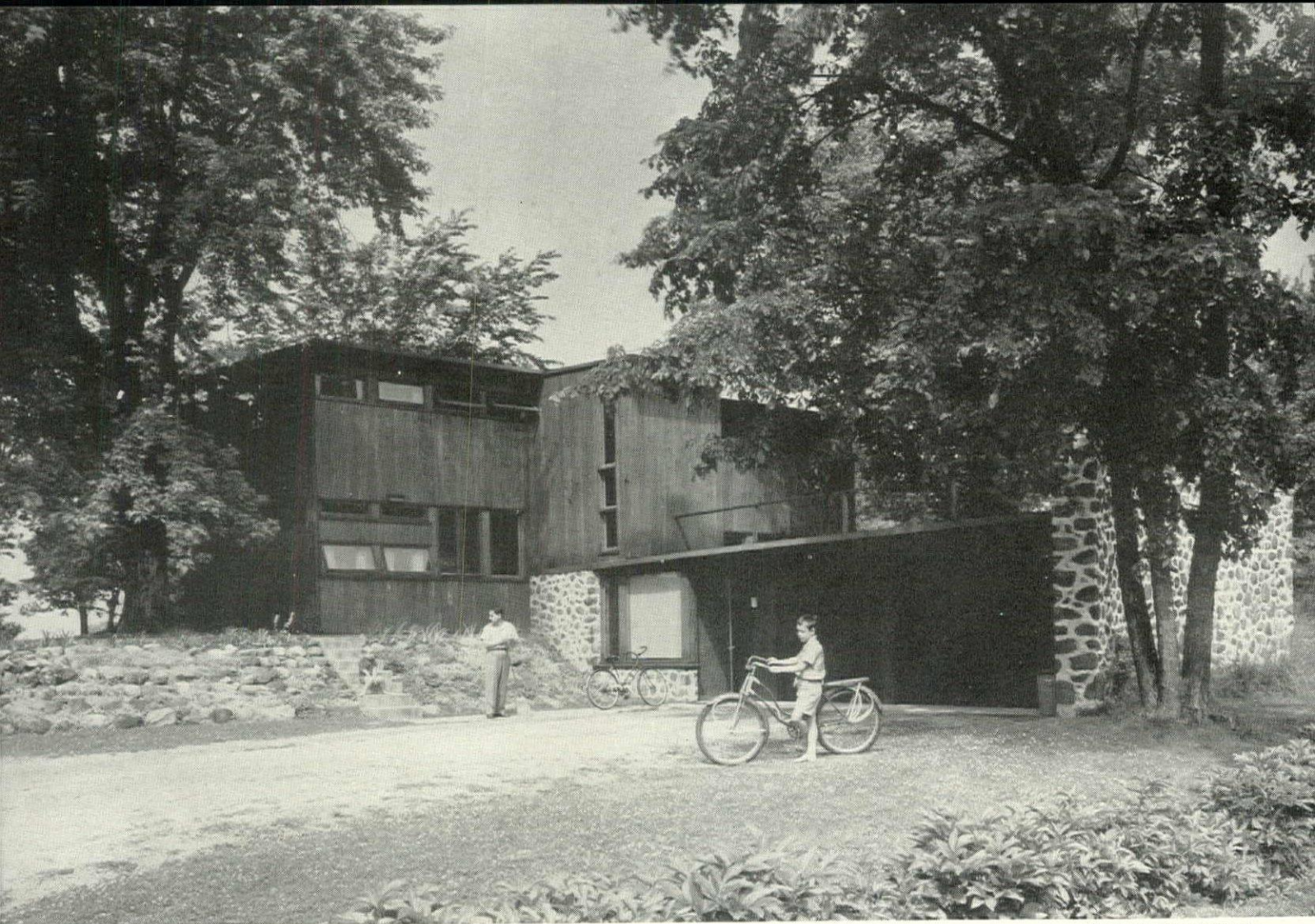


LOOKING FROM STUDY into living room.



DINING ROOM.





APPROACH SIDE of the house.

*Photos by Hedrich-Blessing*

## HOUSE IN OCONOMOWOC, WISCONSIN

A rational, economical, easy-to-maintain scheme for a family with four vigorous young children. The owner is the architects' younger brother.



THE HOUSE IN WINTER.

The problem, quite simply, was to provide indoor and outdoor living, sleeping, and recreation for a man and his wife, their three boys and a girl. Design of the servantless house was consciously worked out to take the heavy wear with a minimum of drudgery and upkeep cost.

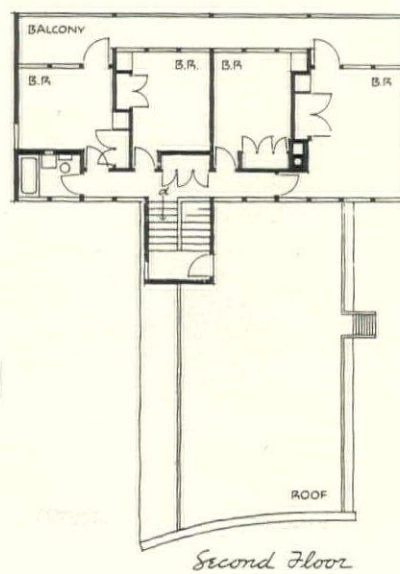
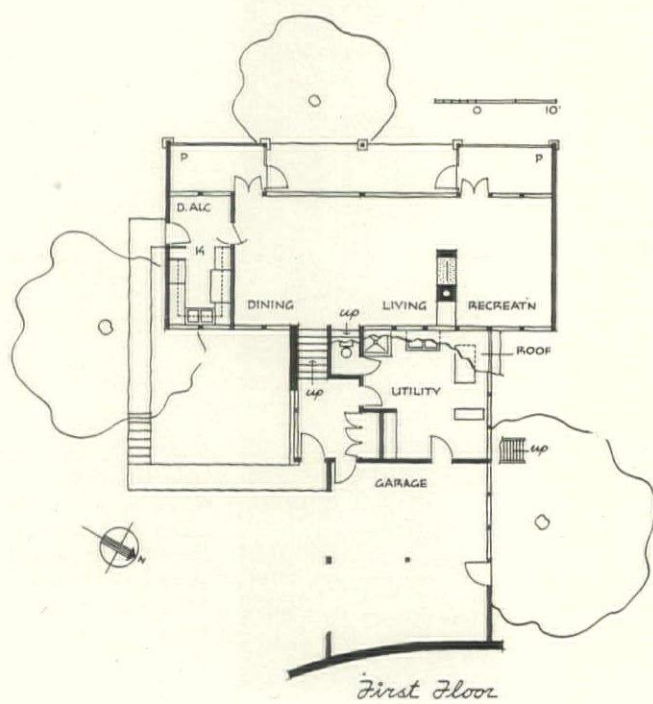
As the architects say, "It is easy to read the plan from the lake elevation—four bedrooms upstairs, recreation living-dining and kitchen downstairs. Most of the lake side of the house is screened; you can sleep inside or outside from each of the bedrooms; there is a screened porch off the recreation room and another off the kitchen."



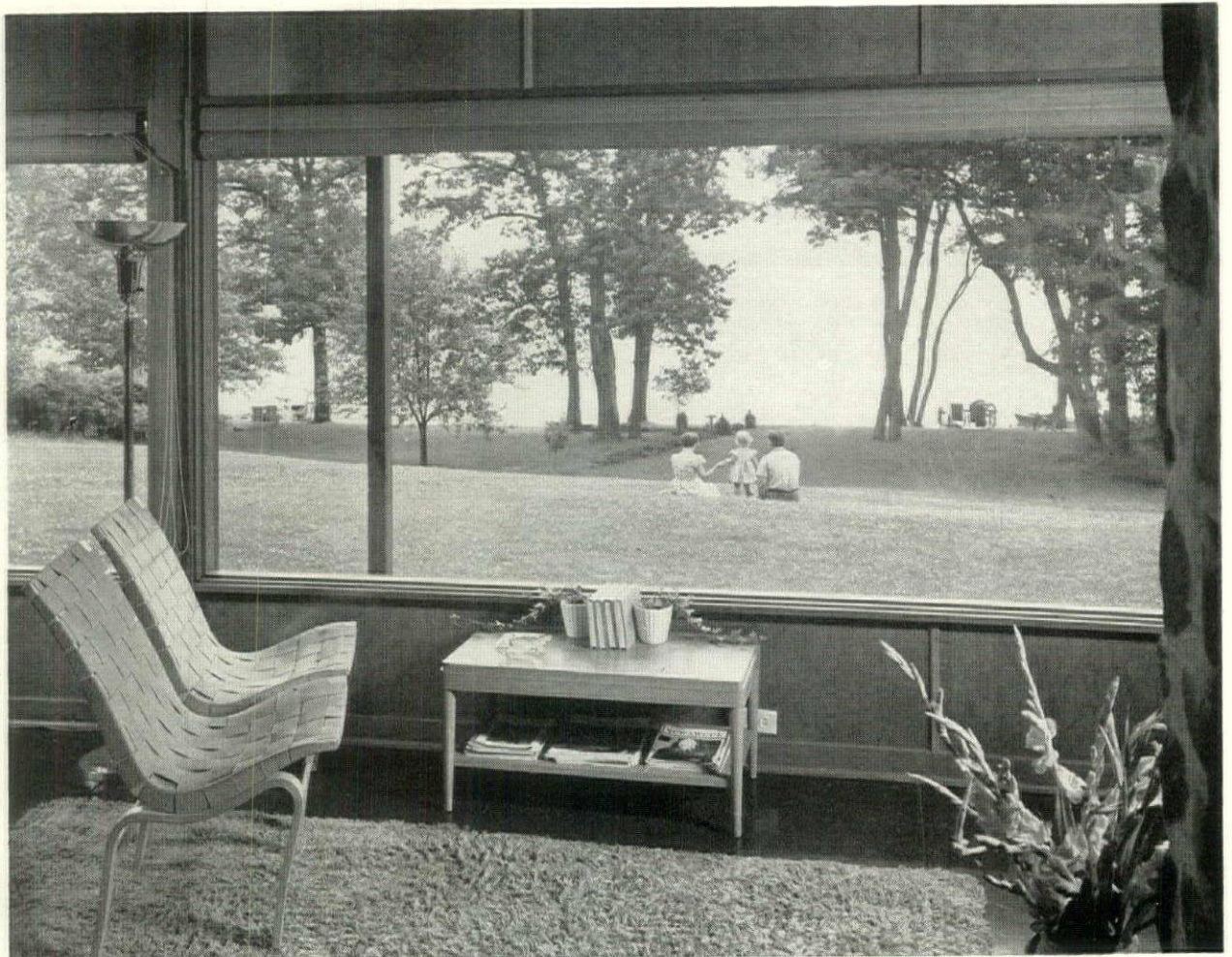


LAKE FRONT.

GEORGE FRED KECK; WILLIAM KECK, Architects







THE LIVING ROOM WINDOW commands a view of the sloping lawn and the lake beyond.



**FIREPLACE.** The fireback is of sheet steel that is top hinged from a channel-iron lintel in the center of the flue opening. The sheet may be swung from front to back and locked in either of two positions, thus serving two fireplaces—one, on the living-room side; the other, opening into the recreation room.



## HOUSE IN OCONOMOWOC, WISCONSIN

GEORGE FRED KECK; WILLIAM KECK,  
Architects

The lovely site slopes down to the waters of Lake La Belle, where all of the family indulges its delight in sports—swimming, boating, fishing, skating, ice-boating, etc. Only one tree had to be removed to make way for the house.

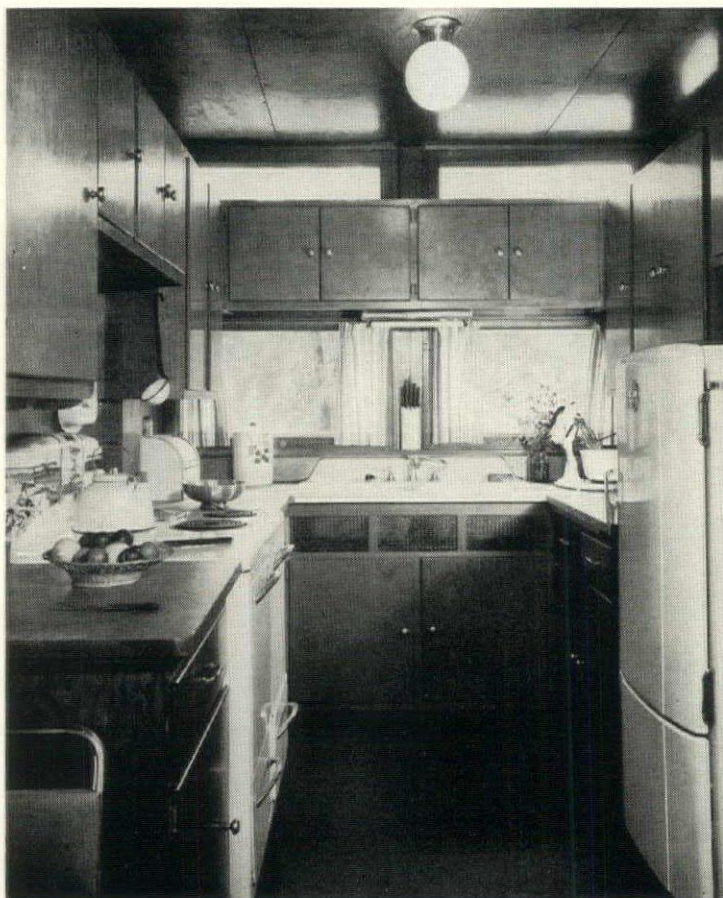
"I see the house frequently," George F. Keck writes, "and after five years, with often dozens of children playing in the house at once, it has weathered well. I have seen a dozen people walk across the living-room floor with their ice skates on (the floor is stained concrete with wrought-iron pipes in it). In winter, when the children come home from school, in addition to taking off their coats and hats, they remove their shoes and stockings (radiant heat)."

To make the most of the orientation and the lake view (toward the southwest), all of the rooms look out on this front, and the treatment is extremely open; the projecting porches on both floor levels take care of sun control in summer.

The house is mainly standard wood construction insulated with mineral wool. Exterior walls are finished with clear fir boarding; interior finishes are of fir plywood. The stone portions of the construction are a glacial deposit rock indigenous to the neighborhood. The roof is surfaced with asphalt-type built-up roofing. The heating system is a combination of the wrought-iron pipes buried in the concrete floors and copper pipe where wood stripping occurs. While there is considerable glass area in the house (both standard plate and double-thick glass are used), and temperatures in this region fall to 20 degrees below, the architects tell us "the over-all fuel bills are standard." Oil is the heating fuel.



DINING AREA, at the kitchen end of the great main room.



KITCHEN ventilation is assisted by windows at different levels.



# ANNOUNCING

TO ALL ARCHITECTS  
IN THE UNITED STATES

## *The* **ANNUAL PROGRESSIVE ARCHITECTURE AWARDS**

For each year beginning with 1946 the publishers  
of PROGRESSIVE ARCHITECTURE will make two national awards.

**1** To the architect of the building or group of buildings (not a private residence), constructed during the year in the United States, which best exemplifies sound progress in design.

**2** To the architect of the private residence, constructed during the year in the United States, which best exemplifies sound progress in design.

Every architect in the United States is invited to present his best work or make nominations for review by a distinguished professional jury. The awards are intended to foster sincere, reasoned progress in architectural design in the United States by citation and recognition of those architects whose efforts to improve contemporary standards are judged the most successful.

### JURY

The buildings to be cited as the best constructed during 1946 will be selected by a jury qualified to consider all aspects of the building. Those invited to serve are George Howe, until recently Deputy Commissioner for Design and Construction, PBA, noted architect of country residences and large commercial structures, author and critic; William Wilson Wurster, Dean of Department of Architecture, M.I.T., pioneer in design of houses meeting the most advanced standards of contemporary design; Eliel Saarinen, internationally famed architect and long associated with the Cran-

The awards will consist of suitable plaques to be given to the winners at a presentation dinner attended by nationally prominent speakers and leaders of the profession. It is proposed to give the dinner in or near the home town of one of the award winners.

brook Schools; Dr. C.-E. A. Winslow, distinguished sanitarian and Chairman of the New Haven Housing Authority, lecturer, author of books and pamphlets on public health problems, emeritus Professor of Public Health in Yale Medical School; Fred N. Severud, noted engineer and authority on construction methods and use of materials; Kenneth Reid, Editorial Adviser of PROGRESSIVE ARCHITECTURE; Thomas H. Creighton, Editor of PROGRESSIVE ARCHITECTURE.

### PROGRAM

The only basis for selection of the buildings winning awards in the two classifications above described will be demonstrable progress in fitness, strength, beauty, and purpose. The jury will

be asked to give consideration to the appearance, plans, structure, use of materials, site arrangement, and relation to community plan and community needs.

### ENTRIES

Every architect in the United States is invited to present before February 1, 1947, the best of his own work constructed during 1946—also to nominate buildings by other architects that he believes worthy of consideration by the jury.

From a preliminary judgment the jury will select a limited group

of finalists. Preliminary submissions should include at least three photographs, preferably 8" x 10", showing both the interior and the exterior of the building, as well as plot plan, floor plans, and a brief description of the function of the building and its outstanding features. When the finalists are chosen, more detailed information will be requested about these.

### INQUIRIES

Entries or inquiries about the PROGRESSIVE ARCHITECTURE annual awards should be addressed to Thomas H. Creighton, Editor, PROGRESSIVE ARCHITECTURE, 330 West 42nd Street, New York 18, N. Y.

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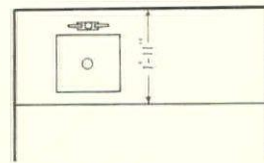
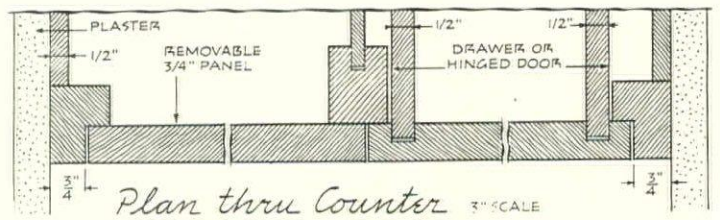
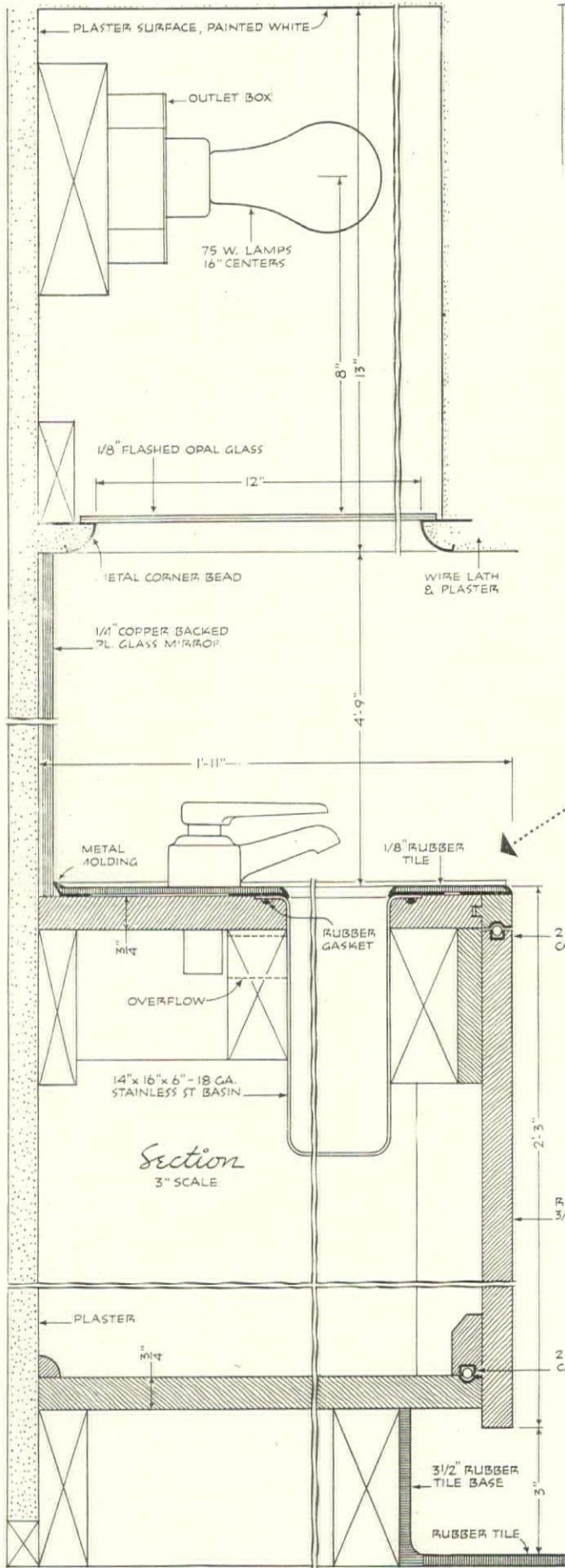
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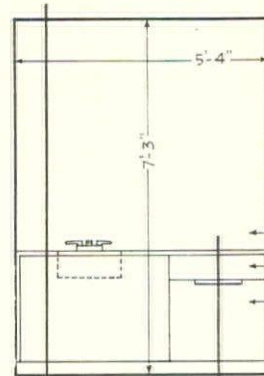
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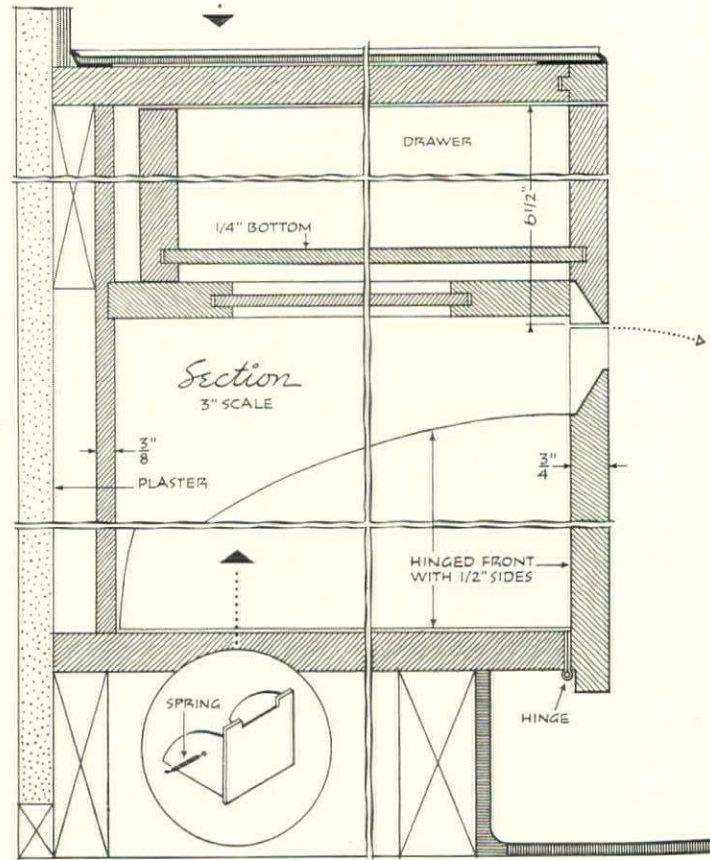


Plan



Elevation

Section



**BUILT-IN LAVATORY,  
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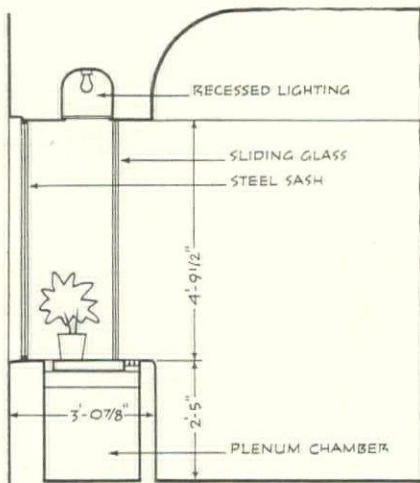
**PLANTING WINDOW,  
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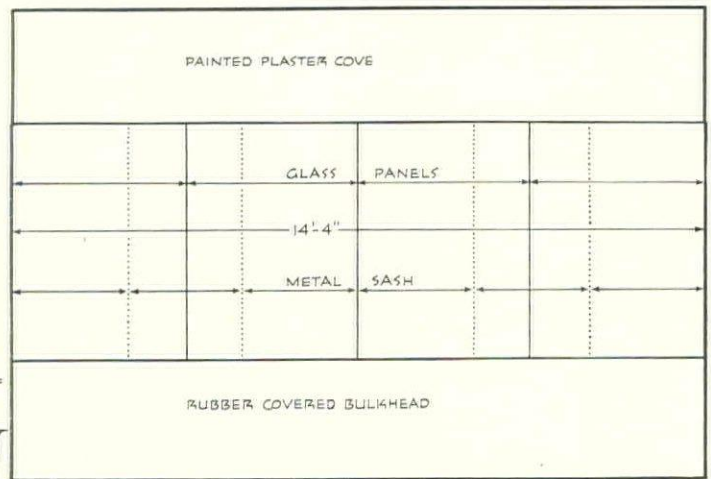


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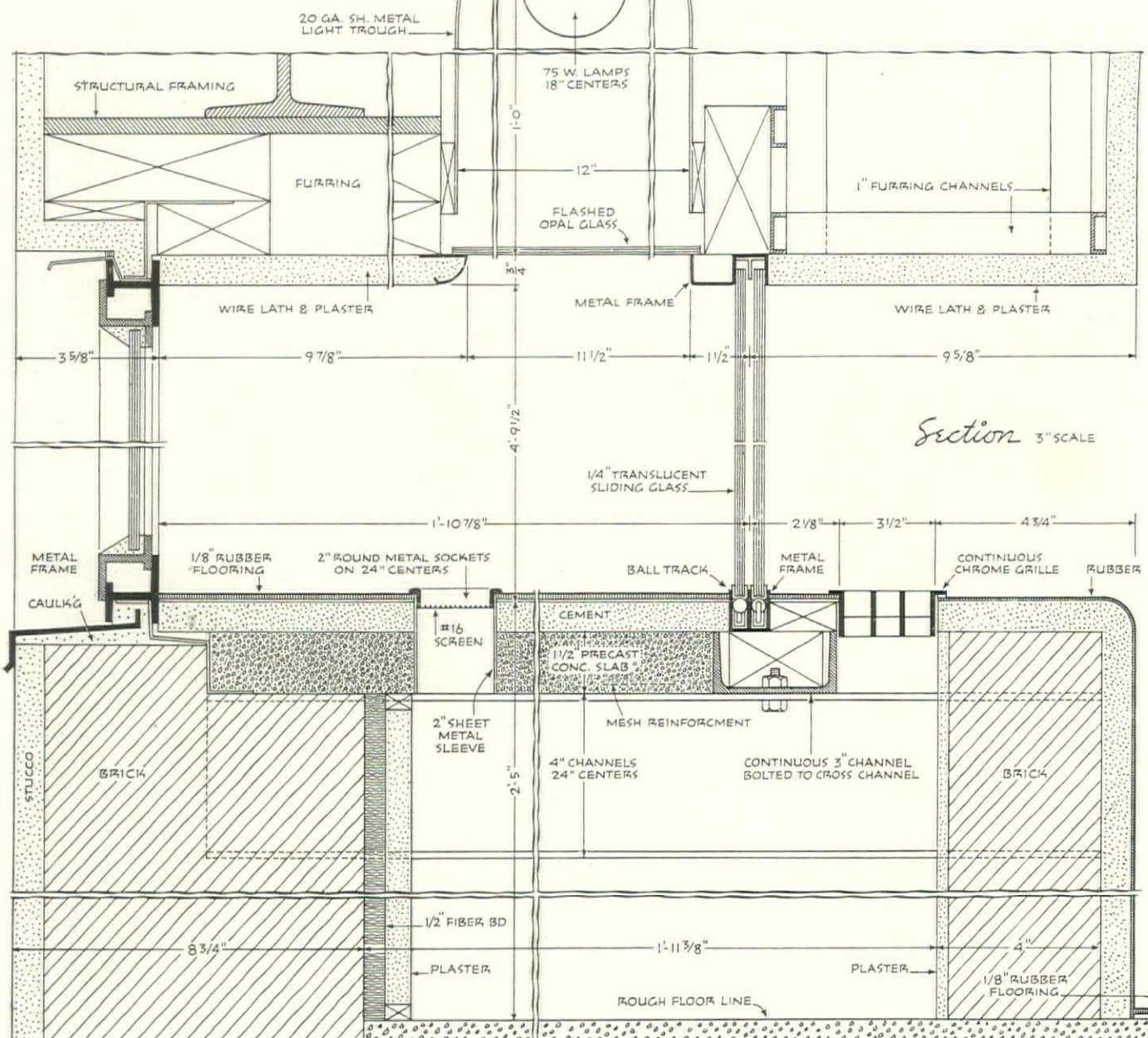
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Section 1/4" SCALE



Elevation 1/4" SCALE



Section 3" SCALE

**PLANTING WINDOW,  
HEATING, LIGHTING**

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# SPECIFICATION SURGERY

By BEN JOHN SMALL

The desirability of reducing an architectural specification to a true contract document, as graphic and free from extraneous material as an architect's working drawing, has been pretty well established. Largely through the efforts of Horace W. Peaslee, who advanced the principle in the pages of *PENCIL POINTS* as far back as August 1939, many specification writers are now producing "streamlined" documents, useful and legally straightforward.

Writing such specifications is not difficult; once the principles have been established in one's mind, there can be real pleasure in producing a working tool, without having to worry about literary standards. Actually, a specification writer need no more be an accomplished author than a competent draftsman need be a top-flight artist. Each must know construction, materials, and architectural design in the broad sense, and each must be able to translate certain parts of that knowledge into a simple, readable expression which cannot be misinterpreted.

## PROCEDURE

The specification writer who wants to approach his task in this way must follow a few simple rules of procedure. First of all, there should be at the head of each subdivision of the specification a general clause which by its wording will make unnecessary the repetition, over and over again, of certain routine warnings. This "mandatory provision concentrated in a single governing clause" has been revised from Mr. Peaslee's original suggestion by the National Bureau of Standards, to read as follows: *Mention herein or indication on the drawings of articles, materials, operations, or methods requires that the Contractor provide each item mentioned or indicated (of quality or subject to qualifications noted); perform (according to conditions stated) each operation prescribed; and provide therefor all necessary labor, equipment, and incidentals.* In such a clause you've said the necessary things once and for all; you don't have to keep repeating them through the body of the specifications.

The next step in specification surgery is the total elimination of the "Scope of the Work" or "Work Included" paragraph. This legally dangerous statement of what you intend to describe later on serves no useful purpose. The specifications themselves list and describe materials and methods of construction and make statements, supplement-

ing the working drawings, about the places where these materials and methods are to be used. In the general conditions should appear all the blanket clauses which define the completeness of all work to be done.

Another means of eliminating words which sound impressive but are really worthless is to take full advantage of standard descriptions of materials. There is no danger in referring to ASTM, Federal Specifications, American Standards Association, or similar accepted standard specifications, provided material grades and types have been checked before the reference is made.

## NAME NAMES!

The next step in this simplification through reference is to refer to proprietary names. The prejudice against doing this is hard to understand when one considers the number of times specification writers have simply copied the manufacturer's description of a given product. Why not come right out and name it, save time and space, and set up a definite standard, in the "General Conditions," which, together with the inclusion of proprietary names in the body of the specification, will provide a basis against which "equals" can be evaluated?

Once this step has been accepted, further excess words can be eliminated by saying, simply and frankly: *Execute work in accord with manufacturer's printed directions.* If the ABC company's asphalt tile has been specified, by name, as the standard of acceptable material, and the ABC company prints and distributes standard installation directions, there certainly is no need to copy them into the specifications. If the XYZ company's product is proven equal and is finally accepted, then the specifications do not have to be changed; by the few words you have used you have made the XYZ company's installation directions mandatory.

For full protection under this system you should require copies of such directions to accompany any samples submitted, and you can state in the specification performance objectives that you desire—not detailed instructions. By using such a method you give the manufacturer no excuse to void his guarantee provisions if performance bogs down after his own instructions have been faithfully followed. Contradictions between various manufacturer's directions do not concern you, and there is no clearer or surer way to keep specifications *au courant*, abreast of technological developments.



## ABBREVIATE

An obvious way to save words is to use the American Standards Association abbreviations. Instead of writing out "National Board of Fire Underwriters" half a dozen times through the body of the specifications, why not say NBFU? The most commonly used abbreviations are:

AAR—Association of American Railroads  
AIEE—American Institute of Electrical Engineers  
API—American Petroleum Institute  
ASRE—American Society of Refrigerating Engineers  
ASTM—American Society for Testing Materials  
BMTP—U. S. Bureau of Mines Technical Paper  
NBS—National Bureau of Standards  
CS—Commercial Standard  
FS—Federal Specification  
ITE—Institute of Traffic Engineers  
BLS—U. S. Bureau of Labor Statistics Bulletin  
NBFU—National Board of Fire Underwriters  
SPR—Simplified Practice Recommendation

## DO NOT USE SENTENCES

Finally we come to the step which seems to be hardest for many specification writers who pride themselves on their ability to write English: the elimination of sentence structure. Throw away the constant references to "the contractor;" eliminate the unnecessary "shall perform," "shall provide," "as noted on the drawings," "according to the plans," "in conformity therewith," and many other hackneyed expressions; drop the articles; save yourself and your builder-readers the nuisance of meaningless weasel words and weasel clauses.

To be specific, do *not* say, "Portland cement shall be in accord with the Standard Specifications of the ASTM C150, Type I, latest edition." Say, instead: *Portland cement—ASTM, C150, Type I*. You don't even have to require that this be the latest edition; your "general conditions" will cover that.

## FOR EXAMPLE:

Here is a normally short section made even briefer and more to the point:

### Section No. 12—Fabric Covering

The "General Conditions" apply to all work of this section. Mention herein or indication on the drawings

of articles, materials, operations, or methods requires that the Contractor provide each item mentioned as indicated (of quality or subject to qualifications noted); perform (according to conditions stated) each operation prescribed; and provide therefor all necessary labor, equipment, and incidentals.

### 1. Materials

- <sup>1</sup> (a) Fabric—John Jones Co's "Wallskin."
- (b) Paste: Size—Standard brand flour paste; best quality glue size, as recommended by fabric manufacturer.
- <sup>2</sup> (c) Required samples:
  1. 12" by 12" pieces of each required pattern.
  2. Paste, glue—one-quart containers.
  3. Manufacturer's printed hanging directions—4 copies.

### <sup>3</sup> 2. Workmanship

- (a) Condition of plaster surfaces: smooth, true, free from dampness. Cut out and spackle cracks, blisters, and the like.
- (b) Apply one coat of glue size.
- (c) Hang fabric in accord with manufacturer's printed hanging directions.
- (d) Where directed, hang sample installation in one room using required pattern. When approved, such work shall represent standard of workmanship throughout.

### 3. Salvage

Turn over to Owner all sizeable excess fabric for future patching purposes.

If you have the desire to produce a practical working specification, and you proceed on the basis of the suggestions outlined herein, you will in time find many other ways to reduce wordage, unnecessary work, and possible confusion. You will avoid repetition. You will find yourself developing easy-to-read tables instead of long paragraphs. And finally, you will feel that you are in step with contemporary methods of office practice, a necessary adjunct of progressive design.

<sup>1</sup> The color or pattern number would be indicated on drawings under "Color Schedule" which also indicates affected locations.

<sup>2</sup> "General Conditions" states that samples, where required, shall be submitted in triplicate, describes methods of identification, grade names, seals, and the like.

<sup>3</sup> General workmanship standards, protection, damage to adjacent work are clearly stated in "General Conditions," therefore require no repetition here.

**EDITOR'S NOTE:** Both the preceding brief explanation and the following example of the contemporary trend toward streamlined specifications owe much to the initial discussion of the subject by Horace W. Peaslee, which appeared in *Pencil Points* for August 1939. Mr. Small, in his duties with the New York City Department of Public Works, and more recently as specification writer for the office of Alfred Hopkins & Associates, has put into practice the principles which Mr. Peaslee then enunciated; and Mr. Beacham, whose office is in Greenville, South Carolina, has been, since publication of Mr. Peaslee's article (to quote him) . . . "inspired to undertake the job of completely revising the basic specifications then in use in our office." To judge by our own correspondence and conversations, and by reports in various architectural journals, professional interest in this subject is intense throughout the country.

We are happy to present the Masonry Specification. If there is sufficient interest in the subject we will publish additional examples from time to time. Mr. Peaslee has had the opportunity to review some of Mr. Beacham's work of this kind, and approves, even though Mr. Beacham has found in practice that the extreme brevity which was at first advocated had in some instances to be modified in order to avoid misunderstandings. Mr. Peaslee and Mr. Beacham join in requesting that we announce that the system and its development may be used at will, without charge. Mr. Beacham further suggests the two following books as containing sound recommendations for specification writers: *Engineering Contracts and Specifications*, by Robert W. Abbett (\$2.25) and *A Handbook of English in Engineering Usage*, by A. C. Howell (\$2.50), both published by John Wiley and Sons, 440 Fourth Ave., New York City, and available directly from them.



# A SIMPLIFIED SPECIFICATION FOR UNIT MASONRY

Prepared by JAMES D. BEACHAM, Architect

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## D-02. GENERAL REQUIREMENTS

- a) **SCOPE OF WORK:** Unit masonry of the several kinds specified or indicated necessary to complete the construction shown on the drawings, together with masonry flashings and other specified items of masonry incidental thereto.

**Intent:** Mention herein or indication on the drawings of articles, materials, operations, or methods requires that the Contractor provide each item mentioned or indicated, of quality or subject to qualification noted; perform according to conditions stated each operation prescribed; and provide therefor all necessary labor, equipment, and incidentals.

- b) **GENERAL CONDITIONS:** See Division A.

**Standard specifications; codes:** References made herein to standard specifications, and codes, refer to editions in effect at the dates of proposals; such references include current addenda and errata, if any.

**Abbreviations:** "ASTM" refers to The American Society for Testing Materials; "Fed. Spec." refers to Federal Specifications.

- c) **SAMPLES REQUIRED:** Face bricks; facing tiles; glass block; cast stone; mortar aggregates.
- d) **CATALOG DATA REQUIRED:** Hollow tile; wall coping; flashing block; flashing material; firebrick.
- e) **SHOP DRAWINGS REQUIRED:** Cast stone trim.

## D-03. BRICKS

- a) **COMMON BRICK:** American standard-size clay or shale brick in accord with ASTM specification C 62, having true faces and sharp, straight edges; free from an objectionable amount of cracks and spalls.

**Classes of common brick:** Class SW brick used for work in contact with earth; Class MW brick used generally.

**Where required:** For all construction indicated as "brick" except where face brick is required.

- b) **FACE BRICK:** Selected common brick conforming to specified requirements for structural common brick; furnished in medium-to-dark red and brown shades, with salmon-colored and black bricks excluded; free from an objectionable amount of distortion, warpage, cracks, and other unsightly defects.

**Where required:** On all exposed exterior surfaces including penthouse walls and chimneys; also for exposed interior surfaces indicated as "face brick."

**Brick for window sills:** Solid, all-hard, dark colored face brick.

**Special face brick:** Bricks formed and burned to the special shapes indicated; otherwise conforming to requirements for the standard-shape face bricks.

**Shipping and handling:** Face brick shipped and delivered well packed in straw; handled only with tongs or by hand in manner to avoid chipping and other damage.

- c) **FIRE BRICK:** Moderate-heat-duty grade conforming to Fed. Spec. HH-B-671.

**Where used:** Boiler stack.

## D-04. FLUE LINING, ETC.

- a) **FLUE LINING AND THIMBLES:** Hard-burned fireclay products, free from large or deep cracks, blisters, or other objectionable structural defects.

**Size:** As indicated or necessary for the mechanical equipment to be installed.

**Where required:** Where indicated; located at heights shown or directed.

## D-05. HOLLOW TILE

- a) **STRUCTURAL HOLLOW TILE:** Horizontal-cell clay or shale units of size and design indicated, conforming to ASTM specification C 34; necessary vertical-cell pieces furnished for jambs and corners.

**Where required:** For back-up in exterior walls below roof level; for interior walls and partitions to extent indicated.

**Grade of tile:** Grade LBX used for work in contact with earth; grade LB used generally.

**Surface finish:** Scored where mortar or plaster will be applied; smooth and unglazed where surface will be exposed or painted.

**Accessory pieces required:** Closures, fitters, and special shapes necessary to preserve the bond and avoid extensive cutting of standard units.

## D-06. GYPSUM TILE

- a) **GYPSUM PARTITION TILE:** Cored tile conforming to ASTM specification C 52.

**Where used:** For interior, non-load-bearing partitions and furring at locations indicated.

**Prohibited usage:** As first course above floor in partitions and furring; for parts of partitions and furring specified to receive mortar finish of Portland cement or lime.

**Size of units:** 30" long; 12" high; thickness as indicated.

**Furring units:** Split tile of the thickness indicated.

## D-07. TILE WALL-COPING

- a) **TILE COPING:** Standard salt-glazed coping with socket joints; sound; free from fractures, cracks, blisters, and warpage.

**Size:** Of proper width for walls indicated.

**Accessory pieces required:** Starting pieces; corner pieces; closed-end pieces; special shapes as required.

**Where used:** Generally, except where coping of other material is specified.

## D-08. FLASHING BLOCKS

- a) **FLASHING-BLOCK UNITS:** Hard-burned terra cotta material, having a diagonal groove not less than 1½" deep, measured horizontally, designed to receive roofing flashing.

**Where used:** At intersections of roofs with walls and similar vertical masonry surfaces.

**Size of units:** Designed to replace and course with two courses of brick.

**Accessory pieces required:** Units and shapes necessary to provide a continuous flashing groove at all masonry walls.

## D-09. GLASS BLOCK UNITS

- a) **GLASS BLOCKS:** Partially evacuated structural masonry units of pressed glass similar to those made by the Owens-Illinois Glass Company, complete with standard corner pieces, curved, and other pieces necessary to make a complete installation.

**Where used:** See drawings.

**Accessories required:** Continuous, corrosion-resisting, wire mesh strips or other approved metal wall ties, every 4th course in height; expansion joint material used where shown or required; all as specified or recommended by the manufacturer of the glass block.

## D-10. FACING TILE — (INTERIOR)

- a) **GLAZED CERAMIC UNITS:** Clay or shale tile facing units conforming to ASTM specification C 126, having all exposed surfaces uniformly finished with an impervious, durable, burned-on glaze of the designated color and texture.

**Where required:** For partitions and interior walls. See "finish schedule" and detail drawings.

**Quality, color, and texture:** Grade S, standard multi-cored units; absorption test waived; manufacturer's "ivory;" "matt-finish;" corresponding to approved samples.

**Types of units:** Types I and II, as required; standard stretchers and starters; molded shapes as indicated for caps, corners, jambs etc.

**Face sizes:** Stretchers 12" x 5" except as otherwise shown; tolerance in face size (all units) not to exceed .15%, plus or minus, of nominal size.

**Thickness of units:** 4" (nominal) generally; 4" and 2" units, and two 4" units, used together to form double-faced walls of 6" and 8" thickness, respectively.

## D-11. CAST STONE TRIM

- a) **MATERIAL:** Surfaced stone manufactured in accordance with the standard specification of the Cast Stone Institute; the product of an established manufacturer whose material has been previously used on similar work with satisfactory results.

**Where required:** Exterior ornamental trim and finish consisting of facing, sills, coping, lintels, etc., to extent indicated on drawings.

**Surface color and texture:** Similar to Indiana "buff" limestone; exposed surfaces "hand rubbed."

**Requirements for shop drawings:** Sizes, sections, dimensions, jointing, anchorage, flashing, and setting.

## D-12. MORTAR MATERIALS

- a) **PORTLAND CEMENT:** A well known American brand conforming to ASTM specification C 150.
- b) **MASONRY CEMENT:** Type II in accord with Fed. Spec. SS-C-181.
- c) **LIME PASTE:** Made with pulverized quicklime or with hydrated lime conforming to ASTM specifications C 5 or C 141, respectively.

- d) **GYPSUM:** Calcined material conforming to ASTM specification C 22.

- e) **SAND FOR MORTARS:** Hard, durable, natural sand free from injurious amounts of saline, alkaline, organic, or other deleterious substances.

**Grading:** From "fine" to "coarse" within the following limits:

Sieve size	Percentage passing each sieve
No. 8	95-100
16	60-100
30	35-70
50	15-35
100	0-15

- f) **FIRE CLAY:** Grade C in accord with ASTM specification C 105.

- g) **WATER:** Clean and free from deleterious amounts of acids, alkalies, or organic materials; of approved drinkable quality.



## D-13. MORTARS

- a) **DESIGN OF MIXES:** As determined by the Architect, following approval of the materials proposed for use; volume of aggregate in all mortars at least two times, but not more than three times, the volume of the cementitious materials; bids based on use of the mortar mixes following.
- b) **FOR HOLLOW UNITS IN CONTACT WITH EARTH:** 1 part Portland cement; 1/4 part lime paste; not more than 3 parts sand.
- c) **FOR BRICK AND STRUCTURAL TILE UNITS, GENERALLY:** 1 part Portland cement; 1 part lime paste; not more than 6 parts sand; or, 1 part masonry cement and not more than 3 parts sand.
- d) **FACING-TILE MORTAR:** Same as the mortar used for setting brick and structural tile, but using non-staining quality cement; this mortar colored by addition of non-fading mineral pigment.
- e) **STONE-SETTING MORTAR:** Same as mortar for setting brick and structural tile, but using non-staining quality cement.
- f) **STONE-POINTING MORTAR:** 1 part non-staining Portland cement to not more than 2 1/2 parts sand; sufficient lime paste added to make a very stiff mixture.
- g) **GLASS-BLOCK MORTAR:** 1 part Portland cement; 1 part lime paste; not more than 4 1/2 parts sand.
- h) **METHOD OF MIXING MORTARS:** Materials proportioned by volume; Portland cement mortars made by mixing the cement and sand, adding the lime paste, then adding sufficient water to obtain proper working consistency. Masonry cement mortar mixed in accordance with manufacturer's directions.

## D-14. FIELD WORKMANSHIP

- a) **GENERAL REQUIREMENTS** (applying to all types of units): Watertight construction provided in all exterior masonry. Throughout the work, joints completely filled with the specified mortar.

**Condition of beds and units:** Clean; all beds and units properly wetted.

**Protection of uncompleted work:** Top thoroughly covered with watertight material while work thereon is not in progress.

**Samples of masonry:** Panel of brick and hollow-tile wall work, 12" thick and not less than 4'0" in width and height, laid up in advance of masonry work, for inspection and approval; approved sample panel retained as a standard of the work to follow.

**Scaffolds:** All face work laid up from scaffolds located on the facing side.

**Mason's iron work and masonry flashing:** Properly set as the masonry work progresses.

**Workmanship (general):** All work built true to line; level, square, and plumb. Exposed joints practically uniform in size. Masonry walls and adjoining masonry partitions properly bonded to each other by toothing courses. Brick and hollow block units thoroughly bonded together.

**Bed joints:** Mortar spread thick. Deep "furrowing" avoided. Finished joints uniformly (approximately) 1/2" wide.

**Head joints:** Made with liberal application of mortar on surfaces of the unit to be placed and shoving the unit against the unit previously placed, causing mortar to ooze out at the top and sides of the joint. Contact surfaces of "closure" units and units previously placed given liberal application of mortar; closures "rocked" into place without disturbing the bond of adjacent units. Width of head joints same as required for bed joints.

**Wall joints:** Made with liberal, continuous application of mortar on the contact surfaces of units in place and units to be placed, and shoving the unit against the work previously placed, causing mortar to ooze out the top and sides of the joint. Wall joints 1/2" (minimum); 3/4" (maximum).

**Finish of exposed joints:** On exterior, exposed joints tooled in manner providing a

compacted, concave surface, the mortar being pressed tightly against adjacent masonry units on both sides of the joint. On interior, exposed joints tooled as indicated or directed.

**Prohibited practices in workmanship:** "Buttering" corners of units; throwing mortar scrapings into joints; "slushing;" deep or excessive "furrowing" of bed joints; shifting position of units placed by tapping or hammering.

- b) **BRICKWORK:** "Common" or "running" bond used (except where pattern work is indicated), with a full-length header course at every 6th course.

- c) **FIRE CLAY UNITS:** Substantially bedded and laid up; full, close joints.

- d) **HOLLOW TILE WORK:** Material accurately laid out so as to necessitate the minimum amount of cutting of standard units.

**Bond of tile work:** "One-half" bond.

**Head joints:** Made by liberal application of mortar on both edges of the unit to be placed.

**Reinforcement of bearing points:** In bearing joints and where anchors, bolts, etc., project within the cells of hollow tile, such cells filled with 1:2:4 concrete.

- e) **HOLLOW TILE LINTELS:** Provided where indicated and where no other type of support is called for.

**Reinforcement:** Steel bars as indicated, set in well-rodged 1:2:4 concrete or 1:3 Portland cement mortar.

**Forming:** Lintels pre-cast; where exposed, 1/2" wide false joints cast between the ends of pieces of tile.

**Curing:** Lintels water-cured for not less than 7 days before use in wall work.

- f) **TILE WALL-COPING:** Units set in full beds of the mortar used for laying up masonry in parapet walls.

**End joints:** Well filled with the setting mortar.

- g) **FLASHING-BLOCKS:** Units set in the same manner required for brick setting.

- h) **GLASS BLOCK WORK:** Before laying, sills coated with a heavy layer of asphalt emulsion, the coating being allowed to dry before the first mortar bed is placed.

**Expansion strips:** Required at jambs and heads, below shelf angles, at mullions, and where indicated; continuous; strips so installed that contacts of the edges of the glass block panels with the building structure are avoided.

**Setting:** Blocks set in the specified mortar, with all joints (except expansion joints) completely filled; mortar kept out of expansion joints; wall ties located as indicated or required and completely embedded in the mortar; ends of ties lapped not less than 6".

**Joints:** Uniform; width as indicated on detail drawings; exposed surfaces smoothly tooled to a slightly concave, non-porous surface after the mortar reaches its initial set.

**Caulking:** Oakum rammed between the sides of the blocks and the side of the chase or frame, after the mortar has set, to within not less than 3/8" of the finished surface; recesses thus formed at jambs and heads filled with mastic caulking compound.

- i) **FACING-TILE WORK:** Generally, laid up in accord with requirements for face brickwork; work accurately laid out in each room or space in manner requiring the minimum amount of cutting of standard units.

**Bond:** End joints located over the center of the underlying full-length tile; all courses bonded at corners and intersections.

**Anchoring:** All courses properly anchored to masonry and concrete backing.

**Joints:** Not more than 3/8" wide; surfaces tooled to a smooth, slightly concave finish.

**Closures:** Cut at job, with a carborundum saw to straight, clean-cut ends; minimum length of any closure, 1/4 the length of the standard stretcher.

**Cutting and fitting:** Neatly done around pipes, boxes, etc.

- j) **SETTING CAST STONE:** Material accurately set by competent stone masons; true to line; level and plumb; with full joints of the specified mortar; all sides of stones cleaned and wetted prior to setting; exposed faces kept free of mortar at all times.

**Anchors and dowels:** Soft steel of sizes and shapes indicated on setting drawings; all zinc-coated or dipped in asphaltum or red lead after fabrication.

**Projecting courses and members:** Propped up until the anchoring has been built in and sufficient work above is in place to securely hold the projecting work in position.

**Heavy blocks:** Set only after the mortar in joints below has thoroughly set; 1/4" thick lead setting-pellets used in joints where approved or directed.

**Bedding:** Each piece of stone rested on a full bed of mortar insufficient amount to fill out to the edges of the piece on all sides; stones adjusted to their beds by striking with a wooden mallet or ram.

**Parging:** Backs of all stones and exposed sides of all bond stones plastered with not less than 1/2" thickness of setting mortar; mortar allowed to attain initial set before the masonry backing is built.

**Jointing:** Face joints uniformly 1/4" in width; setting mortar routed out 3/4" in depth from face.

**Pointing:** Stone surfaces at joints thoroughly cleaned and wetted; joints in vertical surfaces completely filled with the specified pointing mortar, packed tight, and rubbed smooth to a concave finish; top and wash joints thoroughly caulked with approved elastic caulking compound of color to match mortar joints.

## D-15. MASONRY FLASHING

- a) **FLASHING MATERIAL:** Sheet copper weighing not less than 2 oz. per square foot bonded to and between two layers of coarsely woven, asphalt-saturated cotton fabric by means of a ductile mastic; the entire assemblage corrugated on exposed surfaces in the manner providing a series of grooves running the entire length of each sheet. The material supplied in rolls of the maximum width and length suitable for the usage locations specified.

**Acceptable material:** Material equal to the flashing described as made by WASCO Flashing Company.

**Where required:** At window sills, exterior lintels, spandrels, and parapet walls; in positions shown on drawings.

**Application:** (general): Flashing material installed in manner to protect structural members from moisture and to effectively divert seepage toward the exterior of the construction. On horizontal masonry surfaces, flashing laid in a fresh bed of mortar; other surfaces receiving flashing thoroughly dry, free from loose materials, and be spotted with plastic cement to hold it in place until the masonry is laid.

**Waterproof connections** between pieces made by splicing (splitting the two top plies, lapping the metal 4", and coating the contacting surfaces with plastic cement).

**Heads and sills:** Flashing at lintels carried not less than 6" beyond ends. Material carried under and behind sills, and turned up at the ends, forming a pan.

## D-16. CLEANING MASONRY

- a) **TREATMENT OF SURFACES:** Masonry joints pointed or repointed where necessary; surfaces thoroughly brushed or scraped free of dirt, excess mortar or plaster, and other foreign materials; all discolorations and other objectionable surface defects thoroughly removed.

**Acid treatment:** Where necessary to restore original color, surfaces of exterior masonry, and exposed interior masonry not required to be painted, washed with a suitable muriatic acid solution.

**Protection:** Materials adjacent to masonry properly protected against staining and other injury during cleaning operations.



# LOOKING AHEAD ON BUILDING CODES

By **GEORGE N. THOMPSON**

Mr. Thompson is Chief of the Division of Codes and Specifications of the National Bureau of Standards, U. S. Department of Commerce; his knowledge of his subject is unquestioned. Other developments in this field are reported on page 80.

This discussion of building codes will begin where many such discussions leave off: It will concede that, like much other legislation, codes are susceptible of considerable improvement, depending on their age and the degree of competence with which they have been put together. Its main interest, however, will be in the consideration of constructive measures through which refinements can be brought about. The old truism that it is much easier to criticize than to suggest a remedy seems to apply peculiarly to the code situation. In fact, criticism has been carried so far that there is very little left to add or to present in a different way. So attention will be focused here on specific problems and how they might be handled both now and in the future.

Before entering into this phase of the matter, however, it may not be inappropriate to say that building codes perform a useful function which, on the whole, has been fairly well done. Instances of failure to keep up with progress in the building art, of requirements based on selfish motives, and of rigidity in dealing with various possible methods of construction undoubtedly exist. Nevertheless, in any over-all estimate of the usefulness of codes the protection afforded to people who unavoidably must work, live, and play in buildings—and that means all of us—should be kept in mind.

Practically all discussions of the subject agree that codes tend to fall behind the times—"antiquated and outmoded" is a favorite expression. There are, in fact, many local codes that have not had a major overhauling for fifteen or twenty years. Inertia, expense of revision, and reluctance to open up controversial questions all play a part in this. Early attention on the part of local authorities is desirable but, recognizing the tendency to put off the job, it is also desirable to make the code, in a sense, self-revising in future years. Fortunately, it is possible to indicate ways in which this can be accomplished to some extent.

## RELATION BETWEEN CODES AND STANDARDS

Few codes stand alone. Their requirements include references to other documents—standards for quality of materials, standards of performance, standards of good practice in construction produced by technical and professional societies, standardizing agencies, and other bodies. These standards represent the best thought that it has been possible to get together in their respective fields and their high quality is universally recognized. There are, however, legal problems connected with their use that are familiar to code authorities. The particular edition whose contents are to be followed frequently must be positively identified in order to avoid charges of delegation of legislative authority. When one comes to think of it, this seems a reasonable requirement, since nobody likes to be punished for a violation of something that was adopted by some agency over which, as a citizen, he has no control and which may change its requirements overnight without his knowledge.

The net effect of positive identification of a standard to which reference is made is, however, to freeze adherence to that standard until such time as the municipal council gets around to changing the requirement. Experience has

shown that this changing is done infrequently. The result is that many codes are strewn with references to dead standards. If literally followed, the code provisions thus fall behind the times. If the provisions are quietly ignored, as sometimes happens, and the latest standards are used, there is due recognition of new developments but on an extremely dubious legal basis.

There are several ways of dealing with this problem. Some municipalities have dealt with it by employing a phraseology in their codes which in effect requires that good practice shall be followed and that various named standards as revised from time to time shall be deemed acceptable good practice. This is held to avoid the pitfall of delegation of legislative authority. Other municipalities permit their building officials to make rulings, naming the standards which will be recognized as fulfilling the general purposes of the code. Another method, that could be used in those places where the reference standards must be definitely identified as to edition, would be to place a provision in the administrative chapter of the code requiring the building official to review all references to standards annually and bring a revised list before the municipal council for adoption. This would not be too great a task and should accomplish the purpose.

The particular method chosen will vary with the jurisdiction in which the code is developed. This emphasizes a point seldom brought out in discussions of code improvement, namely, that greater uniformity in requirements is dependent not only on technical but also on legal considerations. The latter often go back to some fundamental principle that has developed over the years and is so embedded in local practice that the chances of changing it are not promising. However, the desired prompt acceptance of latest standards can generally be achieved through use of some one of the alternate methods that have been mentioned.

## CODES, NEW MATERIALS, AND NEW TECHNIQUES

A frequent cause of complaint about building codes is that they fail to deal adequately with the many new materials, and new methods of putting these materials together, that are expected to come along in the near future. This business of setting up requirements for something that is as yet unknown, or at best whose characteristics are only imperfectly known, in many instances presents another set of problems. It is not sufficient to charge code writers with lack of vision. Some means must be found to deal justly not only with the manufacturers of these materials but also with the people whom the code is trying to protect. The fact that a material is new warrants neither discrimination against it nor unquestioning acceptance of claims made for it.

Obviously, some mechanism needs to be set up which will provide for an impartial investigation of claims and prompt acceptance for use if safety is assured. A start can be made with a provision now existing in many codes in various forms, to the effect that new materials and methods may be used on submittal of evidence, in the form of tests, structural analysis, or otherwise, that the proposed construction is safe. Sometimes the building official is empowered to



pass upon the matter, sometimes a local board, and sometimes a combination of the two.

This is a necessary step, but only the first one. Unless it is implemented with other measures, it is likely to be used sparingly and to provide a convenient method of rejection.

#### TESTS AND THEIR INTERPRETATION

Many of the novel constructions that are being proposed are not susceptible of engineering analysis and so the only basis for judgment is that of testing. Here a fundamental weakness appears in that standard methods of testing to determine structural qualities have not been fully agreed upon. So it is entirely possible that a new method of construction may be subjected to one series of tests in one municipality and to another set elsewhere. It follows that uniformity of treatment requires agreement on standard methods of testing for use everywhere. Work is going on in connection with this problem.

There is still another step to be taken. Results of testing must be interpreted in terms of what are safe values for particular materials and constructions. A uniform method of approach to this problem would provide a useful guide to local officials and boards in the exercise of their duties. Its general acceptance would assure uniform treatment, thus removing the possibility of capricious and arbitrary rulings.

It is well to note that the perfection of the process by which new materials and new constructions are admitted to use may involve little change in many codes. It does require, however, some constructive work in the development of a sound procedure for putting the terms of the code into effect.

#### THE "PERFORMANCE BASIS"

Closely linked to the problem of dealing with new materials is that of applying the so-called "performance basis" to materials and constructions, both new and old. In essence, this is a type of requirement which calls for some definite result that may be reached in a variety of ways, the means being immaterial so long as the result is obtained. The flexibility of this arrangement has appealed to a great many critics of present code provisions but in most instances they have contented themselves with advocating the method without exploring the difficulties involved and the steps to be taken in order to make it fully effective.

In the matter of requirements for fire resistance much progress has been made in the direction of code requirements. Roughly, it works as follows: Definite periods of fire resistance are set for walls, columns, floors, and so on in various types of building construction. No specific materials or thicknesses of protection are given in the code but the statement is made that any material may be used that will provide the specified fire resistance under the Standard Fire Test of the American Society for Testing Materials.

Codes employing this treatment frequently supplement the code requirement by appendix information in which are listed familiar materials in the thicknesses necessary to meet the requirement. This treatment has proved very successful and is being quite generally accepted in new codes.

It will be apparent to the reader that, once the standard methods for structural testing are available as discussed in connection with new materials and methods, an extension of the same principle could be attempted with respect to structural requirements. Such a development is undoubtedly coming but, as already explained, standard methods of testing and of interpreting results of testing must first be worked out.

The same general principle can also be applied in other parts of a code as the basis for it becomes firmly established, for instance with respect to some of the new types of metal chimneys and other devices. It may still be found convenient, however, to retain certain specified clearances from combustible construction and other specific requirements. The extent to which the principle can actually be applied is dependent upon research and adoption of sound procedures through which performance can be definitely established.

#### RESPONSIBILITY OF THE BUILDING OFFICIAL

Mention has been made of issuance of rulings by the building official. Where such action is permitted, a measure of flexibility is introduced into building code requirements; but some municipalities frown on the practice. The general idea is for the code to lay down general principles for the guidance of the official and authorize him to deal with situations not specifically covered by the code so long as it comes within the scope of his general authority. This presupposes a high degree of competence and integrity on the part of the building official but when safeguarded, as it usually is, by provisions for adequate notice and public hearings, it provides a very useful means of meeting situations that inevitably develop as time goes on.

#### FUNCTIONS OF THE BOARD OF APPEALS

If the building code provides for a strong Board of Appeals to which grievances may be taken and through which differences with the building official may be adjusted, the way is provided for ironing out many situations which are a source of irritation today. Unless specifically authorized to do so by state law, such a board cannot grant variations outside of the terms of the code itself, but, within the scope of its authority and acting in a liberal spirit which recognizes the problems of the times, it can do much to loosen up the rigidity of interpretations about which so many comments are made. The questions of whether approvals of new materials and methods of construction should come before it originally or on an appeal through the building official is a matter largely for local determination, the point being that a definite, recognized system fully buttressed by a workable procedure is necessary.

#### ELIMINATING UNSOUND PROVISIONS

The rooting out of individual passages in codes that have their origin in selfish motives or obsolete practices is another factor in the general approach to code improvement. It involves much laborious work. Steps along the way include identification of questionable provisions, determination of how they are construed in actual application, comparison with accepted standards to determine extent of departure from the normal, investigation of any special conditions that may justify such departures, and educational measures designed to convince local authorities that a change should be made. Current emphasis on the need for reducing costs of construction and on permitting the widest possible selection of materials makes it probable that this process of critical inspection of doubtful provisions will be strongly emphasized from now on.

#### GOOD ADMINISTRATION IS ESSENTIAL

No mere perfection in wording of the building code can compensate for lack of intelligent administration, alertness in following developments in the building field on the part of both building official and board, and systematic attention to needed amendments to the code itself where that becomes necessary. The volume of sound technical material that can be utilized to advantage in the enforcement of building code provisions is constantly growing. The appearance and continued development of this material in recent years has been one of the significant features of building code improvement. It comes from professional societies, standardizing bodies, governmental agencies, and other sources and represents much careful thought. To fail to utilize it promptly is to deprive the public of the benefit of efficiencies and economies that should mean much in the difficult days ahead.

Once the structure of code provisions is strengthened along the lines that have been described, the way will be open for recommendations developed on a national basis to flow naturally into channels of local application through acceptance in local codes and as guides for local officials and boards in the exercise of their discretionary powers. There will always be controversial points to be settled through technical research and composite judgment of experts but progress will have been made toward reaching the desirable goal of reasonably uniform requirements throughout the country.



Pardon us,

but it's this section's

# FIRST ANNIVERSARY

This month **PROGRESSIVE ARCHITECTURE** celebrates the first anniversary of its **Materials and Methods** section; exactly a year ago, in July 1945, we first presented to our readers, in a manner organized for maximum usefulness, this expansion of our coverage of the technical aspects of building design. It was a particularly appropriate time. V-E Day had come and gone; and though we knew nothing yet of the atomic bomb, the rapid re-deployment of our troops to the Far East foretold the approach of V-J Day. Building material and equipment manufacturers were increasingly realizing that the heralded postwar era was all but upon them. The dramatic new products which had first been ballyhooed loudly, then hushed as promises were seen to outstrip potential performance, were actually beginning to emerge, shyly at first, into public gaze. The time was ripe for us to give actuality to this dream we had been dreaming for some months. We were positive that our concept of the need for such a section in the magazine was correct. About our capability to satisfy the need, and about the correctness of our editorial formula, we were far from positive. As nearly as we can tell after one year's work, we seem to have done reasonably well on both counts; at least, not one of our subscribers or contributors has registered a single serious complaint, and many, many people have voiced their approbation. That is the most gratifying situation in which an editor can find himself. We are truly grateful.

Perhaps we should here review the conditions which led us to establish the **Materials and Methods** section, and examine afresh the editorial principles which guide us:

1. We believed we were approaching a period of unparalleled building activity;
2. We believed the war had stimulated many unusual, important developments in building materials and techniques;
3. We believed the war-caused stoppage of building had given us time to re-evaluate products and practices;
4. We sensed a dearth of information on technical progress;
5. We recognized a need for a clearing-house for technical information to aid

in the search for better building techniques, if we were to help architecture to progress. Furthermore, we recognized the necessity for a full, free flow of information between manufacturers of building material and equipment and the building design professions.

What is the situation now? For one thing, the demand for building has far outstripped our supply of materials, and until supply catches up the country has to channel available materials into essential construction. Estimates of building activity, far from decreasing, have substantially increased. The stimulus of war continues to be felt, in that the tremendous war manufacturing facilities we built up prior to 1945 are seeking outlets; the Chrysler Corporation is producing a building product, its "Cycleweld" sheet material; the Glenn Martin plane plant is pushing products developed for aviation into the building field; there are other examples. In greater and greater numbers the "public" is accepting, in some instances demanding, good design based upon logical thinking rather than copied stylism.

As for scarcity of technical information, and a need for recognized authoritative sources—well, we have more than the approbation of our readers to reassure us on this point. Our mail has grown tremendously; we receive well over 5,000 inquiries per month relating to technical matters. Recently we sent 2000 of our subscribers each a questionnaire which included inquiries on the **Materials and Methods** section. 1063, or 82% of the 1313 who replied, praised the section. In addition to subscriber reaction, we have noticed that *The Architectural Forum* is publishing an increased amount of technical material each month, and in May 1946 *Architectural Record* started an "Architectural Engineering" section based upon much the same ideas as ours. Remember the old saw to the effect that imitation is the sincerest form of flattery?

All this makes us profoundly humble. It induces a frightening sense of responsibility. We shall continue, in this second year (and, we expect, for much longer) to seek out authorities in the various technical fields and to publish, for your benefit, their findings. It is an exciting prospect.

—THE EDITORS

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# ... THERE MUST BE A REASON !

## MORE ABOUT BUILDING CODES

To reiterate (see also "This Month" in the front of this issue), George N. Thompson, author of the article about building codes on page 77, has had a wealth of experience and is personally responsible for much that is good in our existing building codes. From 1935 until 1944 he was vice chairman of the Building Code Correlating Committee of the American Standards Association; he has been Chairman since 1944, has written extensively on codes, and represents the National Bureau of Standards on a number of committees of the American Society for Testing Materials. Through these associations Mr. Thompson maintains close contact with agencies, public and private, which influence building code development.

Such agencies range from individual manufacturers of building materials and equipment, and associations, to semi-official and governmental bodies.

## BUILDING OFFICIALS CONFERENCE CODE

The Building Officials Conference of America, Inc. (BOCA), whose president is Walker S. Lee, Supt. of Buildings of Rochester, N. Y., is convinced that there is a need for a basic building code, suitable for adoption by all municipalities and other appropriate governmental units throughout the country. They have stated that the handicaps imposed on the building industry by obsolete building regulations must be removed. They believe their organization, with whose individual members every building designer in the country is familiar, is the one to execute this tremendous undertaking. They have appointed a Basic Building Code Committee, under the chairmanship of Albert H. Baum, Building Commissioner of St. Louis, Mo. The committee is composed of a Committee of Consultants and Review, and nine sub-committees charged with preparing the code.

All these committees are composed of building officials, plus two consulting engineers: Rudolph P. Miller of New York City and Frank Burton of Detroit. To the best of our knowledge there are no architects in the group. In respect to geographical distribution, members of the committees hail from Portland, Me., to Portland, Ore., and from Madison, Wis., to Jackson, Miss. There is no representation from California (home state of the Pacific Coast Building Officials Conference, which issues yearly editions of the "Uniform Building Code," a standard document adopted in many regions).

The BOCA code, when completed, will consist of two principal parts: Part 1, a permanent section setting forth the required performance standards for construction; Part 2, a section subject to change, dealing with construction methods and materials and with con-

struction details, supplemented by a continuous information service covering new developments, with "authoritative" recommendations for their use. The housing emergency has injected new considerations. To quote BOCA:

"... Building officials realize that some of the new methods and materials being advanced do not necessarily possess the qualities of permanency customarily expected of sound construction. They recognize, too, that the present emergency and the expedients designed to meet it call for prompt action on their part. Their immediate answer is the Prefabrication Code." Whether or not "prefabrication" is an "expedient" we will leave to the wise to argue. The fact is that BOCA has prepared and made available a section of its model building code covering prefabrication.

In general, the BOCA Prefabrication Code (Section 19 of the complete document) is a "performance" code which makes provision for approval of complete units rather than of individual pieces of lumber, etc.; in this respect it seems admirable. In some others it seems less desirable. For instance, Sec. 1922.0 requires window glass to the minimum extent of 10% of floor area, with half the glass area openable—thus ruling out totally fixed glass plus louvered panels, which is one rational design conclusion. It is curious, also, that in Sec. 1901.0, where abbreviations for titles of authorities are given, the National Bureau of Standards is mis-titled "United States" Bureau of Standards, and abbreviated "U.S.B.S."

## ASA CODE ACTIVITIES

The American Standards Association has numerous committees active on codes in addition to the Building Code Correlating Committee. Some 17 are reported in the May 1946 issue of *Industrial Standardization*, ASA publication. That issue also states that the BCC Committee has decided to concentrate on standards directly concerned with codes rather than on preparation of a basic building code, reports that a dozen states now permit adoption of standards and codes by reference, and that permissive legislation is now pending in other states. J. L. Haynes, Chief of the Construction Division, U. S. Dept. of Commerce, spoke at a recent BCC Committee meeting, describing the Department's study of obsolete and restrictive requirements in existing codes, a survey which is being made to assist the National Bureau of Standards. One more ASA report: *The American Standard Administrative Requirements for Building Codes*, A55.1-1944, which is now being revised, includes sections to clarify policies in determining acceptability of new methods of construction, including prefabrication. Incidentally, Theodore Irving Coe, Technical Secretary of the A.I.A., is a member of the ASA Code Committee.

## THIS MONTH'S PRODUCTS

### ADHESIVES

**Uformite 501.** Pre-catalyzed urea resin for bonding hot press plywood; can be highly extended with flour, thus lowering glue line cost; water-resistant. Resinous Products and Chemical Co., 222 W. Washington Square, Philadelphia, Pa.

### AWNINGS

**Aluminum Awning.** Roll-up aluminum awning for homes; fingertip control inside room. Fits standard windows up to 12-ft width. Orchard Brothers, Inc., 270 Meadow Road, Rutherford, N. J.

### COMMUNICATIONS SYSTEMS

**Executone Model C-18.** Industrial intercom unit with call-back facility, for high noise level coverage. Executone, Inc., 415 Lexington Ave., New York 17, N. Y.

### CONTROLS

**"Weather-Man" Thermostatic Control.** Automatic device, actuated by outside temperatures, controls inside building heat; operates any gas or oil burner, stoker, circulating pump, fan, motor, or zone valve; may be used with any heating system. Automatic Devices Co., Weather Controls Div., 53 W. Jackson Blvd., Chicago 4, Ill.

**Flex-tube 3-way Valve.** Valve with flexible synthetic rubber tube in bakelite body, for handling highly corrosive or erosive liquids, gases, chemicals—especially for viscous or solid-carrying fluids. 1/8" and 1/4" I.P.S.; working pressures up to 250 lbs; max. temperatures 150° F. Grove Regulator Co., 65th and Hollis Sts., Oakland 8, Calif.

**Operating Valve BA and BAC.** Self-sealing, air-operating, ball type valve with hand opening lever and rotating pivot; operating pressures up to 200 psi. Becomes Type BAC when fitted with cam operated lever for instantaneous valve opening and closing. Leslie Co., 58 Delafield Ave., Lyndhurst, N. J.

### DRAFTING ROOM EQUIPMENT

**Hatch-liner.** 45° Plexiglas triangle with attachment to secure evenly spaced cross-hatching, adjustable to different spacings. Dolgorukov Mfg. Co., 1646 Mt. Eagle Place, Alexandria, Va.

**Plexiglas "Slot-Letter."** Slotted guide for use in freehand lettering; reference lines engraved on guide. Dolgorukov Mfg. Co.

**Instrumaster Line.** Stencil-type plastic drafting instruments for isometric and dimetric drawings; 27 openings for drawing ellipses of various sizes, determining axes, etc. Instrumaster Industries, 73 Arch St., Greenwich, Conn.

**Plas-ten.** 10" universal slide rule of white plastic; leather case. Frederick Post Co., Hamlin and Avondale Aves., P. O. Box 803, Chicago, Ill.

### HEATING EQUIPMENT

**"Hy-Temp" Wall Heater.** Electrical wall heater in steel casing fits flush with wall. For space heating; 12" x 18" x 4"; 1500



watts; 120 V AC; weight 7 lbs, 4 oz. Hydro-Aire, Inc., Home Appliance Div., 626 N. Robertson Blvd., Los Angeles 46, Calif.

#### HARDWARE

**Integralock.** Compact lock, cylinder in knob; bronze, brass, chrome finishes; mortise and cutout types, precision manufacture, easy installation; self-lubricating. Shear-pin protects against forcing. Sargent & Co., New Haven, Conn.

#### HOSPITAL EQUIPMENT

**HE 6-70 Hospital Electro-Static Grounding Intercooler.** Device with grounding chains for eliminating hazards in operating rooms from electrostatic explosions of anesthetics such as hydrocarbon gases. Cannon Electric Development Co., 3209 Humboldt St., Los Angeles 31, Calif.

#### LIGHTING EQUIPMENT

**Sola 603 Cold Cathode Lighting Transformer.** Designed for stable operating voltage for two 8-ft, 20 or 25 mm fluorescent lamps. Approx. 80% efficiency; 95-100% power factor operation. Sola Electric Co., 2525 Clybourn Ave., Chicago 14, Ill.

#### LOAD TRANSPORTATION

**10-Ton Industrial Truck.** Electric drive and controls, low body, 147" long, 45" wide; speed to 6 mph; can turn in 71" wide aisle; complete visibility for operator. Elwell-Parker Electric Co., 4205 St. Clair Ave., Cleveland 14, Ohio.

#### PLASTICS

**Luminescent "Lucite" Sheeting.** (1) Fluorescent sheeting that glows when exposed to ultraviolet (black) light. (2) Phosphorescent sheeting that glows in the dark for 10 to 12 hours after exposure to light. Various thicknesses, colors, sizes. E. I. du Pont de Nemours & Co., Plastics Dept., Wilmington 98, Del.

**Patterned Lucite.** Lightweight, shatter-resistant sheets of acrylic resin, surface-patterned and colored in manufacture. Suggested uses: ticket windows, partitions, washroom windows, edge-lighted panels. (Commercial production to start soon.) E. I. du Pont de Nemours & Co.

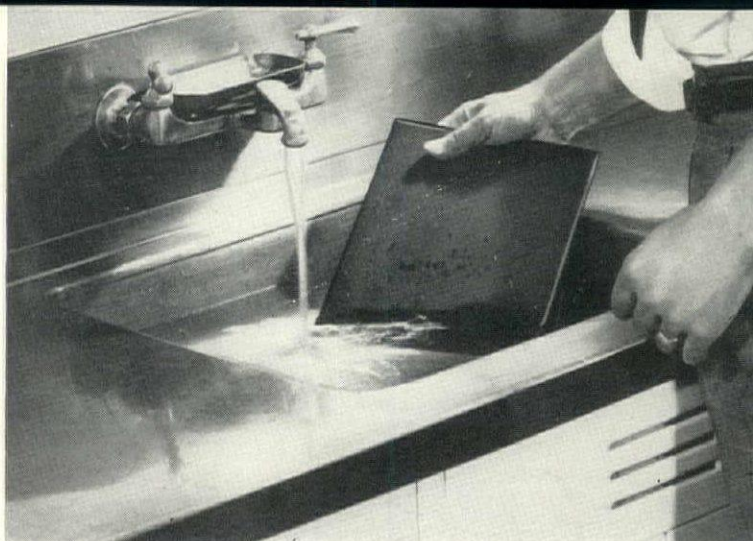
**Du Pont BCM.** Liquid resin used with glass fabric for a composition twice as strong as equal weight of some types of steel, with good bonding and heat-resistance properties; high gloss finish, in colors. (Now being tested for end uses.) E. I. du Pont de Nemours & Co., Wilmington 98, Del.

**Teflon.** Industrial plastic (tetrafluoroethylene resin) for use where high resistance to solvents and corrosives, heat endurance, insulation against high electrical frequencies, are requisite. Withstands acids that dissolve gold, retains strength and form at higher temperatures than any known organic material. E. I. du Pont de Nemours & Co., Plastics Dept.

**Pantex.** A vinyl plastic film which can be embossed without requiring fabric bases. Among suggested uses: upholstery, decorative wall covering. Pantasote Co., Passaic, N. J.

**Plasticlad.** Alloy-steel, electrostatically coated plastic material for roofing and siding, ventilators, flashings, fastenings; in colors. Reliance Steel Products Co., McKeesport, Pa.

U. S. Gypsum's new sheathing board has an asphalt-impregnated gypsum core for weather resistance, is expected to release wood for other uses.



#### PLUMBING EQUIPMENT

**Oil-Burning Water Heater.** 40-gal insulated, white-enamelled heater with recovery capacity of 50 gph for 60° rise, 31 gph recovery for 100° rise. Evans Products Co., 15310 Fullerton Ave., Detroit 27, Mich.

**Smithway-Burkay Gas Water Heater.** Booster-recovery unit for use where unusual quantities of instantaneous hot water are required. Capacity to 195,000 btu's per hr, heats 125 gal water to 180° in one hour; maintains normal hot water to 140°. Thermostatic control for gas supply. A. O. Smith Corp., 3533 North 27th St., Milwaukee, Wis.

#### SOUND INSULATION

**Softone Acoustical Units.** Of plaster containing high cork percentage; can be cemented directly on solid backing; high coefficient of noise reduction; incombustible. Softone plaster (powder form) applicable at job site to wood, concrete, metal, rock lath, ordinary scratch coat. Pressurelube, Inc., Acoustical and Insulation Div., 120 S. LaSalle St., Chicago 3, Ill.

#### STAIRS—SAFETY TREADS

**Safe Groove Treads.** Steel, yellow brass, or white alloy based treads, with lead or abrasive grit fillers, for stairs and ramps of wood, concrete, or steel. Wooster Products, Inc., Wooster, Ohio.

**Abrasive Cast Treads.** Patterned treads in cast metal (iron, aluminum, bronze, nickel) for stairs and ramps of wood, concrete, or steel. Wooster Products, Inc.

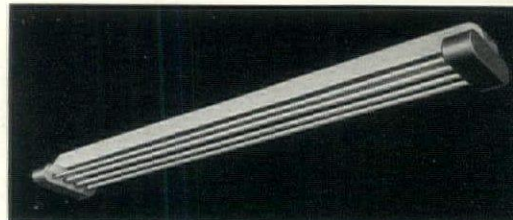
#### VENTILATION

**Ventilouver.** Attic ventilator, one-piece steel frame (15" x 18") with welded louver blades; fits between any two 16" vertical studs (no wood framing needed). Other sizes to be manufactured. Swartwout Co., 18511 Euclid Ave., Cleveland 12, Ohio.

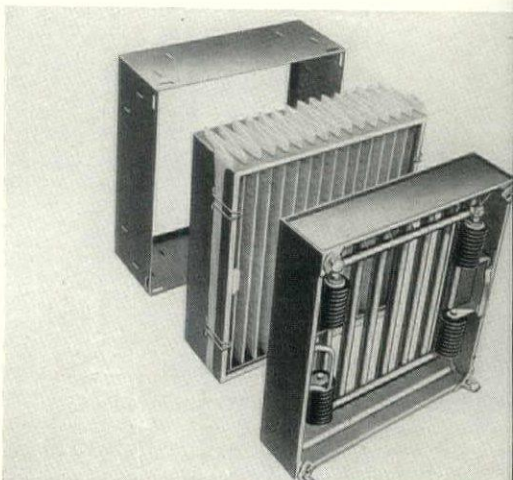
**Window Power Ventilator.** Mechanism automatically draws fresh air, recirculates, exhausts room air by single switch control. Curved, louvered front. U. S. Air Conditioning Corp., 420 Lexington Ave., New York 17, N. Y.

#### WATER-RESISTANT COATINGS

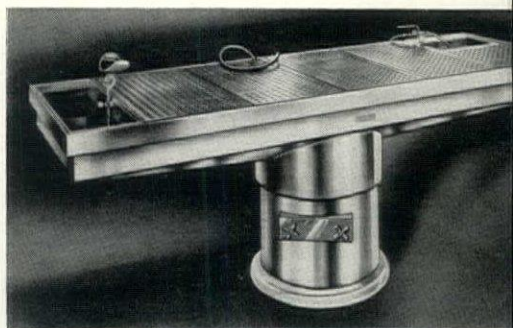
**Bondex Hydraulic Waterproofing.** Powder mix, brush- or trowel-applied, for treating major cracks and breaks in masonry. Reardon Co., 2208 N. Second St., St. Louis, Mo.



Cold cathode fluorescent lighting fixture 8 ft long, 2 or 4 lamp; suitable for relamping, approved by Underwriters; Colonial Lighting Co., Inc.



Electronic air filter, American Air Filter Co.'s "Electro-Airmat," collects 90% of atmospheric dust on electrostatically charged paper. Filter operates mechanically as well as electrically, is light in weight.



"Boston" autopsy table, Hospital Equipment Div., Market Forge Co., made of stainless steel, has several new features.

Sylvania's new fluorescent lamp, 4500° white, intermediate in color between 3500° white and 6500° white lamps.





## MANUFACTURERS' LITERATURE

★ *Editors' Note: Items starred are particularly noteworthy, due to immediate and widespread interest in their contents, to the conciseness and clarity with which information is presented, to announcement of a new, important product, or to some other factor which makes them especially valuable.*

### Air Treatment

1-49. *A Dependable Source of Supply*, 4-p. illus. folder on industrial air conditioning equipment (filters, dust arresters, fans, foundry exhausts, sawdust separators, etc.). St. Louis Blow Pipe and Heater Co., Inc.

★ 1-50. *Viking Summer, Winter, Year Round Air Conditioning*, 4-p. illus. folder on an air conditioning system that accomplishes heating, cooling, humidification, dehumidification, cleaning, and distribution through one unit. Viking Manufacturing Corp.

1-48. *Steam-Jet Air Ejectors (RP-284)*, Worthington Pump & Machinery Corp. Reviewed June.

### Design, Plant and Store

4-49. *Looking Ahead with the Bottling Industry*. Crown Cork & Seal Co., Machinery Div. Reviewed June.

4-50. *Setting the Scene for Selling*, Lees-Cochrane Co., Inc. Reviewed June.

### Doors

★ 4-54. *Aetna Steel Door Frames for Modern Homes*, illus. folder on welded steel door frames to hold standard size wood doors. Aetna Steel Products Corp.

### Drafting Room Equipment

4-47. *Perfect Circles in Pencil or Ink*. Illus. folder on a nickel-plated beam compass (2 hexagonal beams, 8" and 16"), needle pivot point. Charles Bruning Co., Inc.

4-51. *Bruning Slide Rules and Scales*, 4-p. illus. pamphlet suggesting pocket slide rules and scales with special imprints as gifts. Charles Bruning Co., Inc.

4-52. *Kodak Transfax Process*, Eastman Kodak Co. Reviewed June.

4-53. *The Solarmeter Solves Them—Instantly*, R. W. Justice. Reviewed June.

### Engineering Equipment

5-30. *Gurley Engineering Instruments (Bulletin 50)*, W. & L. E. Gurley. Reviewed June.

### Flashing

★ 6-67. *Copper Through-Wall Flashing (12-H)*, 6 pp. Monograph V, presenting data on application of copper flashing in construction, illustrating each with detail drawings. Copper & Brass Research Association.

### Floors, Coverings, Finishes

6-65. *Concrete Floors with Lone Star Cements*, Lone Star Cement Corp. Reviewed June.

### Glass

7-49. *Carved Glass*, 24-p. booklet (7½

x9%) illustrating uses of carved glass for decoration. Harriton Carved Glass.

7-51. *Making Your Home More Attractive with "Pittsburgh" Glass (G5793)*, 28-p. booklet. Many uses of glass (plate, insulating, mirror, block, in furniture, shelving, etc.) in homes, shown by photographs and brief text. Pittsburgh Plate Glass Co., Dept. PPG110.

### Gypsum Products

7-50. *The Four Protections of Modern Home Building (X-26)*, U. S. Gypsum Co. Reviewed June.

### Hardware

8-94. *Cleveland Sash Pulleys (Bulletin 46)*, 4-p. illus. folder. Information on overhead, side, "noiseless" sash pulleys for various types of windows; specifications. Cleveland Lock Works.

8-102. *Hardware for Commercial Entrances (Cat. K570)*, P. & F. Corbin. Reviewed June.

8-95. *Catalog No. 4*, 28 pp., illus., on ornamental hardware: cast brass, bronze, aluminum, nickel silver; sizes. Erco Manufacturing Co.

2 illus. folders on features and mechanism of bronze crank device for opening and closing metal casement windows. Detail drawings. H. S. Getty & Co., Inc.:

8-96. *The Getty Internal Gear Casement Operator for Metal Casement Windows*, AIA File 27C2.

8-97. *The Getty Internal Gear Casement Operator for Wood Casement Windows*, AIA File 27C2.

8-98. *Soss Invisible Hinges*, AIA File 27-B-1, 21-p. illus. booklet on metal hinges concealed in mortise of door, window, or cabinet; types, specifications, drawings; instructions for installing. Soss Mfg. Co.

8-99. *Blue Ribbon Designs (93A, B, C, D)*. Data sheets on metal latch sets and pulls, cabinet knob pulls, pulls and catches, semi-concealed hinges, surface hinges and catches. Stanley Works.

### Heating and Heating Equipment

8-117. *Williams Oil-O-Matic Winter Air Conditioner Furnace-Burner Unit Model 10 (LO-7)*, 2-p. folder on a fuel-oil burner unit with air conditioning devices, for average size homes. Eureka Williams Corp., Williams Oil-O-Matic Div.

8-110. *You Can Heat Your Home From Your Armchair With a Delco-Heat Oil Burner*, 4-p. illus. consumer folder on an oil burner with thermostatic control, for homes. General Motors Corp., Delco Appliance Div.

8-111. *Mastercraft Oil Burner (4611)*, illus. consumer pamphlet (4x9), on a home oil burner providing double oxygen charge for oil economy; parts removable for repair. Harvey-Whipple, Inc.

8-112. *Presenting New Oil Heating Designs and Profit Opportunities for You (Form O B-45130)*, illus. consumer booklet on new oil-fired heating units for homes. Heil Co.

★ 8-116. *Roberson Heatsum Cable*, 4-p. illus. folder on advantages of synthetic insulation cable for use

in electric radiant heating. General specifications; load requirement calculation; sizes, properties. L. N. Roberson Co.

8-100. *SK Radiafin Tubes (11sa)*, Schutte & Koerting Co. Reviewed June.

8-101. *Sarcotherm Manual*, Sarcotherm Controls, Inc. Reviewed June.

8-119. *The Cardinal Oil Burner*, 4-p. illus. folder. Data on an oil-burning unit for commercial purposes. General Utilities Corp.

### Hospital Equipment

8-118. *Hospital Electro-Static Grounding Intercoupler (Bulletin HG-1)*, 2-p. folder on a grounding device to eliminate hazards in operating rooms from electrostatic explosions of anesthetics. Cannon Electric Development Co.

### Insulation

9-49. *Here's the Insulation for Crawl Spaces*, illus. consumer folder on features of light steel sheets for reflective insulation above crawl spaces. American Flange & Mfg. Co., Inc., Ferro-Therm Div.

### Library Equipment

12-68. *Snead Metal Library Bookstacks*, 12-p. illus. booklet. Data on library shelves, stacks, lighting, movable steel partitions, book conveyors, and accessories. Snead & Co.

### Lighting and Lighting Equipment

12-69. *Commercial Fluorescent Luminaires (Cat. 285)*, Mitchell Manufacturing Co. Reviewed June.

12-70. *Essential Data on Sylvania Fluorescent Lamps*, Sylvania Electric Products Co. Reviewed June.

### Load Transportation

12-71. *Overhead Handling Equipment (Bulletin C-1)*, 56 pp., illus. On steel track-suspension equipment for industrial plants, etc.; layout information. American Monorail Co.

12-72. *Material-Handling Equipment*, Electric Industrial Truck Association. Reviewed June.

### Metal

★ 13-35. *The Bending of Wrought Iron Plates*, 14-p. illus. bulletin. Factual engineering data on hot and cold methods of bending wrought iron plate; suggestions on specifying and ordering; tolerance tables; glossary. A. M. Byers Co.

13-34. *Pan American Bronze*, Pan American Bronze Co. Reviewed June.

### Paint

★ 16-109. *The Quality Paints of Martin-Senour*, illus. folder. Selection chart for type of paint and its use, with color illustrations and text giving suggestions for proportionate use of color, interior and exterior, which seem to be based on sound study of color in relation to design. Martin-Senour Co.

### Partitions

16-97. *Snead Mobilwalls*, 12-p. illus. folder on movable steel partitions, fire-proof and sound-insulated; on movable screens and rails for offices, hospitals. Suggested applications; detail drawings. Snead & Co.



# MANUFACTURERS' LITERATURE

PROGRESSIVE ARCHITECTURE—Pencil Points, 330 West 42nd Street, New York 18, N. Y. I should like a copy of each piece of Manufacturers' Literature listed.

We request students to send their inquiries directly to the manufacturers.

No.	No.	No.	No.
No.	No.	No.	No.
No.	No.	No.	No.
No.	No.	No.	No.

NAME

POSITION

FIRM

MAILING ADDRESS

☐ HOME  
☐ BUSINESS

CITY

STATE

7/46

PLEASE PRINT

## Piping Equipment

16-102. *Wrought Iron for Underground Services*, A. M. Byers Co. Reviewed June.

Technical data bulletins from Fibre Conduit Co. on applications of wood-fibre pipe to sewage and drainage service:

16-98. *Research Bulletin 435, Some Data on Orangeburg Pipe for Drainage Work*.

16-99. *Research Bulletin 436, Orangeburg Sewer Pipe (Case History No. 1)*.

16-100. *Research Bulletin 437, Flow Capacity of Orangeburg Pipe*.

16-101. *Research Bulletin 443, Hydraulics of Some Common Applications of Orangeburg Pipe*.

## Plastics

16-103. *Plastics Primer*, Durez Plastics & Chemicals, Inc. Reviewed June.

## Plumbing Equipment

16-104. *American-Standard Catalogue*, American Radiator & Standard Sanitary Corp. Reviewed June.

16-105. *Model 50 Self-Sustaining Hinge*, AIA File 29-H-22, Sperzel Co. Reviewed June.

16-106. *Sperzel Sanitary Toilet Seats (Cat. 300)*, AIA File 29-H-22, illus. catalog on toilet seat equipment, including self-raising types, for public washrooms. Detail drawings. Sperzel Co.

## Prefabrication

16-107. *Prefabricated Insulated Steel and Aluminum Portable Housing Units*, The Steelcraft Mfg. Co. Reviewed June.

## Pump Equipment

16-108. *Influence of Ground-Water Level on Turbine Well Pump Performance (RP277)*, 4-p. illus. reprint of non-technical article by P. J. Equi. Explanation of and suggested remedy for output loss. Worthington Pump & Machinery Corp.

## Refrigeration, Industrial

18-29. *Worthington Refrigeration Unit, Freon-12*, 14 data sheets on various types of refrigeration units for air conditioning, product and industrial refrigeration. Capacities 500 to 1,500,000 Btu per hour. Worthington Pump and Machinery Corp., Air Conditioning and Refrigeration Div.

## Roofing

18-32. *An Abesto Specification Means A Successful Roof*, Abesto Manufacturing Co. Reviewed June.

## Rubber

18-33. *A Special Report for Product Designers*, 4-p. preprint. General data on forming and curing rubber and synthetic rubber; comparative bonding qualities, types. Ohio Rubber Co.

## Rubber, Synthetic

18-34. *Silicone Rubber*, 12-p. illus. booklet. Properties, characteristics, potential uses of a silicone rubber still in the development stage, at present used mainly where low temperature flexibility and lack of corrosive action are required. General Electric, Plastics Div.

## Steel

"Blue Sheets" on stainless steel, Allegheny Ludlum Steel Corp. Reviewed June:

19-57. *Allegheny Metal 12 EZ, Type 416, A Free Machining Chromium Stainless Steel*.

19-58. *Allegheny Metal 18-8C and 18-8T, Types 347 and 321*.

19-59. *Ludlum 609, Shock Resisting Steel*.

19-60. *Allegheny Metal Castings, Stainless Steel*.

## Tile, Asphalt

20-23. *Recommended Specifications for the Installation and Maintenance of Asphalt Tile*, AIA File 23-D, Asphalt Tile Institute. Reviewed June.

## Trims

20-24. *The Importance of Mouldings in Modern Design*, Herron-Zimmers Moulding Co. Reviewed June.

20-25. *Stainless Steel Mouldings*, Herron-Zimmers Moulding Co. Reviewed June.

20-26. *Chromtrim, The Perfected Aluminum Molding*, 4-p. illus. folder showing detail drawings of aluminum trim—nosings, edgings, sections, cove sections, corners, etc. R. D. Werner Co.

## Ventilation

22-13. *Duriron Exhaust Fans (Bulletin 1101-C)*, AIA File 30dl, 8 pp., illus. Discussion of engineering and mechanical features of acid-resistant exhaust fans. Dimensional drawings, capacity tables. Duriron Co., Inc.

22-15. *Herman Nelson Unit Ventilators (Bulletin 2464)*, 8-p. illus. bulletin on features and operation of cabinet-enclosed, electric driven ventilators for floor or ceiling. Herman Nelson Corp.

22-14. *Penglass Round "Accelerator" Roof Ventilator, "Relief" Ridge Ventilator*, 4-p. illus. folder on two types of metal ventilators—dimensions, weights, gages, capacity tables. Information on

standard bases. Pennsylvania Wire Glass Co.

## Wall Coverings

Data sheets on a wall covering, Varlon, Inc. Reviewed June:

22-63. No. 1. *Description, Specifications, Tests*.

22-64. No. 2. *Special Tests*.

22-65. No. 3. *Special Tests*.

22-66. No. 4. *Independent Technical Report*.

## Wall Ties

23-67. *Lasting Strength for Cavity Wall Construction (Pub. 100)*, Copperweld Steel Co. Reviewed June.

## Water Softeners

23-68. *Refinite RO-S*, 4-p. illus. folder on features of a semi-automatic, down-flow, water softener, valve-controlled, for homes; specifications. Crane Co.

23-69. *Soft-Water*, Elgin Softener Corp. Reviewed June.

## Weather Instruments

23-70. *Gurley Wind Velocity and Wind Direction Instruments (Bulletin 6000)*, W. & L. E. Gurley. Reviewed June.

## Welding

23-62. *"Bumblebee" Alternating Current Arc Welding Machines (ADW-53A)*, 16 pp., illus., on features of AC welding machines for all-position and for high speed horizontal fillet welding. Specifications; electrical characteristics; data on shielded arc electrodes. Air Reduction Sales Co.

## Windows

23-71. *Awning Type Windows, Jalousies, Jalousie Doors*, Gate City Sash & Door Co. Reviewed June.

## Wood Preservatives

23-72. *Abesto Staintox Wood Preserver, Abesto Cleartox Wood Preserver*, Abesto Manufacturing Corp. Reviewed June.



# from the TECHNICAL PRESS

By JEAN SHORT and DAVID ALDRICH

## TECHNICAL ARTICLES

**A Review of Product Finishing with Organic Coatings, Part I, The Enamelist, November 1945.** Enamelist Publishing Company, 4150 East 56th Street, Cleveland, Ohio. 5 pp. 10 cents per copy.

This is the first of a series of articles discussing metal preparation, application control, selection of materials, accelerated testing, and field testing as related to organic finishing. Metal preparation for organic finishing here receives a general review which points out the types of metal contamination, the need for cleaning metal before finishing, and the types of preparation. The methods of cleaning are outlined with recommendations for their appropriate use.

**Building Codes and Good Construction.** George N. Thompson, Chief, Division of Codes and Specifications, Nat'l Bur. of Standards. Domestic Commerce, Government Printing Office, Washington 25, D. C. December 1945.

Almost all articles or discussions on the weaknesses and limitations of present building codes have been based on generalizations. "... No bill of particulars is given, little proof is offered, and few specific suggestions for improvement are made." Thompson's purpose is to point out some of the facts regarding building codes and to indicate what thoughtful analysis and constructive action can accomplish.

Because codes are revised at such lengthy intervals and because there is no legal method for immediate change to allow use of new and better materials, codes have become unnecessarily restrictive, in some cases. A disaster such as the Coconut Grove fire, however, reminds us periodically that some of the more annoying requirements have quite real bases in fact. There is no doubt that some machinery for frequent, systematic revisions of codes must be instituted. Mr. Thompson suggests that 1) a completely standard method of testing be established; 2) results of such tests be incorporated in a national "reference base" code, with necessary adjustments for local conditions added by regional boards. In setting up a nationally accepted code, Thompson urges the immediate establishment of the proposed "reference code" against which local codes may be compared. If such a comparison shows marked divergencies, local conditions or code laxity may be the reason. A reference base would permit country-wide revision to proceed in a logical, constructive manner.

**Ceilings Unlimited.** Miller Company, Meriden, Conn. Spiral bound, 72 pp., illus., tables.

A brochure on the Miller fluorescent troffer lighting system—a continuous, wireway recessed troffer with patented hanger assembly and accessories. The booklet describes the systems, gives installation data, and some specifications.

The first of the three sections, showing photos and sketches of installations, gives the basic unit scheme on which Miller designs are based. Sections, plans, and installation methods are given in section II. Illustrations show the fundamental differences in the four basic systems—1) furred ceiling supported entirely from the furring hanger; 2) supported from both furring hanger and troffer wiring channel; 3) supported entirely from troffer wiring channel; and 4) lighting system supported from furred ceiling.

Section III, "How to Install Them," includes catalogs of types of hangers, brackets, etc., and illumination tables.

**COMPLETE WITH KITCHEN.** Elizabeth Beveridge, Home Equipment Editor. Woman's Home Companion, October 1945. Illus.

Do's and don'ts for the kitchen, aimed at prospective buyers of the prefabricated home.

**Corrosion of Steels.** United States Steel Corp. Available from Carnegie Illinois Steel Corp., 429 Fourth Ave., Pittsburgh, Pa. Paper booklet, 16 pp., graphs, bibliog.

*Corrosion of Steels* indicates how various commercial steels may reasonably be expected to resist the attack of atmospheric corrosion in particular. This summary, prepared by Dr. John Johnston, Research Laboratory Director of United States Steel Corporation, contains only generally accepted information.

**EXTERNAL RENDERED FINISHES.** F. L. Brady, M. Sc., A.R.I.C., Journal of the Royal Institute of British Architects, September 1945.

In a paper read at a meeting held by the Architectural Science Board, Mr. Brady reported on continental methods of applying stucco as observed during a pre-war tour. Claiming that much of the finished work done in Britain today is unsatisfactory, the speaker suggested a modification in materials as well as in methods of application.

Briefly, the continental practice varies from the British (to good advantage) in:

1) Use of mixtures of lime and cement

- 2) Application by throwing-on, not laying-on by trowel
- 3) "Scraping" to produce a textured finish
- 4) Protection of projections and horizontal surfaces by flashing.

**Handbook On Stainless Steel.** Allegheny Ludlum Steel Corp., Brackenridge, Pa. January 1946. 5" x 7½", paper bound booklet, 100 pp., tables.

This handbook presents practical information about 26 types of stainless steel manufactured by Allegheny Ludlum Steel Corp. It supersedes the stainless steel chapters of the earlier *Handbook of Special Steels*.

Principal feature of the booklet is a 44-column "finder chart" giving analyses, properties, hot working temperatures, and heat treatment of the different types, plus a general discussion of each type. The chart is supplemented by a table of the corrosion (or non-corrosion) of four leading types of stainless steel subjected to attack by 230 chemicals and common materials.

Fabrication methods and procedures are outlined and described in forty pages. Twenty more pages describe stainless steel products—plates, sheet, strip, bars, forging billets, tube stock and tubes, angles, wire castings, forgings, and clad steel (Pluramelt). The handbook is completed by tables of bar weights, weights of sheet, weights of tubes, feet per pound of wire, decimal equivalents of fractions of an inch, and temperature conversion.

**To Give Sunlight and Daylight a Chance.** William H. Ludlow, American City, American City Magazine Company, 470 Fourth Avenue, New York 16, N. Y. 3 pp., charts. 35 cents a copy.

"Although the securing of adequate natural illumination is one of the major purposes of zoning and building codes, in no known case has scientific application of the facts of natural illumination been used as the basis for height, setback, yard, and court provisions in either multiple dwelling laws or zoning ordinances." The report, *Densities in New York City*, prepared for the Citizens' Housing Council of New York, whose data on sunlight factors is summarized here by Mr. Ludlow, presents a scientific solution to the problem of zoning for natural illumination.

**Notice to Readers:** Unfortunately, *PROGRESSIVE ARCHITECTURE* has no facilities for obtaining for readers copies of publications reviewed here. Copies are usually obtainable directly from the publisher concerned, whose address, when available, is given at the head of each review.



Following the tremendous wartime boost given to sandwich lamination by the disclosure that the famed British DeHavilland Mosquito bomber was built according to the sandwich principle, and by the subsequently published results of tests on low-density core materials by Wright Field, the plastics industry has been exploring the possibilities of adapting these materials to peacetime uses. Material for this discussion was obtained from the Technical Service Dept., E. I. du Pont de Nemours & Co., and from the Society of the Plastics Industry.

**FUNCTION OF LAMINATES**—The function of the low-density core in sandwich lamination is comparable to that of lattice bars or struts in a girder, i.e., to hold the top and bottom members firmly and thus increase structural stiffness without correspondingly adding significantly to weight. The thickness of the laminate contributes rigidity and stability under stress. The core material so supports the faces that when the laminate is loaded as a column a substantial portion of the compressive strength of the thin face material can be developed. By the use of proper core materials, structural efficiency and simplicity in design may be achieved, with direct saving in manufacturing cost as compared to methods required in fabrication of conventional ribbed or otherwise reinforced sheet materials. The sandwich can, of course, be varied in the combination of materials selected, and the use determines the construction.

**REQUIREMENTS FOR CORES**—In performing the functions outlined, the core material must generally meet certain requirements:

1. It must be sufficiently strong in tension applied in a direction perpendicular to the surface to prevent buckling of the faces through tensional failure in the core itself.
2. Compressive strength of the material must be sufficient to resist local loads due to rough handling.
3. The core material must possess enough toughness to permit the development of strength in the faces. A weak core would split and fail before full strength could be developed.
4. The core must have rigidity in itself to hold the sandwich combination stable while the faces develop their strength. A soft or flexible core would fail prematurely.
5. The core must have certain shear strength in order to perform its function adequately.
6. A satisfactory core material must not be brittle or granular in structure, since materials with these properties possess poor resistance to impact and vibration. Materials of sandstone type fall into this category.

In a sandwich having a core with satisfactory properties, the failure is one of actual shearing of the faces. Other properties, important for building construction, include: 1. resistance to heat, 2. thermal conductivity, 3. acoustical properties, 4. flammability characteristics, 5. water absorption, 6. chemical resistance.

**TYPES OF CORE MATERIALS**—1. **Foamed thermosetting**, illustrated by "Pliofoam" (urea-formaldehyde), "Textolite" (phenol-formaldehyde), "Laminac" (phenol-formaldehyde), "Thermazote" (phenol-formaldehyde).

2. **Foamed thermoplastic**, illustrated by "Styrofoam" (polystyrene), CCA (cellular cellulose acetate), "Plastazote" (polyvinyl formal).

3. **Foamed rubbers**, examples of which are "Flotofoam," "Cell-Tite," and "Rubatex," chiefly of "Buna" N composition.

4. **Gridded cores**, honeycomb with glass, fabric or paper grids and suitable resin binders.

5. **Natural**, such as balsa; or **re-assembled**, such as shredded wood with resin binder.

6. **Foamed glass**, e.g., "P.C. Foamglass."

7. **Foamed calcium alginate**.

Materials are foamed by solvent blowing agents, by solids yielding gas, by a soluble gas under pressure, by a reaction of condensation or by monomer vapor. Depending upon the type, the actual foaming may be accomplished by release of gas in a reaction, or by release of pressure in compression or extrusion equipment.

**CHARACTERISTICS**—Cellular cellulose acetate is an example of a low-density core material, and a discussion of its characteristics should indicate general properties of many core materials.

#### CCA—A LOW-DENSITY CORE MATERIAL

PROPERTY	CH-138
<b>MECHANICAL</b>	
tensile strength 77°F., psi	225
compressive strength, ultimate, psi	175
shear strength in tension, psi	185
impact strength, Iod unnotched, ft. lb	6.15
<b>THERMAL</b>	
thermal conductivity BTU/sq ft./hr./°F. inch	0.32
<b>MISCELLANEOUS</b>	
density lb./cu. ft.	7.8
moisture absorption 50% RH, percent	2%
burning rate, inches/min.	4.2

CCA, cellular cellulose acetate, is a thermoplastic core material produced by the extrusion process and is cellulose acetate in an unoriented, multi-cellular form. It is produced in strips 5½" wide and in thicknesses from ½" to 1" in any shippable length.

This material is adaptable to assembly-line production methods because of the ease with which it can be made into panels and the simplicity with which it can be worked on conventional wood-working equipment. Resorcinol-urea or melamine-formaldehyde adhesives may be used to bond the CCA to itself, to wood, or to other plastics. If high-frequency heating is used in compositing panels, curing time can be reduced to 15 seconds or less. A 7½-kw unit will usually have sufficient capacity to set up the glue lines in 15 square feet of panel (½" thick) in one operation. On a continuous basis this would be equivalent to 3600 sq ft per hour, which indicates low cost of fabrication on a production scale.

**FABRICATION AND USES**—CCA may be formed into relatively complex shapes by heating with infrared or other suitable means. Shaping has also been accomplished successfully by steam heating. If a series of parallel wedge-shaped cuts or kerfs are made in a panel of CCA by running the panel under a horizontal gang router, the section can be bent into a curve at room temperature. Any reasonable radius of curvature can be achieved by this method by suitably varying the spacing of the cuts. The cuts should be made almost completely through the material in order to permit the necessary bending. If glue is applied to the wedge-shaped cuts prior to closing, the shaped core will be of a multiple sandwich type section and will be considerably stronger than the initial core.

Methods of fabricating slab- or board-type core materials are probably not dissimilar from those indicated for CCA. The foaming in place of pourable core materials has been discussed in some detail by J. D. Lincoln in the July 1945 issue of **Modern Plastics**. Applications for low-density core materials have increased greatly in the first few months following the war. It would appear likely that low-density core materials would offer advantages in fabrication to the housing industry. Insulating properties of these core materials, plus the structural advantage gained by their use, justify their consideration here. Wall panels, flooring, cabinets, and exterior panels are uses being investigated at present. Refrigeration applications have been developing rapidly owing to the excellent thermal qualities of these materials. Structural support combined with low weight and relative ease of fabrication are demonstrated in such uses as: wall, floor, and roof sections for walk-in refrigerators; door panels for various refrigeration units; portable cases for frozen foods; and stationary units for frozen food.

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- Cycleweld Bonded Laminated Aluminum Alloy Plate Material, Material Command Report No. Eng. -51-45324-5, (May 26, 1943).
- Expanded Plastics, British Plastics, 16, 63, (Feb. 1944).
- Plastic Four-wheeled Passenger Van, The Engineer (British) 188, (Mar. 10, 1944).
- Metal Plus Plastics Makes New Aircraft Flooring, Aviation 130, (Apr. 1944).



# BUILDING PRODUCT FACTS

Results of Some Tests on Low-Density Materials, Forest Products Laboratory, (July 1944).

Kommers, W. J., **Flexural Rigidity of a Rectangular Strip of Sandwich Construction**, Forest Products Laboratory, (July 1944).

**Desired Properties and Test Procedures for Low-Density Materials for Core of Sandwich-Type Construction**, Army Air Forces, Air Technical Service Command, Engineering Division Memorandum Report, Serial No. ENG-56-M4595, Add. V., (Aug. 19, 1944).

**Plastics Sandwich**, Plastics and Resins, Vol. 15, (Sept. 1944).

**Structural Composite Plastic Materials**, Modern Plastics, Vol. 22, 133, (Sept. 1944).

**Data on Material Properties and Panel Compressive Strength of Plastic-Bonded Material of Glass Cloth and Canvas**, NACA Technical Note No. 975, (Dec. 1944).

Delmonte, J., **A New Way of Using Old Materials**, Modern Plastics, Vol. 22, 95, (Apr. 1945).

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Meyer, L. S., and Case, J. C., **Honeycomb Core in Sandwich Structure**, Modern Plastics, Vol. 22, No. 11, (July 1945).

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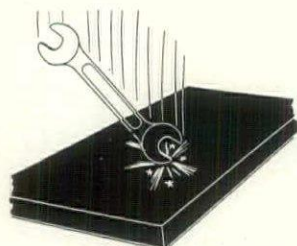
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Du Pont CCA, **Cellular Cellulose Acetate**, Technical Service Report No. 12, Plastics Department, E. I. du Pont de Nemours & Company, (Mar. 22, 1946).

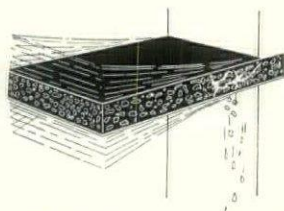
**SOURCES OF SUPPLY**—This list is as comprehensive as reasonable effort can provide; however, there may be omissions. Omission of any source does not imply lack of merit in either producer or product.

## CORE MATERIALS

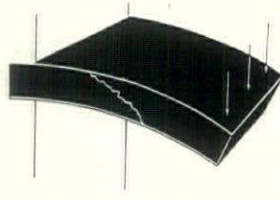
Trade Name	Material	Manufacturer
CCA	cellular cellulose acetate	E. I. du Pont de Nemours & Co.
Cell-Tite	cellular rubber	Sponge Rubber Products Co.
Expanded polyvinyl chloride	polyvinyl chloride	Expanded Rubber Co., Ltd.
Flotofoam	cellular rubber	United States Rubber Co.
Honeycomb	glass, fabric or paper grids with resin binders	Plaskon Div., L.O.F. Glass Co., U. S. Plywood Co., Lincoln Industries, Inc.
Laminac	phenolic type	American Cyanamid Co.
Plastazote	polyvinyl formal	Expanded Rubber Co., Ltd.
Plofoam	urea-formaldehyde	Goodyear Tire & Rubber Co.
Rubatex	cellular rubber	Virginia Rubber Co.
Styrofoam	polystyrene	Dow Chemical Co.
Textolite	phenolic type	General Electric Co.
Foam	phenol-formaldehyde	Expanded Rubber Co., Ltd.
Thermazote		



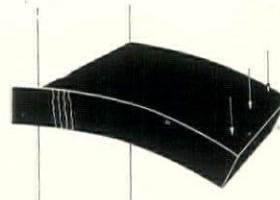
—It is essential that the panel withstand rough handling, and the core must be able to resist sharp impact forces, such as are illustrated here, without failure



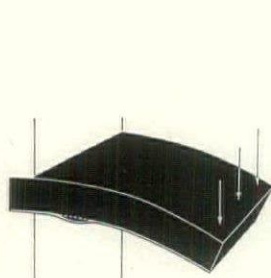
A panel must be able to withstand vibration without failure of the core or the faces. This sample shows breaking up of specimen with brittle, granular core



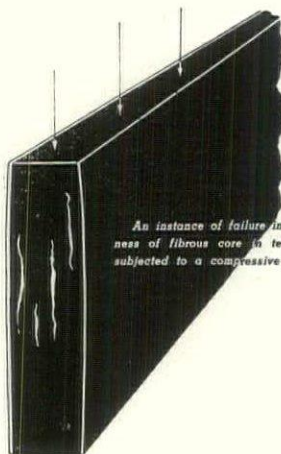
This test specimen of sandwich-type construction illustrates failure of the core in diagonal shear. The piece was subjected to flexure as shown by the arrows



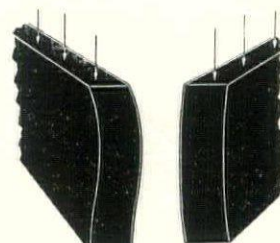
—Example of failure of core in shear, perpendicular to faces. Specimen was subjected to flexure as shown



—Compression face failure due to delamination from core. Specimen subjected to flexure as shown by arrows



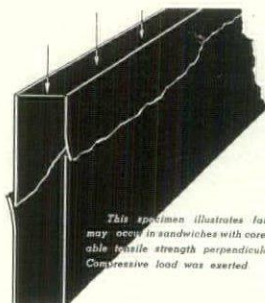
An instance of failure in the core due to the weakness of fibrous core in tension. The specimen was subjected to a compressive load as shown by arrows



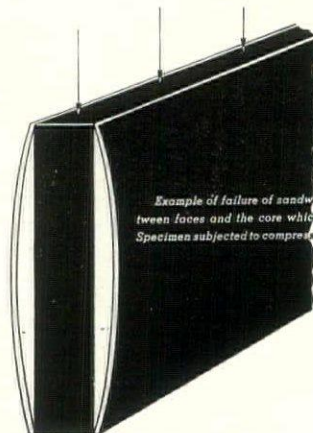
—Instability failure in these specimen was due to low modulus of rigidity of core. Load was compressive



Failure due to the use of a brittle, granular core. The sandwich was subjected to compressive load as indicated



This specimen illustrates failure which may occur in sandwiches with cores of reasonable brittle strength perpendicular to faces. Compressive load was exerted

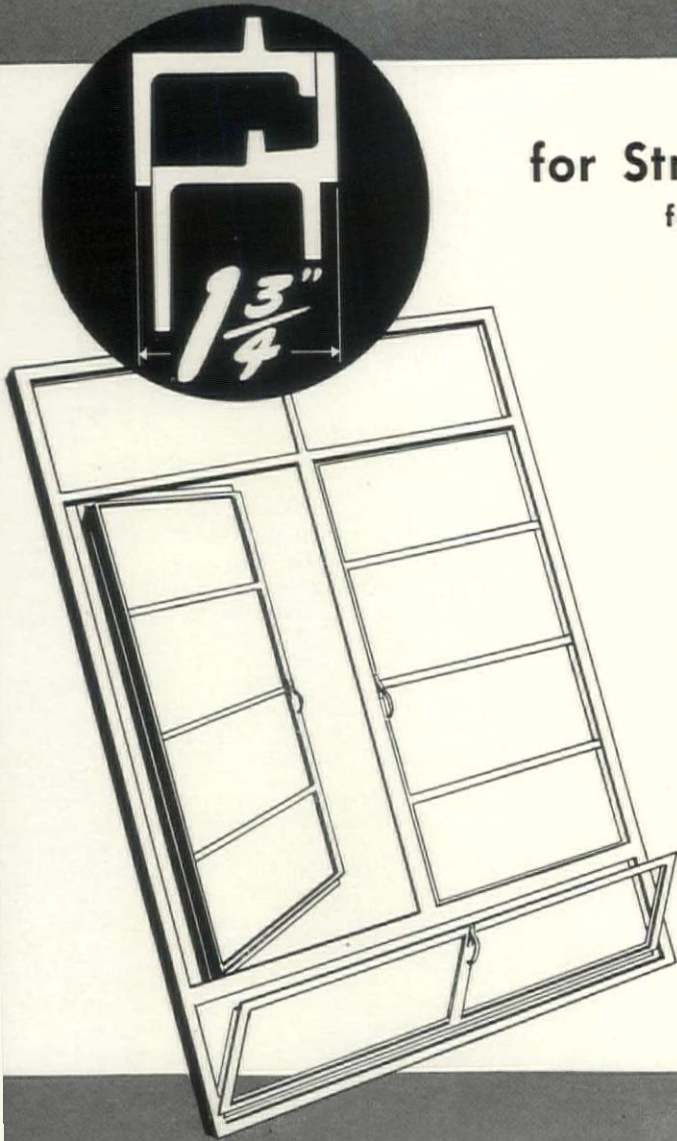


Example of failure of sandwich due to poor bonding between faces and the core which resulted in delamination. Specimen subjected to compressive load as shown by arrows



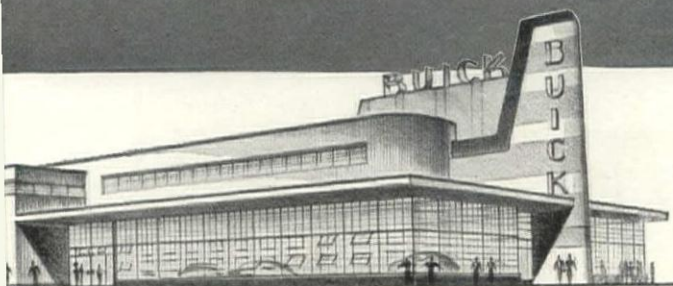
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# REVIEWS

## A BANK'S ADVICE

*Things To Know About Buying Or Building A Home. American Trust Company. San Francisco, Calif. 64 pp.*

This booklet, published by the American Trust Company, is heartening principally because of its attractive illustrations, which show plans and elevations of houses in good modern style. Most financing organizations unfor-

tunately would have regarded as "too newfangled" the modern houses here illustrated. The text while approving such modern features as open planning generally seems to favor traditional styles. It includes information on buying, or planning, financing, and building a home. Special financing procedures and construction problems peculiar to that section of northern California which this institution and its branches serve, are also discussed.

Many architects will rightly feel that all the advantages of employing an architect in house planning and design are not clearly presented. The tacit approval of the common practice of procuring stock plans and specifications from builders, from material dealers, from home building books and magazines, or from a combination of these sources will depress architects who well know the disastrous results of such procedures. However, it has long been obvious that a smoothly working system of making available to the small home builder, at a price that he can afford, good architect-designed plans and specifications is the only way to avoid spreading the nationwide blight of ugly houses.

Few architectural books and fewer home building books equal this small publication in skill and taste of design, typography, and illustration.

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## REALISTIC GUIDE

*The Local Housing Authority and The Architect. A Working Relationship in Planning a Public Housing Program and In Designing a Public Housing Project. Oliver C. Winston. Chicago: The Public Administration Service, 1945. 16 pp. 60 cents.*

Winston's manual for the P.A.S. is a useful guide to realistic standards and good design in a public housing program. His chief point is that housing experience has proven the advisability of having the Authority prepare a careful over-all housing program and a specific architectural program before the architect is contracted to design a project. It is suggested that an architect serve as consultant in the earlier stages.

The manual is not detailed but serves to relate the roles of the local Authority and its architects and indicates that far more than design enters into the building of a housing project.

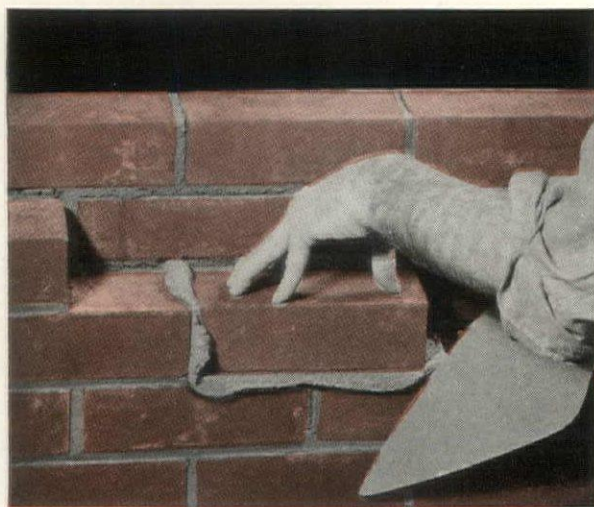
However the author's tacit assumption that architectural work for a local authority would be on a contractual basis rather than by staff architects bears questioning. Certain vital problems are ignored: supervision by one architect of plans prepared by another (and outside) firm; the inability of the private firm to follow up after the tenants have moved in; and the lack of continuity of experience which staff architects have. Even though at present it is rare to find housing authorities with their own architectural staffs, Winston might have raised the issue of official architecture versus farmed-out projects and the advantage of having architects in on all stages of the project, generally possible only if they are regular employees.

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## COMMERCIAL

### Office Buildings

**Office and Drafting Rooms, Los Angeles, Calif.** — HENRY ROBERT HARRISON, ARCHITECT. This one-story structure situated on a corner lot with frontage on a main boulevard contains architect-engineer-contractor offices and work space, a suitable area in which to design and sell modern architecture. Photos, plot plan. (Apr. Arts and Architecture, p. 42)

**Postwar Skyscraper**—CARSON & LUNDIN, ARCHITECTS; WALLACE K. HARRISON, CONSULTING ARCHITECT. The new 33-floor Esso building, New York City, has been designed to harmonize with the existing structures in the Rockefeller Center group. The tallest New York office building to be completely air-conditioned, the recently instituted zoning laws have produced some novel features in the project design. Renderings, floor plans. (May The Architectural Forum, p. 91)

### Offices

**Airlines Office, Los Angeles, Calif.**—H. ROY KELLEY, ARCHITECT; WILLIAM O. GOODWIN, BURWELL HAMRICK, ASSOC. The decision to eliminate exterior advertising and instead to use the whole interior as a dramatic showcase here resulted in a unique double-sloping glazed front that reduces reflections to a minimum

by capturing them within a non-reflecting area. Photos, construction details, site and floor plans. (May The Architectural Forum, p. 105)

**Publications Office, New York** — ALVIN LUSTIG, DESIGNER. To get an oversized staff into an undersized work space, solidity was dissolved wherever possible in this design while retaining some sense of privacy. Photos, floor plans. (May The Architectural Forum, p. 109)

### Shops

**The Trunkseller's Shop** — CARLO DE CARLI, ARCHITECT. Modern shop outstanding for its very novel display unit making use of two mobile planes, one of metal-framed glass, the other of leather, forming a showcase for small objects. Photos, sketches. (Mar. Domus, p. 36)

**The Bookseller's Shop**—FRANCO ALBINI, ARCHITECT. To allow access to the top shelves of this lofty room, two wooden galleries were constructed at half elevation. Photos, floor plans. (Mar. Domus, p. 38)

**The Calculating Machines Shop**—MARCO ZANUSO, ARCHITECT. A large table in the center of the small shop and a succession of brackets against the walls used to achieve the best display of the machines. Photos, sketches. (Mar. Domus, p. 40)

## COMMUNITY CENTERS

**Steps in Planning a Community Building.** Surveying the need, organizing the basic elements, and providing required facilities and flexibility are the three steps under discussion in this article. Photos, map, schematic arrangement, floor plans. (May Architectural Record, p. 97)

**Community Center With Stores**—KELLY & GRUZEN, ARCHITECTS. The stores in the Winfield Park, N. J., center are nicely arranged in a "splayed" orientation toward the highway, which invites other shoppers besides those of the housing project to which it is attached, thus insuring commercial success of the venture. Photos, construction details, plot and floor plans. (May Architectural Record, p. 104)

**A Model Center for Child Care, Washington, D. C.**—HOLDEN, McLAUGHLIN AND ASSOC., ARCHITECTS. "In its general arrangement, this little building carries out with diagrammatic clarity the recommended practice of the Nursery School Association. . . ." Photos, floor plans. (May Architectural Record, p. 108)

## EDUCATION

### Articles

**Recent Developments in Education and Schools in England** — PEGEEN SYNGE DRYER. Sketches. (Apr. Journal of the R.A.I.C., p. 75)

**Trends that Affect Building** — HENRY LESTER SMITH, DEAN, SCHOOL OF EDUCATION, INDIANA UNIVERSITY. (May The Nation's Schools, p. 35)

**Fitting the School to the Contour and Character of the Land**—HOMER W. ANDERSON, SUPT. NEWTON PUBLIC SCHOOLS, NEWTON, MASS. Photos. (Apr. The School Executive, p. 58)

**Influence of Materials and Techniques on Architectural Styles**—CLYDE C. PEARSON, ARCHITECT. Photos. (Apr. The School Executive, p. 62)

**Should a School System Adopt One Style of Architecture for All Its Buildings?**—HERBERT J. POWELL, ARCHITECT. Photos. (Apr. The School Executive, p. 64)

**Relating Style of School Architecture to the Environment of a Large City**—WALTER H. KILHAM, JR., ARCHITECT. Photos. (Apr. The School Executive, p. 66)

**Relating Style of School Architecture to the Environment of a Rural Area**—WARREN S. HOLMES, ARCHITECT. Photos. (Apr. The School Executive, p. 68)

**Orders of Architecture** — HERMON A. HORN, ARCHITECT. (Apr. The School Executive, p. 74)

**Architectural Style and the Educational Program**—N. L. ENGELHARDT, ASSOC. SUPT. OF SCHOOLS, NEW YORK CITY. (Apr. The School Executive, p. 76)

### Colleges

**Model of the Mesa Campus Site, Santa Barbara College, University of Calif.**—WINSOR SOULE & JOHN FREDERICK MURPHY, ARCHITECTS. Model emphasizing the grading and filling requirements of the site chosen for this new campus. Photos. (Apr. Architect and Engineer, p. 12)

### Schools

**Two Communities Advance Their School Programs I. One-Room School for a Rural Community, S.S.I. Nichol Township, Ontario**—JOHN BURNET PARKIN, ARCHITECT. A remarkable one-teacher elementary school with total enrollment of 35, removable folding partitions are used to transform the room into a community hall, the only meeting place for the district. Rendering, elevations, construction details, floor plans. (May Progressive Architecture, p. 46) II. **Three New Schools for the City of St. Louis**—CHARLES W. LORENZ, DESIGNING ARCHITECT; KENNETH E. WISCHMEYER, CONSULTING ARCHITECT. The proposed high school and two elementary schools shown here are examples of the progressive approach St. Louis has taken to its school problem, stressing in the new designs community use and the needs of modern teaching, as discovered through research of all existing classrooms in the city. Renderings, plot and floor plans. (May Progressive Architecture, p. 49)

**Nursery School at Ivrea**—LUIGI FIGINI, GINO POLLINI, ARCHITECTS. A welfare unit erected by a factory in this small Italian town, the simple, modern one-floor structure has facilities for children from the ages of 8 months to 6 years. Photos, site and floor plans. (Apr. The Architectural Review, p. 117)

**Planning a Community School**—RALPH LEGEMAN, ARCHITECT. Cooperative study by all parties concerned produced plans for the new elementary school in Evansville, Ind., to be used for both educational and community purposes. Perspective, floor plans. (May The Nation's Schools, p. 34)

## HEALTH

### Health Centers

**Health Centers Come Out of the Cellar**—HARRY HEWES, OFFICE OF INFORMATION, FWA. Great demand during the war resulted in construction of 284 new health centers, built with the aid of FWA funds. Photos, floor plans. (May The Modern Hospital, p. 62)

### Hospitals

**Changing Concepts in Hospital Function. . . A Vital Consideration in Design**—HARVEY AGNEW, M.D. Address given at a meeting of the Ontario Assoc. of Architects, treating the architect's role in helping create a smooth-running and efficient hospital. (Apr. Journal of the R.A.I.C., p. 75)

**Two Beds Add Up to Many Problems**—ALAN FISHER, MARSHALL SHAFFER, WILLIAM R. RILEY, CARL A. ERIKSON, ARCHITECTS, contribute to a seminar on the problem of designing a good hospital double room. Floor plans. (May The Modern Hospital, p. 54)

## HOUSING

### Articles

**Swiss Co-Op Housing**—ROLF ROSNER. The building and housing cooperatives are again contributing to the solution of the current housing shortage in Switzerland. Photos, renderings, site and floor plans. (Apr. Architectural Design and Construction, p. 95)

(Continued on page 92)

### PERIODICALS NOTED IN THIS ISSUE:

ARCHITECT AND ENGINEER, 68 Post St., San Francisco 4, Calif.

ARCHITECTURAL DESIGN AND CONSTRUCTION, 26 Bloomsbury Way, London W.C.1, England

ARCHITECTURAL RECORD, 119 W. 40th St., New York, N. Y.

ARTS AND ARCHITECTURE, 3305 Wilshire Blvd., Los Angeles 5, Calif.

BUILDING AND ENGINEERING, 20 Loftus St., Sydney, Australia

CANADIAN HOMES AND GARDENS, Montreal Centre 2, Dominion Square Bldg., Toronto 2, Canada

DOMUS, Via Monte di Pietà, 15, Milan, Italy

FACTORY MANAGEMENT AND MAINTENANCE, 330 W. 42nd St., New York 18, N. Y.

HOUSE BEAUTIFUL, 572 Madison Ave., New York 22, N. Y.

HOUSING PROGRESS, 95 Madison Ave., New York 16, N. Y.

JOURNAL OF THE R.A.I.C., 57 Queen St. West, Toronto 1, Canada

JOURNAL OF THE R.I.B.A., 66 Portland Pl., London W.C.1, England

LADIES' HOME JOURNAL, 1270 Sixth Ave., New York, N. Y.

McCALL'S, 230 Park Ave., New York, N. Y.

PROGRESSIVE ARCHITECTURE-PENCIL POINTS, 330 W. 42nd St., New York 18, N. Y.

THE AMERICAN HOME, 444 Madison Ave., New York, N. Y.

THE ARCHITECTS' JOURNAL, 45, The Avenue, Cheam, Surrey, England

THE ARCHITECTURAL FORUM, 350 Fifth Ave., New York 1, N. Y.

THE ARCHITECTURAL REVIEW, 45, The Avenue, Cheam, Surrey, England

THE MODERN HOSPITAL, 919 N. Michigan Ave., Chicago 11, Ill.

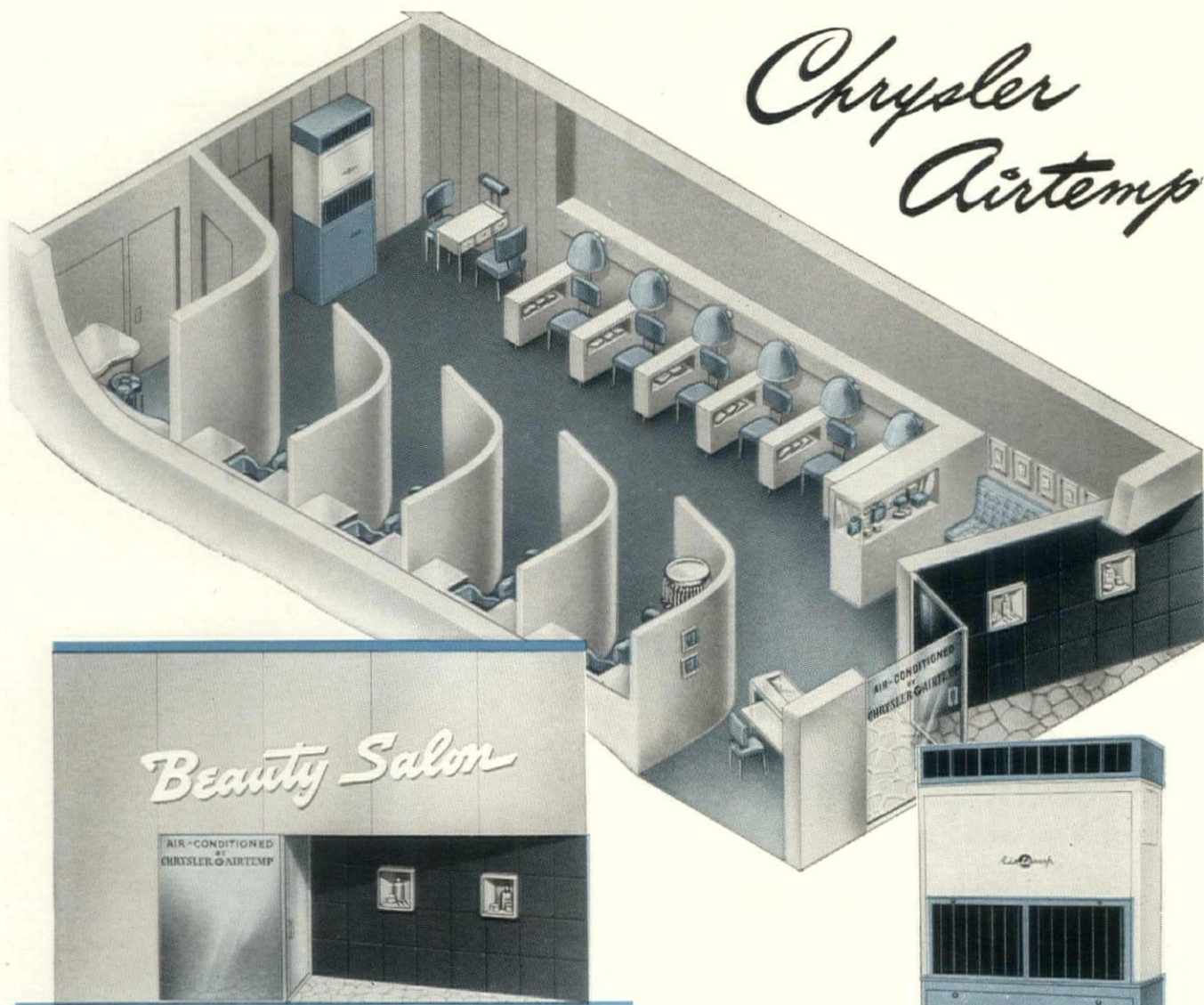
THE NATIONAL HOUSE BUILDER AND THE BUILDING DIGEST, 17 Stratford Place, London W.1, England

THE NATION'S SCHOOLS, 919 N. Michigan Ave., Chicago 11, Ill.

THE SCHOOL EXECUTIVE, 470 Fourth Ave., New York 16, N. Y.



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## GUIDE

(Continued from page 90)

**Wright's Teaching.** Review of Wright's principal ideas and his influence on European architecture. Photos. (Mar. Domus, p. 21)

**Building Now.** Description of the R.I.B.A. Exhibition for 1946, whose theme is to show the English public what the architect can offer them in the immediate task of rebuilding homes, schools, and social facilities. Extensive photos from the exhibition. (Apr. Journal of the R.I.B.A., p. 224)

**The R.I.B.A. "Building Now" Exhibition.** Photos, diagrammatic sketches. (The Architects' Journal for May 2, p. 345)

### Apartments

**High Living Rooms—Low Cost—PIETRO BELLUSCHI, ARCHITECT.** An informal apartment group at Seaside, Ore., features the story-and-a-half living room with normal ceiling height in the other rooms, two stories in the front being equal to three in the rear. Sketches, cross sections, site and floor plans. (May Architectural Record, p. 77)

**Prescription for Housing Troubles—GARFIELD, HARRIS, ROBINSON & SCHAFER, ARCHITECTS.** Garden-type apartments for 96 families in East Cleveland, Ohio. Photos, site and floor plans. (May Architectural Record, p. 80)

**Efficiency Units for Texas—MackIE AND KAMRATH, ARCHITECTS.** New version of the efficiency apartment, possibly a real aid in relieving the housing shortage for the small family. Rendering, floor plans. (May Architectural Record, p. 86)

**Rehousing in Great Britain—Flats Are a Solution.** The London County Council considers apartments a satisfactory, and only, solution to the problem of rehousing the inner area of large cities. Photos. (Mar. 25 Building and Engineering, p. 32f)

### Housing Projects

**Row Houses for Suburban Block—PERKINS AND WILL, ARCHITECTS.** Project for suburb of Chicago of "conventional plus" design. Rendering, site and floor plans. (May Architectural Record, p. 83)

**Industrial Housing for Texas—MackIE AND KAMRATH, ARCHITECTS.** Project planned for an industrial section of Houston includes the efficiency unit as well as larger units. Rendering, floor plans. (May Architectural Record, p. 87)

**Parklábrea, Los Angeles — LEONARD SCHULTZE AND ASSOC., ARCHITECTS.** The studio or duplex apartment is used extensively in this large development, with only the one-bedroom apartments all on one floor. Photos, site and floor plans. (May Architectural Record, p. 88)

**Retford's Housing Scheme—VALLANCE & WESTWICK, ARCHITECTS.** English housing project of permanent homes for 150 families. Renderings, floor plans. (May The National House Builder and the Building Digest, p. 19)

### Residences

**Low-Cost Emergency Housing—ROI L. MORIN, ARCHITECT.** Plans for modern small homes that could be built for \$3,000 today, according to the architect. Rendering, floor plans. (May Architectural Record, p. 82)

**Four-Family Unit for a Hilly Plot, Washington, D. C.—BERLA AND ABEL, ARCHITECTS.** Modern version of the semi-detached, two-family flat, here designed to develop a plot sloping sharply down from the street. Renderings, floor plans. (May Architectural Record, p. 84)

**Small Dwelling Unit, Marin County, Calif.—JAN REINER, DESIGNER.** A design to start out with kitchen-bath-living unit of 420 sq. ft., with provisions for three successive extensions as conditions permit. Sketches, floor plans. (Apr. Arts and Architecture, p. 39)

(Continued on page 94)



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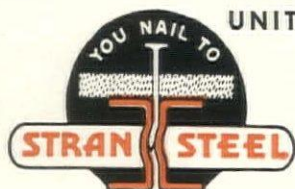
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For full details, see Sweet's File, Architectural, Sweet's File for Builders, or the January issue of Building Supply News.

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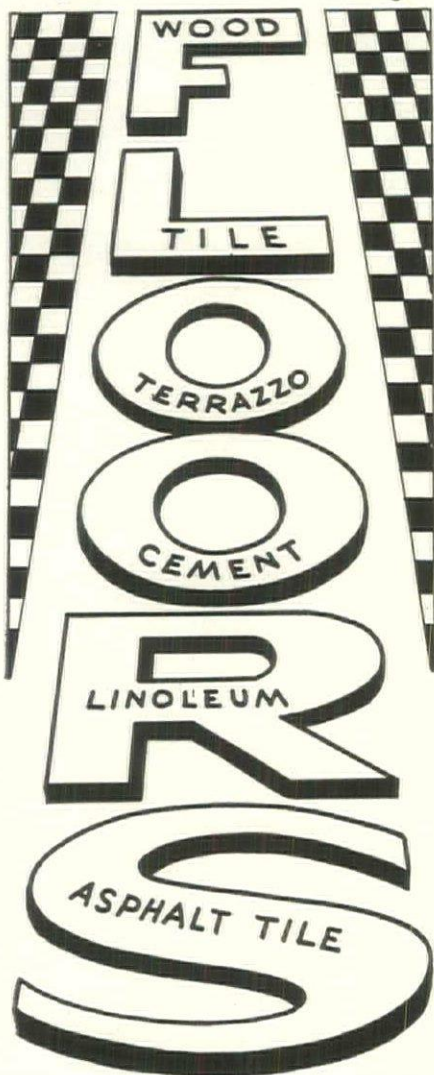
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## GUIDE

(Continued from page 92)

**Case Study House #5**—WHITNEY R. SMITH, ARCHITECT. A "loggia house," this modern design for southern California provides for the central living area of lounge, loggia, and kitchen-dining room to be distinctly separated, or completely opened to each other and the garden by means of sliding glass doors. Photos, plot plan. (Apr. Arts and Architecture, p. 44)

**The "V.H.C." Concrete House**—The development of the Fowler System by the Victorian Housing Commission. This system provides for the manufacture of complete concrete walls, including openings for doors and windows, to be cast 3" thick on a horizontal steel table, conveyed to and erected at the site. Photos, construction details. (Mar. 25 Building and Engineering, p. 32b)

**Solar House on One Floor**—GEORGE FRED KECK, ARCHITECT. The Sloan house in Illinois. Photos, floor plans. (May Canadian Homes and Gardens, p. 18)

**Adobe House**—JOCELYN TAYLOR. Principles of the adobe house of northern New Mexico applied to Canadian residential design, particularly stressing solar planning. Photos, diagrammatic sketches, floor plans. (May Canadian Homes and Gardens, p. 22)

**Two Flats Become Five**—R. FONTANA, R. RADICI, ARCHITECTS. Another practical solution for Italy's housing problem suggested in the remodeling of an old house from a two to a five apartment unit. Photos, sketches, floor plans. (Mar. Domus, p. 6)

**The First Postwar House**—WALTER WURDEMAN, WELTON BECKETT, ARCHITECTS. Complete coverage of the Fritz B. Burns Postwar Research House. (May House Beautiful, p. 82)

**All The Family Enjoys This House**—WILLIAM HAMBY, ARCHITECT. Introducing a "new kind of room in American houses"—the dining-play area, a large room for informal living. Photos, floor plans. (May McCall's, p. 91)

**A House to Fit the Family**—JOHN FUNK, ARCHITECT. Flexible planning in this modern design allows for several possible bedroom schemes, according to the age, sex, and number of children in the family. Photos, floor plans, alternate plans. (May Ladies' Home Journal, p. 218)

**Home at Wallingford, Pa.**—ROBERT F. BISHOP, ARCHITECT. Compact country house thoroughly indigenous to its site, due mainly to its masonry sections being of stone from local quarries. Photos, floor plans. (May Progressive Architecture, p. 73)

**House at Netarts Bay, Ore.**—PIETRO BELLUSCHI, ARCHITECT. A U-shaped house, notable for its unusual application of fine woods and its "inevitability" of design for the site. Photos, floor plans. (May Progressive Architecture, p. 76)

**Visit from Holland that Built a House**—VAN EVERA BAILEY, ARCHITECT. The de Graaf home outside of Portland, Ore. Photos, floor plans. (May The American Home, p. 38)

**Rambling Plan in Texas**—EUGENE WERLIN, ARCHITECT. A fan-shaped plan distinguishes this ranch house-English cottage home in Houston. Photos, floor plans. (May The American Home, p. 40)

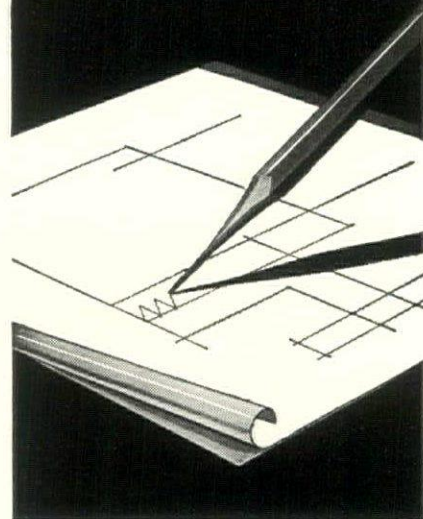
**Kitchen and Bathroom Service Unit**—ARCON, CHARTERED ARCHITECTS. The English service unit designed for mass production, and the original house design of which it was an integral part. Photos, diagrammatic sketches, floor plans. (The Architects' Journal for Apr. 18, p. 307)

**Country House in California**—RAPHAEL S. SORIANO, DESIGNER. Severely simple rooms with much built-in furniture and subtle color scheme found in this modern all-wood home. Photos, construction details, floor plans. (May The Architectural Forum, p. 82)

**Suburban House, Santa Monica, Calif.**—LIANE ZIMBLER, DESIGNER. Fenestration is almost completely restricted to the front and rear of this house, taking advantage of the view of the ocean to the south and the mountains to the north. Photos, floor plans. (May The Architectural Forum, p. 85)

(Continued on page 96)

## TRACING CLOTH for HARD PENCILS



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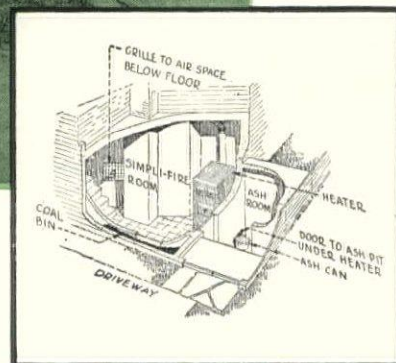
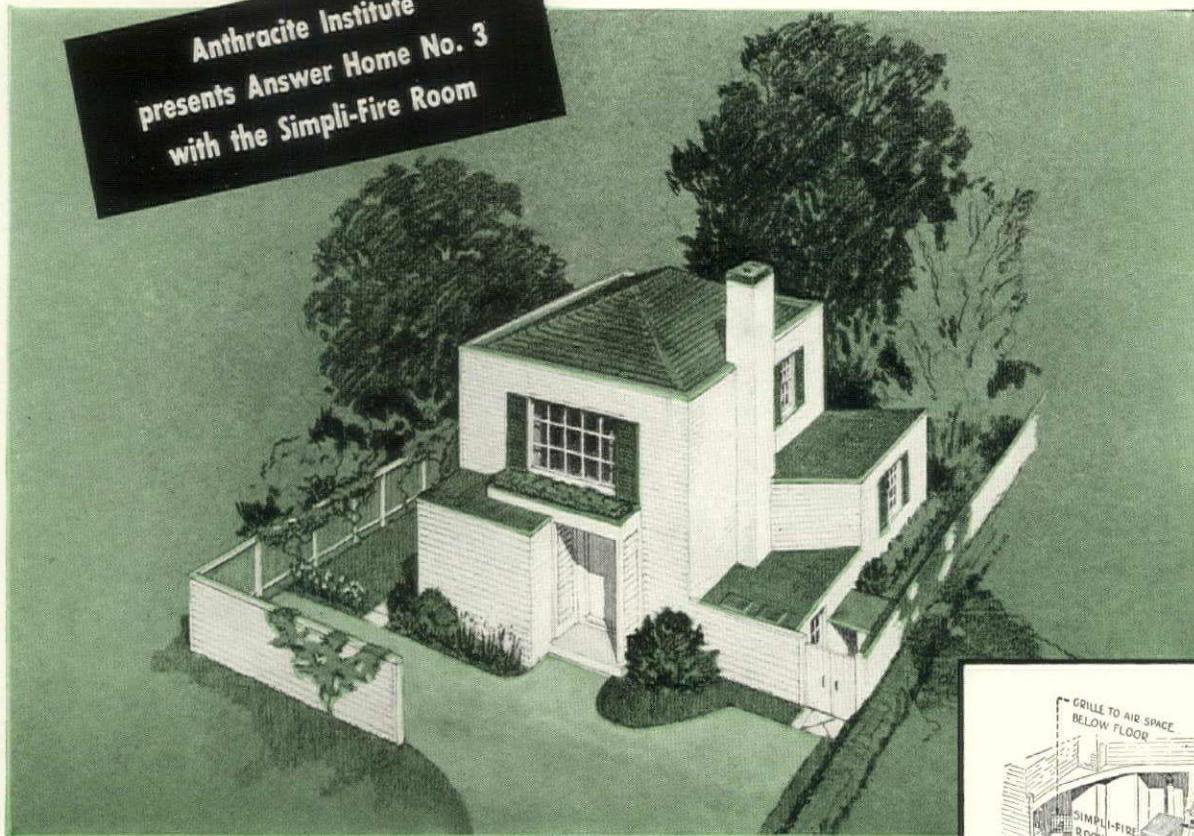
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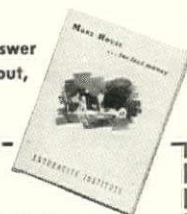
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## GUIDE

(Continued from page 94)

**Remodeled Farmhouse**—PIETRO BELLUSCHI, ARCHITECT. A practical solution of the priority and scarcity problem in this house outside of Portland, Ore. Special innovation between living room and corner porch is a three-section double-glazed window to catch solar heat. Photos, plot and floor plans. (May The Architectural Forum, p. 86)

**Two Hillside Houses**—WURSTER, BERNARDI & EMMONS, ARCHITECTS. Both modern, ample townhouses squeezed onto narrow lots in San Francisco and oriented for maximum sun on the south, one house is on a rising lot at the south side of the street and is entered from below; the second is on a lot north of the street and is entered from above. Photo, floor plans. (May The Architectural Forum, p. 88)

**Chinchilla Farm**—BERLA AND ABEL, ARCHITECTS. A small ranch project near Washington, D. C., consisting of a house for the veteran-owner, one for his parents, and two air-conditioned concrete structures to provide a regulated environment for the chinchillas. To circumvent the lumber shortage the architects plan to use masonry structures with large glass areas throughout the houses. Perspectives, elevations, construction details, floor plans. (May The Architectural Forum, p. 94)

**Steel House**—T. Y. HEWLETT, ARCHITECT. Compact design notable for its independent steel roof system which shelters space enclosed by unit panels. Renderings, construction details, floor plans. (May The Architectural Forum, p. 96)

## INDUSTRIAL

### Factories

Reynolds Spring Co., Hamilton Township, N. J.—WALTER KIDDE CONSTRUCTION

TORS, ENGINEERS AND BUILDERS. Recently built, an example of functional design and economic construction. Photos. (Apr. Factory Management and Maintenance, p. B-50)

**Watch Case Factory, Jamaica, L. I.**—JOHN MATTHEWS HATTON, ARCHITECT. The reclamation of platinum, gold, and silver particles usually lost in manufacturing watch cases led to some novel provisions in this new plant. Photos, construction details, floor plans. (May The Architectural Forum, p. 115)

### Plants

**Saginaw Malleable Iron Division of General Motors Corp., Danville, Ill.**—ALBERT KAHN ASSOC. ARCHITECTS & ENGINEERS, INC. Erected during the war, this plant was designed as a permanent structure, realizing that conversion to civilian production would be a relatively simple problem for the company. Photos. (Apr. Factory Management and Maintenance, p. B-47)

**Single or Multi-Story Plant is Dictated by Process**—W. G. SANDERS, RESEARCH ENGINEER. Photos, charts. (Apr. Factory Management and Maintenance, p. B-52)

**Naval Ordnance Plant, Indianapolis**—THE AUSTIN CO., ENGINEERS. Main requirements met in this single-story windowless plant were that light, temperature, humidity, and dust be fully controlled to permit machining and assembly operations in which the smallest dust particles could not be tolerated. Photos. (Apr. Factory Management and Maintenance, p. B-55)

**Fisk Tire Plant Division, U. S. Rubber Co., Chicopee Falls, Mass.**—LOCKWOOD GREENE ENGINEERS, INC. Actually an addition to an existing building, the problem was to create a design that would result in a minimum of settlement, so as to keep the new floor level in line with the existing floors. Photos. (Apr. Factory Management and Maintenance, p. B-58)

**Carboloy Co., Detroit, Mich.**—SMITH, HINCHMAN & GRYLLS, ARCHITECTS

AND ENGINEERS. Though classified as a one-story building, the actual ceiling height of this plant is equivalent to that of an average two-story plant, making possible two tiers of windows and allowing for the future placement of larger equipment. Photos. (Apr. Factory Management and Maintenance, p. B-64)

**Current Trends in Plant Design and Construction.** Review of these trends and their influence on new building materials, building design, plant service equipment, and employee service facilities. Photos. (Apr. Factory Management and Maintenance, p. B-70)

## INTERIORS

**Modern Stained Glass in Architecture**—HAROLD W. CUMMINGS, PRES., STAINED GLASS ASSOC. OF AMERICA. Photos. (Apr. Architect and Engineer, p. 19)

**Stairway, Stern Hall, University of Calif.**—CORBETT & MacMURRAY; WURSTER, BERNARDI & EMMONS, ASSOC. ARCHITECTS. Photos, selected details. (May Progressive Architecture, p. 61)

**Display Units, La Reine Candy Shop, N. Y.**—SIMON SCHMIDTNER; FELIX AUGENFELD, ARCHITECT; ASSOC. DESIGNERS. Photos, selected details. (May Progressive Architecture, p. 63)

**Stairway, House, Cos Cob, Conn.**—POMERANCE AND BREINER, ARCHITECTS. Photos, selected details. (May Progressive Architecture, p. 65)

### Furniture

**Focus on Design—Nursery School Furniture.** Of plywood and steel tube frames, these tables and chairs have been designed in gay colors and of light weight so as to enable the children to carry them around themselves. Photos. (Apr. Architectural Design and Construction, p. 91)

**Pliable Furniture.** Review of the importance of pliable furniture, notable for its economy of space which allows more flexibility in furniture placement. Photos. (Mar. Domus, p. 25)

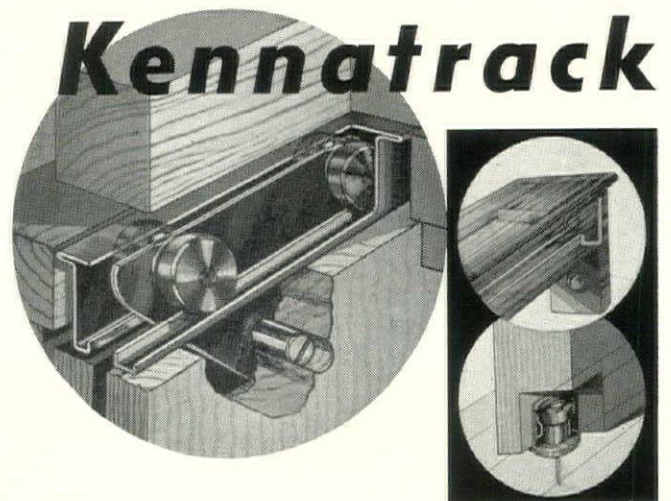
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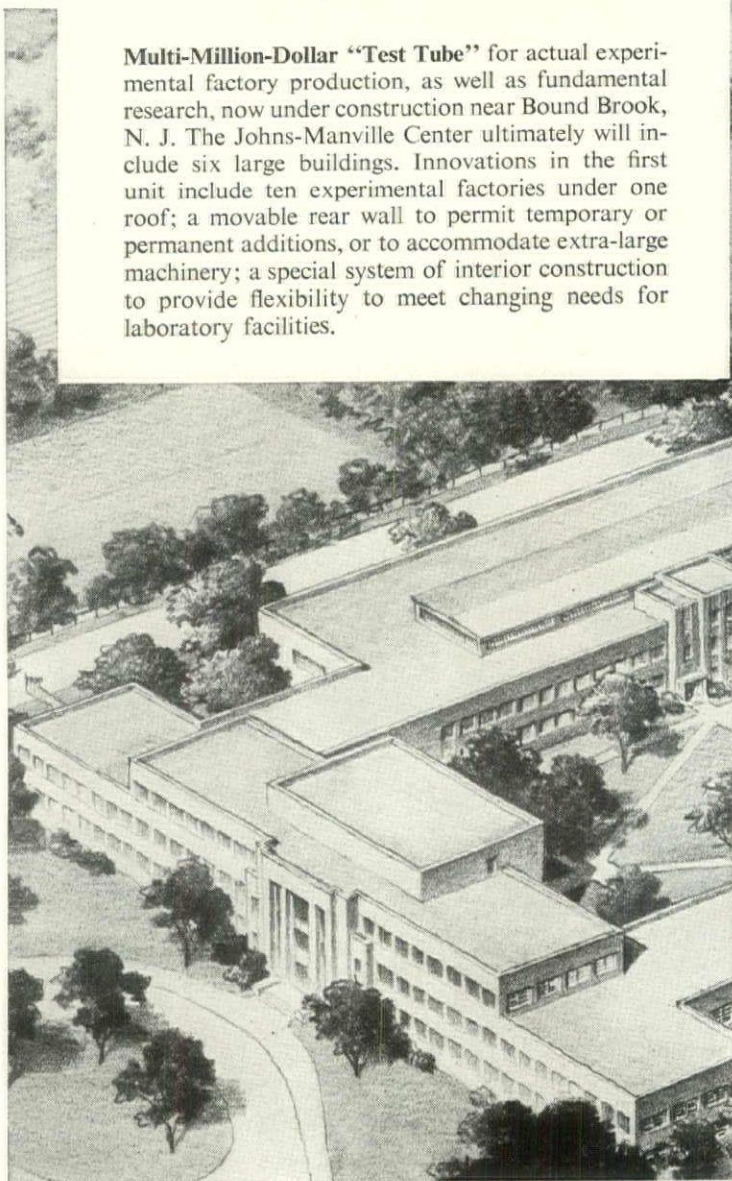
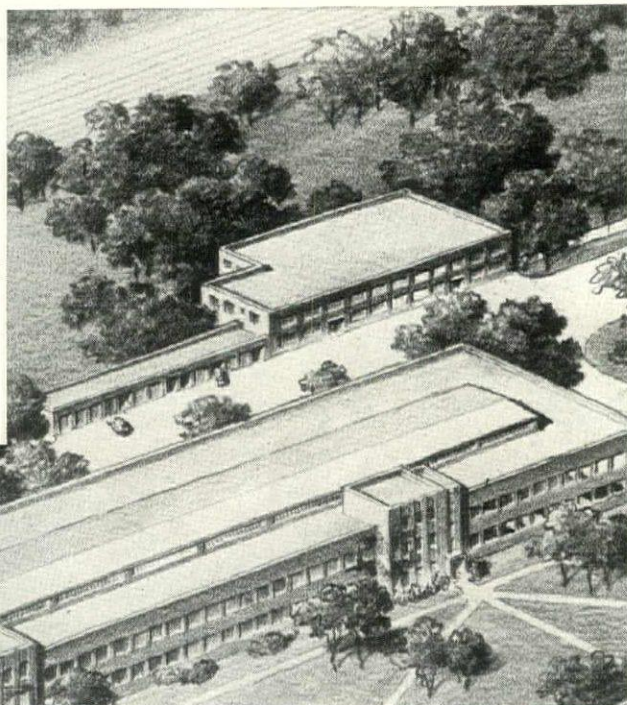
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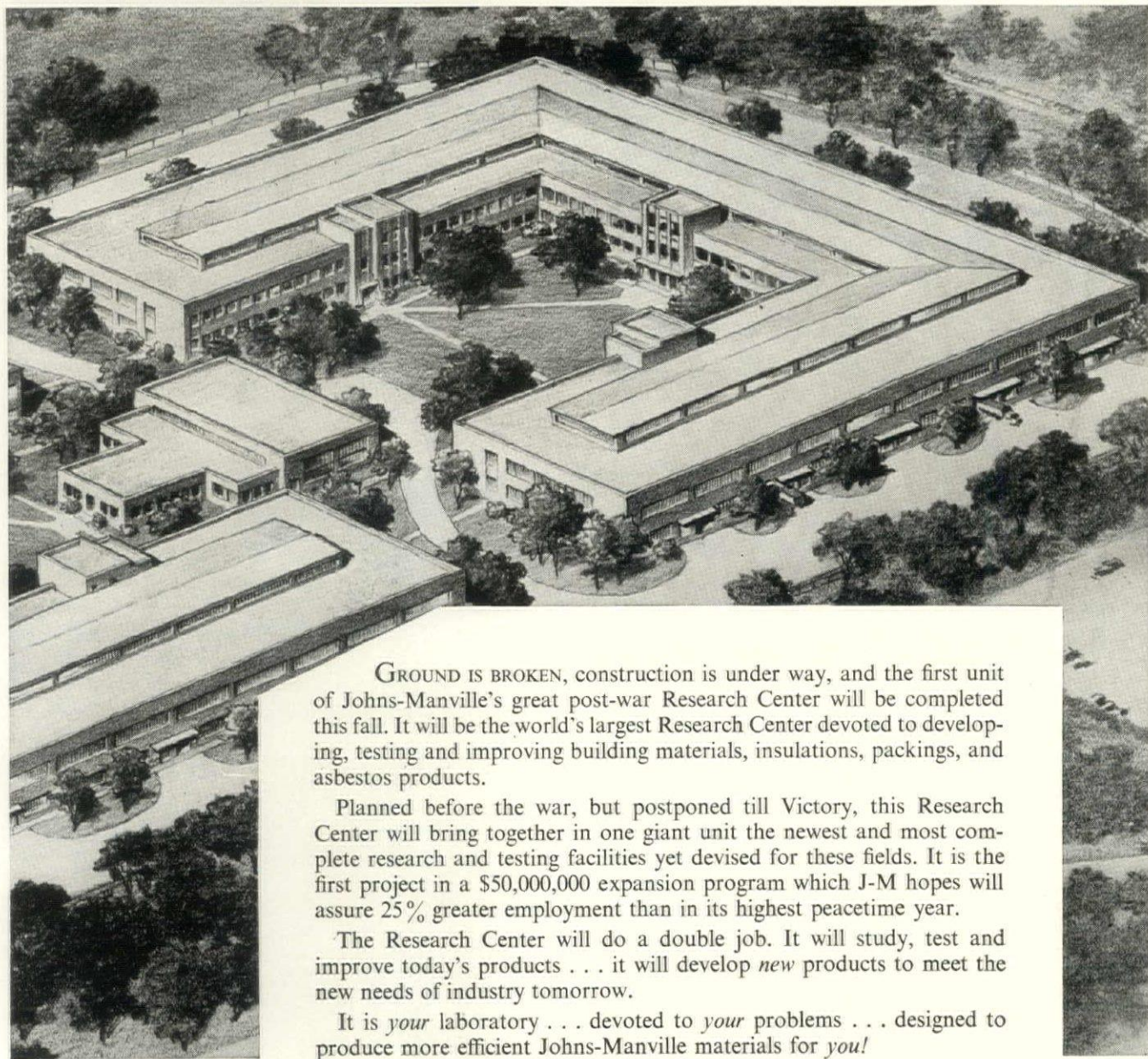


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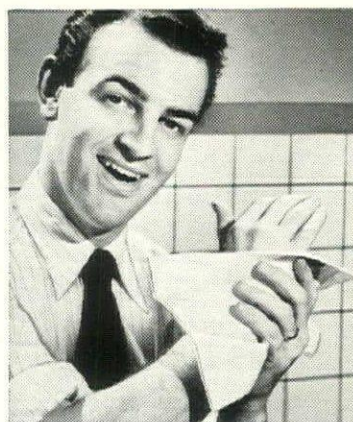
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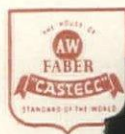
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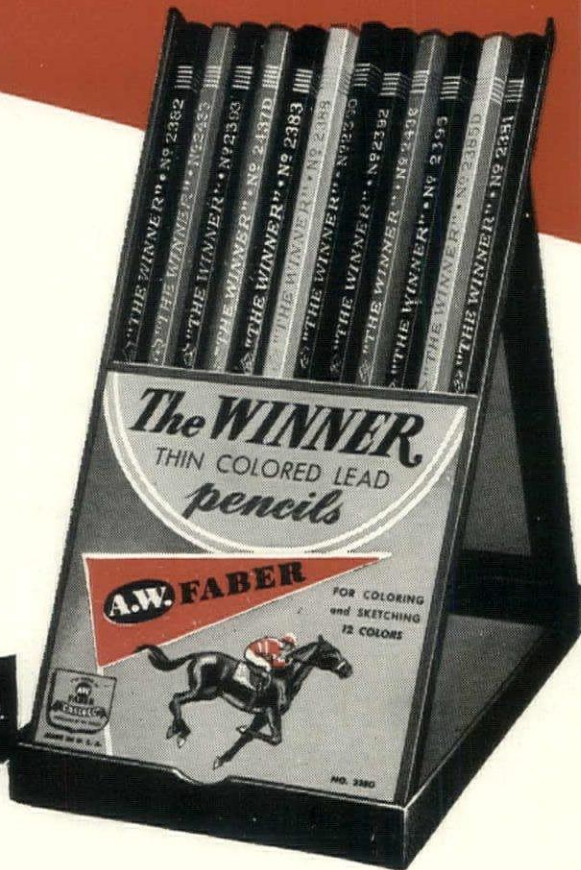
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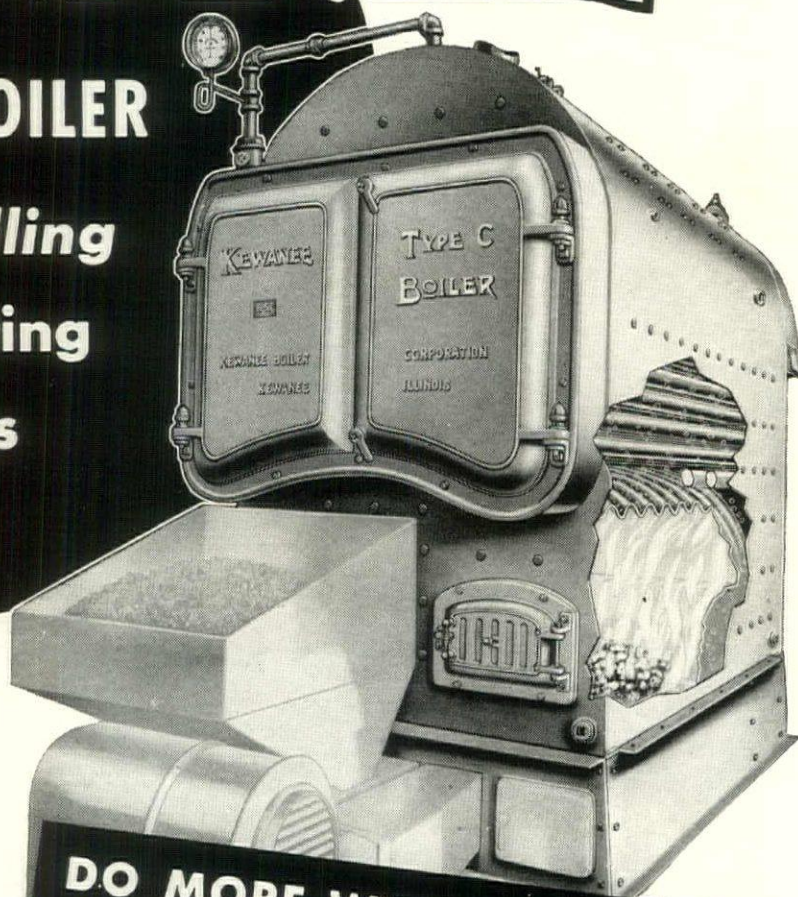




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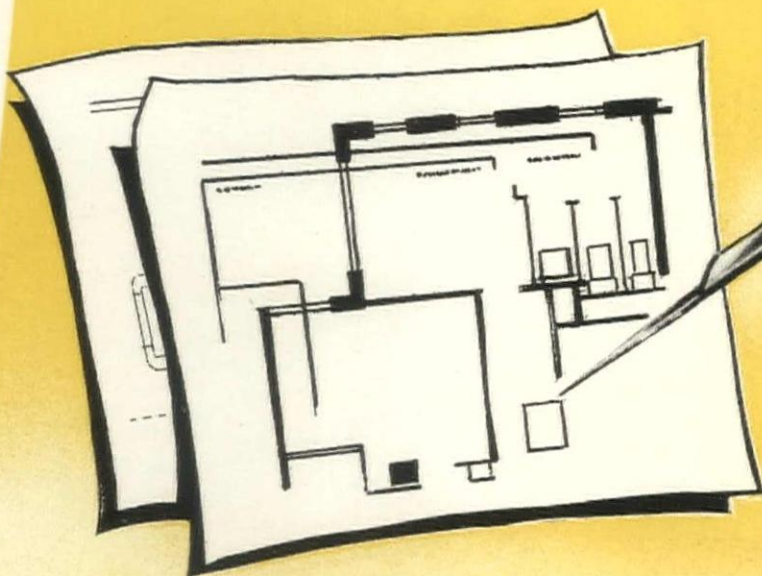
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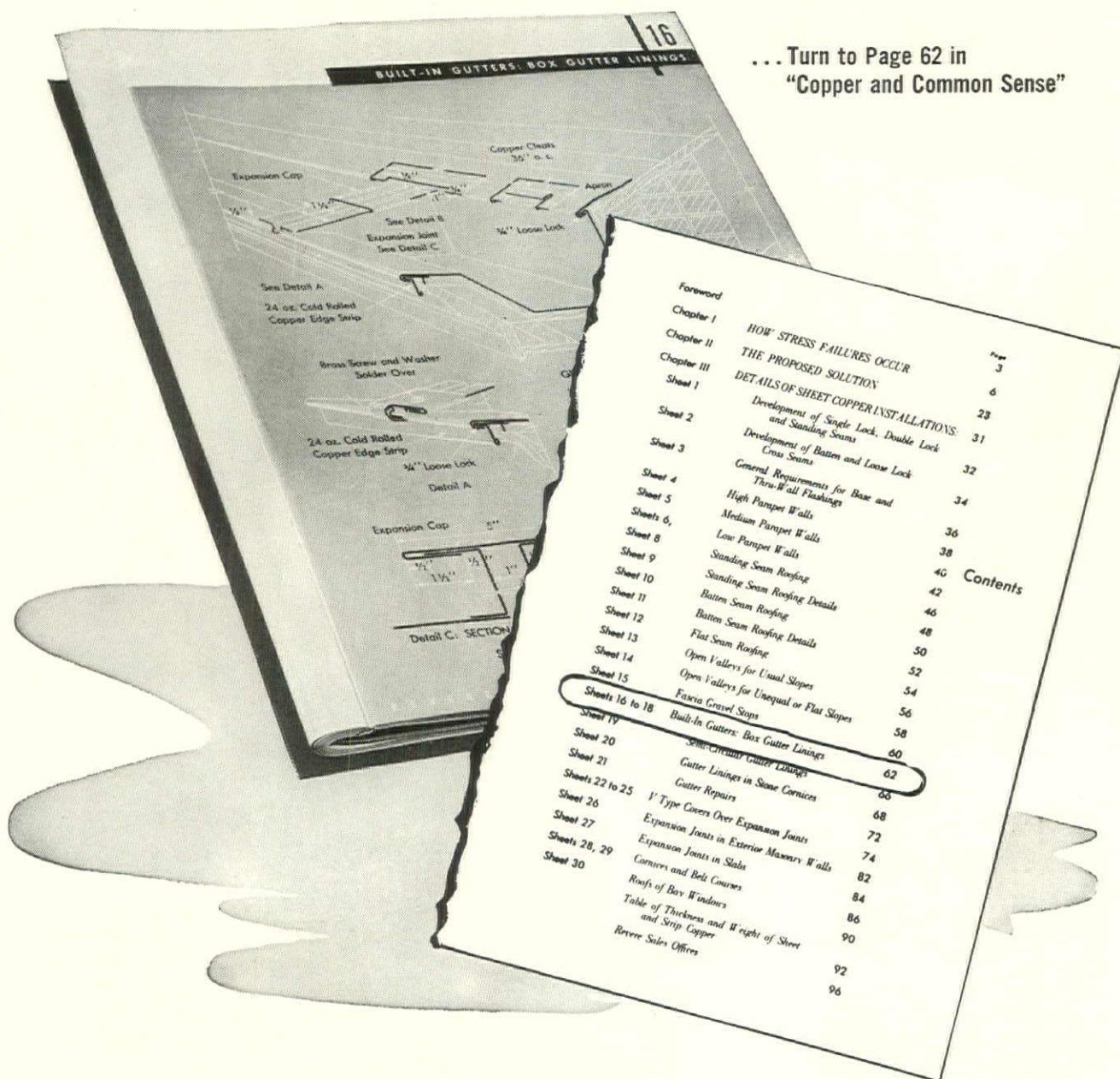
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# What about built-in gutters?



... Turn to Page 62 in  
"Copper and Common Sense"

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**S**ELDOM has a publication by a manufacturer received as wide a welcome as Revere's 96-page booklet, "Copper and Common Sense". The chances are you already have a copy, but if not, write for it now while there are still a few available. On questions of sheet copper construction you will find it gives the answers—complete.

On box gutter linings for built-in gutters, for example, there are six pages of details and text. Here, as elsewhere throughout the book, you get the latest, most authoritative facts on the best ways so far developed for designing and carrying out sheet copper construction. It is based on Revere's famous program of sheet copper research in which wholly new facts were discovered which reduce this type of construction to a matter of engineering design.

Checked and endorsed by leading architects and experienced sheet metal experts, the charts, details and information in this booklet are designed for practical men to use in solving their day-to-day problems.

Here is a simple, direct guide to longer lasting, more

trouble-free sheet copper construction. It will always pay you to turn to this booklet first. Complimentary copies have been sent to all holders of Sweet's Architectural File, and, through Revere Distributors, to the majority of the sheet metal contractors throughout the country. For any further help you may wish, call on the Revere Technical Advisory Service, Architectural. Revere products are sold by Revere Distributors in all parts of the country.

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Mills: Baltimore, Md.; Chicago, Ill.; Detroit, Mich.; New Bedford, Mass.; Rome, N. Y.—Sales Offices in Principal Cities, Distributors Everywhere.



# How **ANEMOSTAT** air-diffusers insure I. B. M. top air-conditioning efficiency

Correct air-distribution in this I.B.M. production area is vital to the precision manufacture of International Business Machines.

That's why the architects, engineers, and contractors responsible for the air-conditioning specified 72 wall-type ANEMOSTAT air-diffusers. In this way they got the even, draftless air-distribution required. Temperature and humidity are completely equalized—without drafts—to boost production.

## IT'S DONE BY EXCLUSIVE PRINCIPLE

Due to its patented design, the ANEMOSTAT distributes air of any duct velocity in a multiplicity of planes traveling in all directions. Simultaneously, it creates a series of counter-currents which siphon *into the device* room-air equal to about 35% of the supply-air, and *therein* mixes the room-air with the supply-air before it is discharged. The ANEMOSTAT effects air expansion within the device, which instantly reduces velocity.

Therefore, the ANEMOSTAT diffuses air of any duct velocity draftlessly, evenly and thoroughly throughout the room, closely equalizes temperature and humidity, and prevents air stratification.

Prompt Deliveries From Stock  
We are in a position to make prompt shipments of Anemostats in most standard types and sizes.

## HOW ANEMOSTATS SAVE MONEY

ANEMOSTAT wall or ceiling diffusers permit the use of higher duct velocities and greater temperature differentials. As a result, you gain corresponding reductions in duct sizes and number of duct outlets. Substantial savings in installation and operating costs naturally follow. ANEMOSTATS have no moving parts—never need attention, nor replacement—*never cause callbacks*.

Specify *draftless* ANEMOSTAT air-diffusers for your next air-conditioned industrial building. You'll get predictable, dependable air-distribution . . . your client will get uniform, *production-boosting* air-conditioning. The list of ANEMOSTAT installations reads like the bluebook of American industry. You can have this list—write today for complete ANEMOSTAT details.

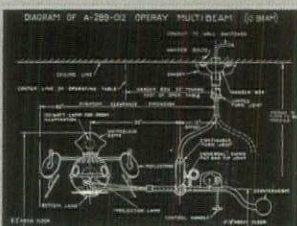
# ANEMOSTAT

ANEMOSTAT CORPORATION OF AMERICA  
10 EAST 39th STREET NEW YORK 16, N. Y.

AC-1026

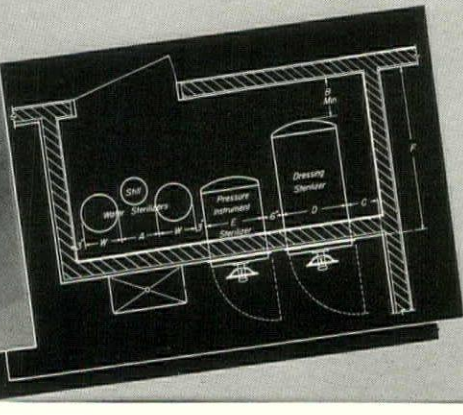
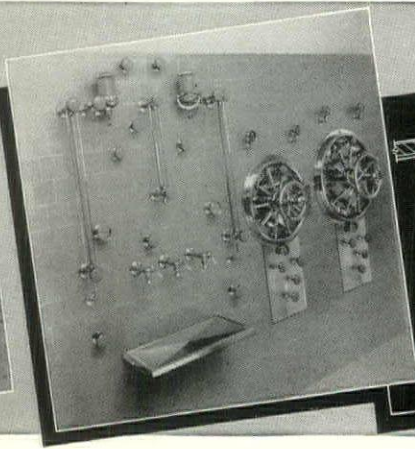
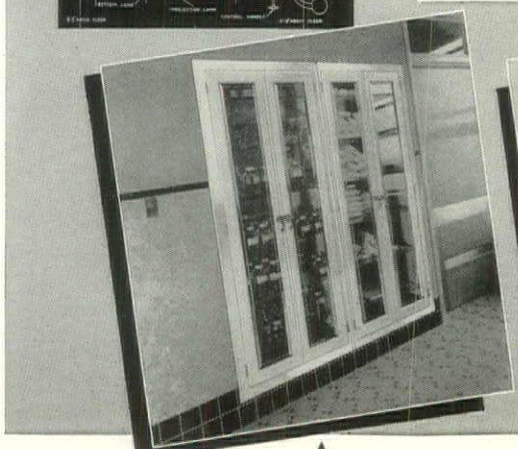
**"NO VENTILATING OR AIR-CONDITIONING SYSTEM IS BETTER THAN ITS AIR-DISTRIBUTION"**





Scanlan-Morris Built-In Surgical Lights—Operay Multibeam lights, widely used in the operating rooms of prominent hospitals, can be adequately planned with the aid of the 56-page Scanlan-Morris Surgical Lighting Catalog. Contains installation drawings and complete information on standard models, emergency models and explosion-proof models.

Scanlan-Morris Built-In Sterilizers include models to meet every requirement of the modern hospital—individual sterilizers and batteries, for any type of heat. Also exposed types. Complete catalog includes both pressure and non-pressure sterilizers, cylindrical and rectangular autoclaves, and extensive planning and installation drawings and data.



Scanlan-Morris Recessed Instrument and Supply Cabinets are made of 20-gauge furniture steel, in a wide variety of styles and sizes; built from plans and specifications covering the individual requirements of the hospital.

Hospital architects are invited to send for literature and planning data on Surgical Lighting, Sterilizers and Recessed Cabinets, and for suggested layouts of equipment based on floor plans.

THE OHIO CHEMICAL & MFG. CO.  
General Offices:  
60 East 42nd Street, New York, N. Y.

Heidbrink Division, Minneapolis. Medical Gas Division, Cleveland. Hospital Supply and Waters Laboratories Division, New York. Scanlan-Morris Division, Madison, Wis. Represented in Canada by Oxygen Company of Canada Limited, and internationally by Airco Export Corporation.

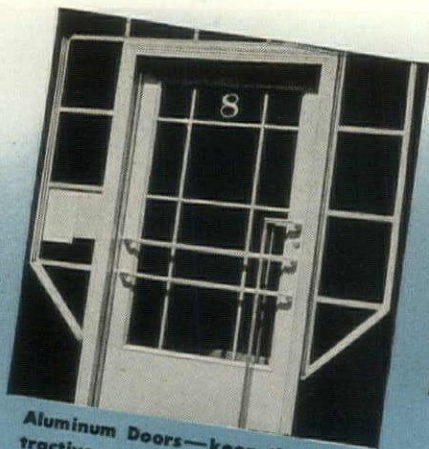
# Ohio Chemical

Manufacturers of Medical Apparatus, Gases, and Supplies for the Profession, Hospitals and Research Laboratories

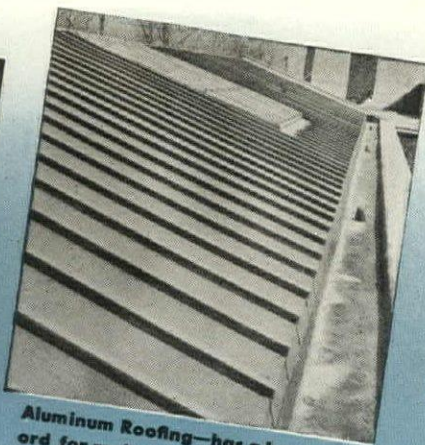
BRANCH OFFICES IN PRINCIPAL CITIES



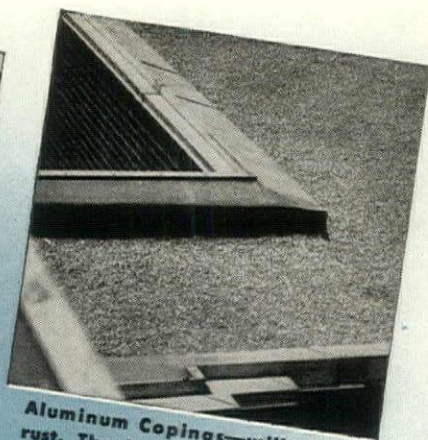




**Aluminum Doors**—keep their attractive appearance. Can't rust or rot. Resist corrosion.



**Aluminum Roofing**—has a long record for maintenance-free service.



**Aluminum Copings**—will never rust. They're weather resistant. Easy to fabricate.

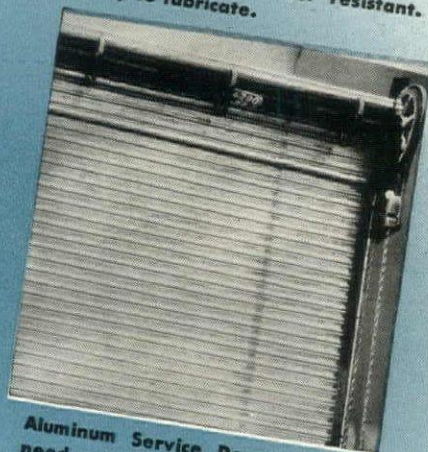
## 5 WAYS TO REDUCE MAINTENANCE WITH

*Alcoa Aluminum*

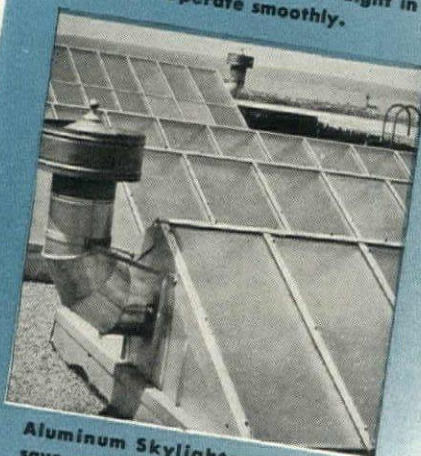
Without exception, wherever Alcoa Aluminum is used, you can count on reduced maintenance—or none at all.

Aluminum can't rust or rot or warp. It won't splinter or crack. It's weather-resistant and stands up against the attacks of many of the corrosive gases so often encountered in industrial areas.

You'll build better when you use this versatile building material and reduce maintenance costs for your client. Five maintenance-saving uses for Alcoa Aluminum are illustrated on this page. These will quickly suggest others to you. ALUMINUM COMPANY OF AMERICA, 1868 Gulf Building, Pittsburgh 19, Pennsylvania.



**Aluminum Service Doors**—never need painting. Can't rust. Light in weight. Operate smoothly.



**Aluminum Skylights**—not only save maintenance but save weight.

THE MOST VERSATILE OF ALL BUILDING MATERIALS



Sidewalk Doors



Ducts



Escalators



Hardware



Venetian Blinds



Windows



Lighting Fixtures



Thresholds



Guard Rails



Louvers



Kick Plates



Cornices

# ALCOA FIRST IN ALUMINUM

IN EVERY COMMERCIAL FORM







Kimbrough Towers, a 96-family architectural concrete apartment building in Memphis, Tenn., was completed in 1939. It was designed for John F. Kimbrough, Jr., realtor, by H. M. Burnham, architect, and H. B. Hulsey, associate architect; Gardner & Howe, structural engineers; S. & W. Construction Co., contractors (all of Memphis).

## Apartment Buildings of Architectural Concrete *for fast, economical construction of housing facilities*

**C**ONSTRUCTION of well-designed, and soundly built apartment buildings, offers an economical way to provide adequate housing without danger of creating future slum areas.

Architectural concrete meets every essential requirement, including firesafety, attractive appearance and economy, for apartment buildings, hotels, schools or hospitals.

This construction is economical because concrete com-

bines both architectural and structural functions in one firesafe material.

The rugged strength and durability of concrete buildings keep maintenance cost at a minimum, giving many years of service at *consistently low annual cost*.

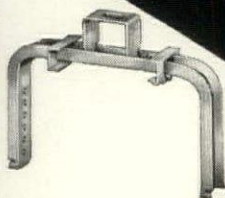
Experienced members of our technical staff are available to assist architects and engineers in obtaining maximum structural advantages of concrete for apartment buildings or any project involving the use of concrete.

# PORTLAND CEMENT ASSOCIATION

Dep't. 7-25, 33 West Grand Avenue, Chicago 10, Illinois

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

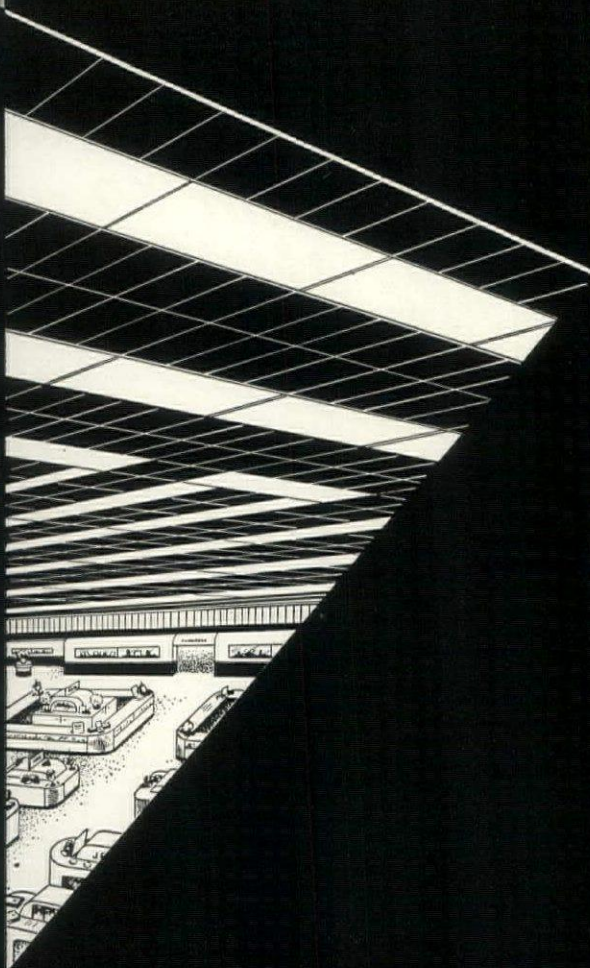




## Not just lighting - but Ceilings Unlimited

THE MILLER FLUORESCENT TROFFER LIGHTING SYSTEM for stores, offices, schools, factories, and public buildings is an important advance in lighting. The backbone of this system is the patented Miller Ceiling Furring Hanger which suspends ceilings from the lighting system — does away with laborious fitting of recessed lighting into hung ceilings, cuts needed supports from structural ceiling 50 to 75%. Has its own wireway which reduces wiring costs up to 50% . . . conduit and conduit fitting costs up to 80%.

MILLER FLUORESCENT TROFFER LIGHTING SYSTEMS provide not just lighting — the best seeing light — but provide the means for interior improvement — CEILINGS UNLIMITED.



THE MILLER COMPANY • MERIDEN, CONN.  
Illuminating Division

- HEATING PRODUCTS DIVISION
- ILLUMINATING DIVISION
- ROLLING MILL DIVISION
- FOUNDRY DIVISION





**"No Maintenance Required  
with an  
ADLAKE ALUMINUM WINDOW!"**

**THAT'S RIGHT**—other than ordinary washing and cleaning, there's *no maintenance required* with an Adlake Aluminum Window!

Because Adlake is built to last—and last! An exclusive combination of nonmetallic weather stripping and serrated guides gives finger-tip control, eliminates excessive air

infiltration, allows no warping or sticking, cuts maintenance problems to the bone! What's more, Adlake is beautifully designed for lasting architectural appeal.

Before specifying or detailing *any* window, why not get full information about Adlake Windows? We believe you'll find it well worth while.

## THE ADAMS & WESTLAKE COMPANY

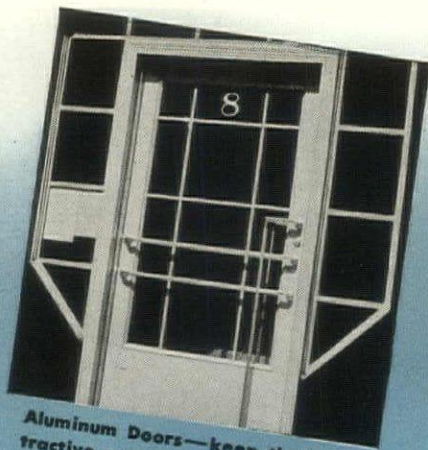
*Furnishers of Windows to the Transportation Industry for Over 30 Years*

ESTABLISHED 1857

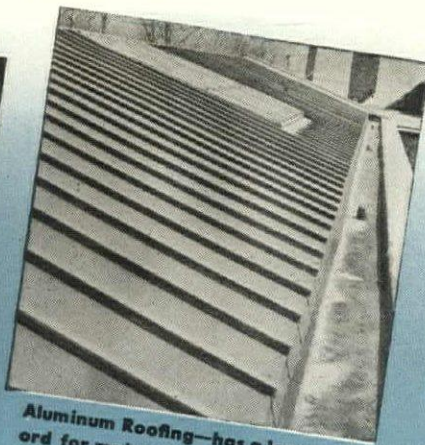
ELKHART, INDIANA

NEW YORK • CHICAGO

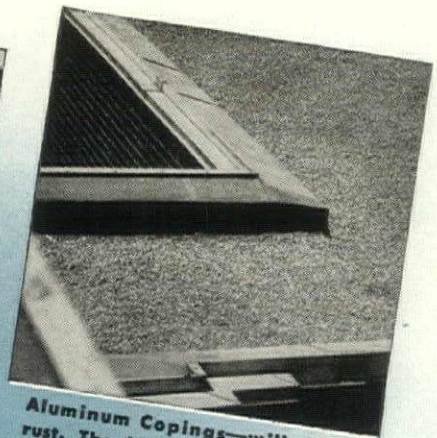




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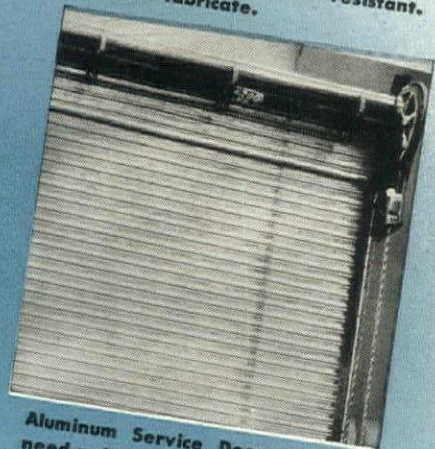
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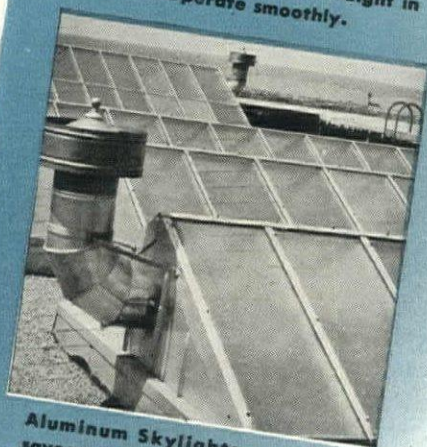
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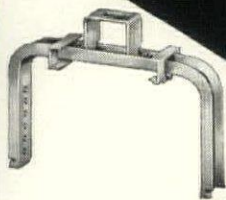
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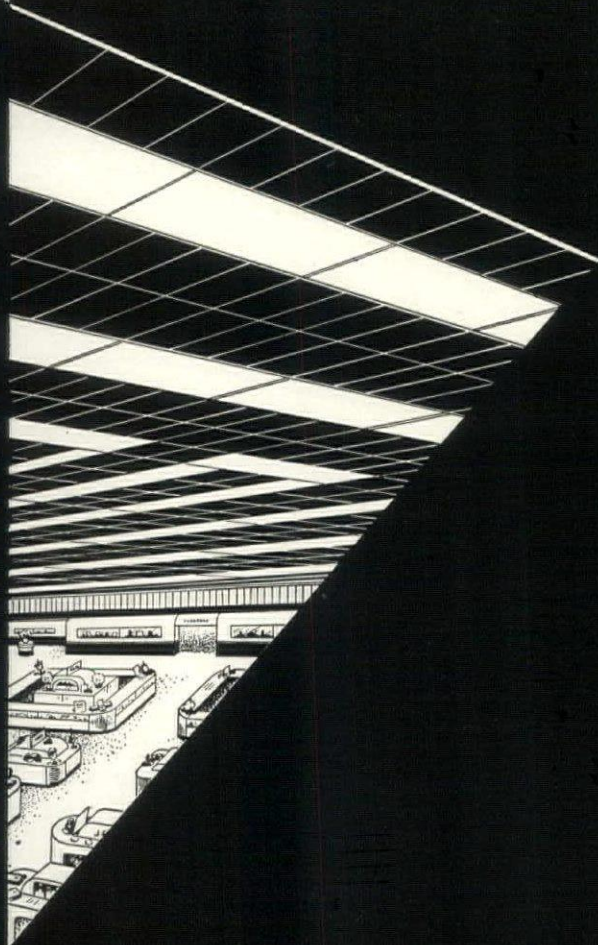




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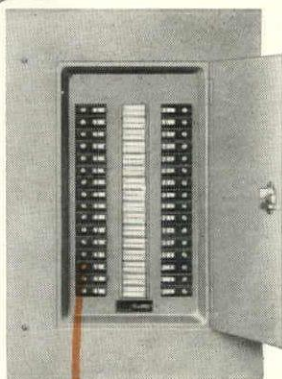
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ELKHART, INDIANA

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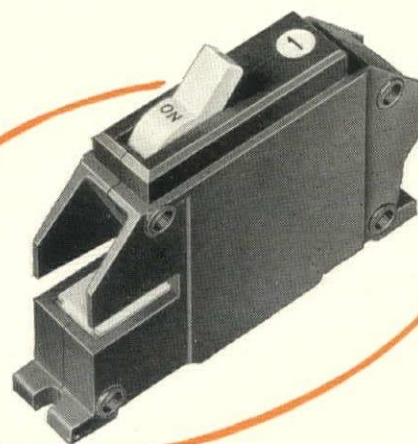
# 



... gives you  
**FASTER  
MORE POSITIVE  
CIRCUIT PROTECTION**



## **THERMAG AUTOMATIC CIRCUIT BREAKER PANELBOARD**



There is no need to worry about short circuits... dangerous overloads... burned out equipment... and other similar costly and irritating service interruptions... with **FA** Thermag Automatic Circuit Breaker Panelboards.

Built from standard units and enclosed in attractive easy-to-install steel cabinets, these modern Underwriters' Laboratory-approved Panelboards are ideal for schools, commercial and industrial installations.

The heart of these modern and efficient panelboards is the **FA** Thermag (Thermal-Magnetic) Circuit Breaker which insures positive circuit protection by combining two important functions in one working unit... a thermal action that ignores harmless overloads and temporary surges of current, plus a magnetic action that instantaneously interrupts current at the first sign of short circuit or dangerous overload.

Easy to operate, requiring only the "flip of the handle" to restore service... when the trouble is eliminated... panelboards with **FA** Thermag Automatic Circuit Breakers are today's answer to tomorrow's service problem. So insist that your next panelboard be an **FA** Thermag Automatic Circuit Breaker type.

**FA** Thermag Circuit Breaker Panelboards are available in standard and narrow column types, also dust-tight and vapor-proof construction panelboards. The type AC Thermag Circuit Breakers are furnished in 15, 20, 25, 35, and 50 amp. capacities for 120 volts AC — single or double pole. Panelboard assemblies have 4 to 42 branch circuits with 115-230 volt, 3-wire, or 120-208 volt, 4-wire solid neutral mains.

For more complete information regarding specifications and costs, write for Bulletin No. 67.

TO RESTORE SERVICE

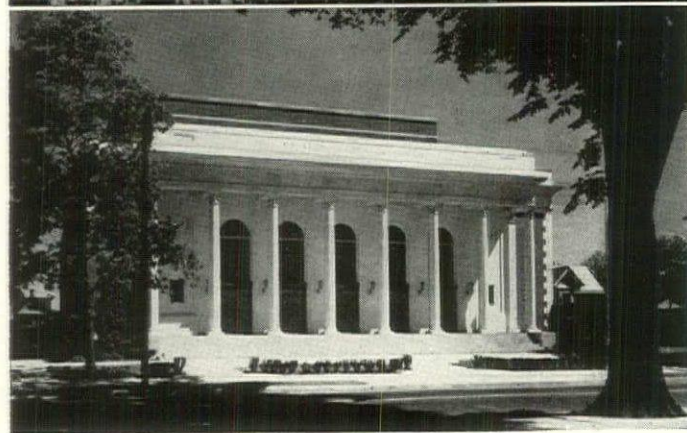
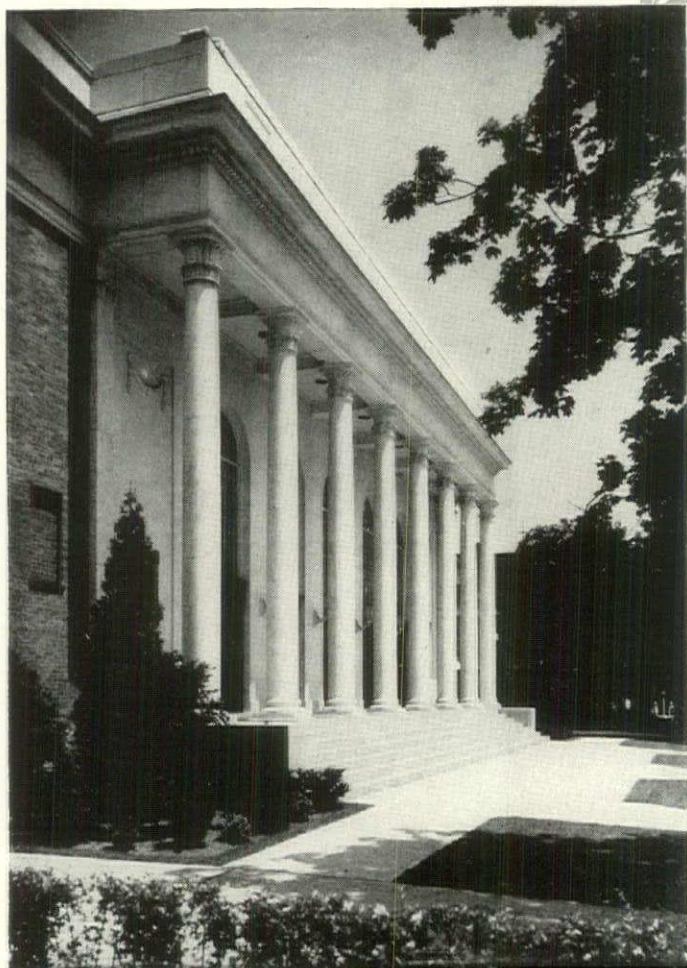
*"Simply Flip the Handle"*  
TO **ON**  
POSITION!  
(After Removing Cause of Trouble)




- BUSDUCT
- PANELBOARDS
- SWITCHBOARDS
- QUIKHETER
- SERVICE EQUIPMENT



Klein Memorial Auditorium—Bridgeport, Conn.  
Leonard Asheim—Architect



# CIVIC CULTURE

*inspired by  
Vermont Marble*

☆ Here is a classic example of Colonial Georgian architecture to which the use of White Vermont Marble is most appropriate. For the Klein Memorial in Bridgeport, architect Leonard Asheim has employed a skillful combination of many of the finest details of theatre architecture.

Vermont Marble, because of its durable, workable formation and inherent beauty, has been chosen for many outstanding civic memorials ... and such impressive federal and state buildings as the Supreme Court building, the Oregon State Capitol, and many others. Vermont Marble is available in a wide variety of colors and finishes ... for every functional and decorative need.

**Vermont Marble Company**  
*Importer—Producer*  
**Finisher of all kinds of Marble**



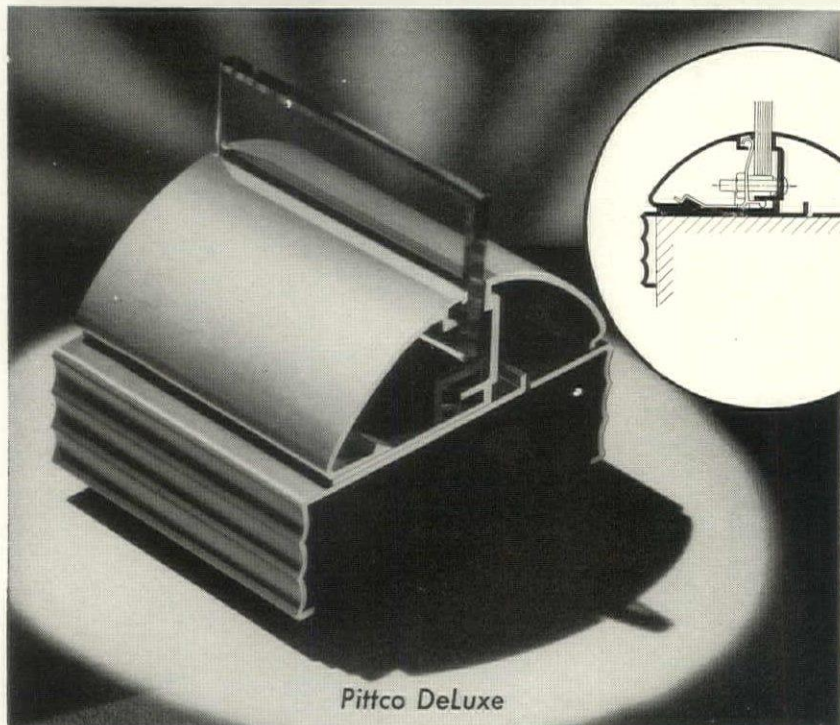
## VERMONT MARBLE

**VERMONT MARBLE COMPANY • PROCTOR, VERMONT**

Boston • Chicago • Cleveland • Dallas • Houston • Los Angeles • New York • Philadelphia • San Francisco • Ontario Marble Co., Peterborough, Ont.



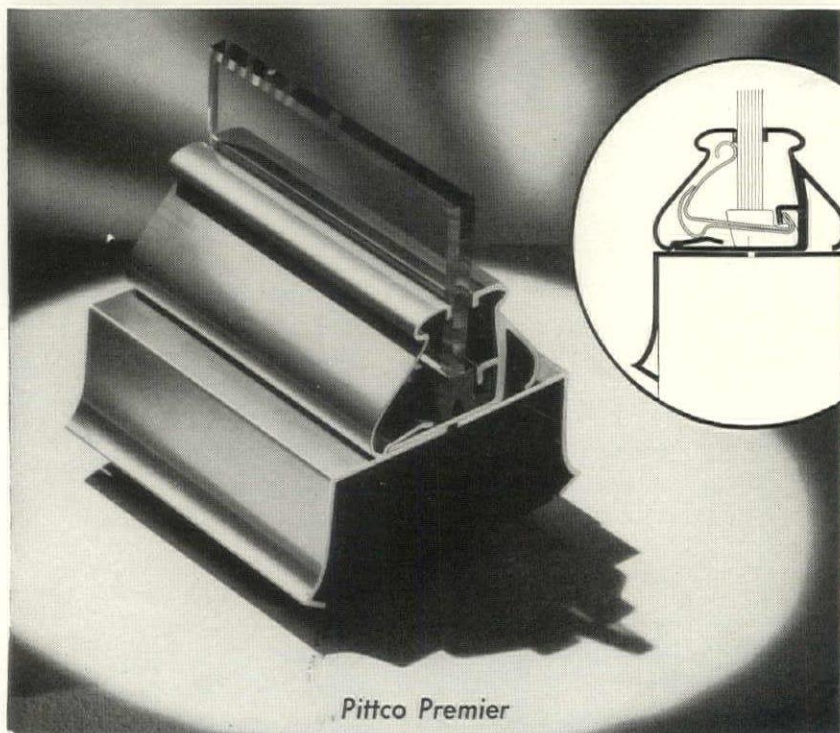
# Two lines of PITTCO METAL now available for Store Fronts of distinction



Pittco DeLuxe

## **PITTCO** **DE LUXE**

Pittco Store Front Metal is functionally, as well as artistically, designed to fit every store front need. This Pittco De Luxe double face sash is both a safe and attractive setting for "open vision" display windows and partitions with glass panels. Reversing the members permits glass to be set from inside—a decided advantage when working above normal grade levels. The extruded method of manufacture assures rugged strength, clean, sharp profiles, lasting color and perfect finish. The wide variety and imaginative styling of Pittco De Luxe mouldings help architects to create impressive, individualized store fronts of high quality.



Pittco Premier

## **PITTCO** **PREMIER**

Pittco Premier, although lighter in weight and more moderately priced than Pittco De Luxe, embodies the same thoughtful planning and inspired styling which have made the De Luxe line an outstanding success. Like Pittco De Luxe, the Pittco Premier line was designed as a unit giving an inherent harmony which permits the architect to develop a variety of attractive store front combinations. Pittco Premier construction can be set more quickly than any other metal construction, effecting a substantial saving in setting time. Practicality plus the high degree of architectural beauty in the Premier line makes possible the creation of economical, sales-winning store fronts.

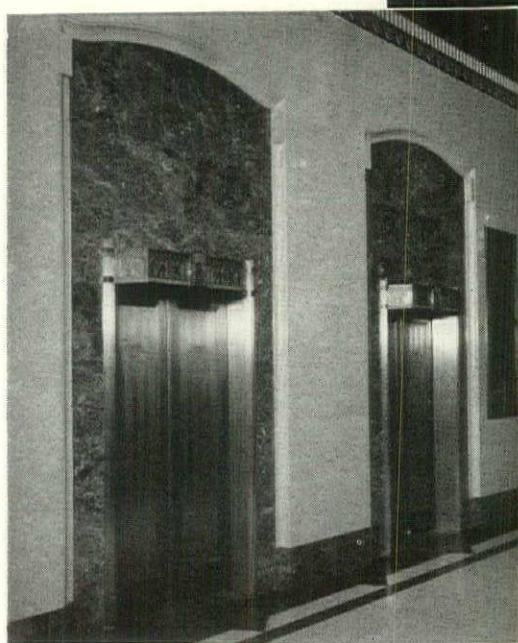


**PITTCO STORE FRONT METAL**  
PITTSBURGH PLATE GLASS COMPANY

*"PITTSBURGH" stands for Quality Glass and Paint*



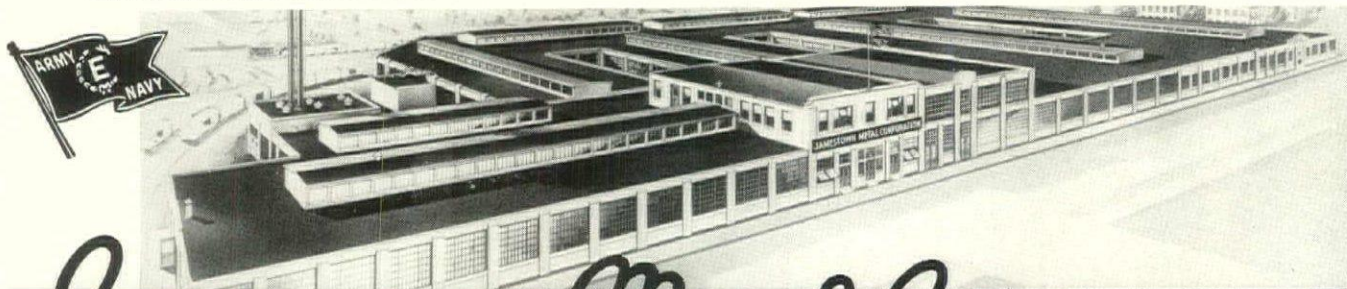
Jamestown Metal Corporation, well known for designs in metal, is cooperating with architects on plans for Elevator Enclosures, Interior Trim, Hollow Metal Doors, Office Partitions, Cold Rolled Mouldings and formed metal specialties in Bronze, Aluminum, Steel and Stainless Steel.



BIPARTING BRONZE ELEVATOR UNITS  
WITH ETCHED BRONZE PANELS by  
JAMESTOWN METAL CORPORATION

**DALLAS POWER & LIGHT CO. BLDG., DALLAS, TEXAS**  
LANG & WITCHELL, ARCHITECTS WESTINGHOUSE, ELEVATOR CONTRACTORS

Fine Jamestown Metal Corporation Craftsmanship is displayed in the beautiful elevator doors in this building.



*Jamestown Metal Corporation*  
104 Blackstone Avenue Jamestown, N. Y.

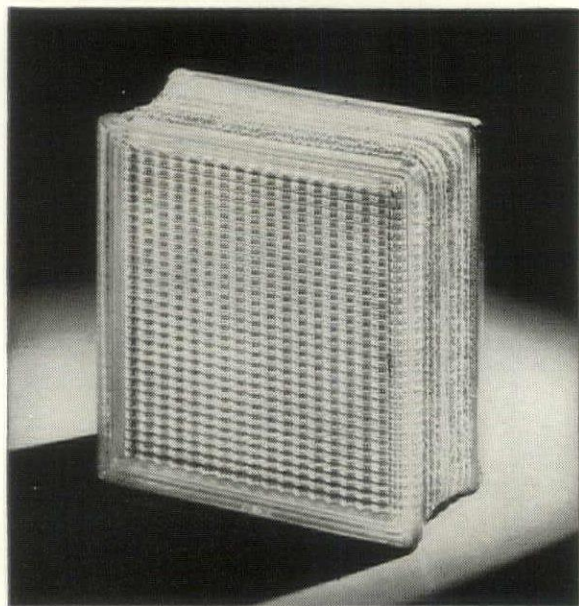




**Veteran of many railroad installations**—a proved performer under the most demanding conditions—Insulux Glass Block was selected by Architects Deleuw, Cather & Co., Chicago, for Rock Island Lines' new research and testing laboratory. The entrance and a 5-foot section of exterior walls are

constructed of Insulux panels. Wall panels extend from top of clear windows to ceiling of the building. Insulux *light-directing* block bends light to the ceiling. It is then diffused and evenly distributed across the many rooms of the laboratory.

## How a laboratory aimed daylight



**DAYLIGHT** is focused on research and testing of 70,000 railroad items by panels of Insulux Glass Block at the famous new Rock Island laboratory.

Working areas are flooded with natural daylight while dust and dirt are sealed out and transmission of noise lowered.

The high insulating value of Insulux helps cut heating costs. Maintenance expense is low because Insulux does not rust, rot or corrode and painting is never necessary. It is easy to clean and keep clean.

In a wide range of construction—from laboratories and factories to stores and homes—architects are making increased use of Insulux Glass Block because it *does many things* other materials cannot do.

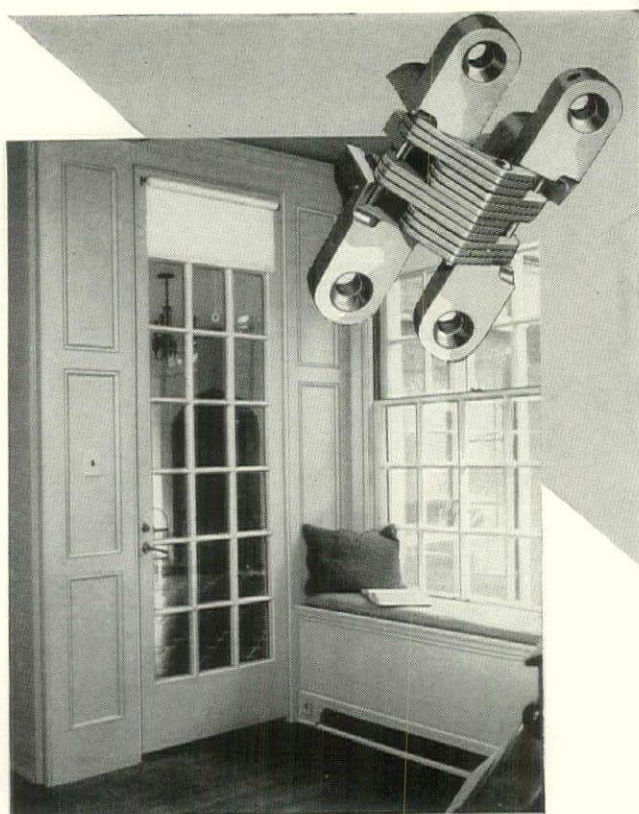
**OWENS - ILLINOIS**

# INSULUX

**GLASS BLOCK**

For technical data, specifications and installation details, see our section of Sweet's Architectural Catalog, or write Dept. C-31, Owens-Illinois Glass Company, Insulux Products Division, Toledo 1, Ohio.



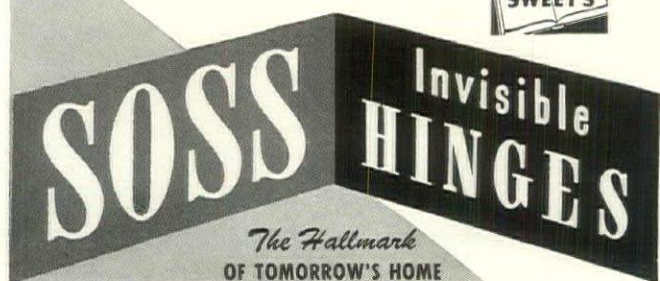


## Modern Hinges for The Modern Home

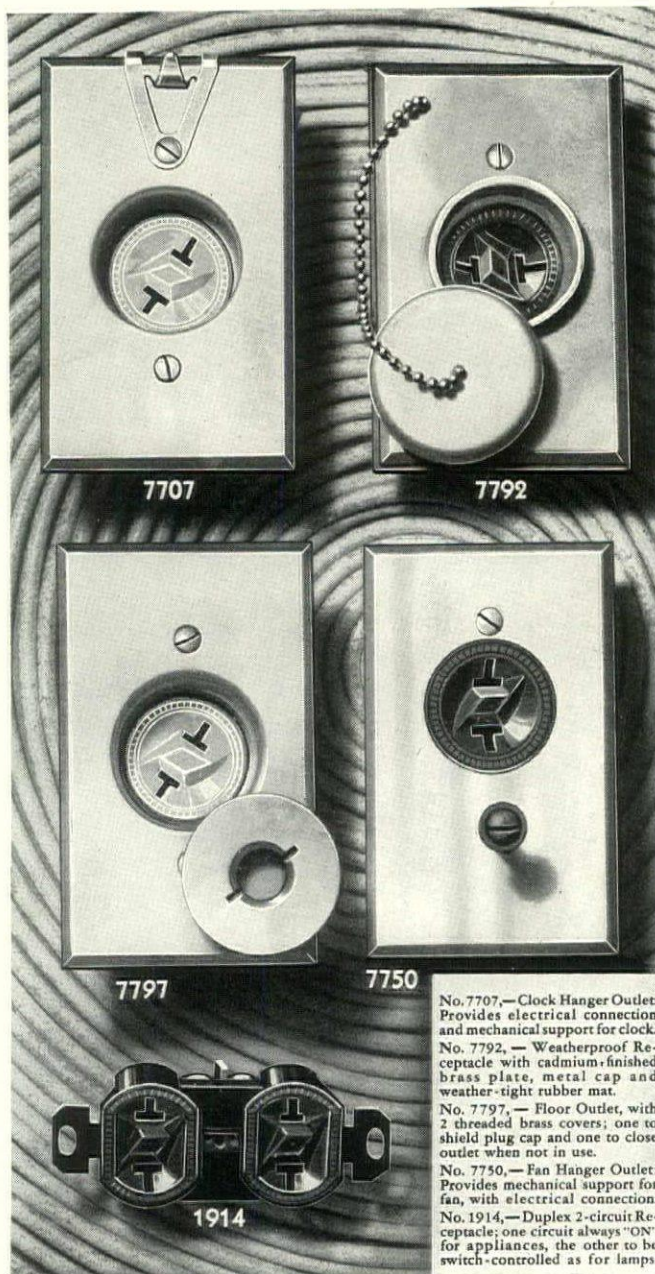
• This modern hinge, the SOSS INVISIBLE HINGE, eliminates unsightly, broken surfaces—and surfaces marred by protruding butts. It thereby provides greater opportunities for unusual artistic design for flush, streamlined surfaces, and far more attractive doors, cupboards and secret panels. The SOSS INVISIBLE HINGE places a hinge where it really belongs—hidden from view completely.

*Write for the Soss "Blue-Print Catalogue." This catalogue gives full details for the many applications of this modern hinge. Sent free to you on request.*

**SOSS MANUFACTURING COMPANY**  
21769 HOOVER ROAD • DETROIT 13, MICH.



# H&H OUTLETS SPECIAL-PURPOSE



No. 7707,—Clock Hanger Outlet: Provides electrical connection and mechanical support for clock.  
No. 7792,—Weatherproof Receptacle with cadmium-finished brass plate, metal cap and weather-tight rubber mat.  
No. 7797,—Floor Outlet, with 2 threaded brass covers; one to shield plug cap and one to close outlet when not in use.  
No. 7750,—Fan Hanger Outlet: Provides mechanical support for fan, with electrical connection.  
No. 1914,—Duplex 2-circuit Receptacle; one circuit always "ON" for appliances, the other to be switch-controlled as for lamps.

These Outlets serve special purposes *in addition* to those served by ordinary receptacle types. Their *extra*-utility has durable basis in right design, rugged parts, reliable workmanship. Ask for complete specification data.

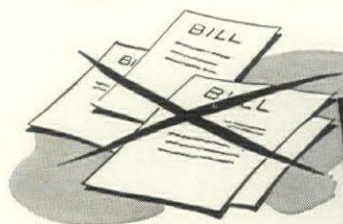
HART & HEGEMAN DIVISION

**ARROW-HART & HEGEMAN ELECTRIC  
COMPANY, HARTFORD 6, CONN., U.S.A.**

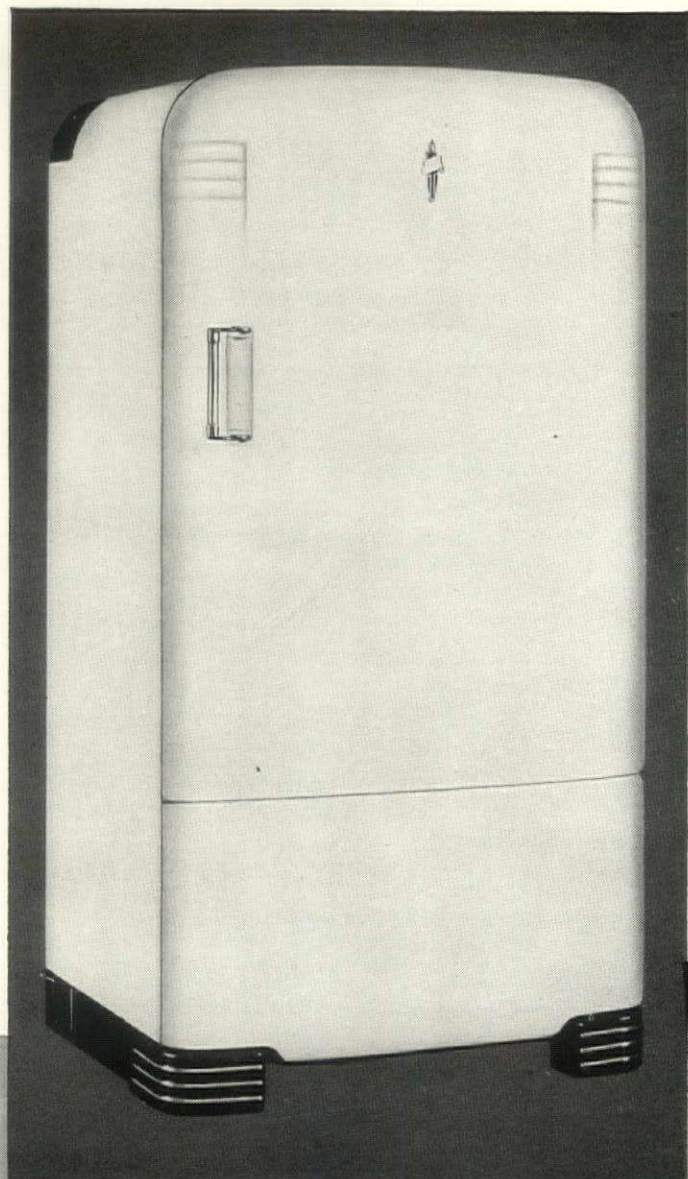




**Its silence pleases TENANTS**



**Its long life pleases OWNERS**



**You'll satisfy both** tenants and owners when you specify Servel Gas Refrigerators for your new apartment houses. This modern gas refrigerator never makes a sound, never annoys. And despite constant use, Servel does its job silently . . . without wear. As 2,000,000 users have proved, it stays new, even after 10, 12 or 15 years of service.

These outstanding advantages of Servel—permanent silence and lasting dependability—are the result of a basically different operating method. Servel is the only refrigerator that freezes with *no moving parts*. There's no machinery to get noisy or wear. A tiny gas flame does all the work . . . circulates the refrigerant that produces constant cold and plenty of sparkling ice cubes.

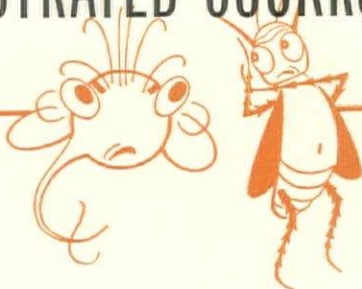
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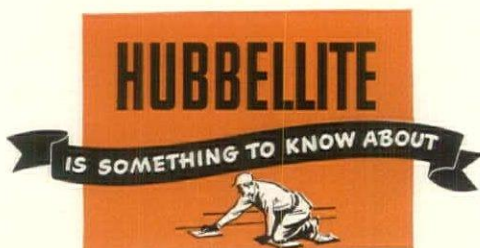
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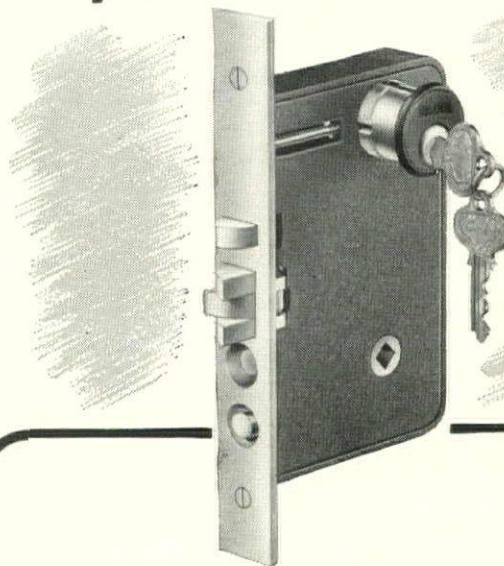
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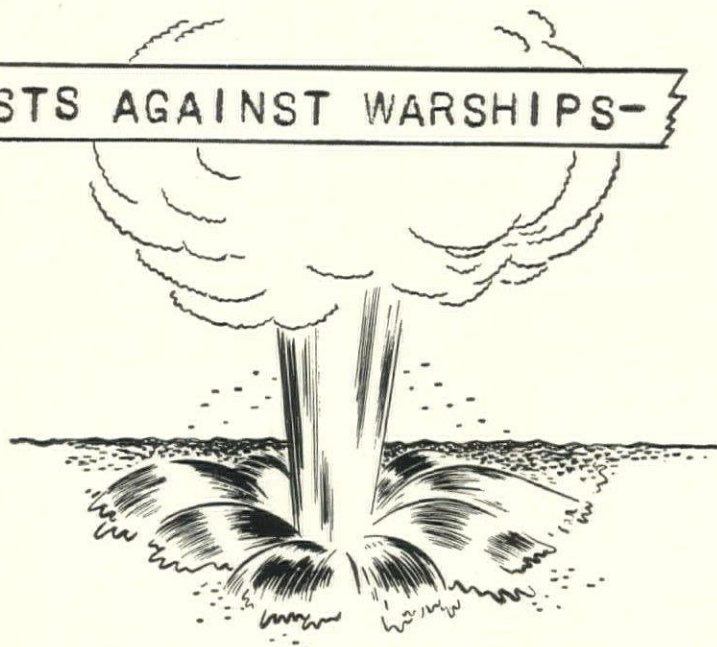
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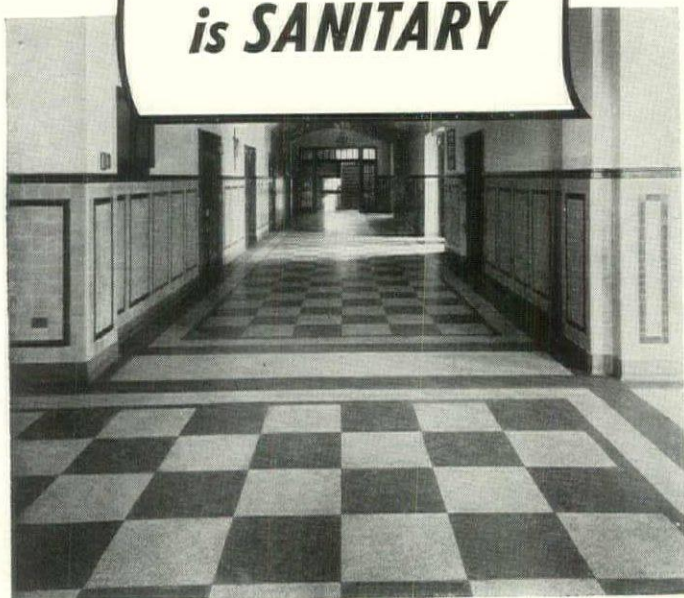
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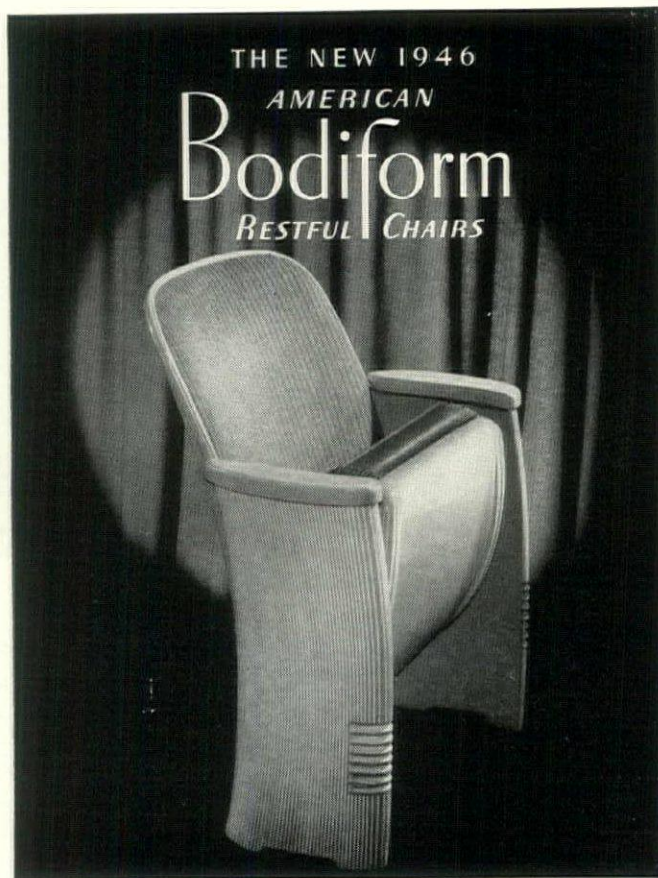
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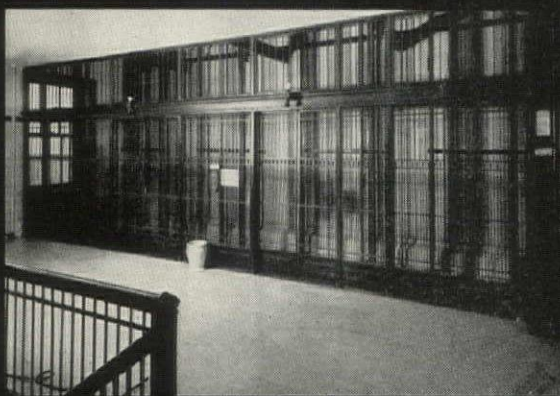
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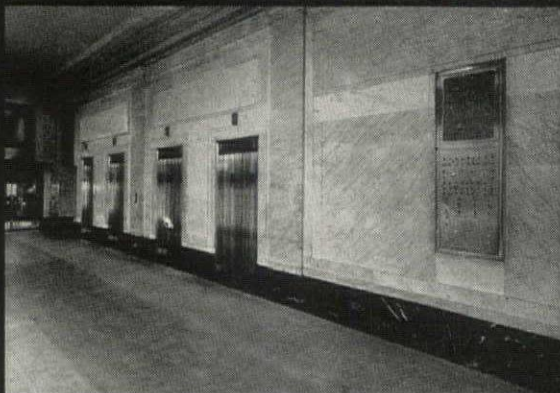


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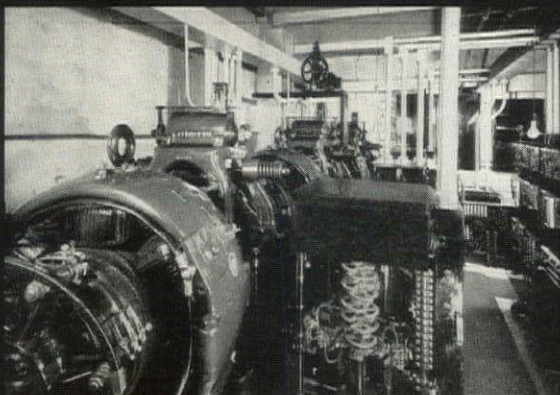
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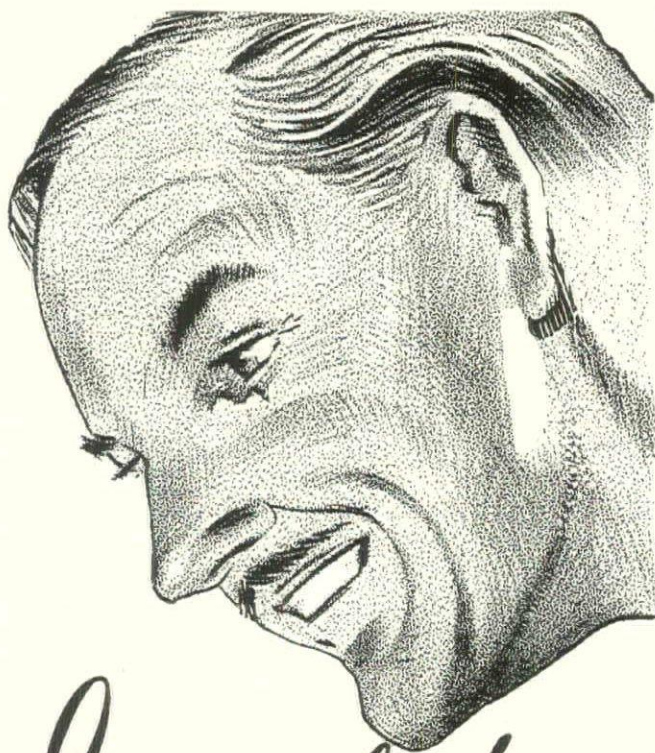
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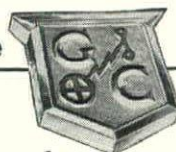
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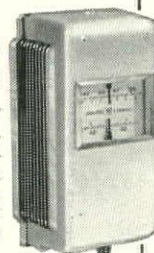
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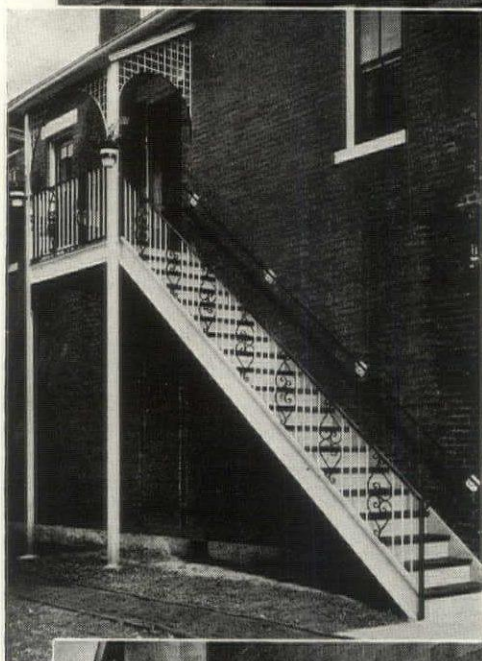
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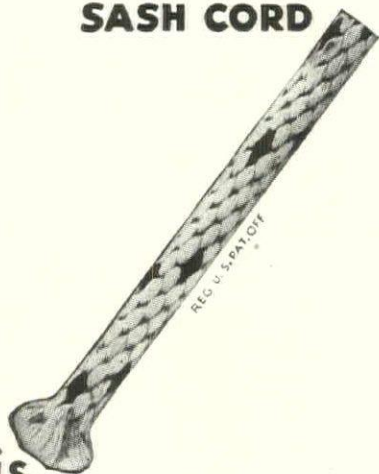
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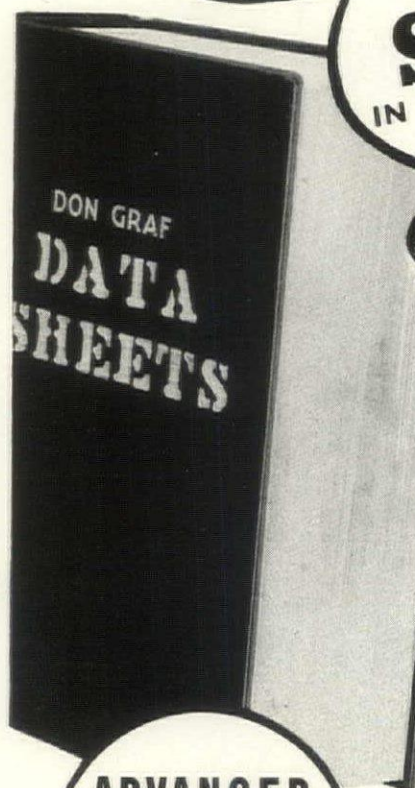
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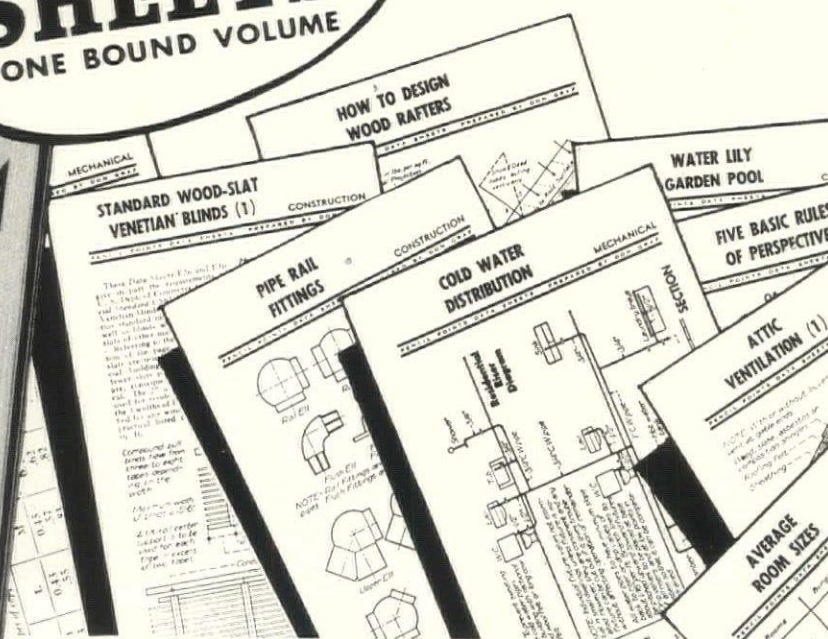


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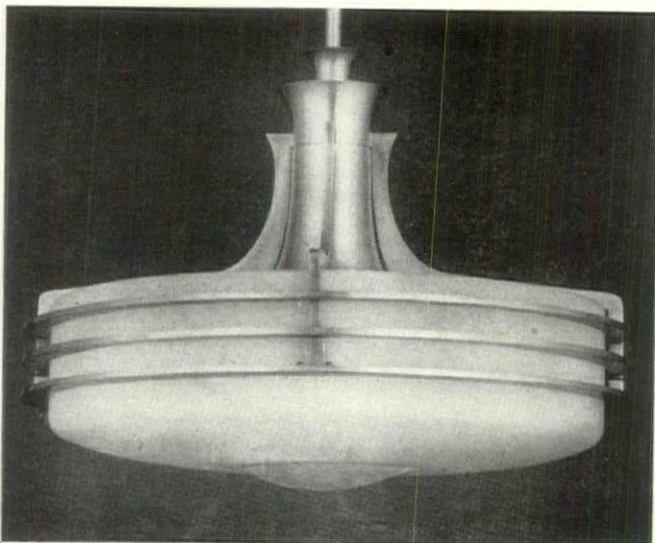
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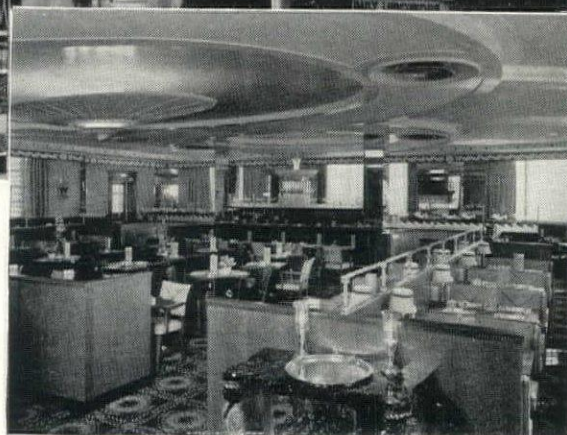


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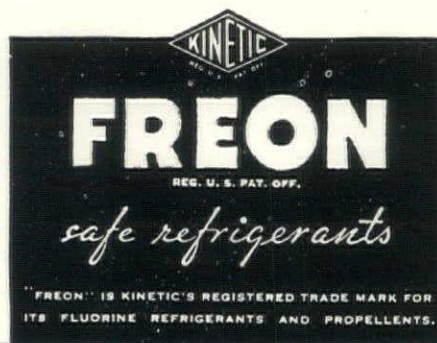
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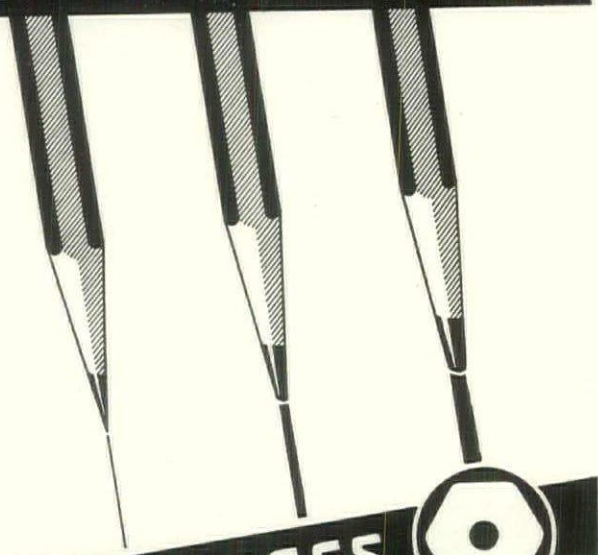
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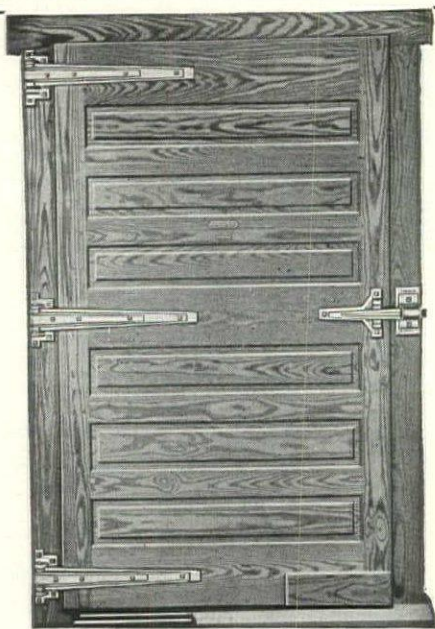
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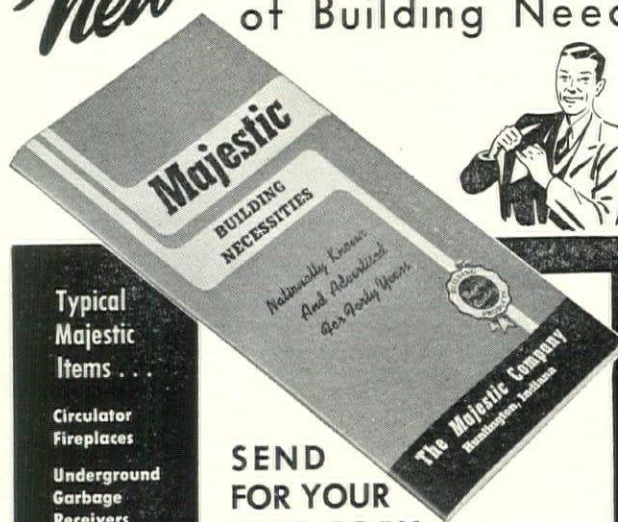
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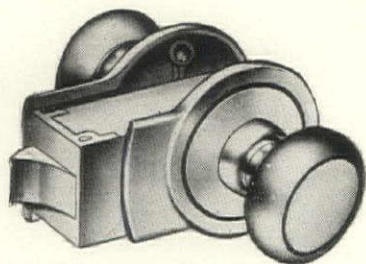
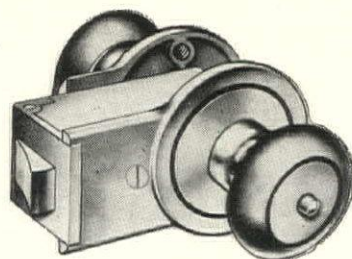
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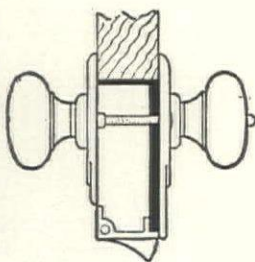
## BATHROOM OR BEDROOM LOCKSET LOCK NO. 730

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Reversible for right or left hand doors opening in only. Made regularly for  $1\frac{3}{8}$  in. doors. Can be furnished for  $1\frac{3}{4}$  in. doors, when so ordered.

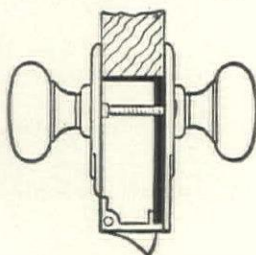


## INSIDE LATCH SET LATCH NO. 710

Operation: Latch Bolt operated by knobs from either side of door.

Reversible for right or left hand doors opening in or out.

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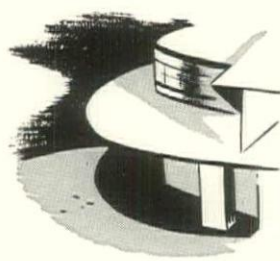
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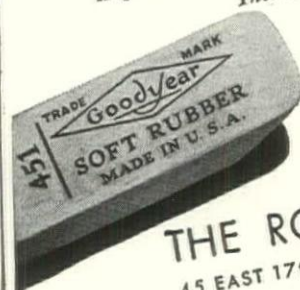
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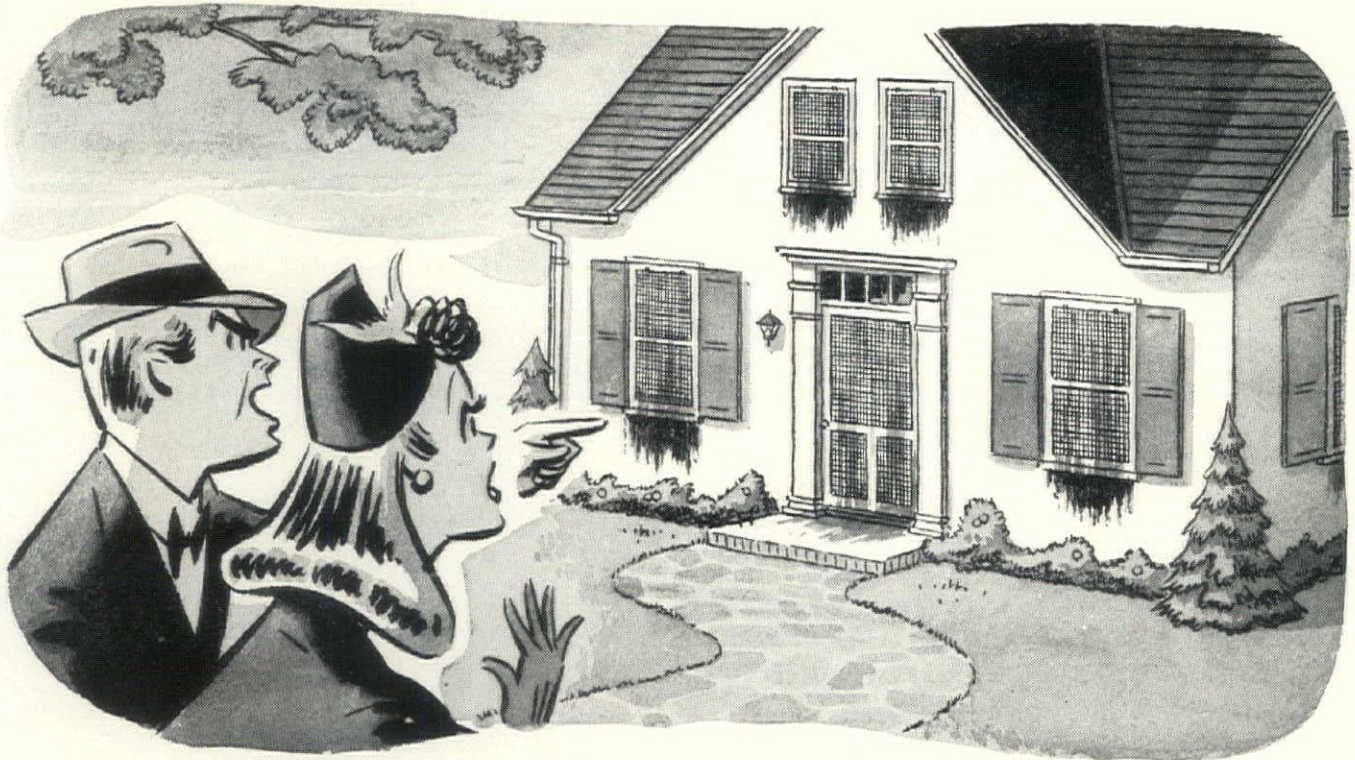
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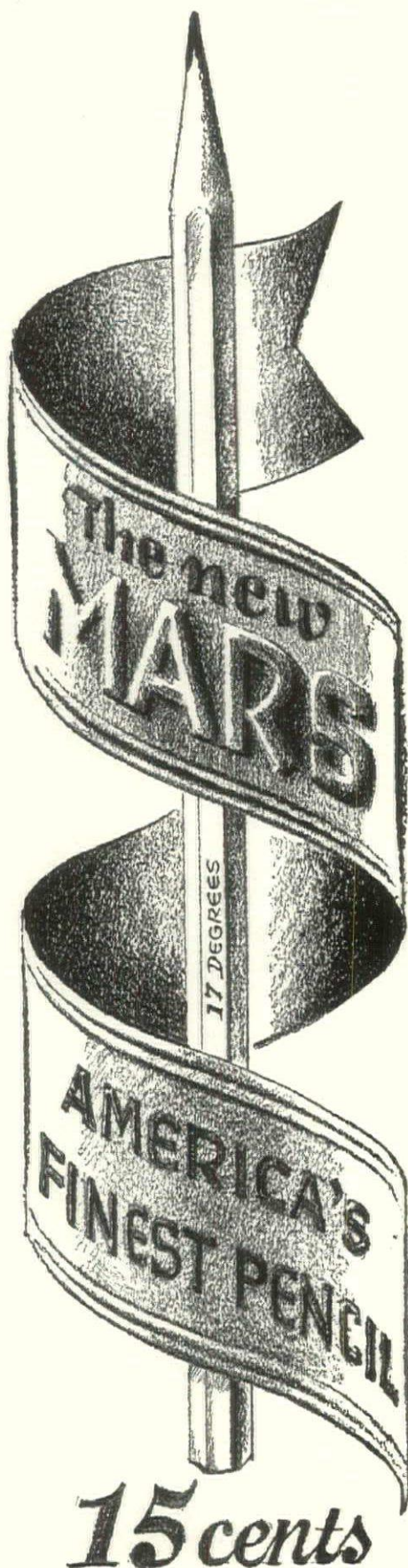
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# OBSERVATIONS

THE UNREALITY OF THE MIAMI BEACH SETTING MADE IT DIFFICULT FOR THE DELEGATES TO THE A.I.A. CONVENTION TO CONCENTRATE. The exaggerated architecture and the obviously transplanted vegetation provided a strange background for the discussion of serious matters.

LIFE AND THE PRACTICE OF ARCHITECTURE APPEAR TO BE FANTASTIC IN SOUTHERN FLORIDA. For example, you all (notice that southern influence?) have various ways of attracting business, but do you go swimming to discover clients? Well, I was floating on my back in the too-warm surf off the Sands Hotel, wondering if I had burned enough to prove I'd been to Florida but not so much I'd wish I hadn't gone, when I floated right into a lady. So we tread water for a while and she said, "Are you with the architects?" and I admitted that I was attending the convention. "My husband and I have some property here and we want to build a house," she said. So I went into the old routine about getting an architect and she said, yes, they knew all that, and they knew the architect they wanted—Mr. Little—but they hadn't gotten around to calling on him yet. Would I, if I saw him, tell him about it?

So that afternoon when I saw Bob Little, I said, "I floated into a client for you. Room 615, Sands Hotel." I guess that's the way they do business down there.

NOTHING COULD HAVE BEEN MORE TO THE POINT THAN THE WELL-HANDLED THEME OF THE CONVENTION—"REBUILDING AMERICA." It was worth missing a swim or a fishing trip to hear the several able approaches to the subject of over-all planning that were presented. A captious progressive might point out that on the final afternoon (when many delegates had yielded to the South Florida lures) one after another of the bits of legislation then before Congress

which might implement such planning were condemned by resolution.

THERE ARE STRONG INDICATIONS OF AN INCREASED INTEREST IN TODAY'S PROBLEMS ON THE PART OF THE A.I.A. I have had to attend many conventions this year, and no other group that I know of has spent its time on so unselfish a topic (in relation to immediate gain) as did the architects. Granted many disagreements and some peculiar decisions, the will and the aim of the discussion was good—to rebuild a confused America on the principles of careful planning.

A LARGER AND MORE INCLUSIVE MEMBERSHIP IS NOW IMPORTANT. New, progressive, active members can give that final stimulus needed to transform the Institute into a body which will take constructive action on those professional matters which are at least no longer taboo. The alternative attitude—"Why should I join? It's a stodgy group; it will never change"—is now unrealistic. The A.I.A. has changed, and its growth will continue if it can count on the support of the entire profession.

THE CONVENTION REPUDIATED PRIOR ACTIONS OF ITS BOARD IN WORKING WITH THE AMERICAN HOSPITAL ASSOCIATION toward setting up a list of qualified hospital architects. Despite protests from the floor that all architects are not created equal, the majority of the delegates decided that special abilities must not be admitted.

Although I voted in favor of continuing A.I.A. cooperation with the A.H.A., I have since the convention jumped on the hospital people for one action that seemed to us here at PROGRESSIVE ARCHITECTURE to be wrong. Back in New York, we found a news release, listing the roster of approved architects for the

entire U.S. press. I wrote the A.H.A. that it was our understanding this list was prepared solely for the use of the Association's members. "If it is to be publicized generally," I wrote, "and used as a medium of advertising for the people approved, I, as a member of the A.H.A., would like to protest." I pointed out further that I had seen a printed solicitation of business sent out by one of the "approved" architects, in which he emphasized the fact that he is on the list. I said that if the roster members do this it seemed to me a "misuse of the eminence which you have given them."

The reply from Roy Hudenberg, secretary of the A.H.A.'s Council on Hospital Planning and Plant Operation, indicated that he was "disturbed" and "distressed" at possible criticism of this sort, and that the matters "might well receive the attention of the Hospital Architects Qualifications Committee at its next meeting, in order that it may advise the Association of its attitude." One of the sad results of the convention's action is that the A.I.A. will have no official voice on that committee.

WE ARE GRATIFIED AT THE FACT THAT DOMUS, THAT EXCELLENT ITALIAN ARCHITECTURAL JOURNAL, features in its March issue PROGRESSIVE ARCHITECTURE'S call for an international U.N. headquarters competition. Editorially, *Domus* points out that international understanding might well be furthered by technical contacts and cooperation. "Perhaps," hopes *Domus*, "that understanding among nations that the diplomat finds so hard to attain might be realized through the precise yet poetical language of architects, addressing both the heart and the mind." The magazine has sent a questionnaire to all Italian architects asking for comments and advice on the competition proposal.

We like particularly the assurance to its readers that *Domus*, when it received our cable asking support for the competition principle, replied at once, "O.K., cari amici, O.K."

IT'S NICE TO GET RECOGNITION OF THIS SORT NOW AND THEN BY NAME. Often someone will say "the architectural magazines" do this and that . . . without recognizing any differences among them. We have a name (a good one, I think) and a personality that we're kind of proud of. Is that bragging? O.K., cari amici, O.K.

Thomas H. Wright



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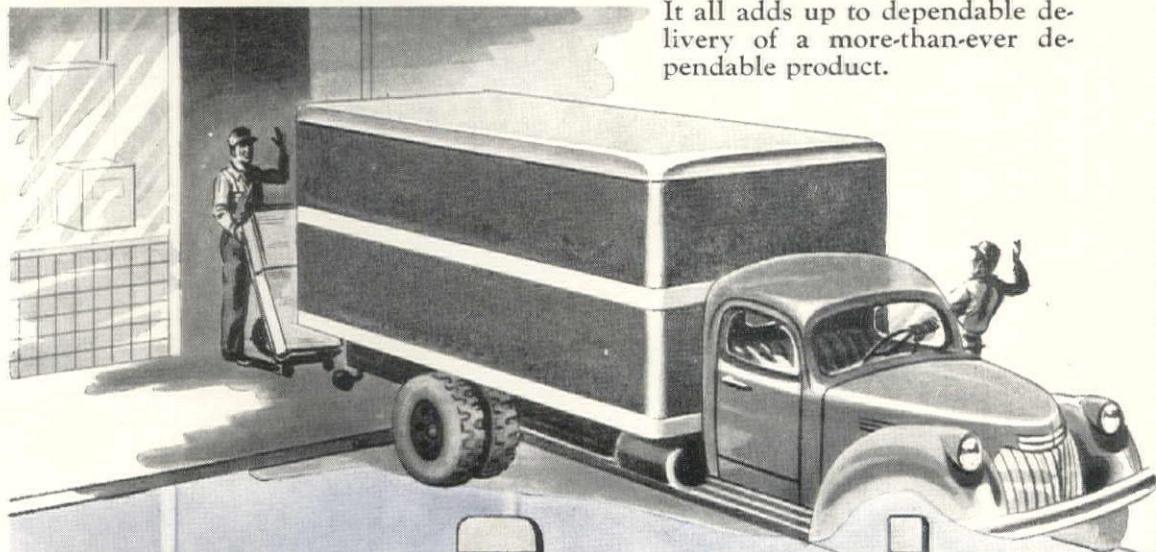
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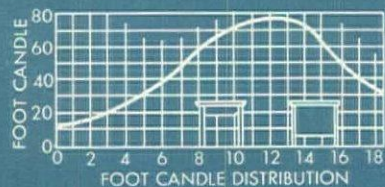
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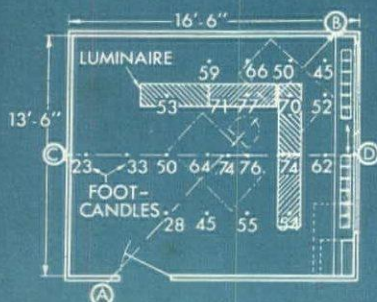
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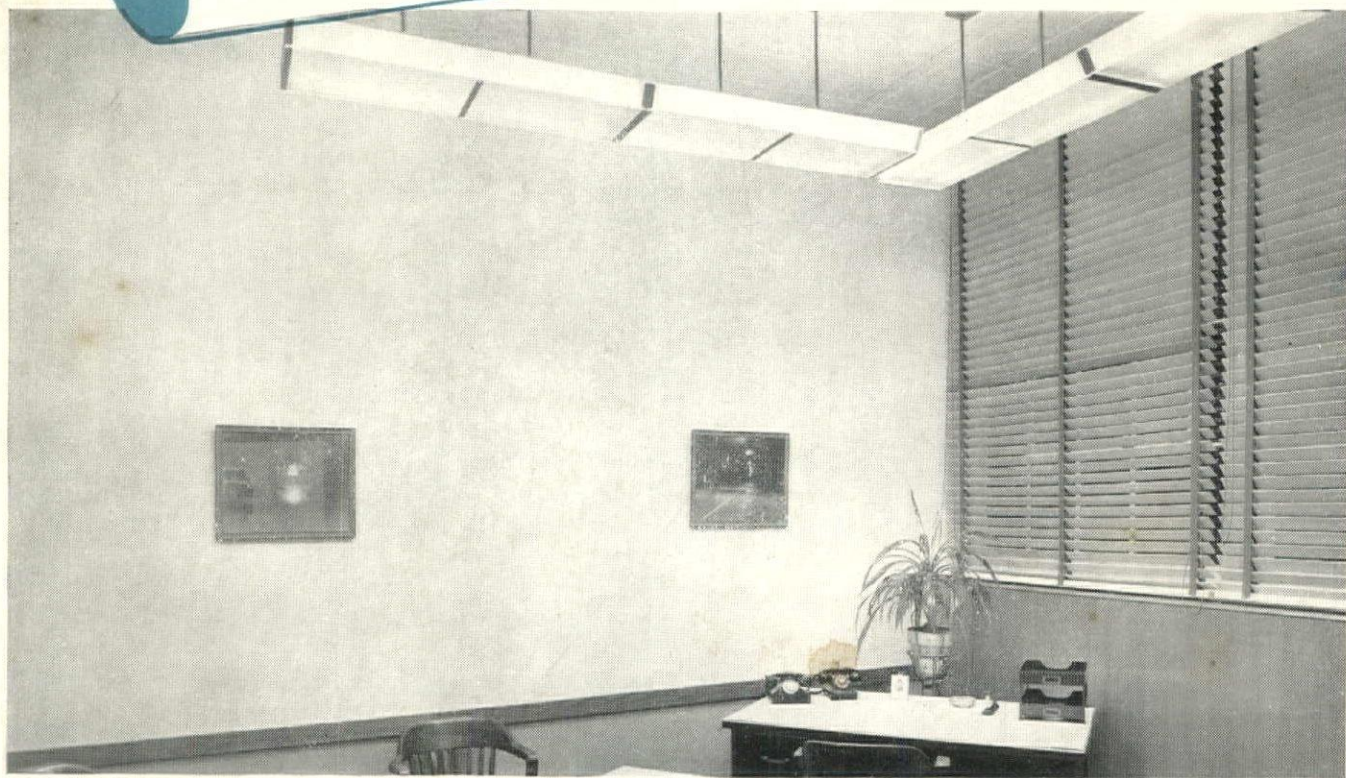
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