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## WHAT IS PROGRESS?

Our statement of policy says that we are concerned with progress in architecture. Very often this is confused in the mind of a casual reader with dogmatic interest in a modern stylism. We believe that the material in this issue should dispel any such impression; the very contributors represent many points of view. There is a recent school graduate, and a well known college professor; a Fellow of the A.I.A., and the guiding spirit of C.I.A.M.; a designer identified with the Bauhaus, and a designer who abhors the Bauhaus point of view; an engineer employed by an equipment manufacturer, and the research committee of an A.I.A. chapter. They all have a common interest—progress in architecture—and we are proud to give them all space in the magazine for that reason.

Webster defines progress as “advance to an objective.” Our objective certainly is the best possible physical environment for man to live and work and play in. Any advance toward this end is progressive architecture, and we see the forward movement on many fronts. Some designers are primarily interested in technics, some in esthetics, some in planning research, some in social needs. In the simple matter of progress in the design of a chair there can be several defensible attitudes. The Breuer chairs, (pages 50-66), are designed for mass manufacture with simple machines; Robsjohn-Gibblings’ chairs on page 69 contend that modern furniture, like contemporary architecture, should express more than mechanized techniques. We publish them both, because both indicate progress beyond the chair designs that are generally available, in comfort, in construction, and in appearance.

We deplore any rigid stylism that creeps into present-day design; “styles” are natural occurrences, not self-conscious posturings. We see our role as the medium for showing to the profession progress made in many directions by many people. We evaluate these efforts, discuss them, criticize them, and we know that you will do the same, deploring some things, applauding others. If you then go back to your own practice with a bit more assurance, we will feel that we have justified our policy.

The Editors

You Are Invited  
 to our exhibit at the  
**NAHB SHOW**  
 Stevens Hotel, Chicago  
 February 23-28  
 and to a  
 More Complete Showing of  
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**Acres of mechanical cores** about to move onto the final assembly line where they become a single engineered utility unit. Ready for shipment with ALL equipment for Kitchen, Bathroom and Heating Plant.

**Furnaces, electrical connections, hot water heaters** and all basic plumbing are tied-in to form the complete core of the Ingersoll Utility Unit.



**Ingersoll**  
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# INGERSOLL UTILITY UNIT

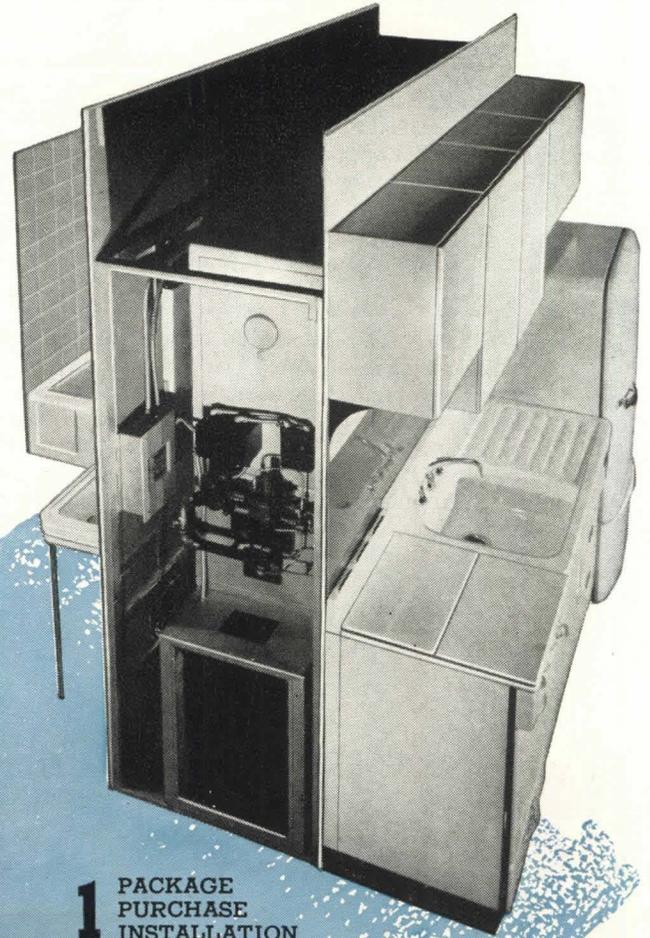
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*Shipments being made  
 daily; hundreds of units  
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Here is the bathroom side of the Ingersoll Utility Unit installed and in use. Note also the recently installed unit at the right . . . see how neatly kitchen utilities and bath fixtures tie into the central mechanical core.



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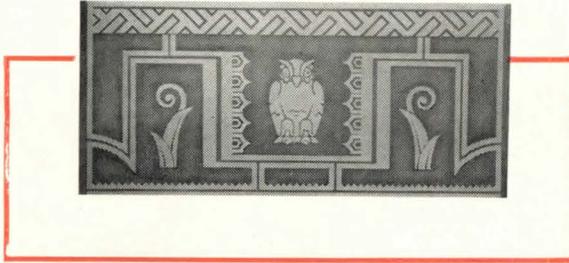
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Company.....

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

## SPECIALTY USES FOR RESILIENT FLOORING MATERIALS



Resilient flooring materials are thought of mainly for commercial and residential floor installations. But many special applications of these versatile materials have been developed which greatly expand their usefulness. Some of these, relating to floor problems as well as other uses, are outlined below. They will doubtless suggest new ideas to architects and designers.

### FUNCTIONAL USE OF DESIGN

Through their color, design, and methods of installation, resilient floors can help to direct traffic, advertise a product or service, emphasize a decorative motif, mark off game areas, or create the illusion of greater width or length in a room. Linoleum offers the greatest choice of colors and surface texture effects for these purposes and is most useful for complex designs with curved elements. A custom-designed floor executed in a resilient tile costs little more than the same floor in one allover color, because these floors are laid a block at a time. In gymnasiums and recrea-

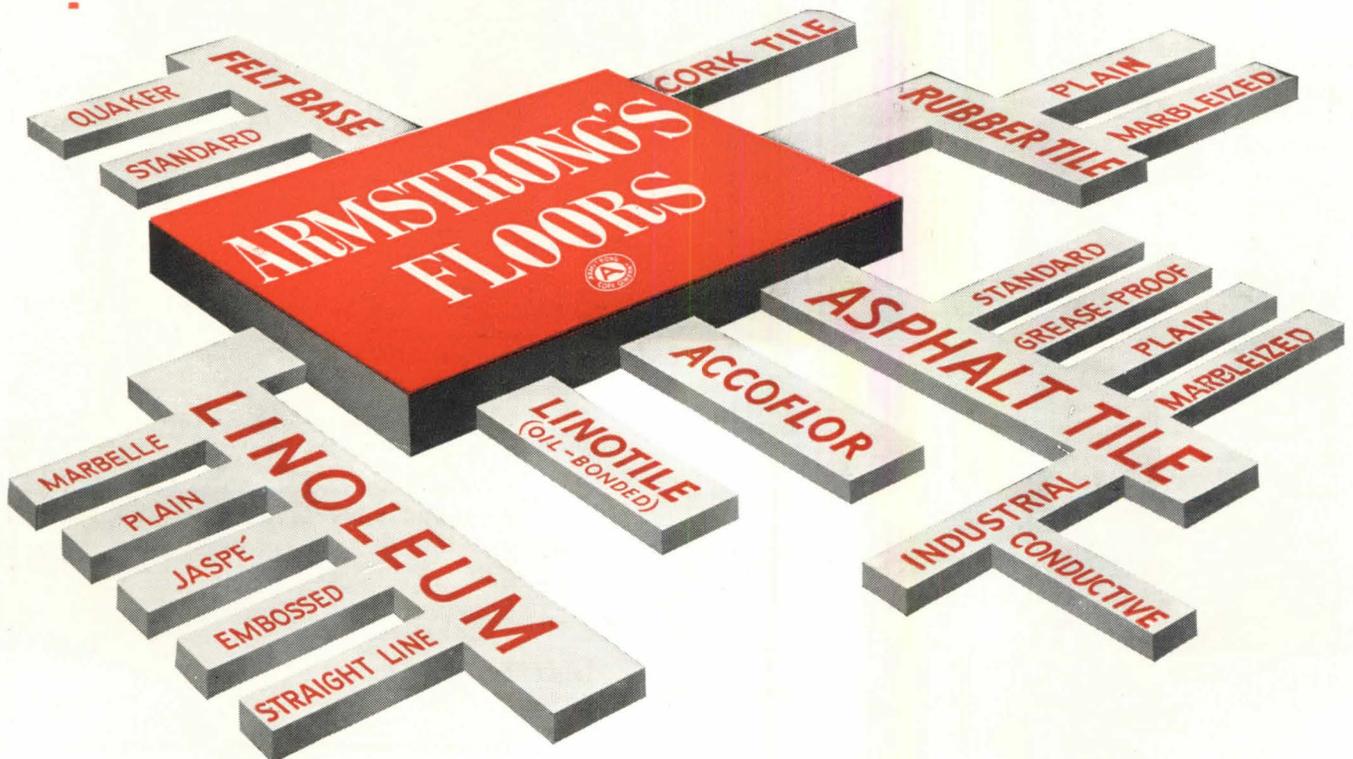
tion rooms where floors of asphalt tile are installed, it has become common practice to use blocks and feature strips of contrasting colors to establish clear, permanent game lines.

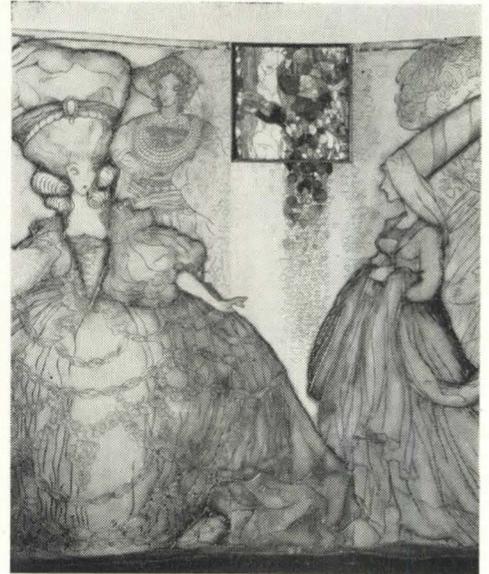
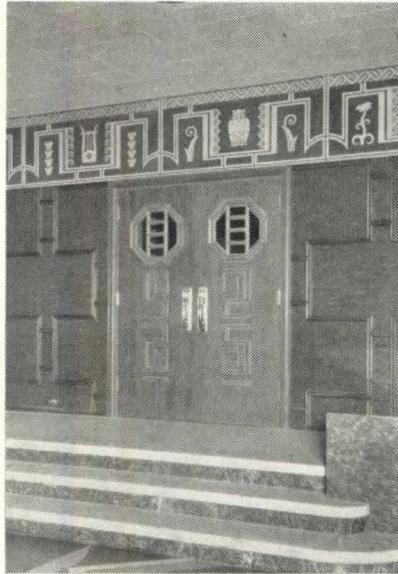
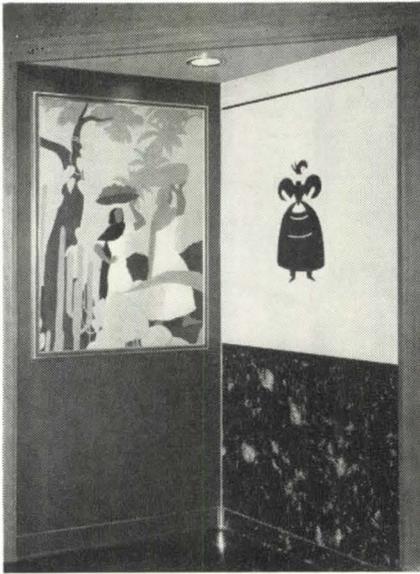
### TO MEET UNUSUAL PHYSICAL CONDITIONS

The location of certain rooms in a structure, or the activities carried on in these rooms, may impose special requirements on the floors. Resilient flooring materials have successfully met many such conditions.

**Acids and Corrosives.** In chemical laboratories, both school and commercial, there is danger that acids may be spilled on the floor. While no floor, including steel and concrete, will resist such concentrated solutions as nitric, hydrochloric, and sulfuric acids, asphalt tile has been found to give the most satisfactory service of all the resilient floors. Armstrong recommends its Standard Asphalt Tile in group "A" and group "B" colors for this use. The tile is resistant to acids, and because these recommended colors are dark, acid stains are relatively unnoticeable. Of course, the floor is further protected against stain if acids are wiped up immediately after they are spilled. In case of severe damage to a floor such as asphalt tile, a few individual blocks can be replaced.

Embalming rooms also involve possibility of corrosive liquids coming in contact with the floor and causing damage. Tests conducted with various embalming fluids have shown that Standard Asphalt Tile





### TYPES OF DECORATIVE WALL TREATMENT USING LINOLEUM

Murals in linoleum and Linowall featuring bold simplicity of design. Many plain colors and jaspé patterns are available.

Frieze of sandblasted linoleum in lobby of McCaskey High School, Lancaster, Pa. Henry Y. Shaub, architect.

Mural in Radio City School of Design, New York. This decorative panel is hand-carved from Armstrong's Oriental Blue Linoleum.

in color groups "A" and "B", Industrial Asphalt Tile, and rubber tile can be used satisfactorily in these rooms.

**Grease and Oil.** For areas subjected to greases and oils, as in garages, filling stations, and machine rooms, Greaseproof Asphalt Tile now provides a positive answer to the flooring problem. This specially formulated material is available in many of the colors of Standard Asphalt Tile. For use in kitchen areas, where grease is sometimes accidentally spilled, linoleum, Linotile\*, and Greaseproof Asphalt Tile are highly recommended.

**Moisture.** The most common enemy of flooring materials is moisture. When concrete subfloors are laid directly on the ground, either on grade or below grade, moisture always presents a problem. It is drawn up from the earth through the concrete by capillary action and carries free alkali from the concrete with it. The only resilient flooring material which resists the deteriorating effects of moisture and alkali and gives satisfactory wear under these conditions is asphalt tile. Where hydrostatic pressure is not encountered, it is possible to do without expensive waterproofing.

### FOR OTHER SURFACES

**Furniture.** Table tops, counter tops, and shelf tops of resilient flooring materials are growing in popularity. Colors and designs of the floor can be repeated in these tops. In kitchens, restaurants, and cafeterias, linoleum or Greaseproof Asphalt Tile may be flashed up the wall behind work surfaces to serve as a splashback. It can be curved over a wax fillet at the joint for a smooth, sanitary surface.

**Walls.** Where special wall effects are desired, especially for harmony with a floor treatment, resilient flooring has often been used with excellent results.

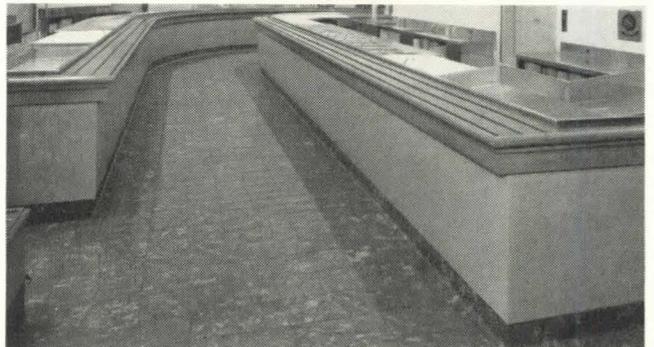
Where wall surfaces are subjected to hard wear, such as scuffing or abrasion, linoleum, Linowall\* or resilient tile is now often used on bulkheads and wainscots. Theatre balcony rails and standee partitions, waiting rooms, and baggage checkrooms are typical examples. In gymnasiums, cork tile is frequently used for wainscots because its great resilience provides protection against injury of athletes.

★ ★ ★

New architectural uses for resilient floorings are under constant study at Armstrong's Research Laboratories.

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

For further details, you are invited to get in touch with any Armstrong office, or write direct to Armstrong Cork Company, Building Materials Division, 8902 Duke Street, Lancaster, Pennsylvania.



In Manning's Coffee Shop, Los Angeles, Greaseproof Asphalt Tile was used both on the floors and on counter tops between the aluminum tray slides. To eliminate dirt-catching corners, the asphalt tile was coved to the face of the counters, and on counter tops it was coved to meet serving equipment.



Gymnasium, Y.M.C.A., Warren, Pa. The floor is moisture resistant, for it is Armstrong's Asphalt Tile. Into the background color (Cedar) are set the court and game lines. Basketball boundaries are of Buff; baseball diamonds of Ivory Marble; volleyball lines (sides) of Light Green and (ends) of White.

# FAMOUS



**BIG FROZEN FOOD LOCKER**

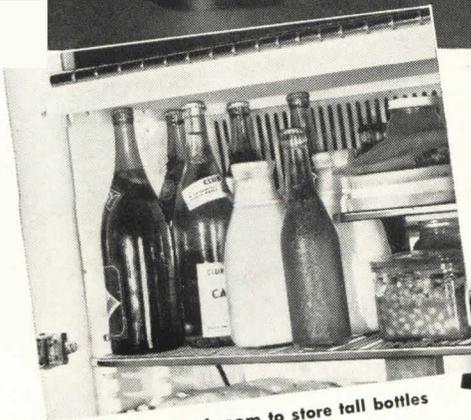
Servel's big, convenient Frozen Food Locker stores up to 60 packages of frozen meats, poultry, vegetables, fruits, biscuits. It saves homemakers hours of shopping time, helps them plan new and varied menus every season of the year.

**MOIST COLD, DRY COLD**

Garden fruits and vegetables stay at just-right temperatures in Servel's big de-aeration fresheners. Salad greens crisp up, perishables stay safe and appetizing. And there's plenty of extra room, too, because shelves adjust to eleven positions.

**NO NOISE, NO WEAR**

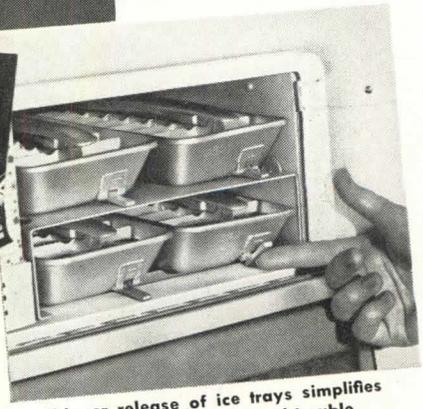
Best of all, there's no machinery to cause noise or wear in the famous Servel Gas Refrigerator. Not a single moving part in its freezing system. As more than 2,000,000 happy owners know, Servel stays silent, lasts longer.



There's plenty of room to store tall bottles in the Servel interior.



Fresh meats keep tender for days in the convenient Servel meat keeper.



Trigger release of ice trays simplifies removal, saves time and trouble.

## FOR SILENCE AND DEPENDABILITY

# *New 1947 Servel offers tenants and owners even more*

For years a big favorite because of its silent, dependable operation, the famous Servel Gas Refrigerator now gives tenants and owners a wealth of new convenience.

The new 1947 Servel contains a big Frozen Food Locker that stores a bushel basketful of frozen foods. Moist cold and dry cold provide just-right temperatures for garden vegetables and meats. The new Servel flexible interior is adjustable to eleven positions for extra roominess. Shelves are Plastic Coated for the utmost in rust- and scratch-resistance. These great new features, plus Servel's famous silence, will win the applause of tenants everywhere.

What's more, prewar installations have

proved that the Gas Refrigerator is ideal for rental properties. Owners have found that Servel performs faithfully year after year. Operating costs remain low. Service upkeep is held to a minimum. These important advantages are the result of Servel's amazingly simple, basically different method of operation.

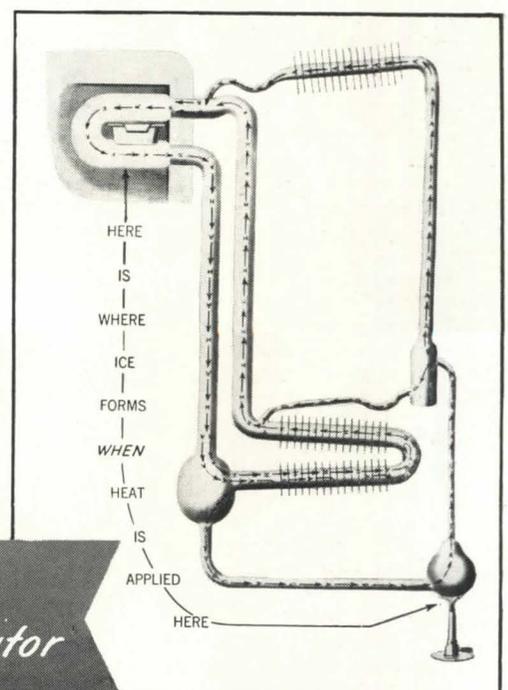
Specify the great 1947 Servel Gas Refrigerator for the apartment buildings and homes you design, build, or manage. Plan now to provide outlets for Gas Refrigeration in your current designs and construction work. Write today for the full story on the 1947 Servel. Address Servel, Inc., Evansville 20, Indiana.

### WHY SERVEL IS DIFFERENT . . . STAYS SILENT, LASTS LONGER

There is not a single moving part in the freezing system of a Servel. That's because this different refrigerator operates on the continuous-absorption principle of refrigeration.

In a Servel Gas Refrigerator, the refrigerant is hermetically sealed in a set of vessels connected by tubes. A tiny gas flame

is applied to the lowest vessel. As a result of the evaporation properties of the refrigerant and the law of gravity, ice forms in an upper vessel. No machinery—motor, valves, pumps and compressors—is needed. Servel has no moving parts to get noisy or wear. Thus, the Gas Refrigerator stays silent, lasts longer.



STAYS SILENT . . . LASTS LONGER

**Servel** The GAS Refrigerator

## DESIGNING THE SMALL HOUSE

Dear Editor:

What is the architect doing about the small house problem? Professionally this has been and continues to be the subject of much discussion, particularly from the standpoint of fee for service. From the profit basis, many architects have become convinced that small house work is a pleasure in which they cannot indulge for the standard consideration. Men in this category simply ignore their responsibility in the serious degradation of our national domestic architecture.

In the past few months, various associations of architects have taken action to increase the standard fee from 6% to 10% and in some instances even to 12%. Few prospective owners of \$10,000 houses can afford to spend one-quarter of the building cost for contractor's and architect's fees. The result of the increase in fee, I believe, will be virtually the same as the individual's withdrawal from the field.

Whether by personal choice or group defection, are architects to eliminate themselves from this important market? What is to become of our national architecture? Admittedly, office costs have risen and the need for profit is still fundamental. But as a group, architects must make a more concerted effort to stop the accelerated regression in design. Various means are being tried or proposed to improve the situation. Small homes bureaus (operating on a questionable basis, from the strictest ethical standard) can perform owners a real service. Prefabrication, if design standards can be maintained integrally with production and selling, can also do much. Some proponents go so far as to suggest that the government and other loaning agencies set up "to furnish architecturally designed house plans" as a part of the promotional service. All of these methods would entirely eliminate the architect as an entity. He would exist as designer only without responsibility and without personal identity. While design standards might be upheld more strictly by these means, much is left to be desired from the standpoint of supervision in execution.

Craftsmen, really architects, whose skill and taste in design fashioned our New England heritage in domestic architecture are almost nonexistent today. Such a condition need not prevail if reconsideration be given to the ethical barrier which precludes the architect

from exercising his former and traditional prerogative, that of building. For a fee less than is required under the separate fee for architect and contractor, the architect-builder could perform a much better service for owners. The architect could afford to do this because of the minimized requirement of contract drawings, specifications, and cost accounting, and he could do this all at a profit. Various engineering and contracting firms perform a similar service for large industrial and commercial clients. But ethics, which permit competition between such organizations and architects, seem to be too hidebound to allow the practitioner himself to perform a similar service for the prospective home builder.

Now, if we as a profession are to enforce such a prohibition upon ourselves, then one further alternative seems to present itself. Training of contractors, instilling a fundamental concept of good domestic design as well as an engineering background to assure safe and well detailed construction, must be undertaken in our schools of architecture. State laws which now preclude persons not professionally certified from doing architectural work have only the legal status of safe construction to substantiate them. If contractors could qualify under a type of state approved registration, contractor designers would take over the architect's responsibility in the small house field.

It is a possibly jealous conclusion, but it is my personal opinion that the profession should come down from its high horse and assume the role by which it first set itself apart. We could then rebuild a fine new American Architecture.

KENNETH J. HEIDRICH  
Professor of Architecture  
The Pennsylvania State College

## DOUBLE-TAKE

Dear Editor:

Thanks for the sheets illustrating the chapel of St. Francis in Brasil. This shows just how ridiculous some architects are allowed to be in connection with church work. We will display this at the forthcoming exhibit of church architecture at the National Arts Club, December 31 to January 4.

With real appreciation, I am

E. M. CONOVER, Director  
The Interdenominational Bureau  
of Architecture

## Hasty Planning

### United Nations Home Worthy of World Competition

To the New York Herald Tribune:

May I congratulate you on your excellent, though belated, editorial statement of the case for an international competition for a design of the United Nations headquarters. As long ago as last March "Progressive Architecture" called editorially for such a competition, and as a result received cables and letters in support of the principle from every part of the world. In addition to the American Institute of Architecture, le Congres Internationaux D'Architecture Moderne and the American Society of Planners and Architects have put themselves on record as favoring a competition. Architectural journals in England, U. S. S. R., France, Australia, Argentina, South Africa, Sweden, Switzerland, Italy, Greece and other countries have joined in urging that this important assignment be made only on the basis of a competition. Hundreds of letters have been received from individual architects who did not believe that any other method of selection would be suitable.

All of this demand for an international competition has been called to the attention of Trygve Lie, but it appears that the appointment of Wallace Harrison, an architect who has long been identified with the Rockefeller interests, was taken for granted when the Rockefeller gift of property was accepted. In the same way that all the criteria for site, established after a year's study by a board of technical experts, were ignored when Turtle Bay was accepted, so the many good reasons for determining the headquarters design by a competition among the world's greatest architects were brushed aside.

Mr. Harrison undoubtedly will direct design in a satisfactory manner. Unfortunately, however, the architects and planners will always remember the assignment as a disgraceful deal pushed through in an unnecessary rush, and the international pride in a world headquarters designed by fair competition will be lost. The people of the world who look to U. N. with new hope deserved better treatment.

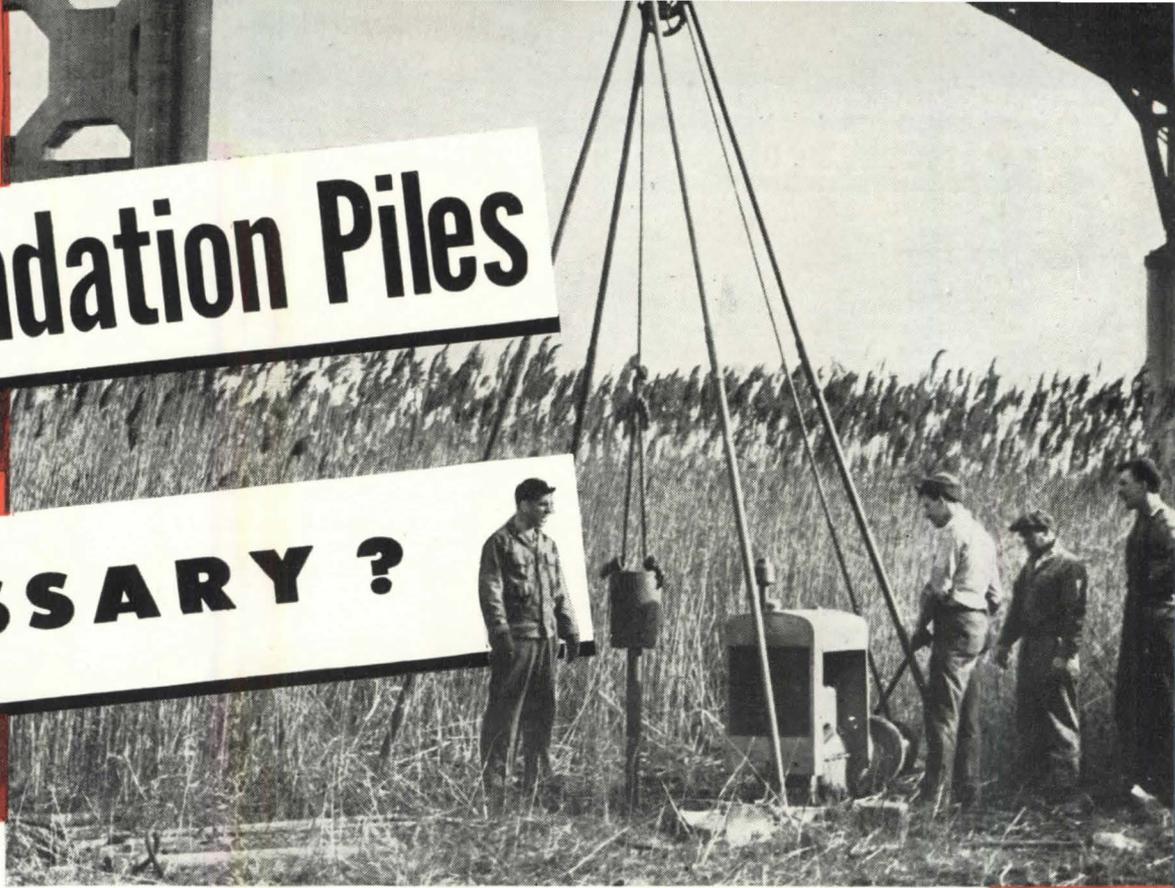
THOMAS H. CREIGHTON,  
Editor, "Progressive Architecture."  
New York, Jan. 7, 1947.

So that our readers who joined in our plea for an international competition for U.N. headquarters may know of our final efforts, we are reproducing the above clipping. The previous day, Wallace K. Harrison had been named "Director of Planning of the U.N. Permanent Headquarters." This occurred after Mr. Creighton had written his "Observations" on page 116.

Casing being driven to elevation at which sample of soil is desired.

# ARE Foundation Piles

## NECESSARY ?



**Y**OUR STRUCTURE is only as sound as its foundation. To determine what is under the surface of the ground, Raymond can secure samples of the material at the site of the structure, and obtain the necessary information upon which the engineer may base his foundation design, such as the density and thickness of the various strata.

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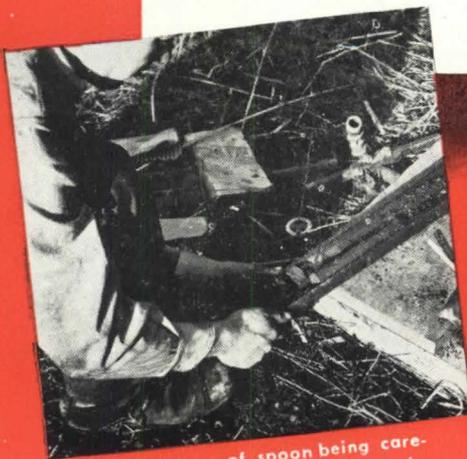
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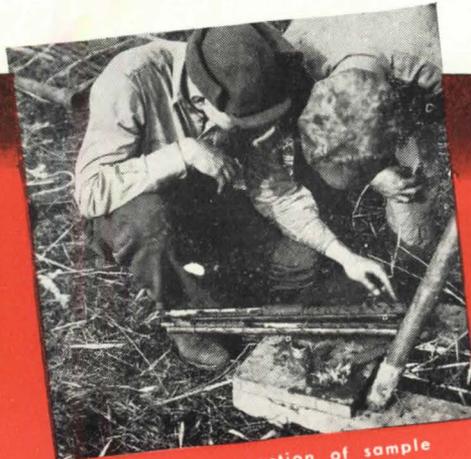
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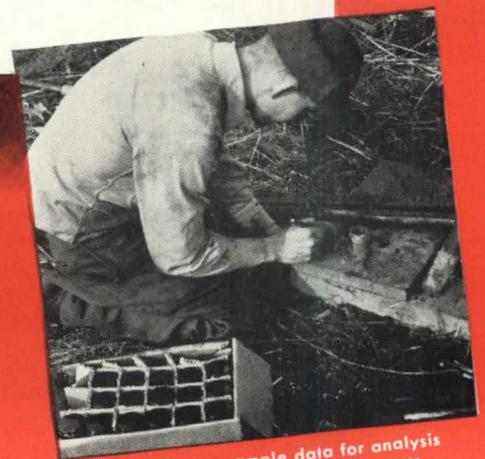
140 CEDAR STREET, NEW YORK 6, N. Y.



Split type of spoon being carefully opened to reveal soil sample.



Careful inspection of sample being made before placing in jar.



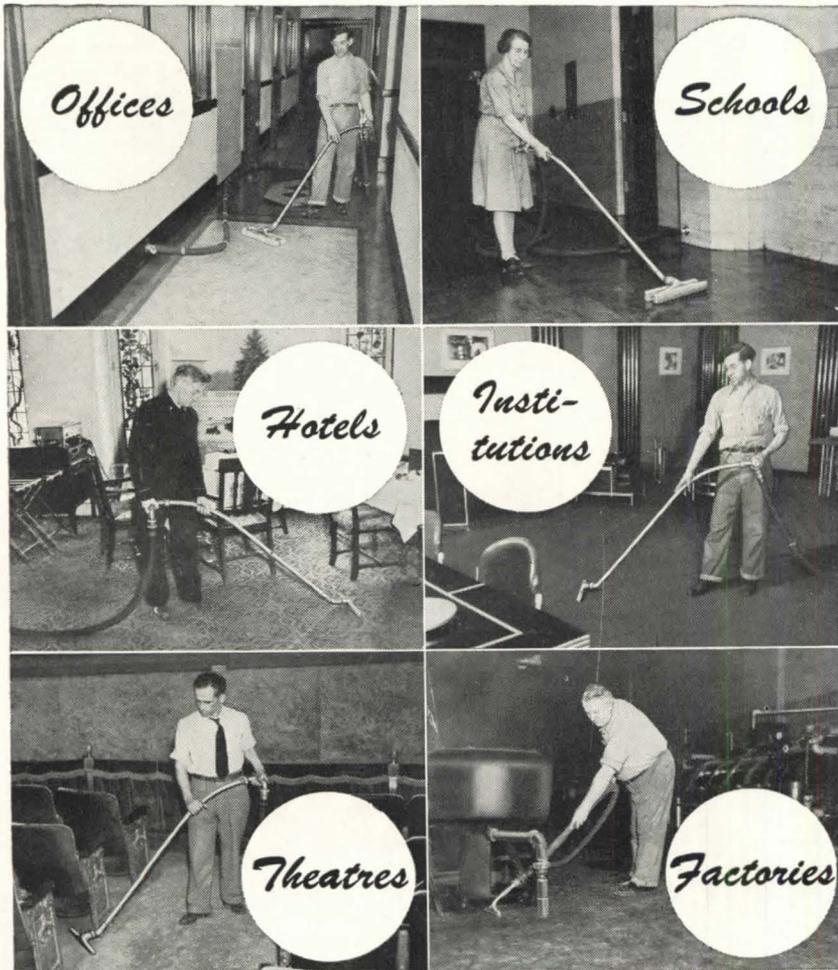
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# JOBS AND MEN

## MEN WANTED

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**DESIGNERS, TEACHERS**—Georgia School of Technology needs men for design of buildings in college expansion program, and additional instructors. Immediate need: someone to take charge of project and carry through working drawings, part of nine million dollar overall plan. Salary commensurate with responsibilities. Apply Harold Bush-Brown, Department of Architecture, Georgia School of Technology, Atlanta, Ga.



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**ARCHITECTURAL DRAFTSMEN**—excellent openings for well qualified men. Diversified work on permanent structures. Good salaries and working conditions in ideal climate. Write P.O. Box 308, Santa Fe, N. M., stating educational background and experience, salary requirements, and availability.

**ARCHITECTURAL DRAFTSMAN**—thoroughly experienced, capable of preparing working drawings and details from sketches. Long established office doing residential, commercial, school, and church work. Permanent position, excellent future for right man. Write full particulars regarding education, experience, age, and salary desired. Crutchfield and Palm, Architects, 809 Pine St., Chattanooga, Tenn.

**ARCHITECTURAL DRAFTSMAN**—competent to develop complete working drawings and details from sketches. State starting salary expected, and address Frampton and Bowers, P.O. Box 637, Huntington 11, W. Va.

**SPECIFICATION WRITER**—opening in Fort Myers office for first-class man experienced in architectural and equipment specifications for general and neuropsychiatric hospitals. Six months' employment guaranteed; permanent position for right man. Furnished apartment available at low rent. Write air mail, Fort Myers, Fla., P.O. Drawer 310, describing training, experience, and stating salary expected. Bail, Horton & Associates, Architects & Engineers.

**GRADUATE ARCHITECTURAL ENGINEER**—at least 2 years' experience in concrete, steel, and general building design and supervision. Fine future, good starting salary with progressive people. Box 347, PROGRESSIVE ARCHITECTURE.

**SPECIFICATION WRITERS**—must be experienced in large projects and able to produce. Salaries range from \$5,000 to \$6,500 per year. Send record of training and experience and samples of work, which will be returned. Box 350, PROGRESSIVE ARCHITECTURE.

**FOUR STRUCTURAL ENGINEERS**—who can make designs, details, and structural drawings for steel and reinforced concrete for large buildings. Must have good experience and background. Salary \$6,000 per year. Send full information and examples of work. Box 351, PROGRESSIVE ARCHITECTURE.

**FIVE TOP ARCHITECTURAL DESIGNERS**—must have background in designing and planning large projects. Salaries \$6,000 to \$6,500. Send record of training and experience and samples of work. Box 352, PROGRESSIVE ARCHITECTURE.

(Continued on page 12)



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## NEXT SUMMER



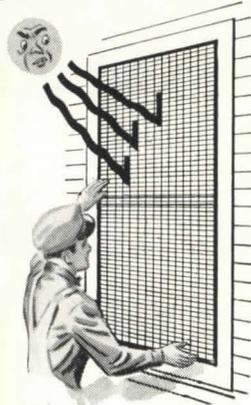
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310 South Michigan Ave., Chicago 4, Ill.

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Company.....  
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City..... State.....



## Ingersoll

# KOOLSHADE<sup>\*</sup> SUN SCREEN

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## JOBS AND MEN

(Continued from page 10)

**FOUR ARCHITECTURAL DRAFTSMEN**—need not be top designers but must be able to make good accurate working drawings. Men of experience only. Salaries \$4,000 to \$5,000. Send full information and record of training, including blueprints of work. Box 353, PROGRESSIVE ARCHITECTURE.

**TWO EXCELLENT, EXPERIENCED MECHANICAL ENGINEERS**—who can design plumbing, heating, and air conditioning for office buildings, theatres, and other structures. Require best of training and good background of projects de-

signed. Must be able to make good working drawings and write specifications. Salaries \$6,000 to \$6,500. Send full information as to training and experience. Box 354, PROGRESSIVE ARCHITECTURE.

**TWO ELECTRICAL ENGINEERS**—well trained in fluorescent lighting, under-floor duct and power designs for hotels, large apartments, office buildings, and churches. Send list of former employers and complete record of education and experience. Salaries \$6,000 to \$6,500. Box 355, PROGRESSIVE ARCHITECTURE.

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**FIRST CLASS INTERIOR DESIGNER**—desires partnership. Architectural background, 30 years' experience in design

of modern stores, showrooms, offices, residences, and furniture. Some capital available for existing or new business. Box 346, PROGRESSIVE ARCHITECTURE.

**ARCHITECT**—desires association or partnership with established architect. Good designer and all around architectural man of wide experience with housing, hospitals, commercial, public, ecclesiastical, industrial, scholastic, and other types of buildings. Registered in several states. Box 348, PROGRESSIVE ARCHITECTURE.

**REGISTERED ARCHITECT**—interested in partnership, chief architect, or other business position requiring design, imagination, or supervision of others. Age 40, with 19 years' experience in all phases of architectural practice. Definite future leading to greater scope and responsibility should be available. Willing to leave country. Two years' foreign experience in key architectural positions. Box 349, PROGRESSIVE ARCHITECTURE.

**CIVIL ENGINEER, DESIGNER**—32, registered New York State, recently discharged Army officer, excellent record of 11 years' experience as designer of structures and utilities, desires partnership in architectural or engineering firm. References exchanged. Will invest up to \$10,000. Box 344, PROGRESSIVE ARCHITECTURE.

### JOBS WANTED

**ELECTRICAL ENGINEER**—can lay out, design, and write specifications for industrial, commercial, utility, or institutional electrical installations. Registered (Illinois). Box 325, PROGRESSIVE ARCHITECTURE.

**DRAFTING WORK WANTED**—structural plans for architects and engineers. Shop plans for steel fabricators, bending details and bar schedules for concrete work; mechanical designs, details, and developments. By competent, registered engineers. Georgia Detailers Association, P.O. Box 191, East Point, Ga.

**STRUCTURAL ENGINEER**—professional license, seeks connections with architects for structural design services; fee on hourly or tonnage basis; buildings, foundations, waterfront structures, alterations; N. Y. metropolitan area; inquiries invited. Box 356, PROGRESSIVE ARCHITECTURE.

**MANUFACTURING, CONSTRUCTION, INDUSTRIAL, OR PRODUCT DESIGN** position desired. Age 33, university graduate, with European study. Experienced in industrial production, office management, advertising, product design, and styling. Now head of engineering department in diversified engineering and product development organization. Box 357, PROGRESSIVE ARCHITECTURE.

**ARCHITECTURAL DESIGNER**—with long and varied experience in public buildings, theaters, churches, and residences. Artistic ability, specializing on perspectives in different media. Desires position preferably in Southwest. N. M., Room 1703, 22 W. Monroe, Chicago, Ill.



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# THIS MONTH



LOUIS JUSTEMENT



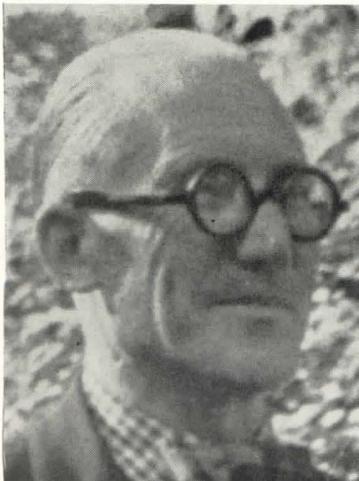
ILSE MEISSNER



EUGENE RASKIN



MARCEL BREUER



LE CORBUSIER

The author of the straightforward statement on housing construction today (p. 41) is **Eugene Raskin**, assistant professor of architecture at Columbia University. He attended the National Academy of Design, New York, received his B.A. and B. Arch. from Columbia, and became a Fellow at the Institute of Art and Archeology in Paris. A registered architect in Pennsylvania, he practiced with Carrere & Hastings and with Cyrus Wood Thomas. He has been teaching at Columbia since 1935, also finding time for much writing on architecture.

The restudy of the Jacob Riis and Lillian Wald Housing Projects in New York (p. 42) is the work of **Ilse Meissner**. Versatile Miss Meissner first studied industrial design at Pratt Institute, New York, and worked for a time with Russell Wright. She next took up sculpture at the Art Students League and Columbia University. Then, in 1943, she returned to Pratt to study architecture. Her restudy of the housing projects represents her thesis submitted for the B. Arch. degree. Miss Meissner is at present with Ketchum, Gina & Sharp, architects of New York.

Well suited to comment on Miss Meissner's housing study is the Washington, D. C., architect, **Louis Justement**. In practice in Washington since 1919, Mr. Justement has to his credit many large-scale housing projects, both public and private. He is the author of a book on urban planning, "New Cities for Old," and is the present chairman of the A.I.A. Committee on Urban Planning and also the newly formed Interprofessional Urban Planning Committee. He is a Fellow of the A.I.A. and regional director of the Middle Atlantic District.

The newsworthy suburban house at Lawrence, Long Island (p. 50) is the work of **Marcel Breuer**, architect and educator, now on leave of absence from

Harvard University and practicing in New York. Born in Hungary, he graduated from a local gymnasium and began to study art in Vienna, but was dissatisfied and soon went on to the newly established Bauhaus at Weimar. He received his M. Arch. there in 1924, and a professorship the next year in the reorganized Bauhaus at Dessau. His research in furniture design resulted in his invention of the tubular steel chair. While in private architectural practice in Berlin (1926-1931), he began his studies of prefabricated low-cost housing. When he left Germany to travel extensively through Europe and North Africa, he took part in organization of C.I.A.M. After a partnership with F. R. S. Yorke in London came the professorship in the Department of Architecture at Harvard, where he resumed his association with Gropius, this time in designing houses as well as in teaching. The productive Gropius-

(Continued on page 16)

## PUBLISHING DIRECTOR

The preparation and publication of **PROGRESSIVE ARCHITECTURE** is now under supervision of John Goddard Belcher, appointed Publishing Director the first of this year. He has been with the magazine since 1937.

Belcher received architectural training at the University of Illinois (1922-1926) and lived in Chicago and Winnetka until 1943. He is a son of H. D. Belcher, Senior Architectural Examiner for FHA in Chicago, and a nephew of the late Daniel H. Burnham, early town planner and distinguished member of the profession.



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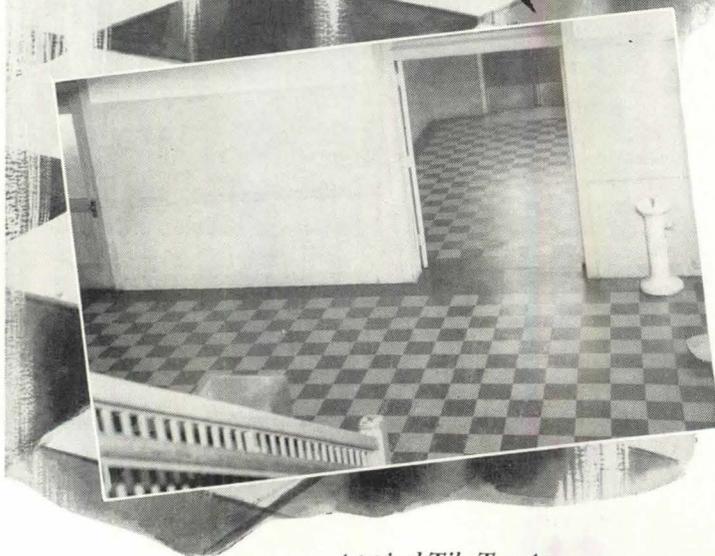
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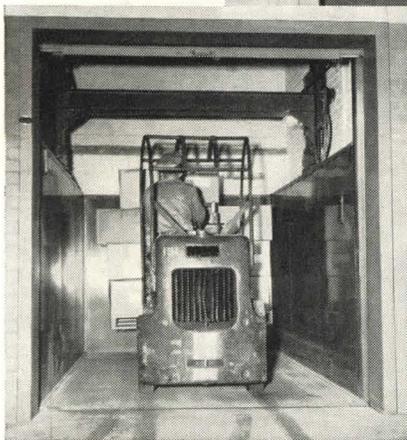


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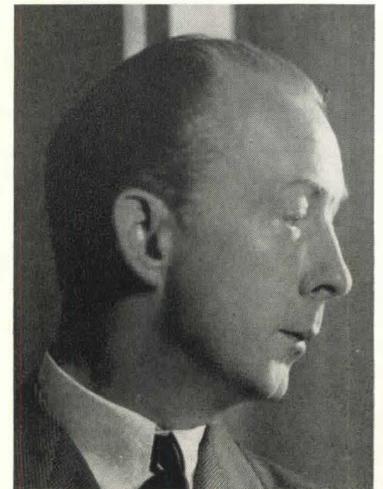
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## THIS MONTH

(Continued from page 14)

Breuer partnership was dissolved in 1941, with Breuer continuing his teaching until the summer of 1946. Since that time he has been located in New York with an over-full schedule of architectural commissions, planning research, and design.

**Le Corbusier** comments on architecture and urbanism and, for illustration, *Cidade dos Motores* (September 1946 *PROGRESSIVE ARCHITECTURE*) on page 67 of this issue. An active and momentous career was started in 1919 when Le Corbusier founded and directed "L'Esprit Nouveau." He gained in fame as a result of his advanced design, done in collaboration with Pierre Jeanneret, submitted in the international competition for the League of Nations Building at Geneva. Cities all over the world have commissioned Le Corbusier to impart his views and suggestions on urbanism and architecture, and he has designed many well known buildings in Europe and South America. He holds membership in leading professional and honorary societies, and has recently completed his work as the head of the French Mission on architecture and urbanism to the United States.



T. H. ROBSJOHN-GIBBINGS

T. H. Robsjohn-Gibbings, after "a murky past involving antique trading," started designing modern furniture in the late 1920's. His work has ranged through furnishings for airports, merchandising salons, and houses "from the Hollywood colossus to the straight and narrow medium-sized of Long Island." He tells us of his hope that posterity will credit him "with originating louver-front drawers, the use of rawhide on furniture, the large low sofa table, the use of bleached birch in cabinet making, and the one-inch plate glass for large table tops." Some of his latest designs, to be manufactured by the Widdicomb Furniture Company of Grand Rapids, Michigan, are presented on page 69.

(Continued on page 18)

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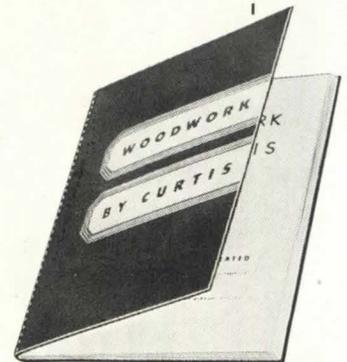


*This new Curtis entrance—Design C-1733—can be used successfully on one or two-story houses of any structural material. H. Roy Kelley, architect.*

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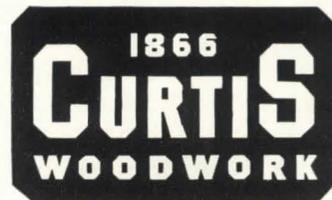


*The bowed fascia of this Curtis mantel accentuates its simple charm. One of the many new Curtis designs, it follows the tradition of the 18th Century. Design C-6074, by George W. Stoddard, architect.*

*Beautiful new china closet by Cameron Clark, architect. A formal and dignified design that is best suited to large rooms. Also made with open front. Corner installation only. Design C-6505.*



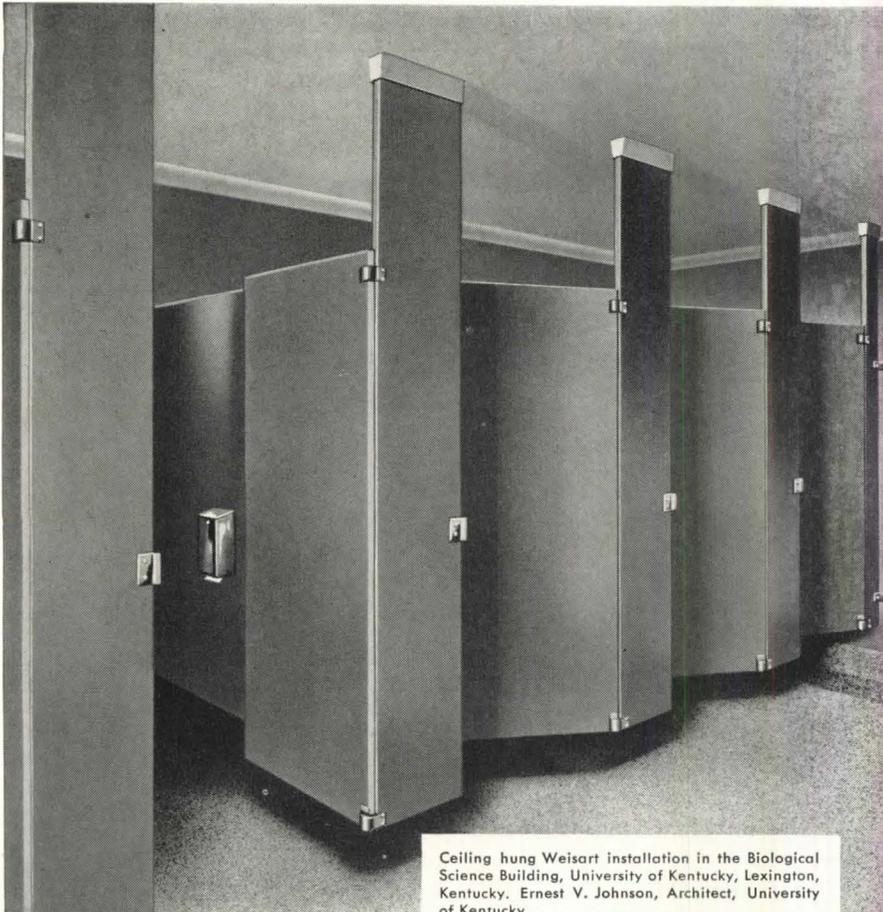
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## NEXT MONTH

● Building projects as diverse as a small opera building and a "face-lifting" for an entire blockfront of stores will be presented in March. The opera building is on the grounds of Tanglewood, in the Massachusetts Berkshires, where the Boston Symphony's summer concerts are given. This severely simple all-wood structure, designed by Saarinen, Swanson & Saarinen, provides an auditorium with superb acoustics for 1200 to hear small operatic productions and concerts. The next issue will also include a series of offices for the Hanson Glove Company, New York, cleverly schemed by Kim Hoffman and Stephen Heidrich within the usual, alley-like rental bay of a large city office building. Sanders & Malsin's wholesale renovation of stores in Corning, New York, demonstrates the possibilities of designing exceedingly various and imaginative display fronts, while still retaining design coordination. Two houses will be featured, one a frame and masonry house on a Massachusetts hillside, by Hugh Stubbins; the other a little one-floor home in California, by William T. Dreiss.

● Completing the editorial presentations next month will be a city plan for Daytona, Florida, by Arthur McVoy, comprising suggested solutions for the problems of this growing community, elements of which are applicable to similar fast-expanding cities throughout the country.

## NOTICES

VERNON DEMARS will join the faculty of the School of Architecture and Planning at Massachusetts Institute of Technology for the spring term. He will also maintain his office in Washington in order to continue work on a current cooperative scheme. Also at M.I.T. now are RALPH RAPSON, who has joined the faculty, and CARL KOCH, who lectures part of each week.

The architectural practice formerly conducted by KASSLER, ALEXANDER & BOWLES will be continued under the new firm name of KENNETH KASSLER, ASSOCIATES. RAYMOND A. BOWERS, R.A., will remain in association on certain projects. Office of the firm is at 18 Nassau St., Princeton, N. J.

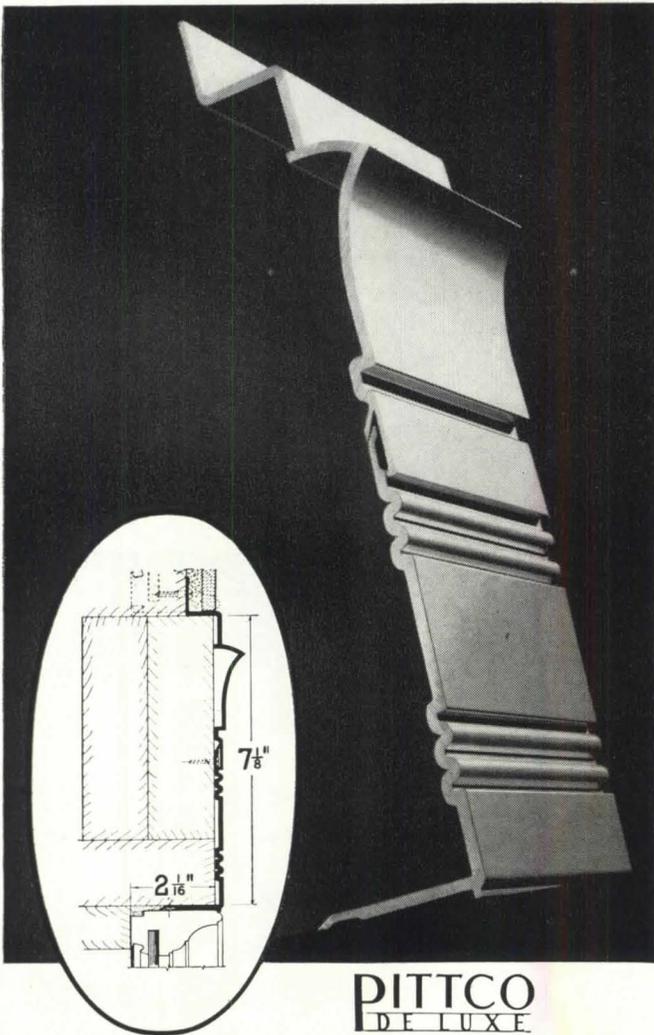
HANS PETER NELSON, industrial designer, now is located in Park Ridge, Ill.

KETCHUM, GINÁ & SHARP have announced the removal of their architectural office to 227 E. 44th St., New York 17, N. Y.

THE SOCIETY OF INDUSTRIAL DESIGNERS has announced the new location of their offices at 48 E. 49th St., New York 17, N. Y.

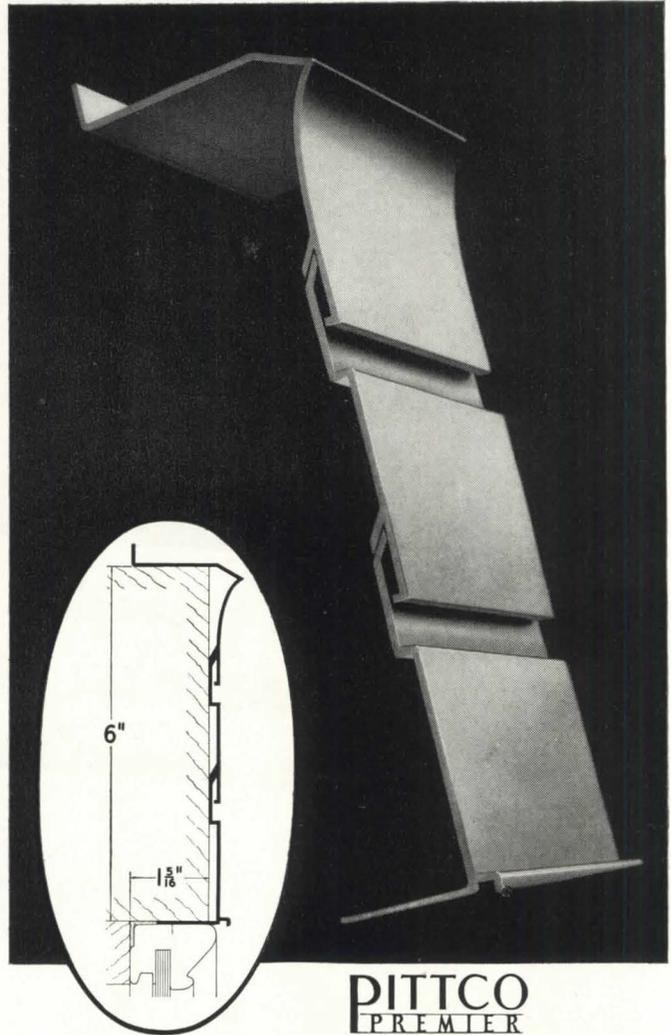
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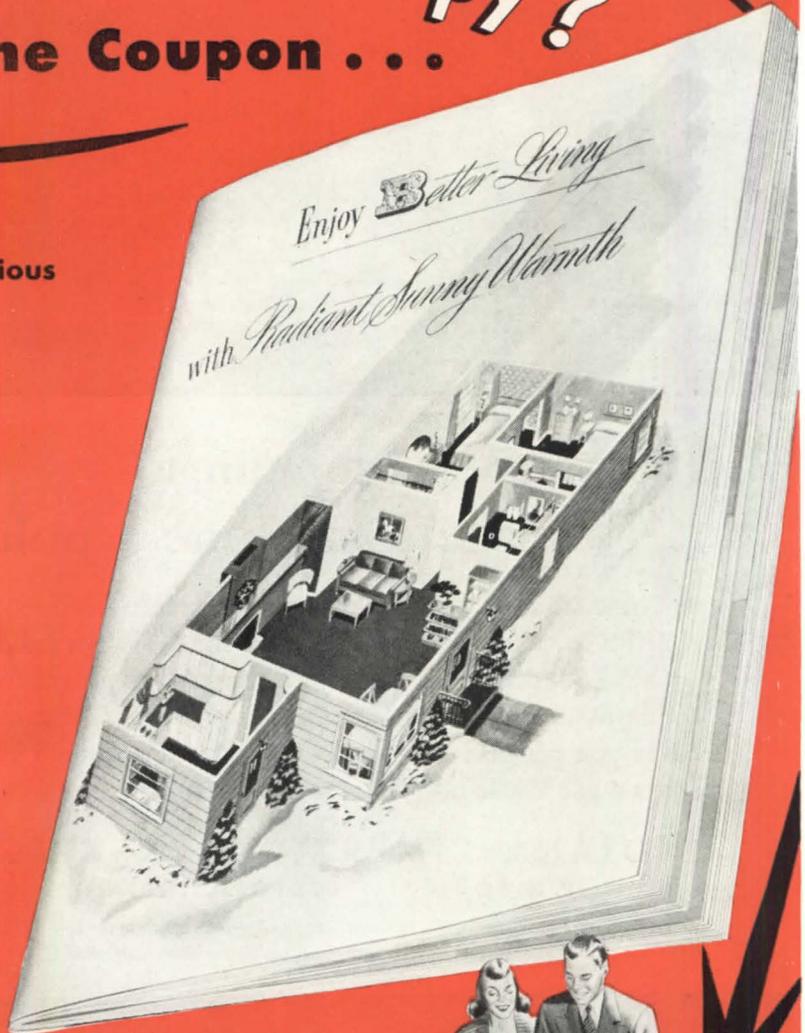
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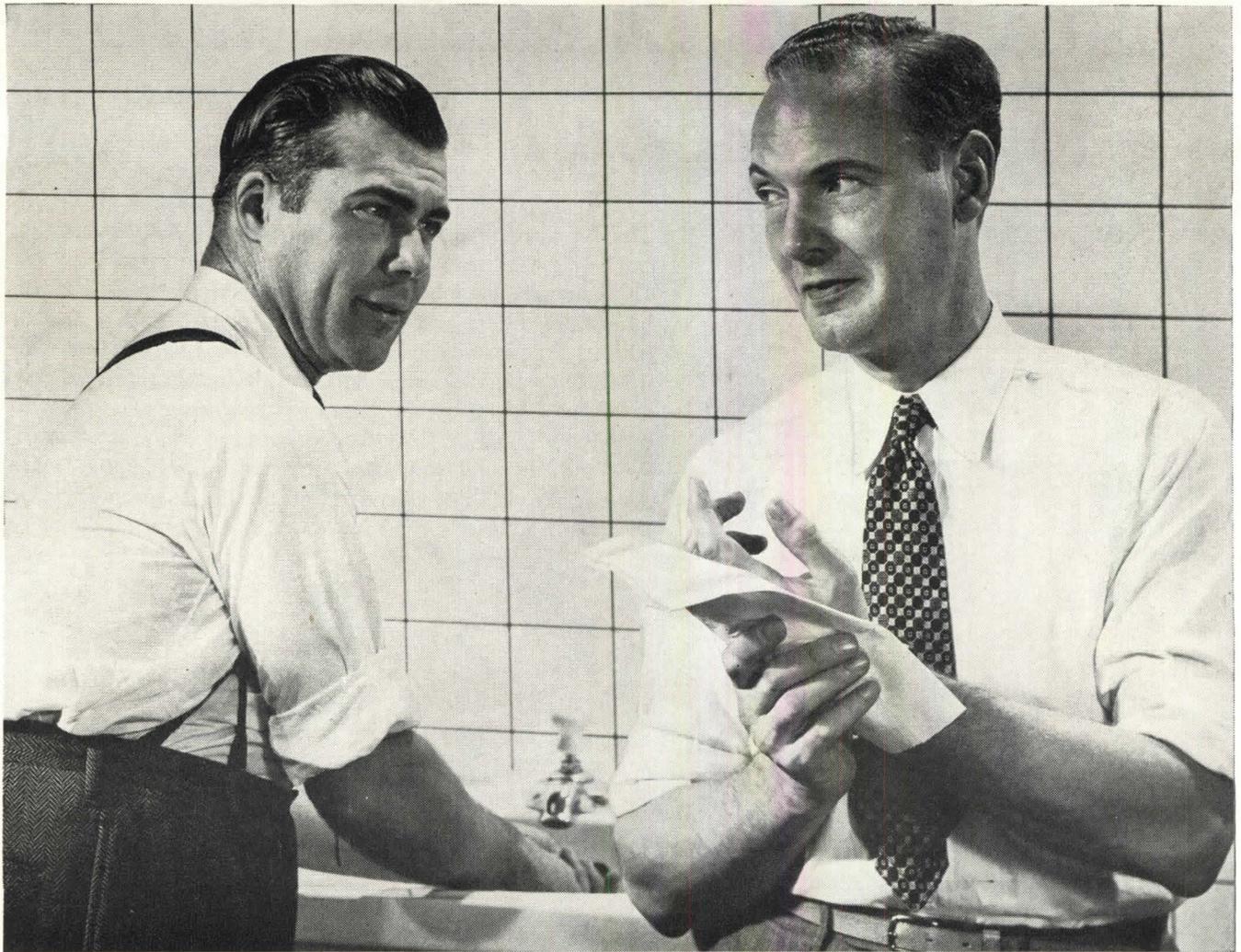
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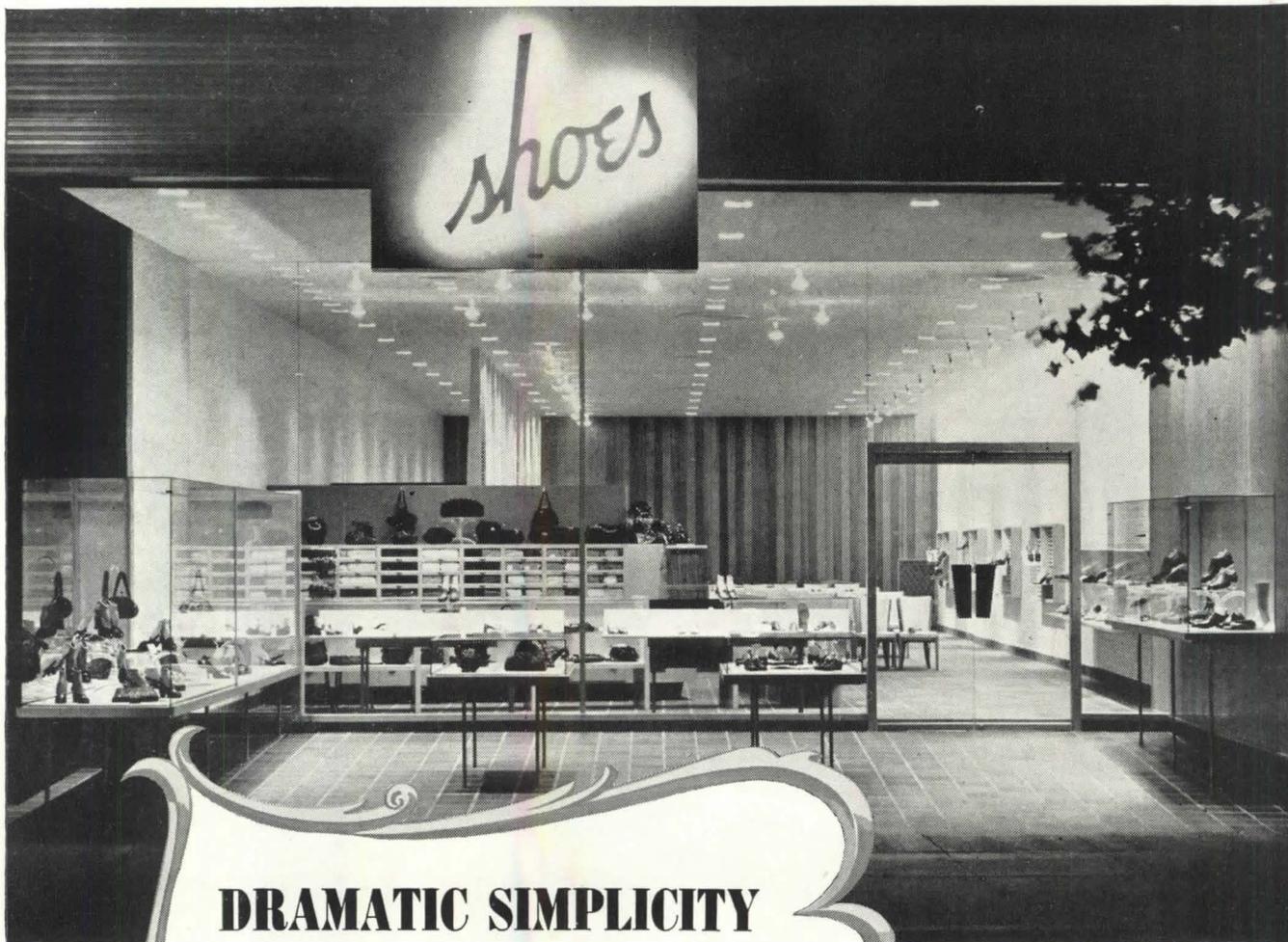


**Good Washrooms begin at the Drawing Board**—Good washrooms are a result of careful thinking and planning in the blue-print stage. For practical suggestions on modern washroom layout, turn to our four pages in Sweet’s catalog—or call on the Scott Washroom Advisory Service, Scott Paper Company, Chester, Pa.

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Consulting Architects: Ketchum, Gina and Sharp, New York.

This storefront attracts attention and centers interest on store merchandise. It says "shoes" — "quality shoes" — with emphasis but without bizarre effect.

Note how the wall-to-wall plate glass and *Tuf-flex\** doors give a full view of the store interior, mark it as a fashion leader for accessories. Plate glass cases display additional items without impairing visibility of the store interior. The Visual Front floods the store

with daylight—at night makes it a mammoth showcase.

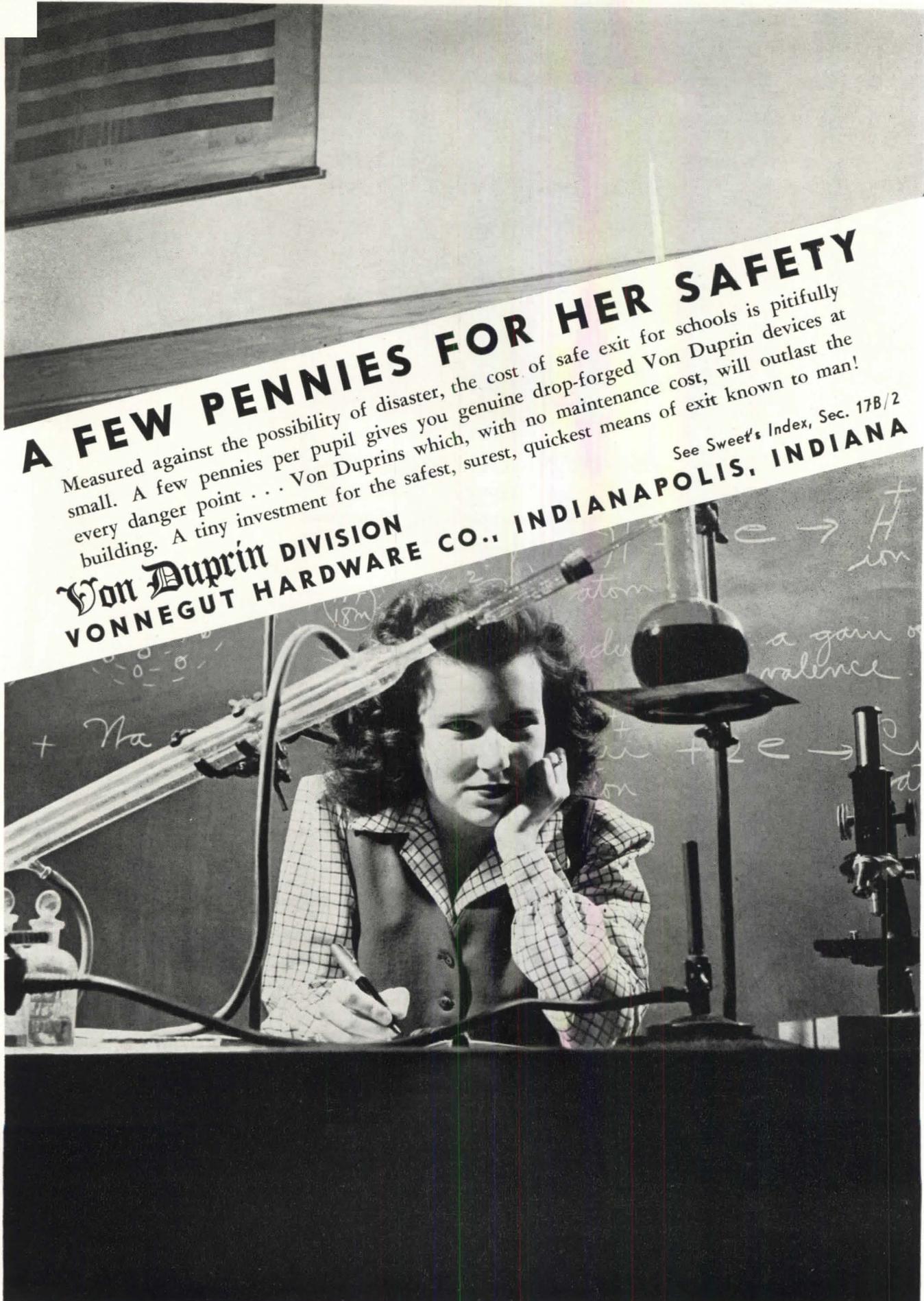
The Visual Front is not a fixed type of front—it is as elastic as the merchandising requirements of the store—as flexible in design as the location demands. Our storefront booklets contain many ideas which you may find helpful in storefront design. Write for them. Libbey-Owens-Ford Glass Company, 7127 Nicholas Bldg., Toledo 3, Ohio.

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



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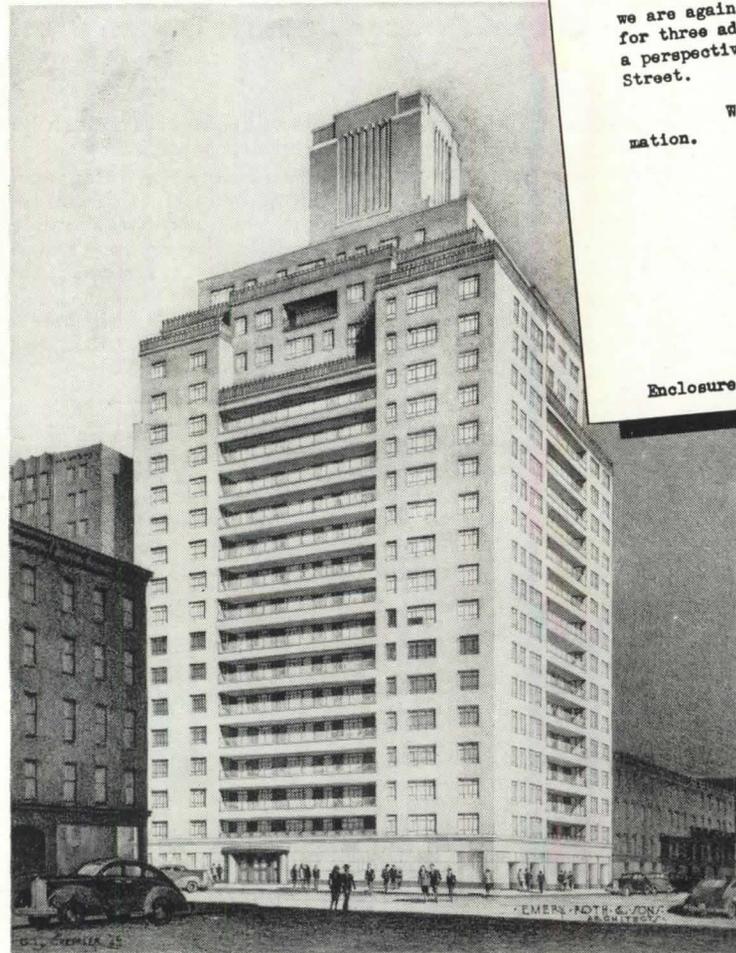
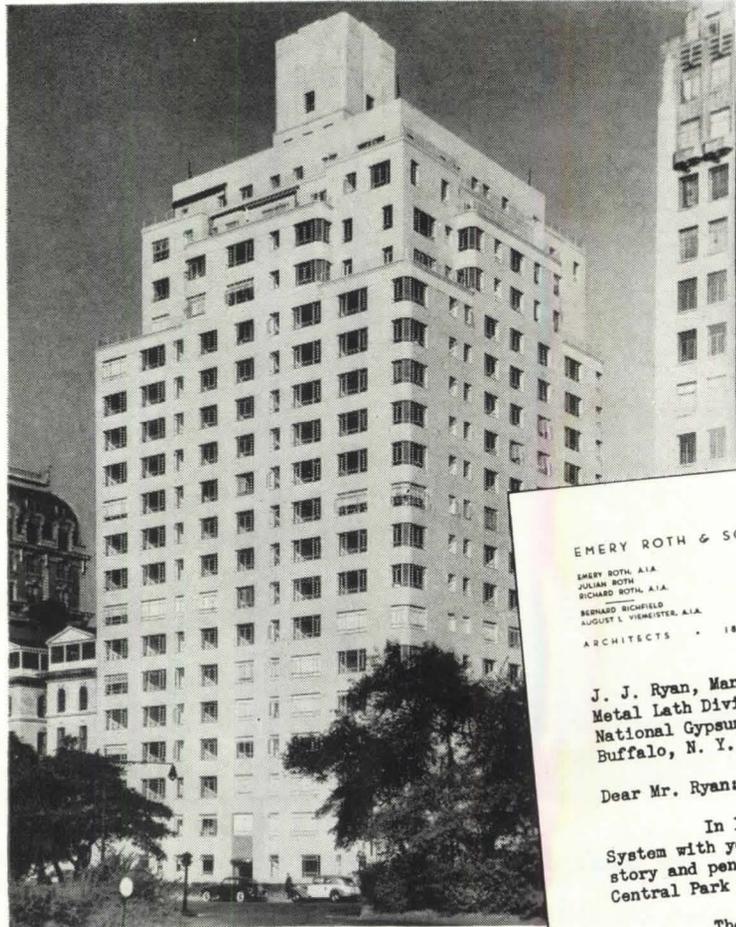


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See Sweet's Index, Sec. 17B/2

**Von Duprin DIVISION**  
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for this letter about the Gold Bond 2" Solid Partition System. Architects everywhere are discovering that this system increases the *actual rentable space of a building by 7%!* The special adjustable metal base allows for simple, speedy construction. The resulting walls—made entirely of guaranteed Gold Bond Products—are fireproof, durable and effectively cut down room-to-room noise. Write us for complete descriptive details (specify Form 1080). Or refer to our section of Sweet's.

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October 28, 1946

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We felt that you would be interested in this information.

Very truly yours,

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By *Julian Roth*  
 JULIAN ROTH

Enclosure

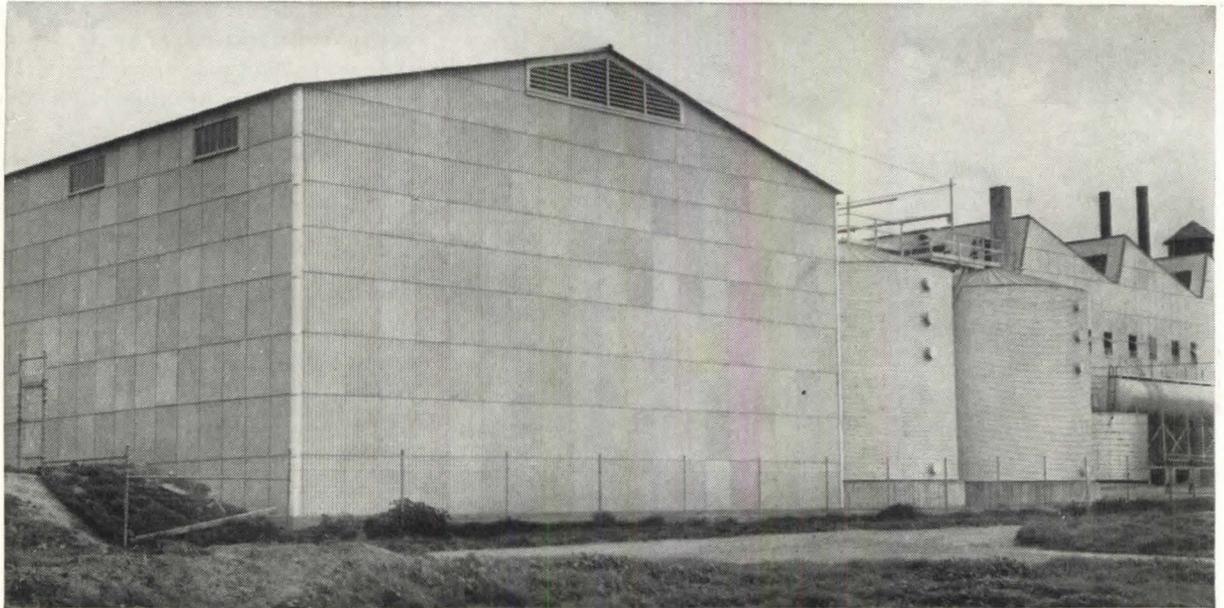
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NATIONAL GYPSUM COMPANY  
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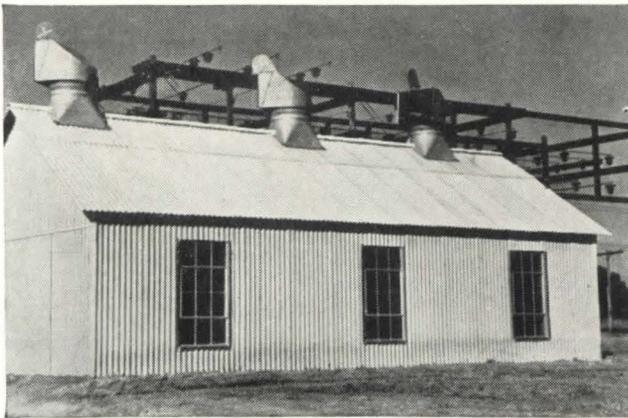
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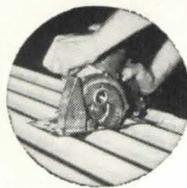
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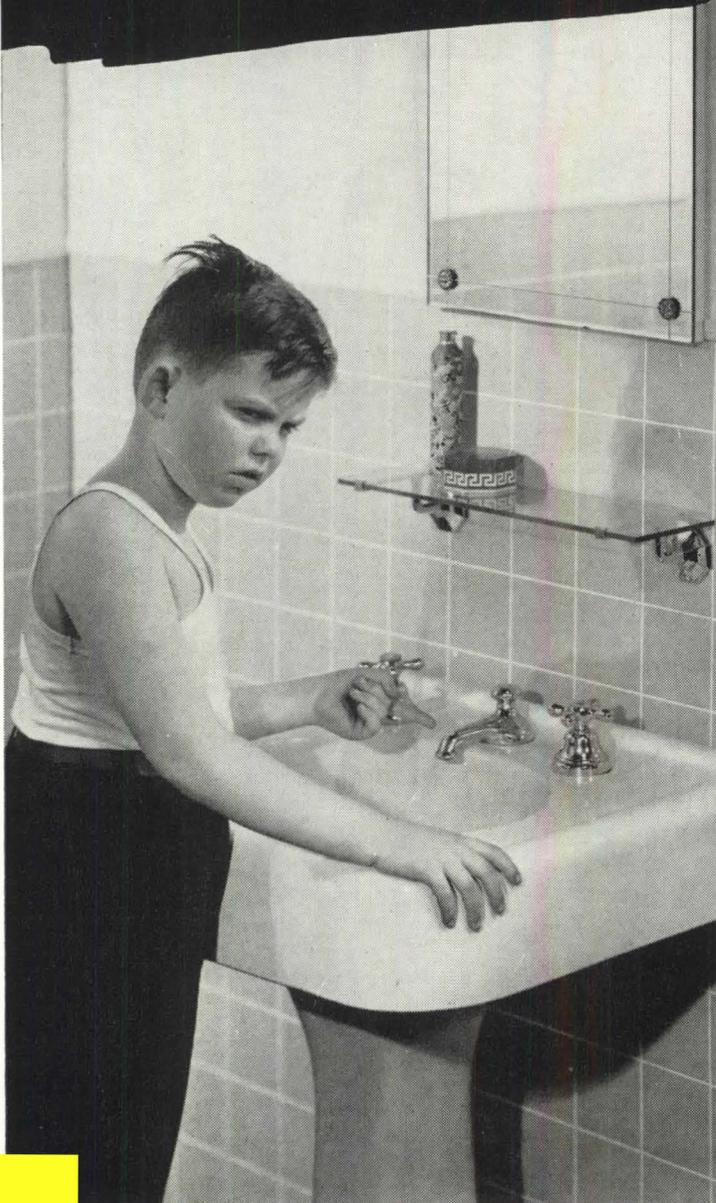


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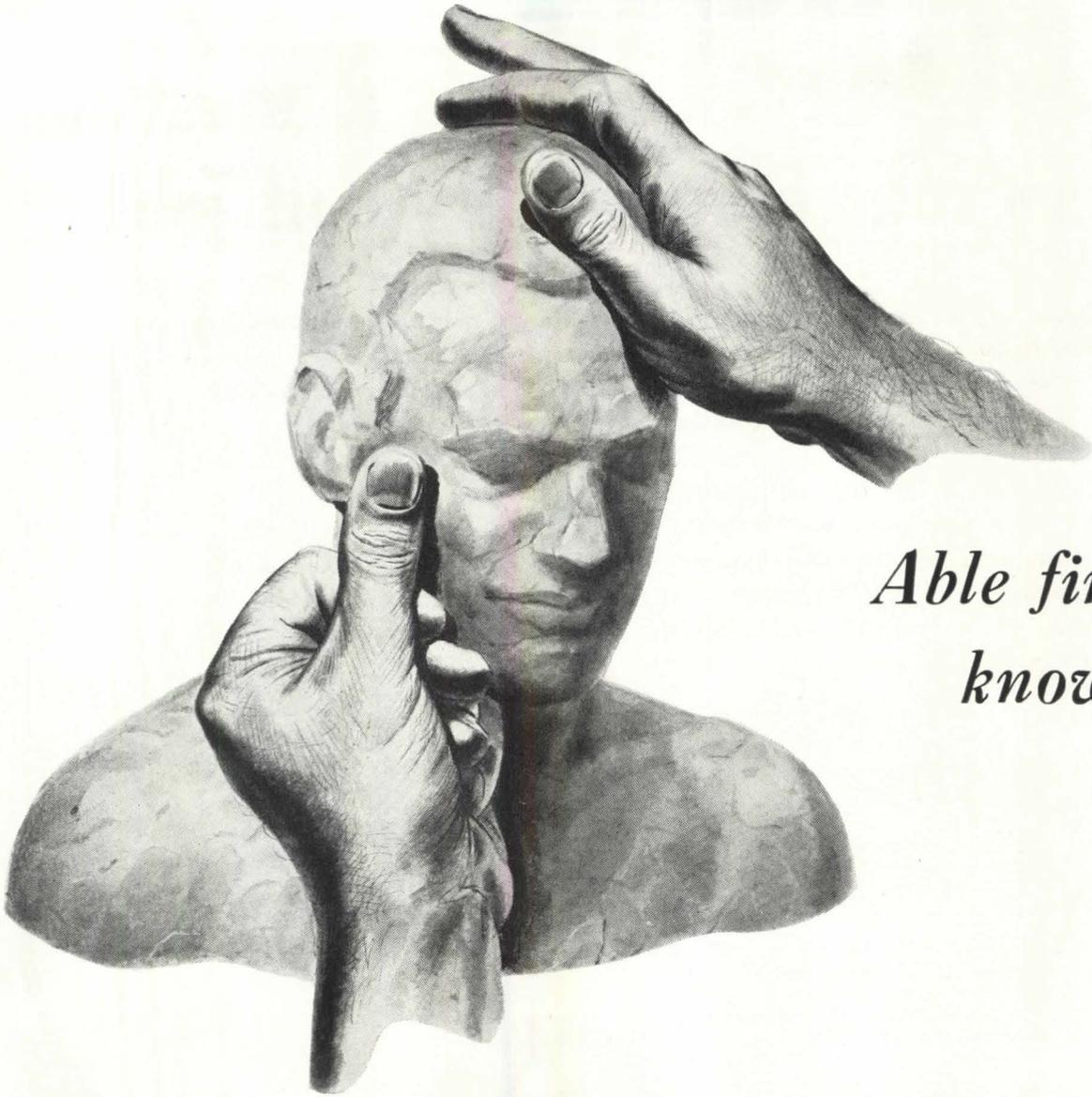
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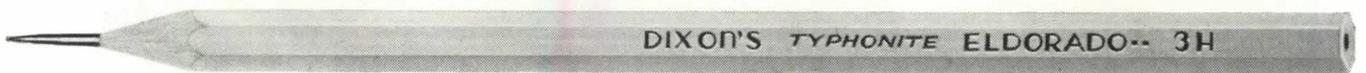
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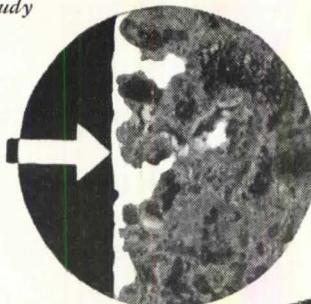
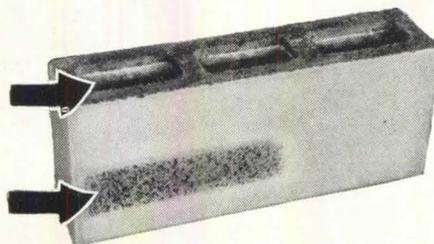
As everyone in the construction industry knows, the water permeability of light weight concrete masonry units leaves no room for argument! The only possible argument lies in the means and methods of applying an *effective* water barrier to this excellent construction material.

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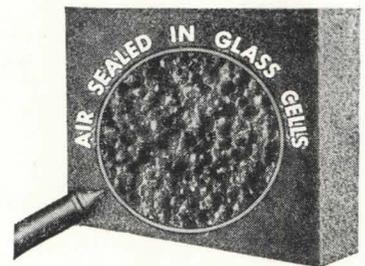
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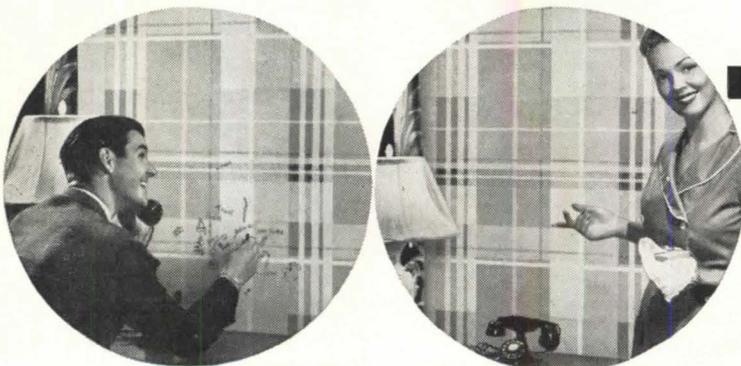
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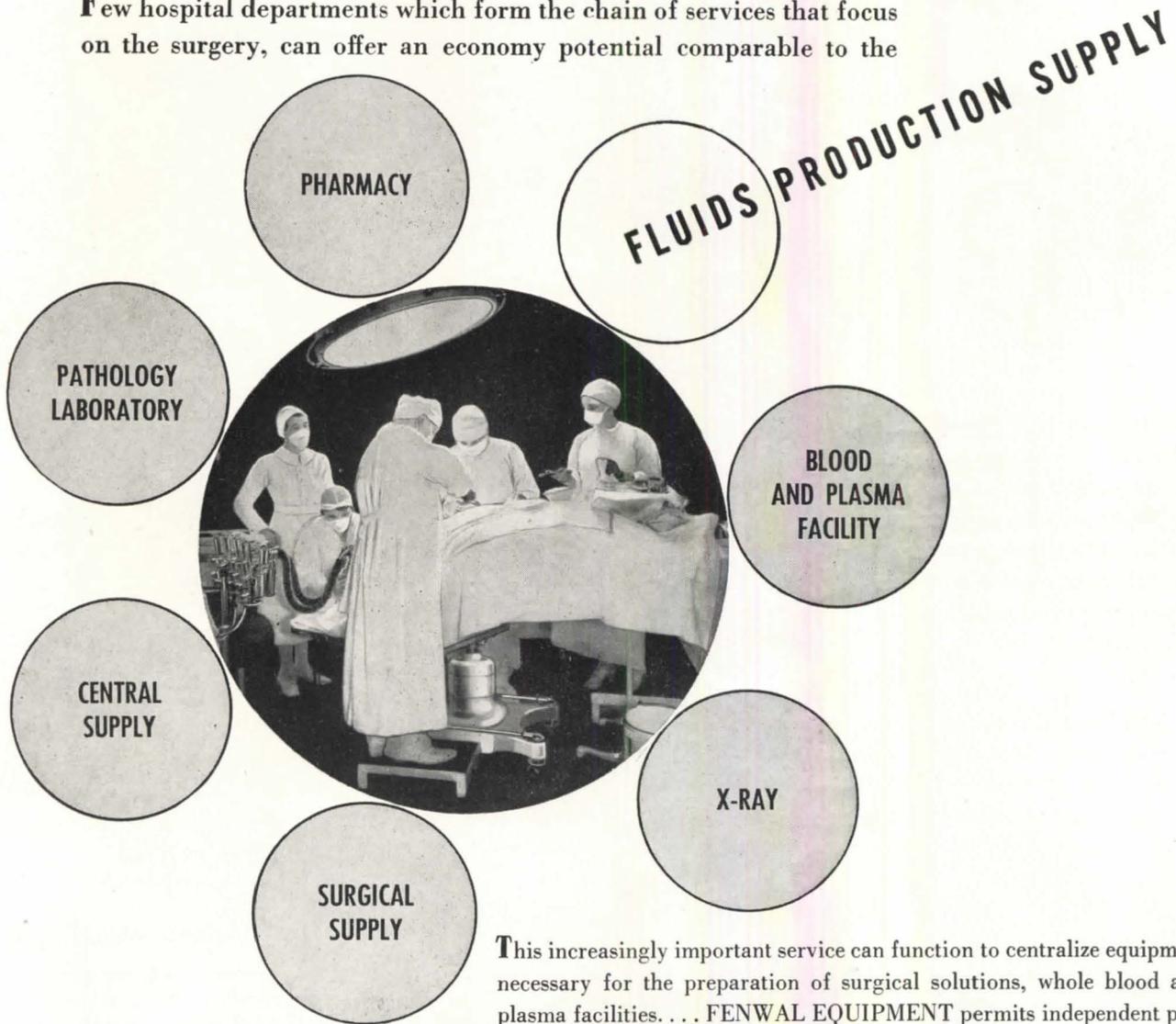
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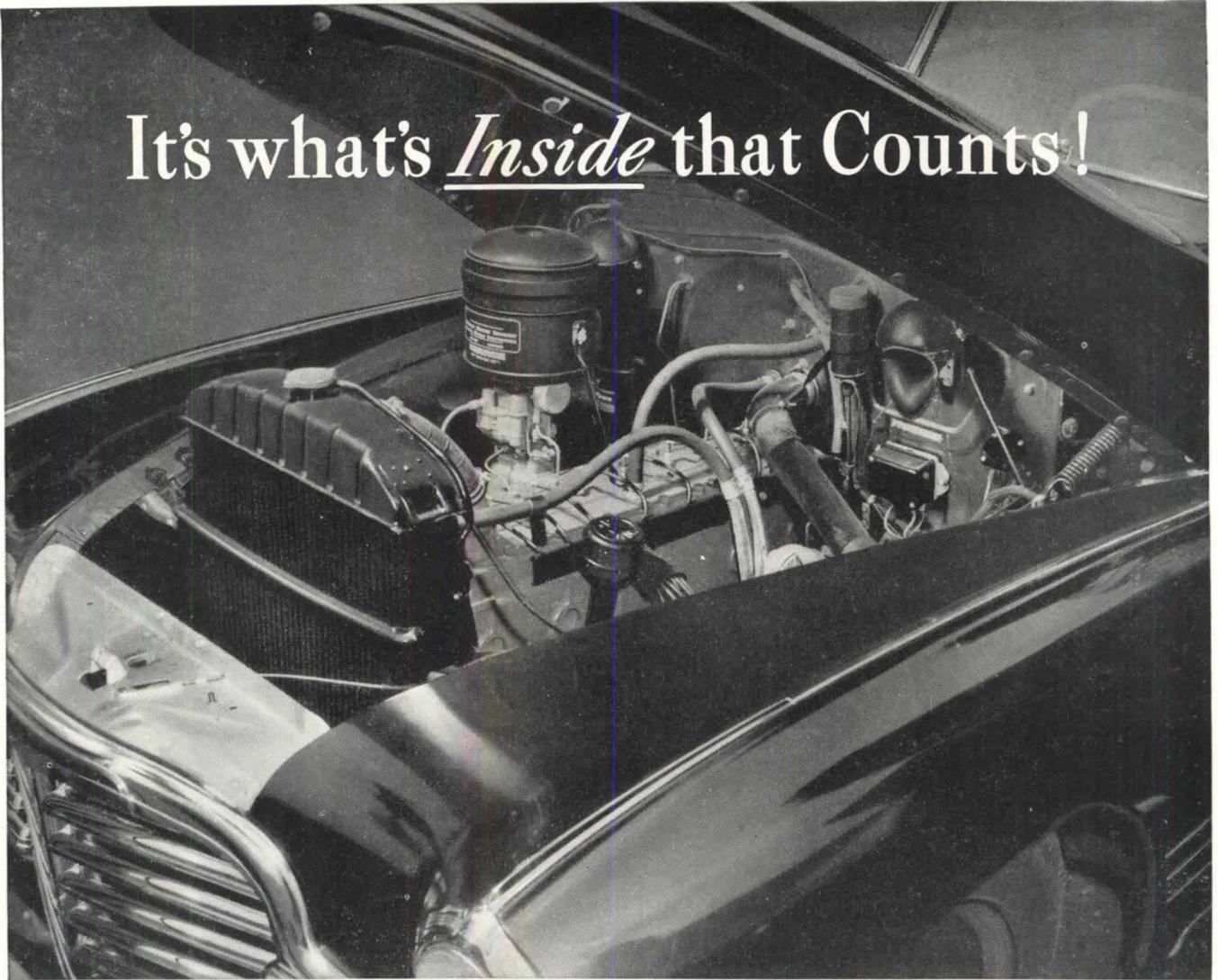
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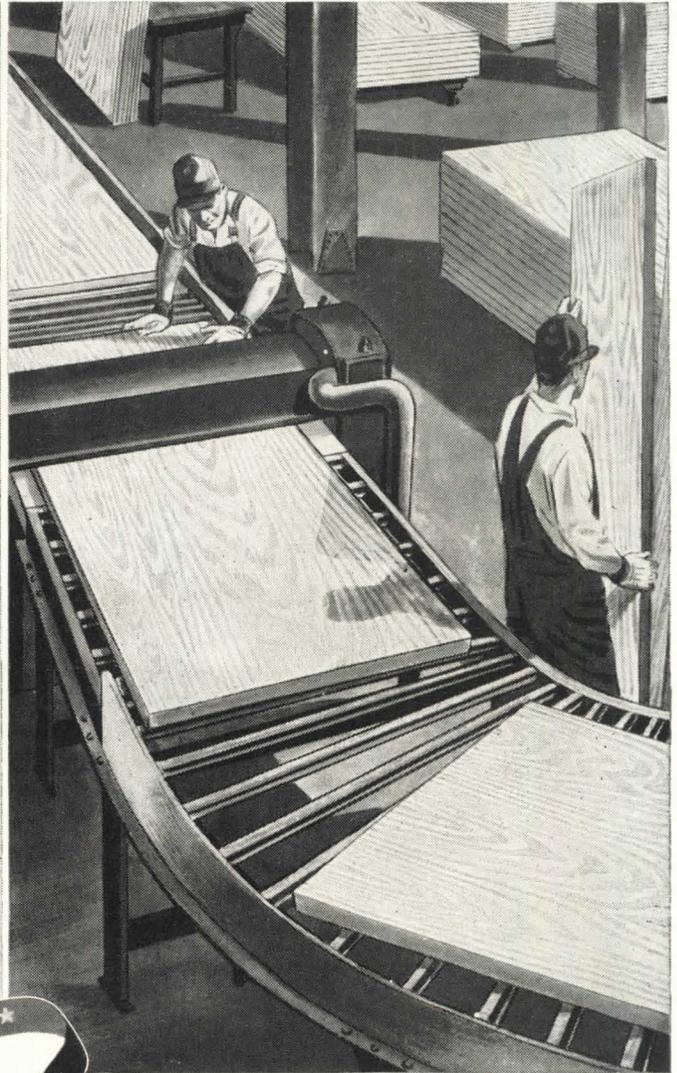


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# WHERE'S THE HOUSING?

By EUGENE RASKIN

After more than a year of **Setting Goals, Appointing Expeditors, Establishing and Removing Priorities, and Calling for Cooperation**, we still haven't begun to make a dent in the housing shortage. Every element of a boom housing program is here, except one: the housing.

Many explanations are offered. One is **Strikes**, said with a sustained capital S. This may be emotionally effective but is hardly satisfying to the rational sense, for at this writing (and actually all this past year) there have been more men at work, fewer on strike than in many a year. Strikes make the headlines, but not the housing shortage.

Another favorite explanation is **Shortage of Materials**. There is some basis of validity here, but it should be stated another way. This land of ours, boundlessly rich in resources, is far from short of materials. However, the opportunities for making, distributing, and selling building materials at a profit are sharply limited, for a complex of reasons. It would be more accurate to say **Shortage of Profits** than **Shortage of Materials**.

A pet scapegoat, in some circles, is **Rent Control**. If rent controls were lifted, the argument goes, it would become economically more attractive to build housing space, since adequate rental returns could be anticipated. Furthermore, the acuteness of the shortage would be relieved immediately, due to increased evictions.

It would seem more reasonable to expect that the lifting of rent controls would result in much more desperate and widespread pressure for higher wages, rather than relieving the housing shortage. U. S. Government figures show that only some 12% (the highest) of our incomes would permit the purchase or rental of new housing space built at present prices. These high bracket people are not, generally speaking, the ones who most need housing, being the best housed group in the country. Building for them would hardly affect the housing shortage as it applies to the bulk of the population. The great masses would just have to find ways of raising enough money to pay the increased rents, or, failing that, vacate their homes to double- or triple-up with others, even more densely than at present. If the resulting vacancies caused rents to drop again, nothing would have been achieved by the lifting of controls except dislocation and hardship.

The essence of the problem seems to lie just there—what does housing cost and what can people pay? At present, the gap between these two figures is so great that there cannot be any substantial amount of housing built. By substantial is meant of course housing in the millions of units. The present shortage, by the very lowest of estimates, is three million units. Other estimates range as high as twelve million, but whatever figure is taken, it is clear that housing built in the mere thousands of units would be but a drop in the bucket.

A substantial amount of housing, then, can become possible by closing the gap in only one of three ways. First, by reducing the cost of building down to the level that the masses of people can afford; or second, by raising the income of the entire population, or at least 88% of the population, to the point where they can afford present building costs; or third, by having someone make up the difference and take the loss.

The first of these, reducing the cost of building, seems impractical, except in minor degree, because of the fact that so large a part of the cost of building is labor cost.

Any significant reduction of wages would be highly undesirable from almost every point of view, as well as politically and economically impossible in these days of organized labor. The economies that might be effected through improved techniques and prefabrication are still rather speculative and, in any case, would apply to only a minor portion of the building bill.

The second method, raising general income levels, would operate automatically to raise also the cost of living and the cost of building. A new set of figures would be used, but hardly anyone would be able to afford any more than now.

Neither of the first two methods would seem to have much chance of success. There remains the third. Some rich Uncle should pay the builders (in purchase price or in the form of rent) a decent economic return on their building investment. Part of this payment should come from the occupant (owner or tenant) depending on what he can afford. Uncle makes up the rest and swallows the loss. Who is this Uncle? Well, obviously the Government. It may be argued that Uncle doesn't really suffer a loss, since he makes it up through taxes and the lowered cost of administering a better housed nation.

Will Uncle take on this job? Certainly there is, and will be, quite a lot of publicly financed, subsidized, and otherwise assisted housing. Some of it is, and will be, quite bulky as far as visual effect is concerned. The dollar volume is, and will be, truly impressive. If it grows, however, there must come a point when the fact that people are paying less for better space in "assisted" housing than in "free enterprise" housing will begin to reduce the value of "free enterprise" holdings. Since this value is considered the keystone, or, at least, a critical voussoir in the arch of our national economy, the first signs of such reduction will arouse powerful opposition pressure.

As a matter of fact, that opposition is already both powerful and active. Everyone knows of the well financed Washington lobbies of those who oppose public housing or publicly assisted housing of all sorts. These will do everything they can to keep public housing on the lowest token level that the administration can politically afford.

Whether Uncle will abandon concern for real estate values and plunge into full scale housing promotion, or whether he will continue to **Call for Cooperation** remains to be seen. At the moment he seems to be washing his hands of the whole business. But we may be pretty sure that until such time as government does decide to absorb the difference between building costs and average incomes on a national basis, nothing much will be done about the housing shortage. We will continue to see some private housing built, mainly for the upper income market; some public or subsidized housing for the lower income groups; but not enough of either to affect the status quo as regards both property values and the bulk of the shortage.

Whether one approves or not, such seems to be the inescapable conclusion. Many sections of the building industry cry that if only they were freed of government red tape they would build in such volume that the shortage would be over in less than two years. These gentlemen may be bursting with enthusiasm to build, but they would stop very soon when they found the American public unable to afford their houses. No, if you want the answer to the question "Where's the Housing?" go ask Uncle.

# HOUSING STUDY

A Thesis by ILSE MEISSNER

. . . . . Demonstrates the Value of Integrated Design.

On the foregoing page, Eugene Raskin states some of the more potent, not to say explosive, problems involved in providing housing in this country. Even were these factors fully resolved, however, there would still remain the question of intelligent planning to produce the desired end result. The study presented here illustrates this phase of the dilemma.

## CRITIQUE . . . By Louis Justement

Apartment house planning is strongly influenced by the arbitrary standards established by building codes, zoning regulations, housing authorities, FHA mortgage insurance requirements, assumed tenant preferences, etc. The architect is seldom able to resist these standards even when they lead to absurdities in planning: it is more practical to submit than to engage in a battle with windmills.

The student of architecture is free from these inhibitions. He should be encouraged to exercise his own ingenuity and logic in devising a plan adapted to modern living and construction methods, without an excessive regard for the many other restrictions which govern the decisions of the practicing architect. If he is able to avoid the opposite extreme of originality for its own sake, the work of the more talented student will be of interest to the practicing architect.

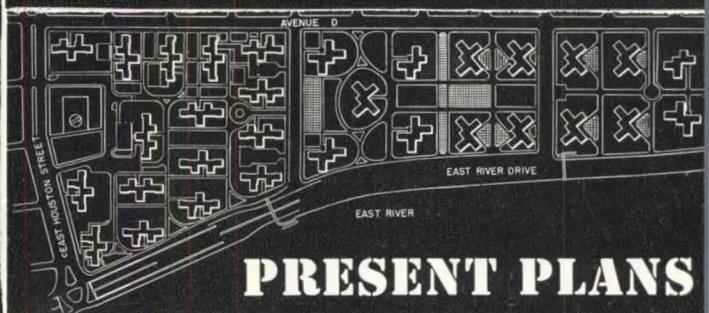
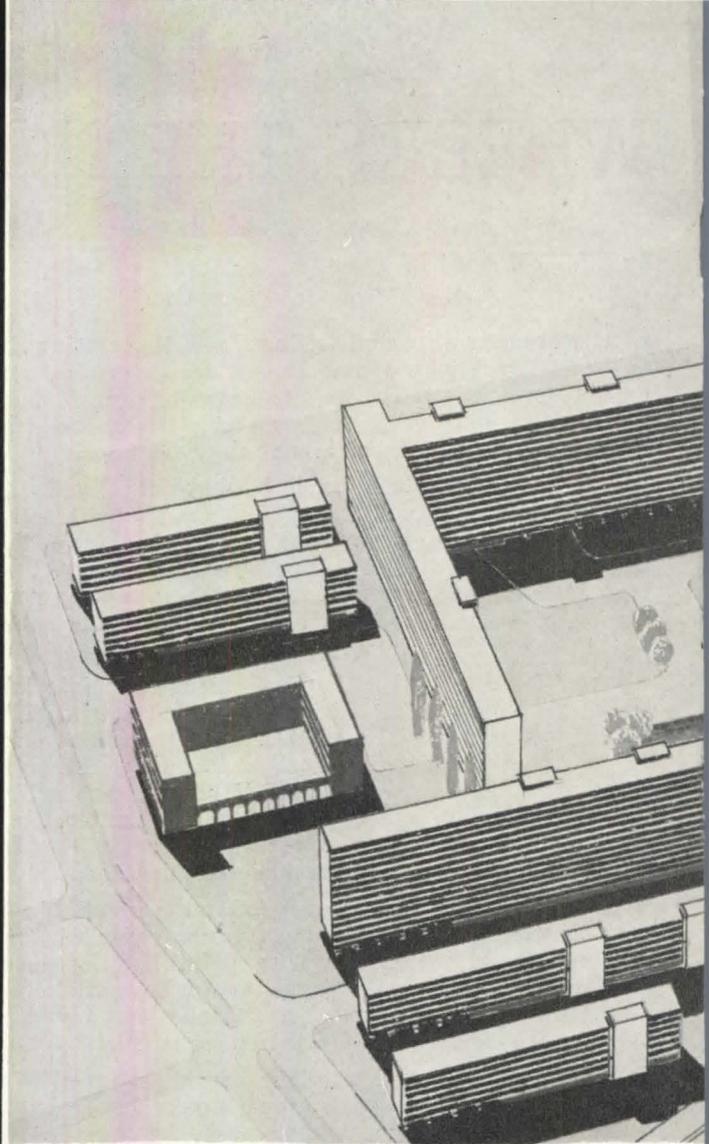
As an example of this intelligent type of student work PROGRESSIVE ARCHITECTURE presents the thesis prepared by Ilse Meissner while she was a student at Pratt Institute. (*Detailed criticism on Page 49.*)

## THE PROBLEM

The New York City Housing Authority has acquired two adjoining sites for the erection of low cost apartments to be known as the Lillian Wald Houses and the Jacob Riis Houses.

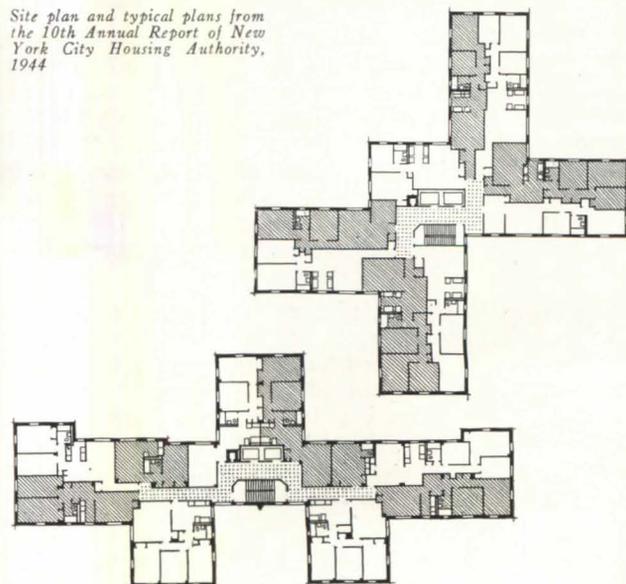
The following facts published by the N.Y.H.A. formed the basis for this study:

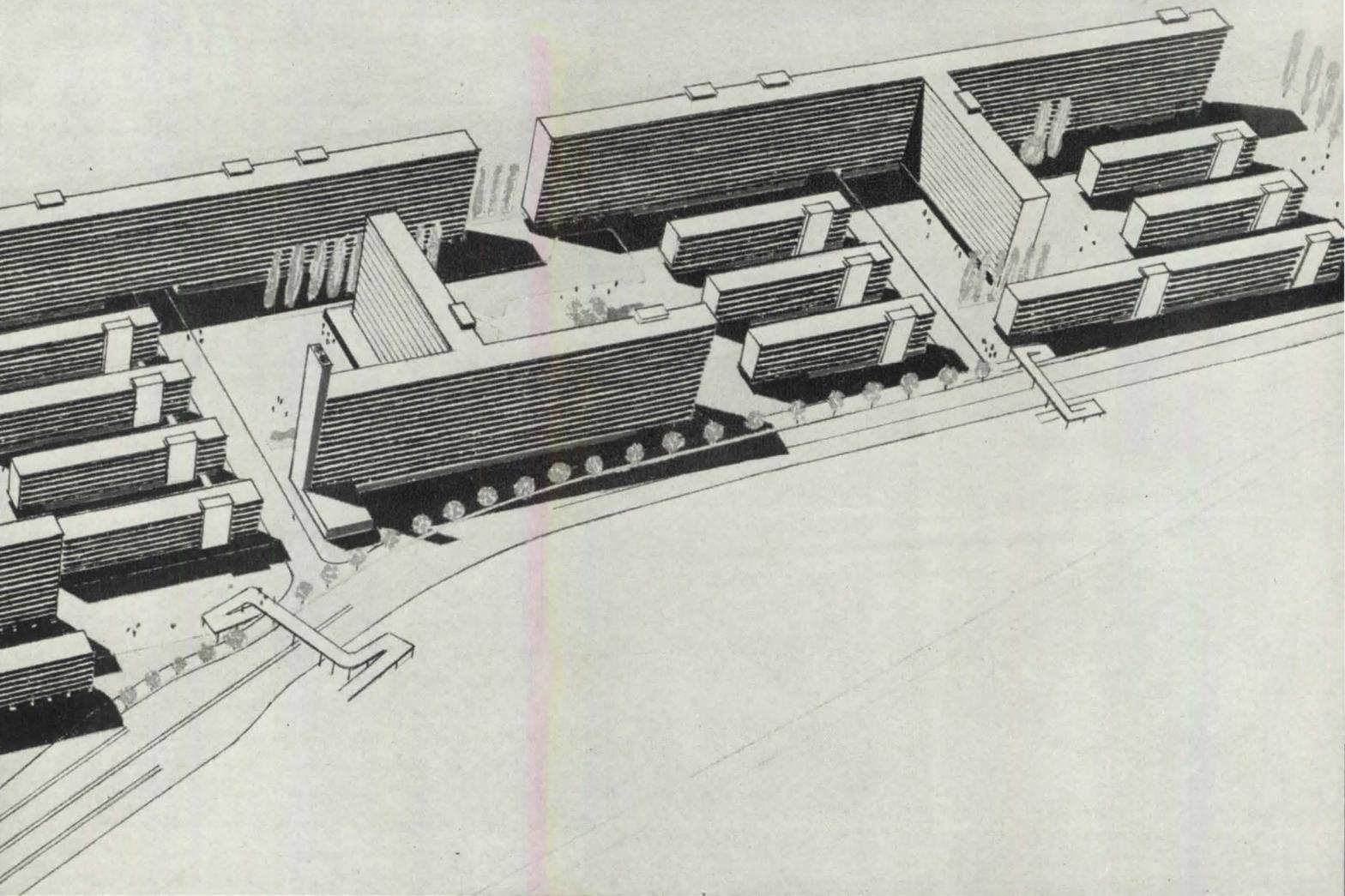
DESIGN FACTORS:	LILLIAN WALD	JACOB RIIS
Dwelling units	1,805	1,700
Rental Rooms	8,373	7,350
Population (estimated)	6,954	6,640
No. of res. buildings, heights	4-10 st. + 12-13 st	4-11 st. + 11-13 st.
Net acreage (excl. parks)	15.93	17.54
Coverage - percent	18	15
Persons per net acre	437	379
Land cost per sq. ft.	5.66	3.91
Area of streets closed (sq. ft.)	216 122	173 247
Area for new and widened streets	96 321	114 399
Total construction cost	\$ 7,924,000	\$ 7,660,000
Total development cost	\$ 12,902,000	\$ 12,000,000
Source of development funds	STATE	PRIVATE, F.P.H.A, CITY



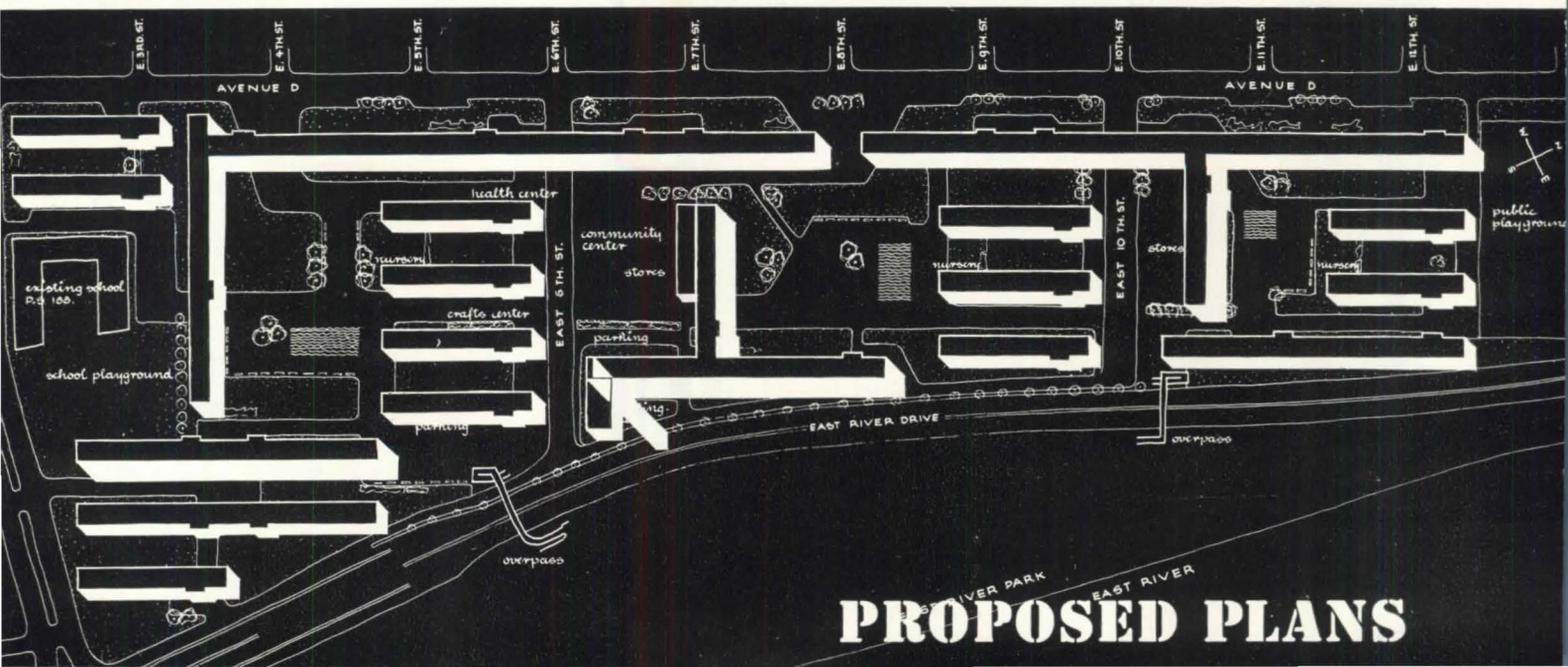
## PRESENT PLANS

Site plan and typical plans from the 10th Annual Report of New York City Housing Authority, 1944





- An analysis of the facts and a study of the Housing Authority plans revealed definite shortcomings:
1. Two firms of architects were employed and therefore the area as a whole lacks continuity and harmony.
  2. Separate development of projects resulted in duplication of time, labor and expense.
  3. Density distributed unequally.
  4. No shopping facilities provided.
  5. Roadways and walks isolate building units.
  6. Houseplans too complicated.



# SITE STUDIES

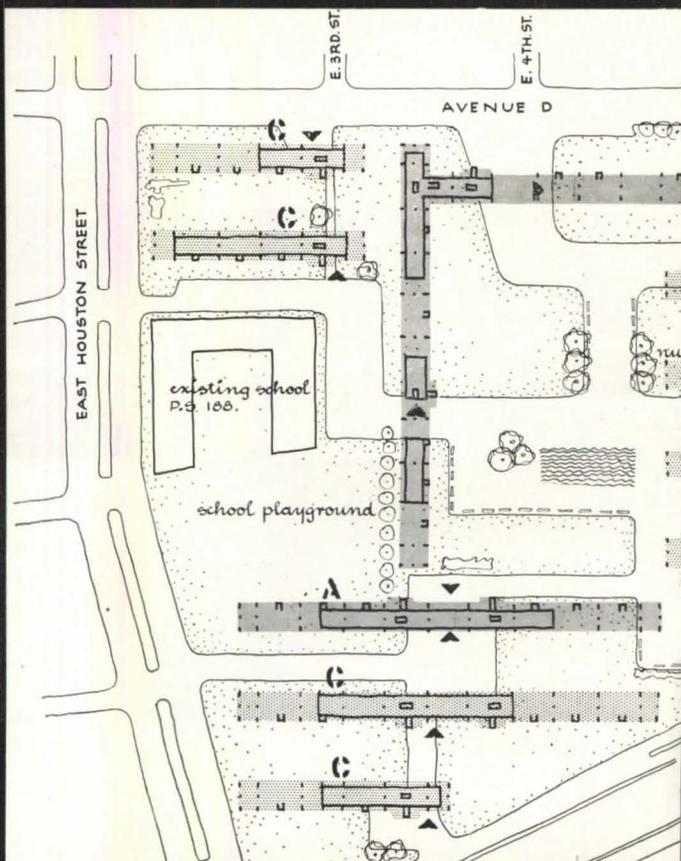
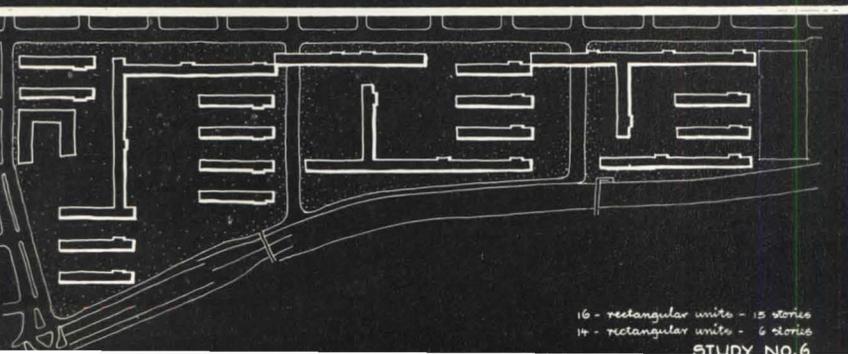
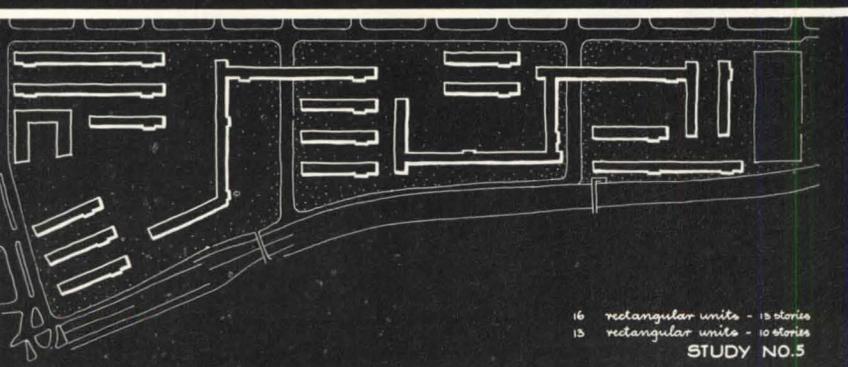
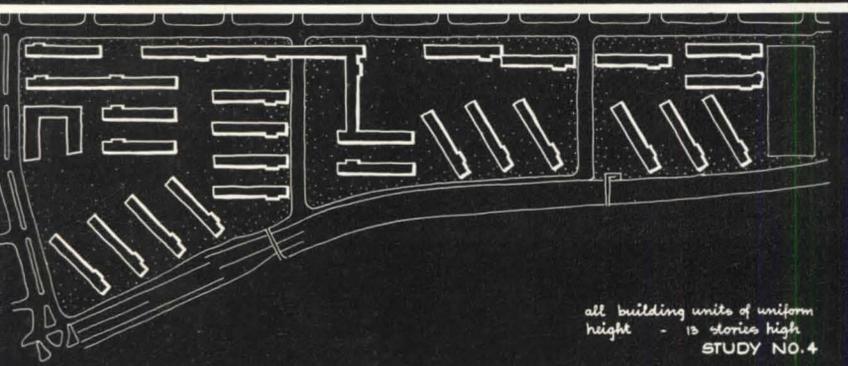
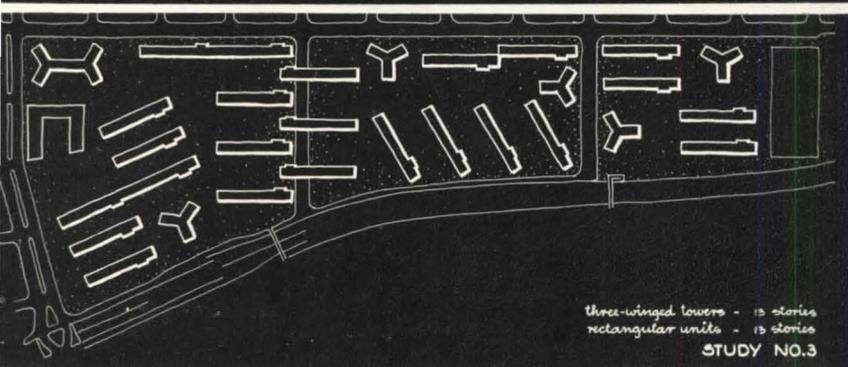
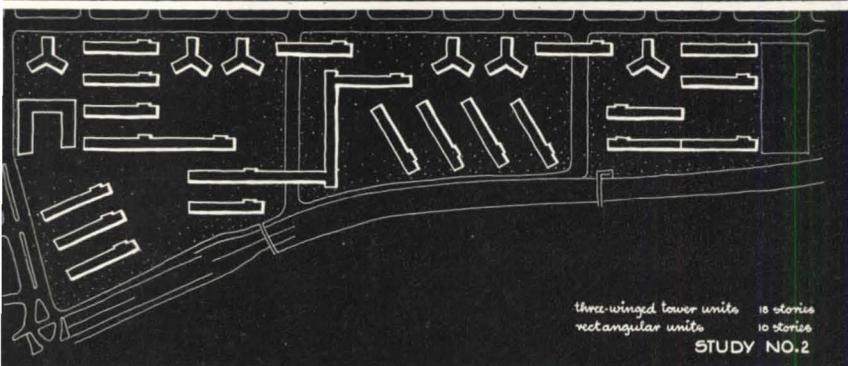
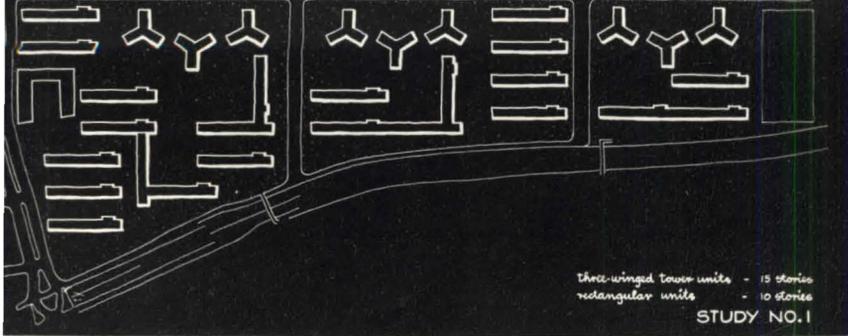
These drawings show the sequence of thought which was followed in the development of the site. For aesthetic reasons it first appeared necessary to introduce various building shapes, but as the plans developed a gradual simplification presented a more organized and harmonious appearance.

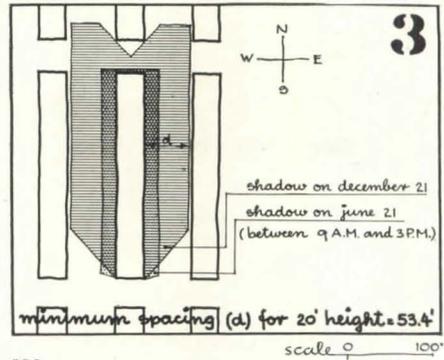
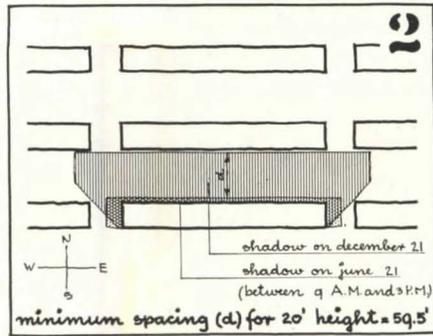
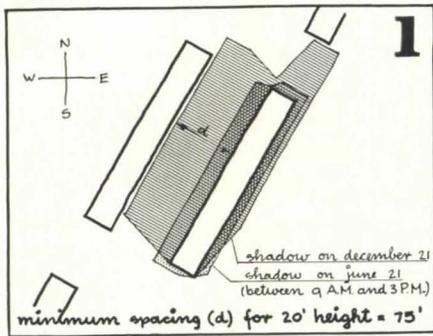
The final site consists of spaces enclosed by building units of different heights. The high buildings frame the edge of the property in the west primarily whereas low buildings are used in the interior, thus furthering the feeling of spaciousness.

The terrain is flat and low, bordered on the west by Avenue D with its rows of three and four story dwellings. In the south a large, U-shaped school building of red brick remains standing. In the north the project is bounded by a large public playground. East River Drive and a view of the river provide the natural center of interest for the development.

Simple, rectangular units, comprised of sixteen tall, fifteen-storied apartment buildings and thirteen, six-storied buildings are arranged around courts which open toward the river.

East 6th Street and 10th Street are approaches for the pedestrian overpasses leading to East River Park. Completely equipped playgrounds are not provided for within the site since facilities are adequate in the adjoining playground and East River park.





# ORIENTATION STUDIES

1. Axis of building North-East, South-West:

Unfavorable position because of deep shadow penetration.

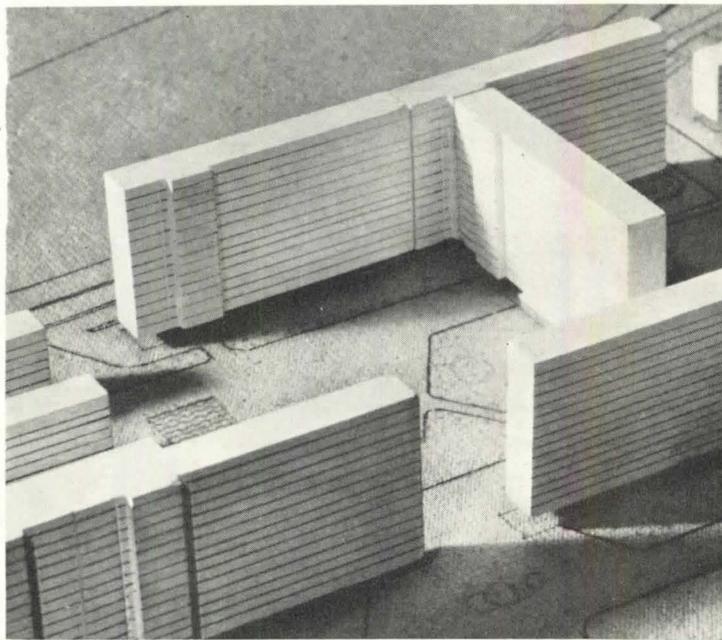
2. Axis of building East - West:

Unfavorable position because of very strong sunlight in south, no sun exposure in North.

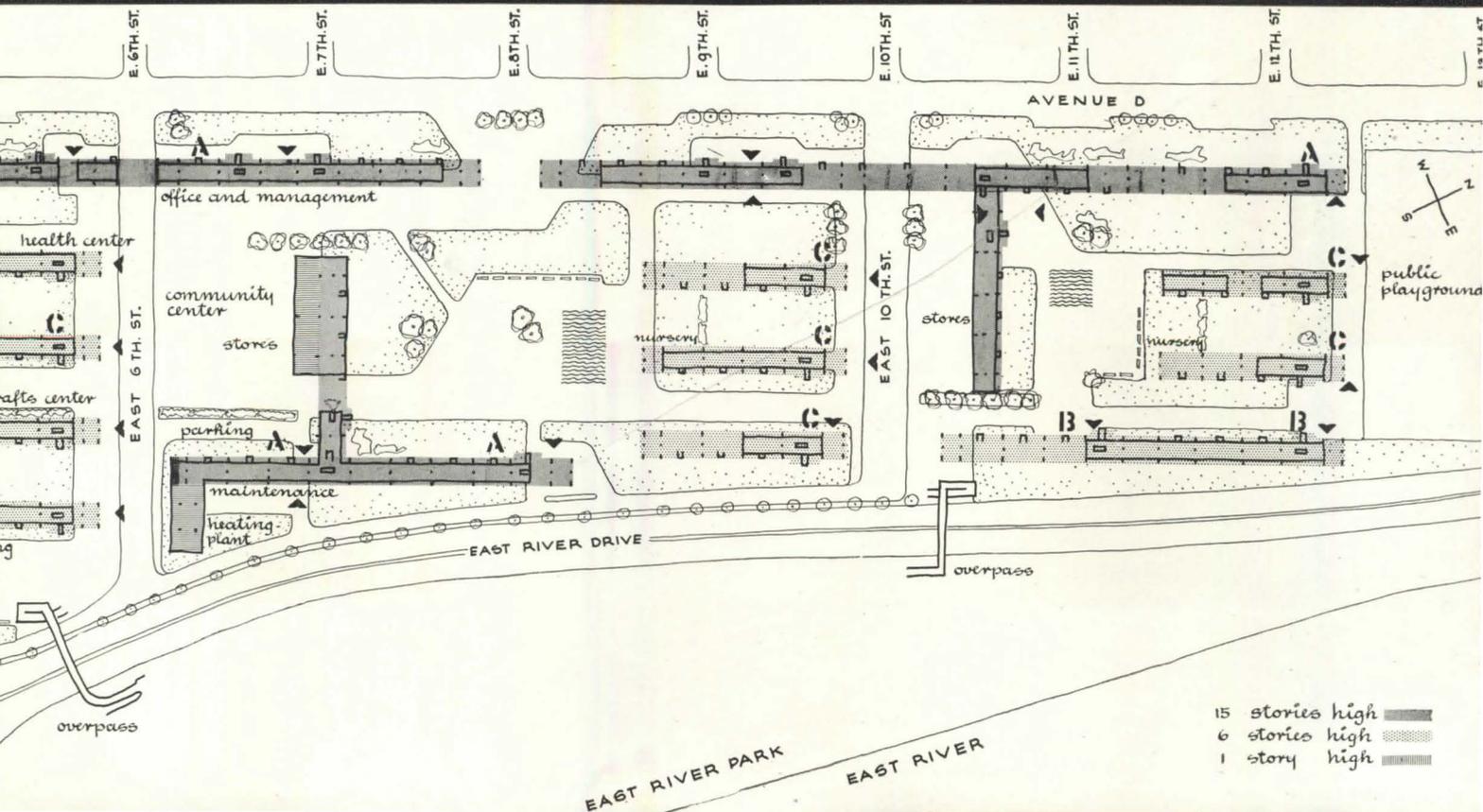
3. Axis of building North - South:

Most favorable position because of equal sun exposure on both sides of building and least depth of shadow penetration.

Photos of models by Otto F. Hess



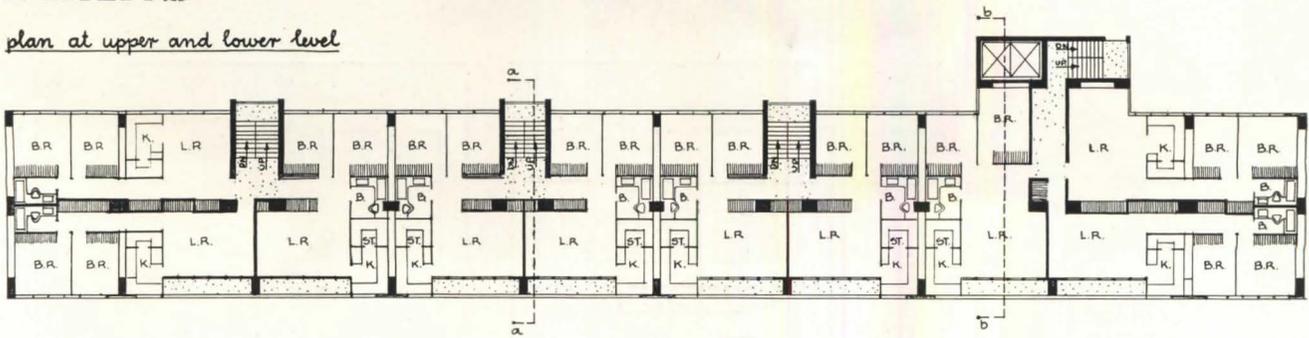
view of central recreation area - looking east



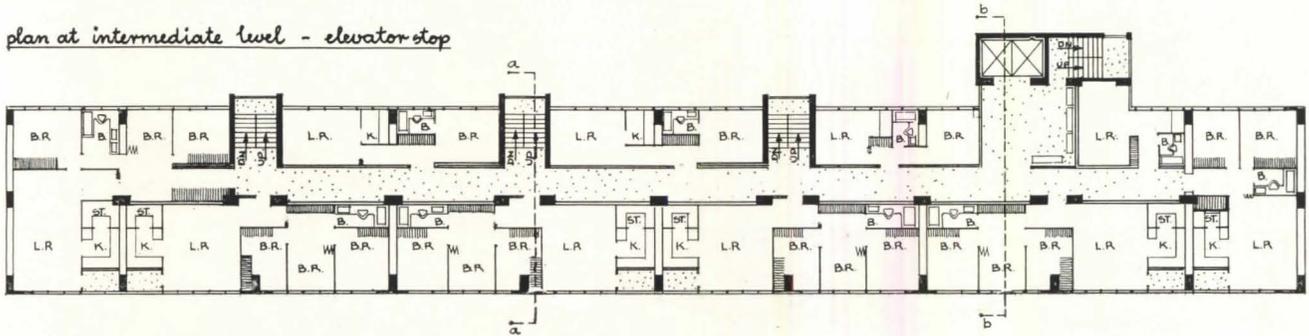
# PLANS

Typical for building types A and B - (see site plan)

plan at upper and lower level

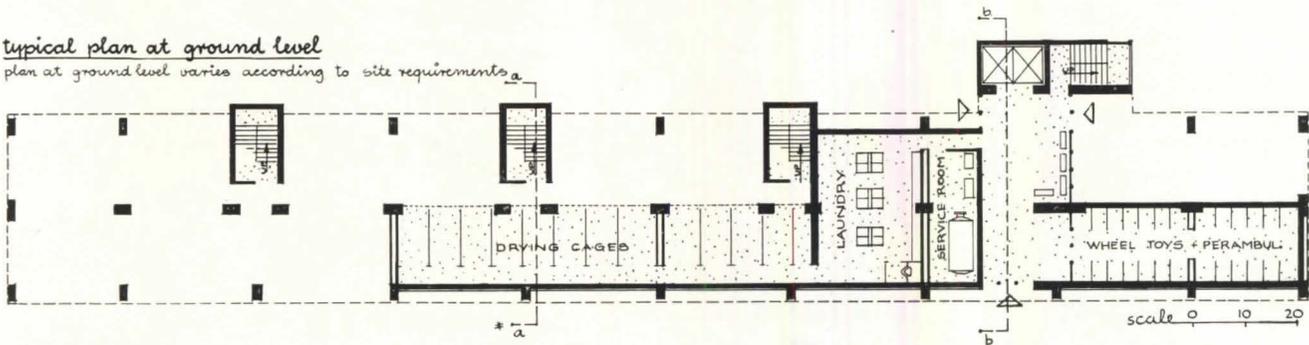


plan at intermediate level - elevator stop



typical plan at ground level

plan at ground level varies according to site requirements



## TECHNICAL CONSIDERATIONS

### 1. FRAMING

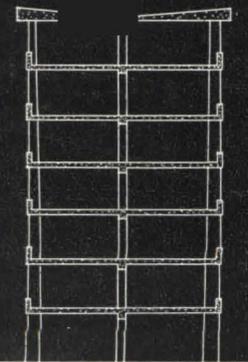


Equal bays simplify the framing of this reinforced concrete structure.

**Beams** a. at exterior of building serve as spandrel sections.

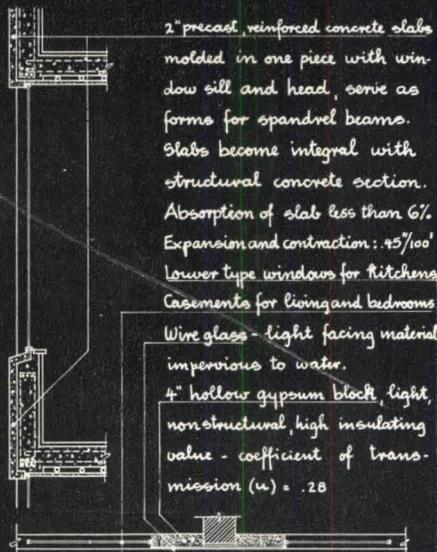
b. through center of building are designed as Tee-beams.

**Floors** are flat slab construction with one way reinforcement.

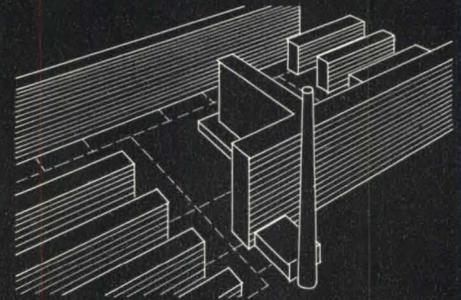


**Columns:**  
are rectangular in section to avoid unnecessary obstruction in the lower floors. Width of columns remains constant for the entire height of building.

### 2. MATERIALS



### 3. REFUSE DISPOSAL SYSTEM

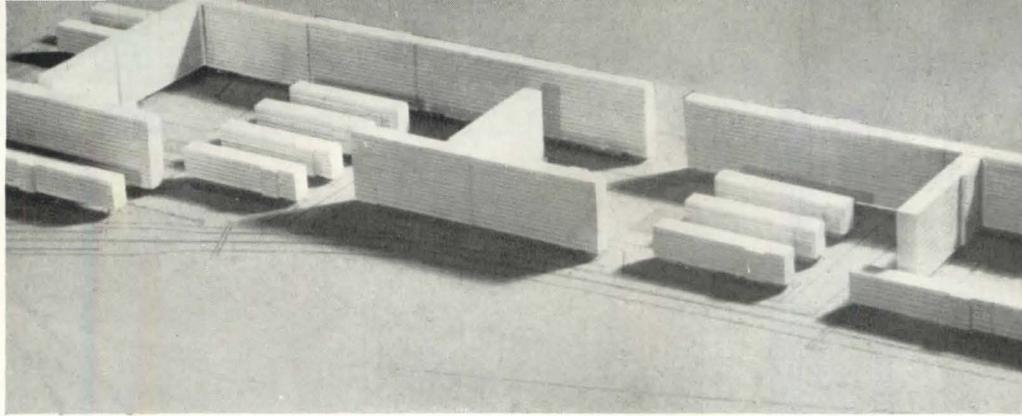


Unit consists of large bowl-like container fitted below a normal sink.

**Refuse** - animal and vegetable waste, tins and bottles. **Disposal** through 6" dia. glazed pipe to a sump at the bottom of the building from where it is drawn by suction into a central disposal plant. Here it passes through a hydro-extractor and then to the incinerator.

**Advantages** 1. System generates valuable heat which can be used in connection with heating plant. 2. Eliminates labor cost of garbage collection. 3. Provides for immediate sanitary disposal of refuse.

**Application** known as the Garchy system, it has proven successful and economical in Leeds, England and in a series of housing schemes near Paris.

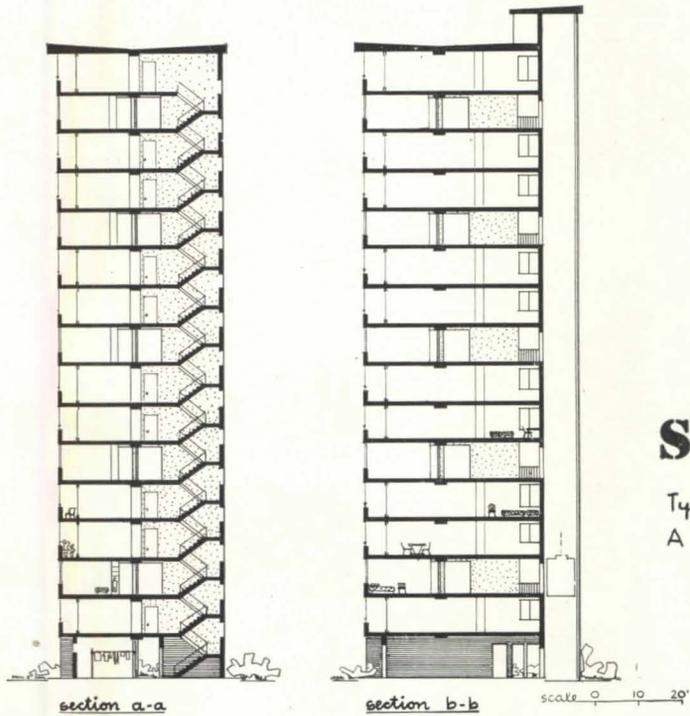


Plan highlights: Ground level of building units provides for:

- a. laundry, storage space, service rooms in each unit.
- b. Communal facilities, nurseries, stores, health centers in selected locations.
- c. Covered open spaces under buildings for recreation.

Elevator stops are schemed for every third floor, tenants of the two-bedroom apartments on floors above or below these levels walking either up or down one flight. Thus, apartments on most floors have cross light and air.

On the intermediate elevator-stop floors are the one- and three-bedroom units, arranged at either side of an interior corridor. Most apartment plans include a small outside balcony.



## SECTIONS

Typical for building types A and B (see site plan)

## 4. MECHANICAL CORES

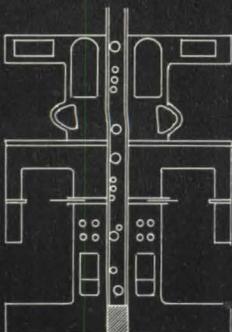


Partitions: spaced fifty-one feet on center.

Contain, besides major supports, all vertical runs of pipes, ducts, and conduits.

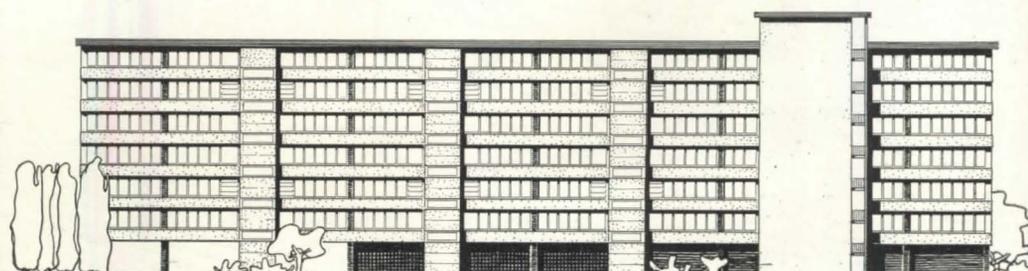
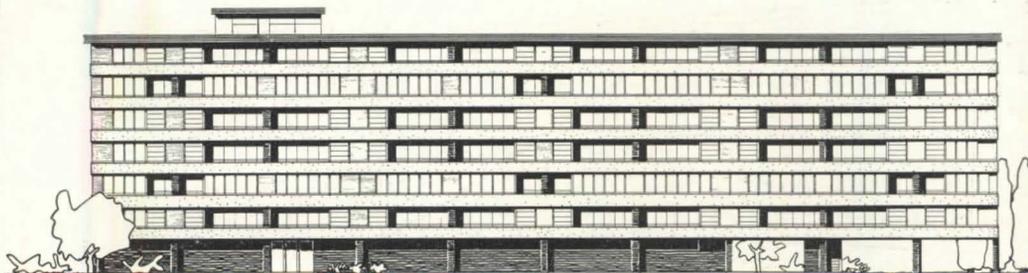
Kitchens and bathrooms adjoin core directly on both sides to facilitate making of connections and to eliminate any horizontal runs.

ventilating ducts  
for interior bathrooms  
hot water supply  
cold water supply  
soil pipes  
vent pipes  
waste pipes  
electrical conduits  
risers and returns  
for heating system  
gas pipes  
refuse disposal tiles



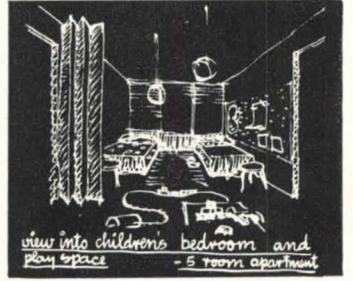
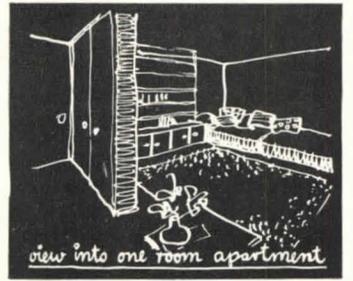
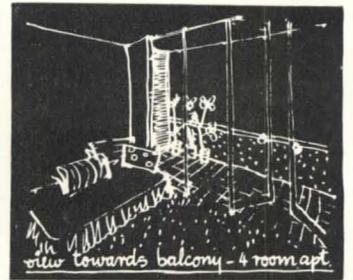
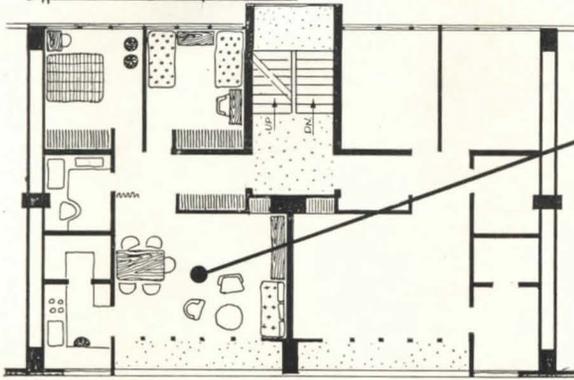
## ELEVATIONS

Typical for building type C - (see site plan)

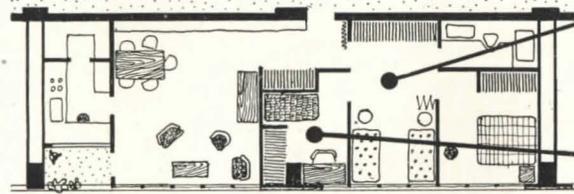
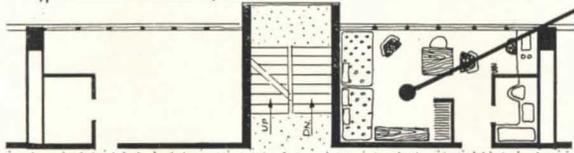


# UNIT PLANS

typical 4-room apartment



typical 1-room apartment



typical 5-room apartment

scale 0 5 10'



# CRITIQUE OF THE HOUSING STUDY

By LOUIS JUSTEMENT

Miss Meissner has developed intriguing unit plans that violate some of the customary standards; she suggests interesting possibilities without resorting to theatricality. She begins her study with the statement: "Two firms of architects were employed and therefore the area as a whole lacks continuity and harmony." If we accept this argument uncritically, it will be difficult to avoid the conclusion that a project twice as large as these combined projects should be designed by a single firm; indeed, that a project of four times the size would be even better, etc. Just where do we stop?

My own observations concerning some recent housing projects have led me to the opposite conclusion: The monotony of frequently repeated architectural features, and frequently repeated building types, is best cured by limiting the extent of a single architect's work to a reasonable area. How to combine the advantages of diversity for the individual buildings with the expression of an intelligent overall plan will become one of the more important functions of genuine city planning when we begin urban reconstruction on a rational basis.

The primary interest in the plot plan developed by Miss Meissner is not due to the fact that it provides a single related composition instead of two. Of more importance is the fact that the designer does not repeat one of the many variations of the cross or Z plan. The cross plan has been used so exclusively that it is a relief to find a multi-story apartment project based on simple strip units. The north-south orientation of the larger buildings would insure adequate sunlight and the large courts would present an attractive appearance. The length of two of the buildings seems excessive, however. A reasonable limit to the length of a building is established by practical as well as esthetic considerations: expansion joints would seem to be a needless source of trouble and expense in a project of this character.

The validity of this interesting plot plan is, however, conditioned on the validity of the strip unit plan on which it is based. Miss Meissner has, perhaps, displayed an excessive enthusiasm for a strip type of unit plan which, repeated endlessly, could be just as monotonous as the endlessly repeated cross-type building. Why should a project consist exclusively of one or the other?

Cross-ventilation is, of course, a desirable feature in apartment planning but its acceptance as a mandatory requirement is open to question. Miss Meissner's plan provides excellent cross-ventilation for two floors out of

every three; every third story contains a central corridor and on this floor cross-ventilation is, of course, impossible. This appears to me to be entirely acceptable; the concessions made on one-third of the floors is more than made up by the excellent features available on two-thirds of the floors. Where cross-ventilation is provided, moreover, it is genuine and not merely theoretical. The efficiency of the plan, measured on the basis of the usual criteria such as gross floor area per room, is not as great as that of some of the more conventional plans in current use. On the other hand, the plan might lend itself more readily to an advantageous use of prefabricated sub-assemblies and effect economies which would offset the additional cost of stairs, etc.

The plan would violate most building codes since, on the non-corridor floors, each apartment would have access to only one means of exit. By going either up or down one story, however, tenants would have access to the corridor floor where they would have the choice of a number of stairs. Assuming that hinged doors separated the stairs from the corridor, there would seem to be a degree of safety that would be at least comparable with that required by the average code.

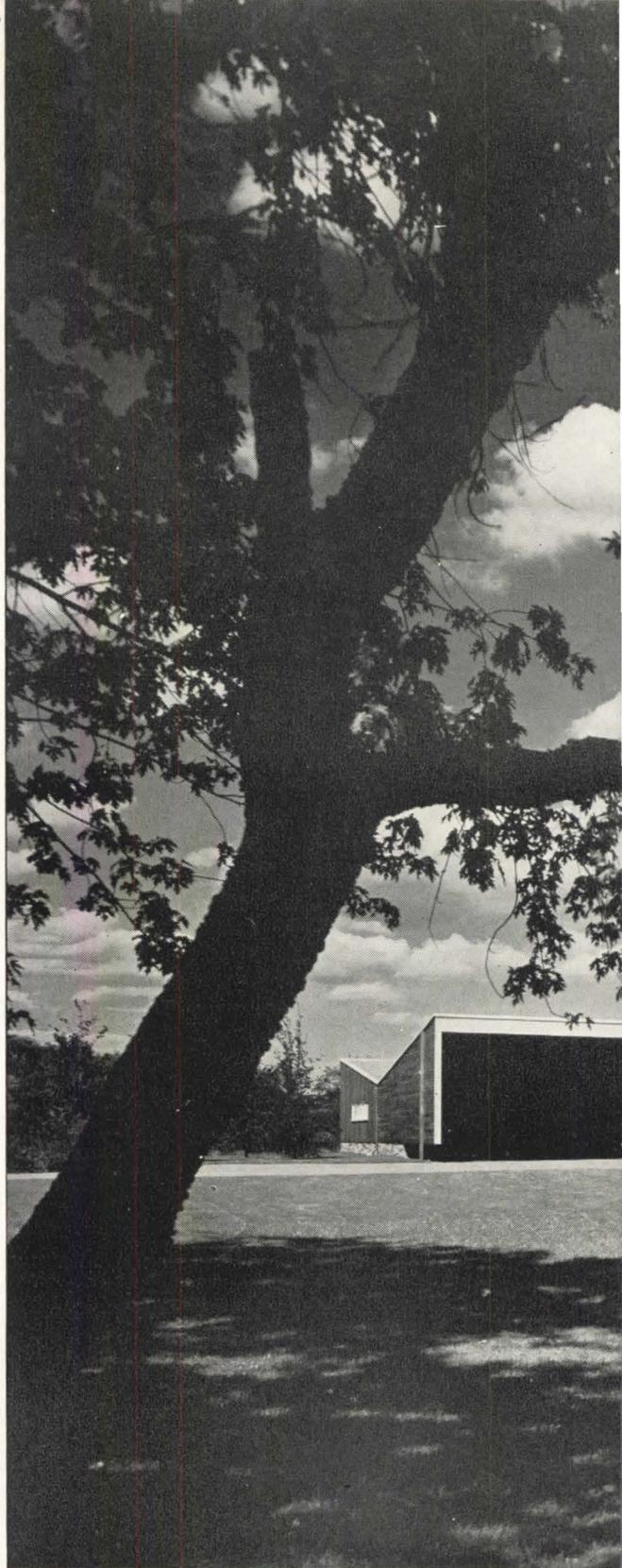
The sketches of the apartments in plan and interior perspective are very attractively presented. They indicate an unusual degree of thoughtfulness concerning the convenience of the living space, and also concerning its appearance. The bathroom appears wastefully large as compared with the bedrooms; most tenants would probably add the extra space to the principal bedroom. On the other hand, the liberal dimensions of the bathroom may make the small bedrooms quite acceptable to some tenants by facilitating the use of the bathroom as a dressing room. The provision of balconies may be questioned where floor space is at such a premium.

On the whole, Miss Meissner is to be complimented with respect both to the conception and the presentation of the project chosen as her thesis. Both the unit plans and the plot plans are a pleasing variation from the cross plan that has become almost standard for low rent multistory apartments. The cross plan seems to be more efficient from the point of view of cost: but is this the sole criterion, even in low cost housing? Should we not think also in terms of variety in types of living units and variety in types of project? Some standardization is required for economy but in many housing projects one is tempted to suspect that the standardization is based as much on economy in the architect's office as it is on economy in construction.

The importance of this house, over and above its vigorous challenge to comfortable convention in most phases of its design, is the extraordinary degree of integration that has been achieved—integration of all elements: plan, structure, finished design, even furnishings and landscaping. It is, indeed, that rare design accomplishment in the residential field—an organic sum of its elements rather than a framework to which modern conveniences are attached.

In basic plan organization, fresh research has led to a design expression so workable, and yet so unusual, that it merits study and appraisal. The theory here advanced is that the privacy and apartness that the usual second-story location of bedroom areas automatically produces is a desirable factor in a house plan. To achieve it in a one-floor scheme, the designer deliberately separates the entire bedroom-playroom wing from the daytime living areas of the house, connecting these two major spaces by means of a passageway which, since it falls in the center between the two halves, logically serves also as the entrance hall. Hence, the “bi-nuclear” plan scheme and—invariably—the two-part aspect of the finished design.

The family consists of a couple, with three very active young sons. Elements throughout the house reflect the fact that this is a house that children will use.



#### THE SITE

The lot, at the intersection of two busy roads, is practically flat. The shape and orientation of the house are such that advantage is taken of eastern breezes and privacy is obtained for main living areas. A free-standing, vertical-louvered fence shields the service yard from the living-room lawn. All landscape work was designed by the architect.

# THE



*Photos by EZRA STOLLER*

# GELLER HOUSE, LAWRENCE, LONG ISLAND

Designed by MARCEL BREUER, Architect

THE HOUSE PLAN

The unique character of this house is not the result of the architect's wish to do something novel. Rather, it is an effort to work out a rationalized scheme to provide a suitable home environment for this particular family. Remember, there are three healthy—therefore, active and noisy—young boys in the family. While they still require considerable care, they also need room to grow, and the parents wanted to give them their own space where they could do about as they pleased, yet have it sufficiently related to the rest of the house so that reasonable supervision could be maintained. A further wish was to arrange things so that the children would not be constantly under foot; adults could have a place free from the hubbub of the very young and (vice versa) the children would be remote from the distractions of grownups' parties. In addition, it was desired, so far as possible, to centralize things, avoid excessive footsteps, and, particularly, stair climbing. These basic criteria determined the plan parti.

The one-floor scheme eliminates stair climbing altogether. To separate the children's (and bedroom) area from the main living portion of the house, the device of the separate unit, joined to the main house by only the hallway and covered porch, was adopted. To minimize footsteps, this connecting link comes as close to the center of things as possible.

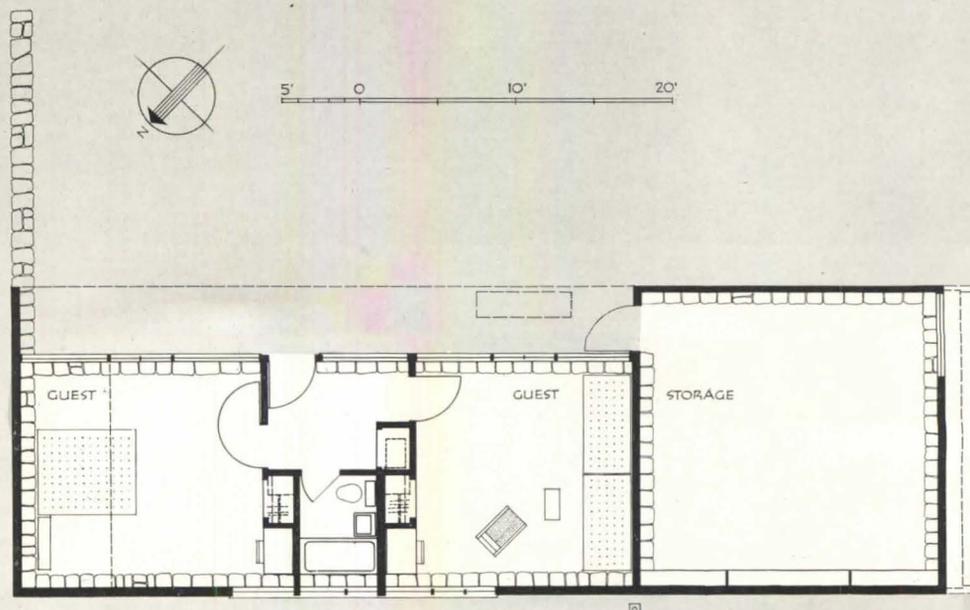
The nature of the corner lot site and the orientation further determined spacing and placement of elements. To give the living room as much privacy as possible, it is placed at the rear of the house, at the point furthest from both roadways, projected out in back in such a way as to capture a sweep of daylight ranging in the arc from northeast to southwest; yet, though this room has an extraordinary amount of glazing in its walls, its placement is such that at no point along the roadways or from adjoining property is there any sense of the goldfish-bowl

approach to life. The long sweep of the garage-storage room-guest house wing forms a complete screen for the private living-room lawn, and the necessary service yard, though out of sight from the roads, is also screened from the living-room lawn by a louvered wood fence.

The main living portion of the house is simply and functionally arranged in a long rectangle, the living and dining areas being subdivided by no more than a free-standing bookcase, and the kitchen, laundry, and maid's room following along in logical order. Kitchen and laundry windows toward the southwest give the person working in these rooms clear view of arriving visitors and of the children's front play area.

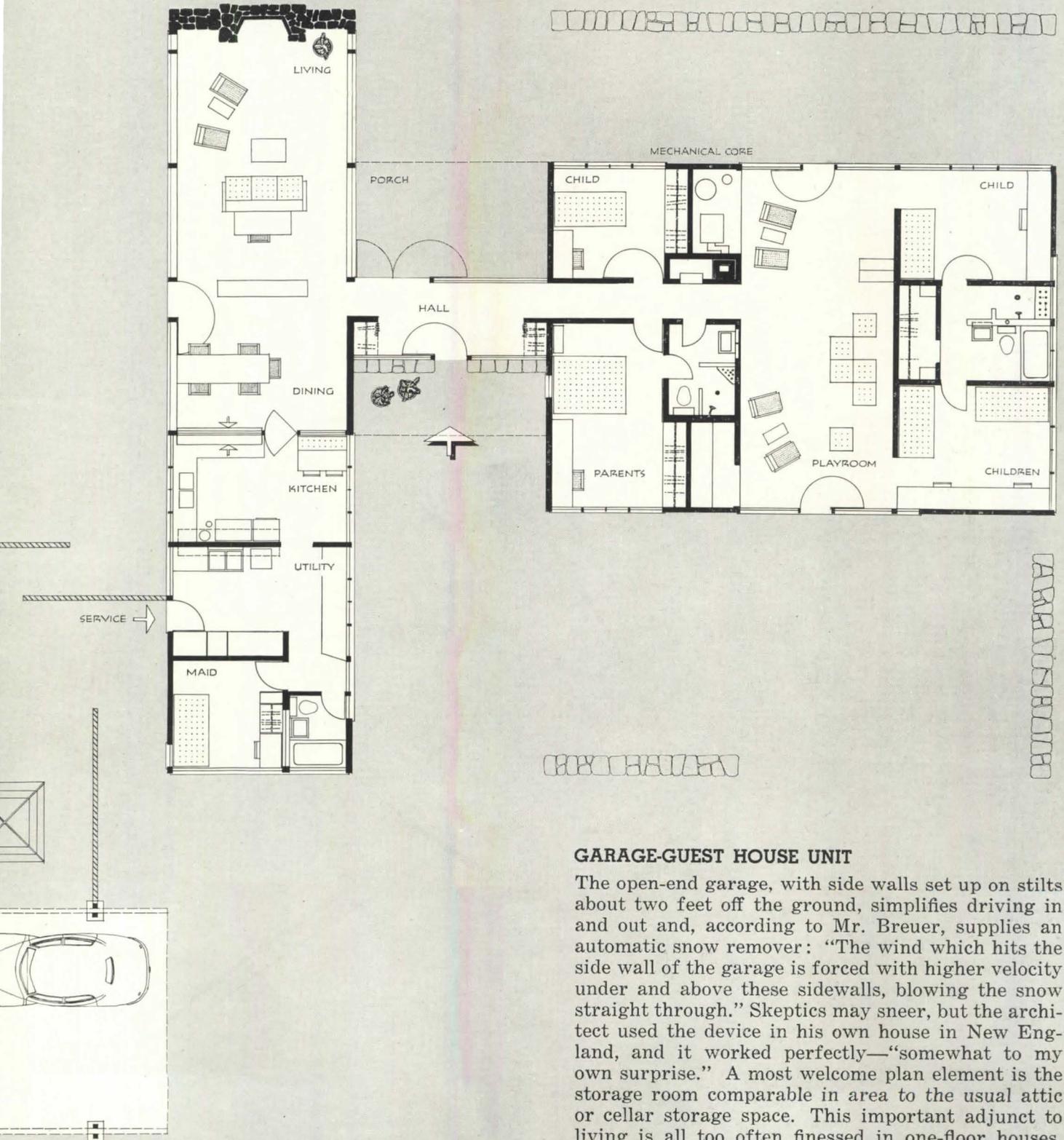
The functional division of the house plan is very directly expressed in elevation by the two equal roof slopes toward the center of the house. As will be seen when one comes to consideration of interior detail, this choice of slope arrangement allows for huge window areas in the living-dining room. This in-sloping system also simplifies roof drainage and produces a bold, esthetic design result. It is without doubt something of a tour de force and, especially as it works out in the bedroom wing and in the guest house area, an arbitrary form. The house would have functioned as well with some other roof shape over these areas. It must, then, be considered and assayed here purely as a design element which the architect elected to employ. Whether one likes it or not is a matter of individual judgment and opinion.

Perhaps the nicest compliment about the house comes from the Geller children, as reported by their mother: "The kids are quite at home here. They're really very happy here; they like the house, especially its freedom." The parents also like the house, though a good contemporary house is such a rarity in the



area where this one is built that it inevitably produces the problem of curious crowds. From our objective, editorial viewpoint, this is all to the good; for if persons will take the trouble to learn how a house such as this one came into being and understand the implications of contemporary use of contemporary materials and techniques to produce appropriate design for today, the entire level of residential architecture may be raised.

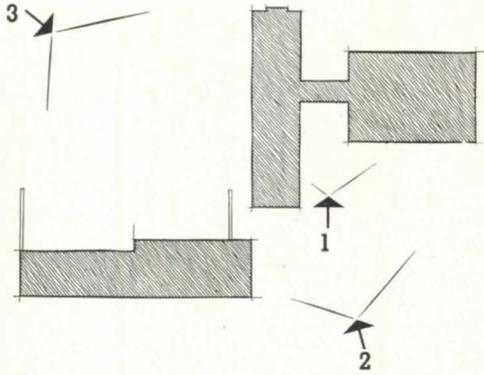
There is much to be learned from this house design as the solution of a particular problem. Let us hope, though, that the copyists will not now get busy. This is the Gellers' home. That another family's needs would exactly duplicate theirs, or that another site would be disposed and oriented precisely like this one, seems unlikely. It is the method of solution, rather than the specific answer, that might well be imitated.



#### GARAGE-GUEST HOUSE UNIT

The open-end garage, with side walls set up on stilts about two feet off the ground, simplifies driving in and out and, according to Mr. Breuer, supplies an automatic snow remover: "The wind which hits the side wall of the garage is forced with higher velocity under and above these sidewalls, blowing the snow straight through." Skeptics may sneer, but the architect used the device in his own house in New England, and it worked perfectly—"somewhat to my own surprise." A most welcome plan element is the storage room comparable in area to the usual attic or cellar storage space. This important adjunct to living is all too often finessed in one-floor houses.





2 . . . Landscape materials were chosen and their placement determined to produce a natural effect, with minimum maintenance.

## THE GELLER HOUSE

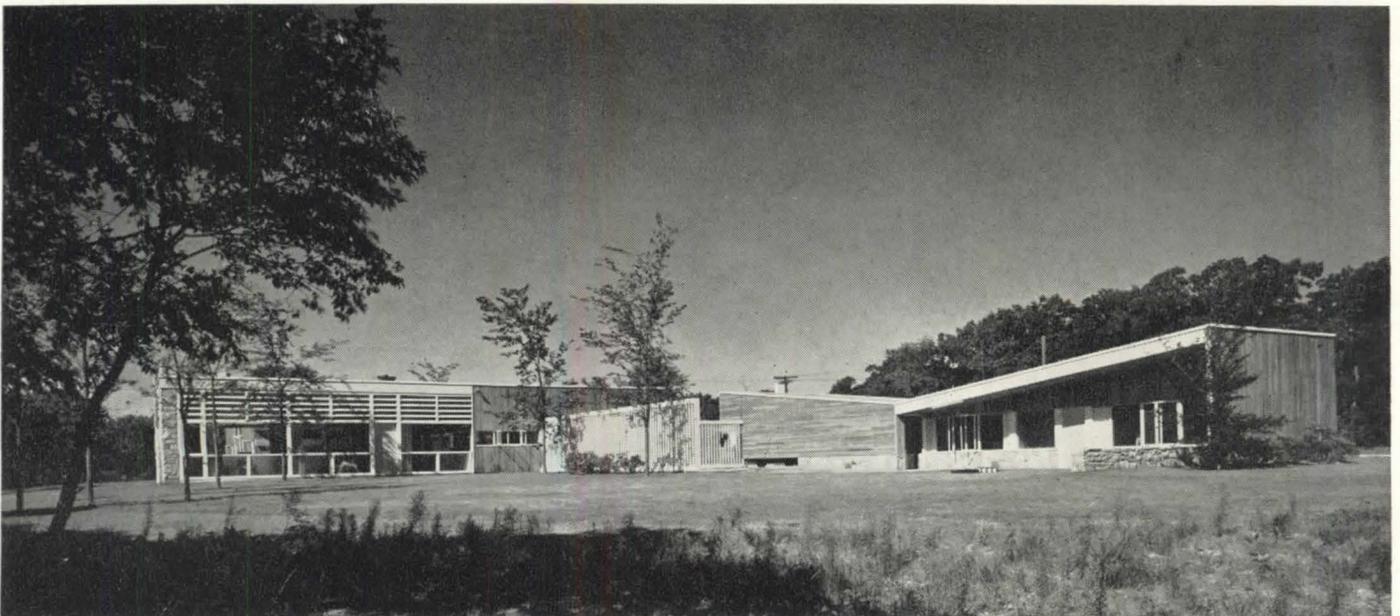
Designed by MARCEL BREUER, Architect

Some critics have said that the Geller house lacks what they term "domestic quality," that it does not seem "homelike." This surely does not derive from the materials used; the oiled cedar walls and white trim are familiar enough in house design. Nor can it be said that the plan elements are unconventional, with the possible exception of the large playroom. It might be argued that the composition is somewhat restless, rather than a compact "cosy" unit. But isn't it specious to criticize a design for not being something it was not intended to be? True, this house doesn't look like most houses. But must all houses look alike? It may be, in part, that in a house of this size one traditionally finds a certain massiveness and imposing quality; the Gellers, however, are young and like things open, light, and honest. There remains the tedious contention that the house does not conform to the established pattern of the com-

munity. What pattern? Like most American neighborhoods, this one has several of everything the architectural fraternity knows how to devise. There is a certain common denominator, however—that of comparative elegance and sophistication. On this score, the Geller house would seem to beat the community at its own game.

Domestic quality? A house is a house is a house.

Landscaping is still at too early a stage to do thoroughly its planned job of screening areas and wedding the house to the site. The architect believes that landscaping materials should be kept as homogeneous as possible—groups of single things, rather than a conglomeration. In this case, maintenance was kept to a minimum, and flowering shrubs were used in place of flower beds to provide summertime coloring.



3 . . . Copper beeches were used for low-spreading foliage, elm trees for shade. Living-room wing at left; guest house at right.



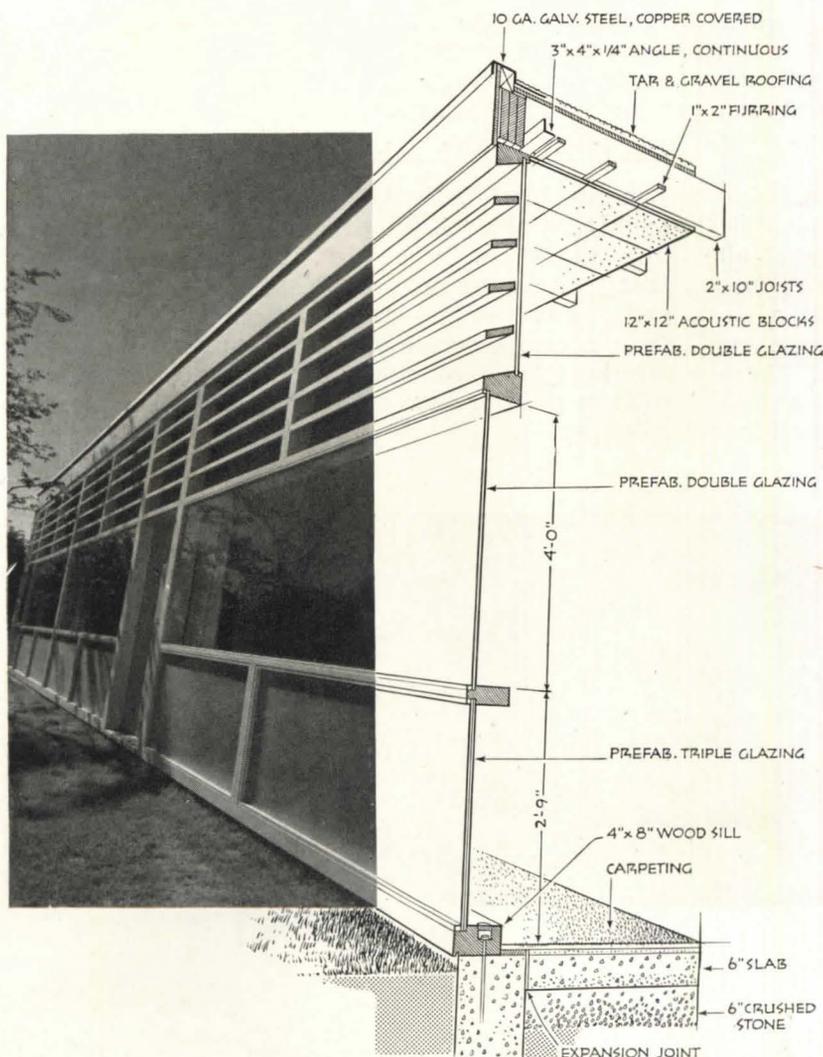
4 . . . Hall, looking through to living room; sheltered porch, at right. Splatter-dash treatment of the wood doors considers children's hands.

## THE GELLER HOUSE

The entrance to the Geller house is the crossroads of the house to an exceptional degree. Straight ahead is the covered porch; to the left is the main living area; to the right is the bedroom and children's wing. This hallway is a baffle between competing activities; it is also a noise filter.

The notable integration of the house design is apparent on these pages. In addition to obvious things, such as structure expressed in the finished design and the interrelation of interior spaces, visually emphasized by glass walls and the continuous ceiling slope, lighting is built in throughout; heating is integral with the floor-slab construction; and acoustic properties are inherent in the ceiling finish.

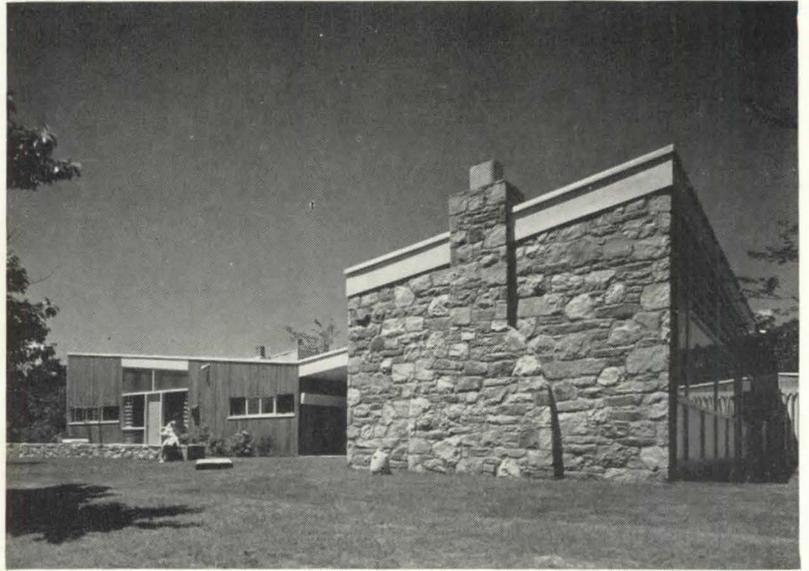
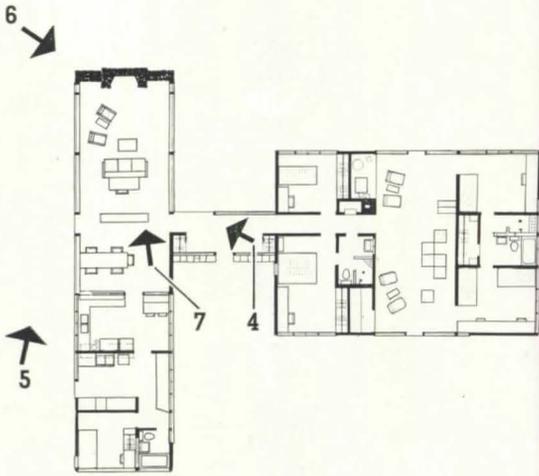
7 . . . Within the house, effects are



5 . . . The living-room section combines structure, light source, acoustic conditioning and finished design. In some cases, the prefabricated, multilayer glazing was not available when the house was built. Translucent strips at top (plus the louvers) and at bottom counteract sky and snow glare, reduce window cleaning, and provide privacy.



Designed by MARCEL BREUER, Architect



6 . . . The conscious rudeness of the stone chimney wall is a foil to the clean, mechanical lines of the rest of the house. The shape seems insistently primitive, and the quality of the masonry is not up to the excellence of that used elsewhere in the house.

achieved by contrast of textures—stone, glass, the porous roughness of the ceiling tile, the softness of carpeting.

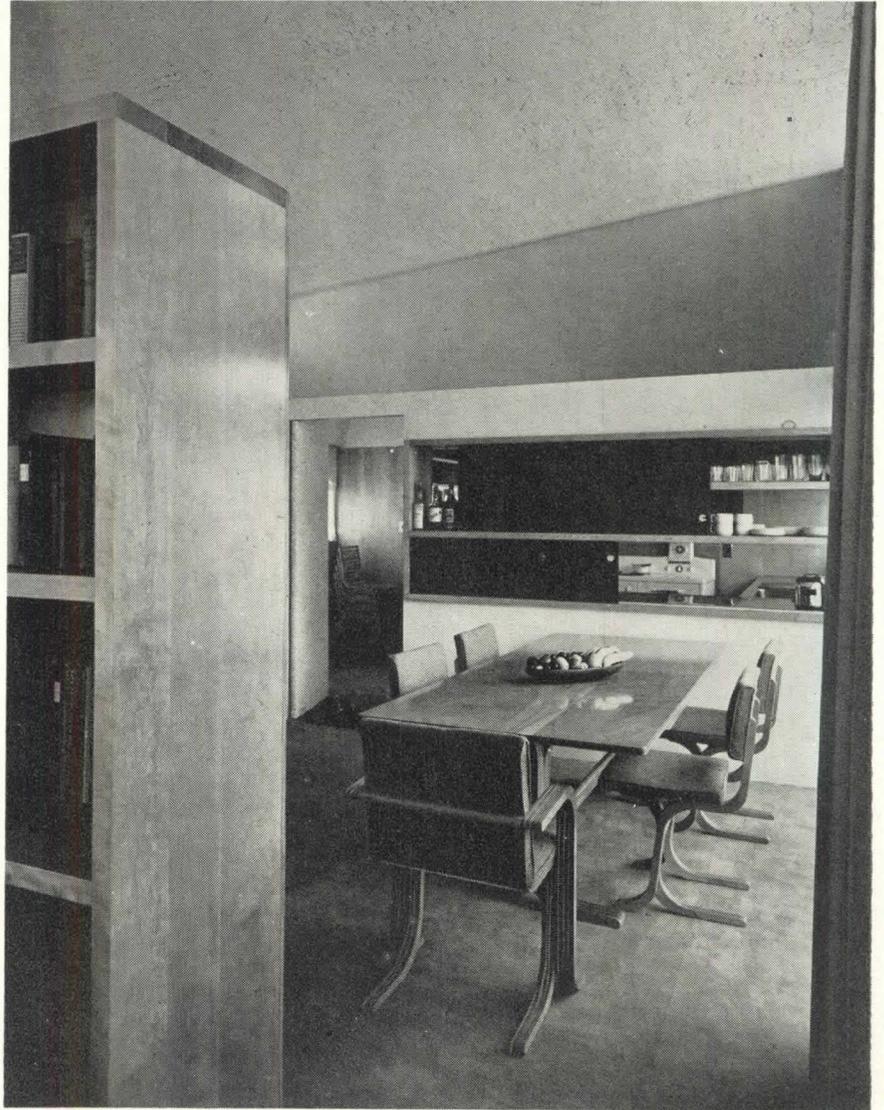
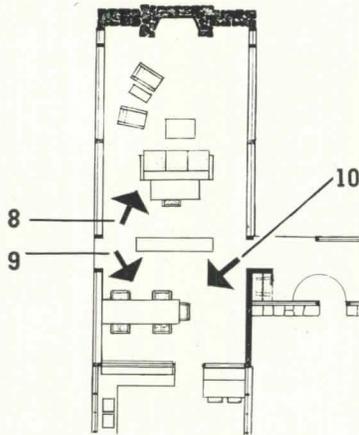




8 . . . A fluorescent light trough in the ceiling in front of the fireplace reflects soft light from the brown and gray tones of the stone chimney wall. Gray carpet; chairs upholstered in a darker gray flannel-tweed. Draperies, natural-tone silk; the sofa, beige.



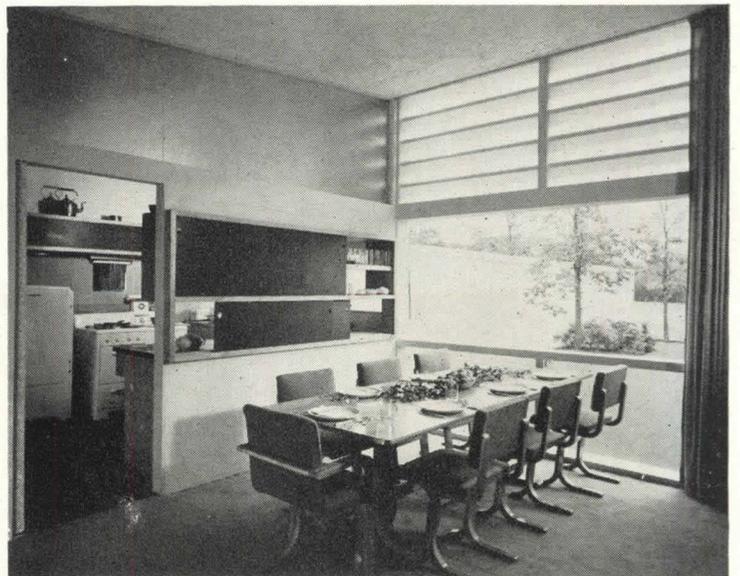
9 . . . At the top of the bookcase partition is another light trough for indirect light from the ceiling. The dining space may be arranged in two ways. Above, the table at right angles to the kitchen wall allows direct serving through the storage wall.



## THE GELLER HOUSE

Designed by MARCEL BREUER, Architect

The living-dining room is a single, subdivided space approximately 16' x 36' in area. A free-standing bookcase, set up on masonry piers, is the dividing element. Northeast and southwest walls of the room are mainly of glass (detailed on the preceding spread), and the southeast fireplace wall is of solid masonry. The roof slope, continuing beyond the lower wall, actually makes the sheltered, screened porch the visual enclosure of the room on this side.



10 . . . For formal dining, the table is placed against the window wall. Furniture supports are sawn from thick plywood perpendicular to the laminations.

## THE GELLER HOUSE

Designed by MARCEL BREUER, Architect



11 . . . Kitchen. Stone floor, plywood walls; sliding cupboard doors, hard fiberboard.



12 . . . Structural glass surfaces the wall in back of the laundry equipment.

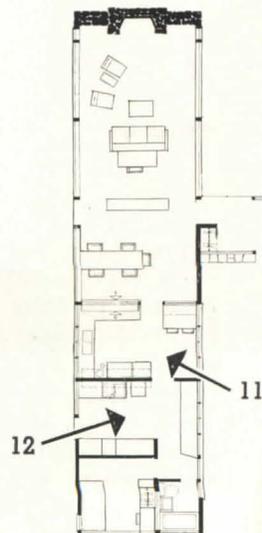


CHAIRS have plywood frames, sawn from thick plywood perpendicular to the laminations. The type shown here is non-resilient and can be nested in storage.

### SERVICE FACILITIES

In the kitchen and laundry, in contrast to the full glass walls of the main living rooms which extend the interior space to the out-of-doors, two-foot-high glass strips are used at a sill level of 3' 6" from the floor. These leave excellent wall space for essential, built-in equipment and allow a full horizontal view.

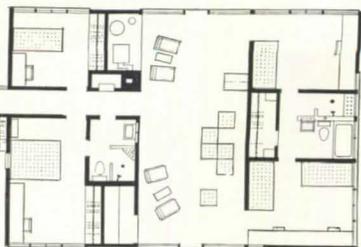
In this area of the house (as in the front hall and children's playroom) floors are stone surfaced. Cabinet-work is set up on a stone base, so that mopping is easily done. Throughout the house, heating is from coils embedded in the floor construction. These coils are grouped in four zones, each controlled by a separate thermostat, so that the heating adjusts itself in relation to sun and wind conditions in the various areas of the house. Mr. Breuer further points out that the system eliminates dusty recesses and exposed piping, in addition to its well known effect of eliminating air circulation that discolors walls and ceilings. The heat source is a gas-fired boiler located in the mechanical closet off the playroom.





13 . . . From the big living-room windows, the children's playground is in full view.

← 13



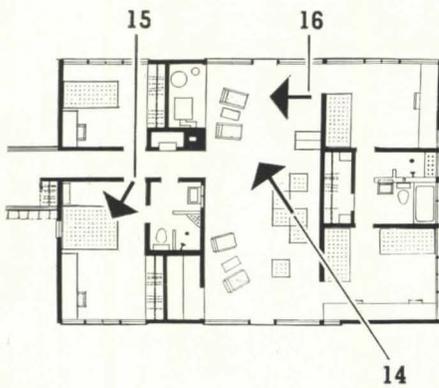
#### BEDROOM WING

The plan of the bedroom wing is very simply schemed, with a central playroom, running from wall to wall (the end walls mostly of glass), surrounded by sleeping rooms. Of wood frame, like the other non-masonry areas, the walls are finished with vertical, oiled cedar siding, with trim painted white. Since doors open out from the playroom at either end, there are defined play areas outdoors at these points; one of the most successful of the landscaping elements is the low, free-standing masonry wall which serves equally as a seat or a play table. Color is very sparingly used throughout the house, though in this bedroom wing certain of the large doors within the house are painted plain, bright colors. In the playroom, there are three floor-to-ceiling doors, and these are painted tomato red, clear yellow, and bright blue. At the windows of this room, the curtaining is of blue and white striped cotton material.



14 . . . The walls are finished with waxed, natural birch plywood. Double doors to mechanical closet (one red, the other yellow) at left.

15 . . . The master bedroom. Note the wall-applied light fixture (similar to those used elsewhere in the house) that is open both top and bottom. →

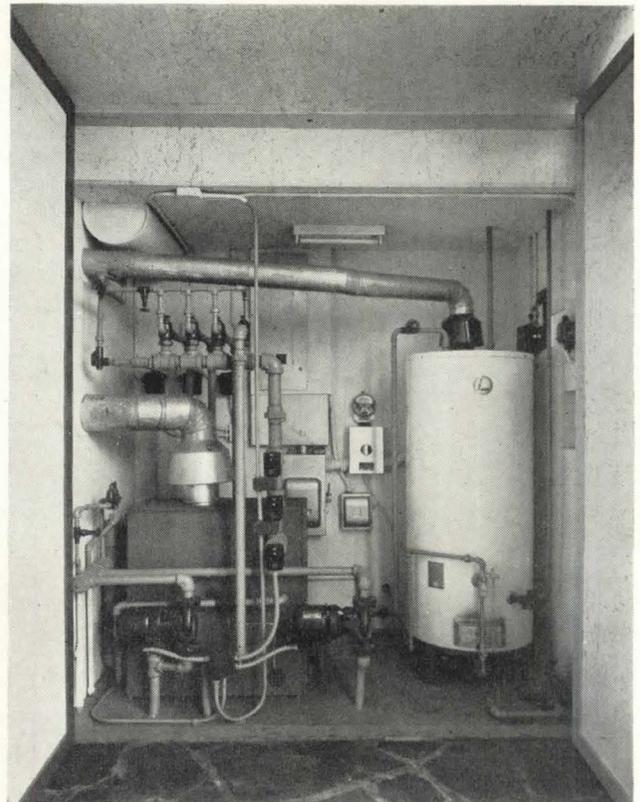


## THE GELLER HOUSE

Designed by MARCEL BREUER, Architect

The playroom is the largest room in the entire house. The stone floor is not only cool in summer and (because of the radiant heating system) warm in winter, but it is designed to take the punishment it will get from tricycles, muddy feet, roller skates, and such. Ease of maintenance is another factor, in that this floor may be quickly swept with a push-broom, never needs replacement, and doesn't require waxing.

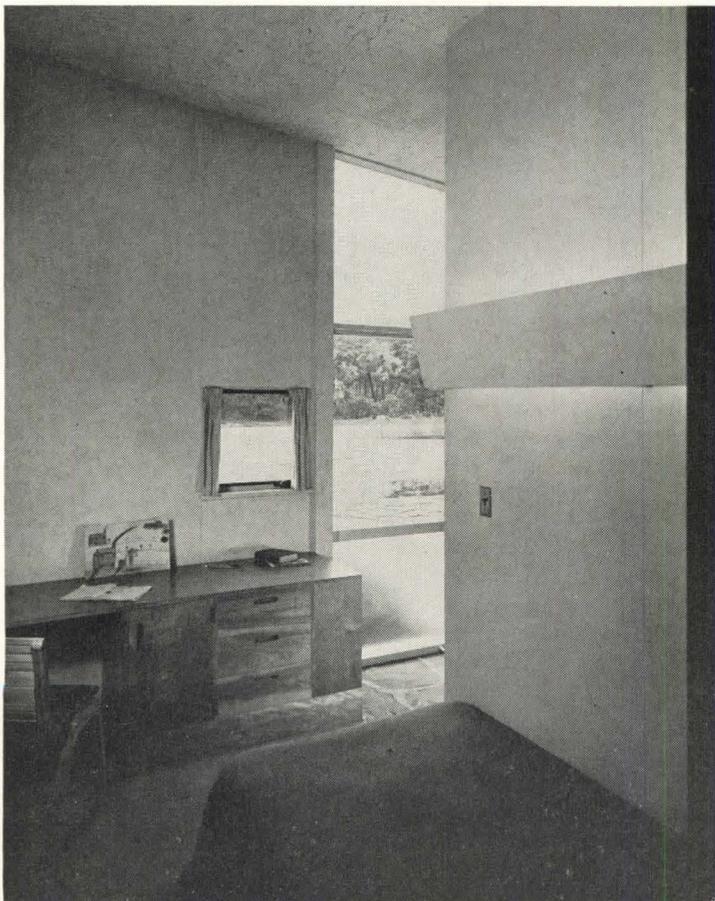
Lighting is indirect, deriving from wall-applied horizontal plywood-strip fixtures that conceal fluorescent lamps. The architect points out that the light that is thrown both upward and downward, with reflection from ceiling and walls, creates a pleasing, flattering, from-the-side illumination. Since the fixtures are open at the bottom as well as the top, there is no trough for the collection of dust and insects.



16 . . . In this closet off the playroom are: gas unit and boiler, controls, expansion tank; water heater and meter; gas meter; electric meter; main switch; and telephone main.



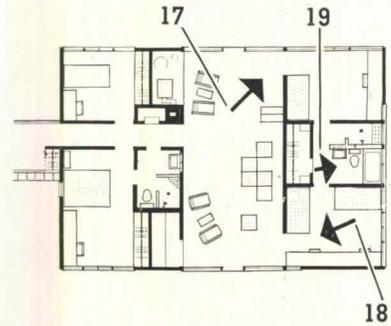
17 . . . Playroom, looking toward the rear, corner bedroom.



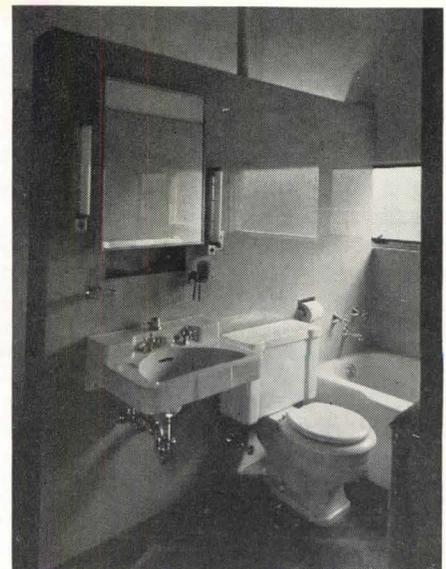
18 . . . Typical children's room, with built-in desk and casework at left.

## THE GELLER HOUSE

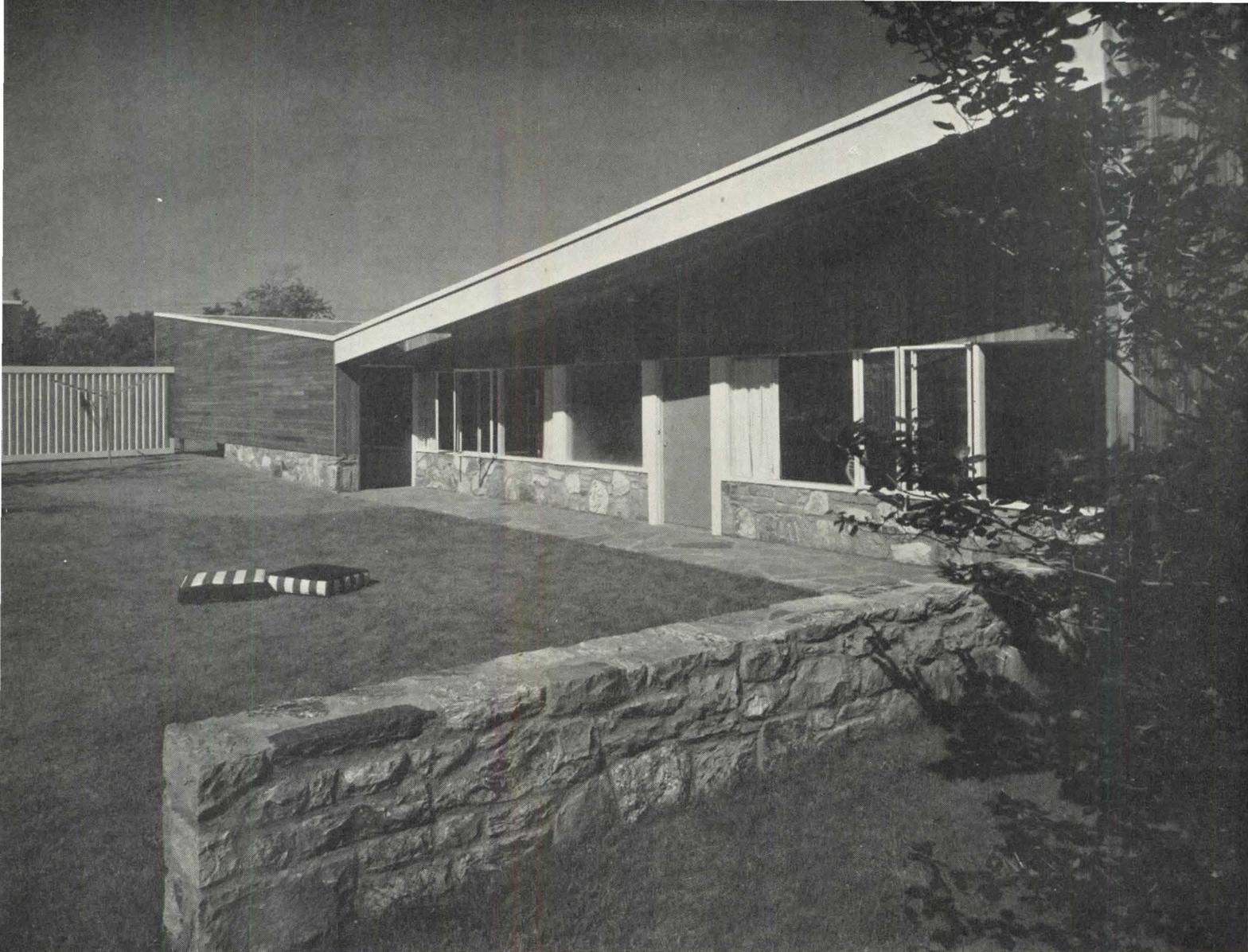
Designed by MARCEL BREUER, Architect



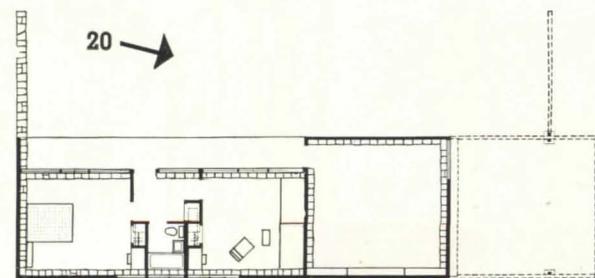
The two children's bedrooms and bath are separated from the playroom by a wood screen wall, with openings at either end. Each room has a built-in work desk and storage cabinets. Above the beds are microphones that communicate with the maid's room in the service wing. For the glass end walls of the playroom, the architect specified vacuum-sealed, double glass, both for elimination of heat loss and cold drafts and to withstand bumps from tricycles, poorly aimed baseballs, etc.



19 . . . Bathroom walls: gray structural glass.

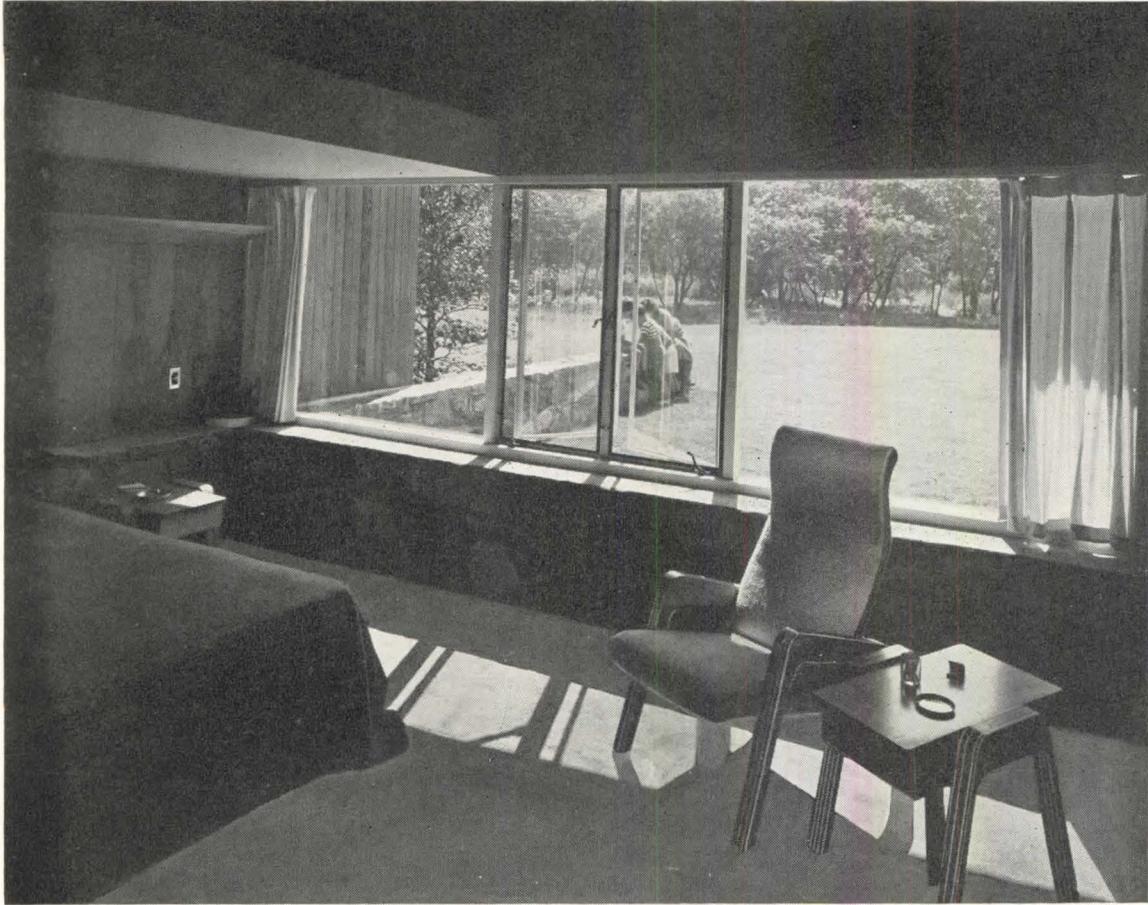


20 . . . Low walls define a private lawn area for the guest house.



### GUEST HOUSE

The garage, storage room, and guest quarters constitute an entirely separate unit which, in design, follows closely the general scheme for the main house. The large storage room is ventilated through a wall grille in the rear wall of the garage. The two guest rooms and bath are simply organized under one of the up-sweep roofs, with southern windows lining the garden front. The stone base up to window-sill height forms a sitting ledge around the rooms within the house. The garden walls continue this stone pattern outdoors. The set-back location of the guest house in relation to the main house provides an unusual degree of privacy. It is questionable, however, whether this extraordinary privacy may not have been achieved at the expense of good circulation. Guests must reach their quarters by an unprotected and rather circuitous route from the main house.



21 . . . The stone base forms a sitting ledge. A storage shelf is built in above head height at the tall end of the room.

**THE GELLER HOUSE**

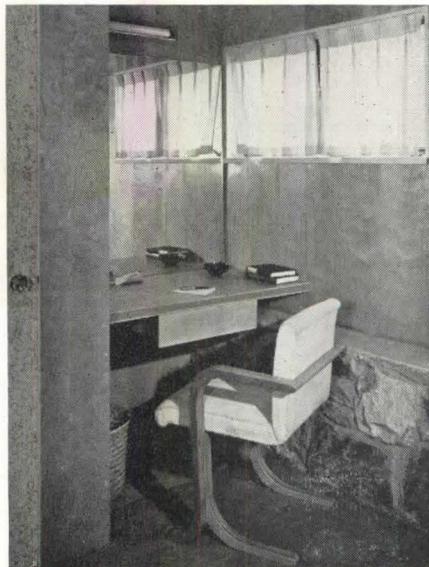
Designed by MARCEL BREUER, Architect

Like the movable furniture used throughout the house, the chairs and tables of the guest house are of the cut-out plywood frame type. In straight chairs, the front

legs are set back for easier use next to tables. As Mr. Breuer puts it: "You don't have to fight with the leg as you get up from the table."



22 . . . The easy chair, with plywood frame, is equipped with a head support. Most upholstery is of tweed or other suiting material.



# ARCHITECTURE & URBANISM

By Le CORBUSIER

In all parts of the world modern architecture rises to the assault and annihilates existing barriers. To discredit its forward march, it has been labeled "international;" backward academies call upon traditions to save themselves and mobilize the fortresses of tradition—gold, customs, routine, and inertia—to sustain them. Well, in reality, traditions are the opposite of what they were made to appear; traditions are an uninterrupted chain of inventions accomplished over the centuries, each link making for creation, innovation, and progress.

If modern architecture is international today, it is so because it is *universal* and responds quite simply to the needs, to the means, and to the aspirations of a mechanical civilization.

After the first one hundred years of all kinds of mechanical conquests which cover the earth, our aspirations for harmony are made possible by new magnificent media.

Ugliness, atrocious disorder were the price exacted for this first and formidable impact of mechanism. The art of the engineer really goes back only about one hundred years. Science knows no limit or frontier, nor do mathematical formulae, axioms, or machines. Large and small technical schools opened everywhere. An heroic page in the chapter of inventions was inaugurated by the white race. The engineers dispersed throughout the world,

spreading their science and enterprise; they were Latins and Anglo-Saxons, Teutons and Slavs. They came from the north and from the south; they came to the tropics and to moderate and northern regions, never feeling the need to adapt themselves—there was never time for that! They brought new products and created without regard to ugliness or beauty.

Little by little architecture began to concern itself with the work of the engineers, assisted by builders. To well balanced programs they answered with appropriate techniques. From this time on, the difference between the engineer and the architect began to disappear despite the fact that they were working on the same front from different strategic angles. The whole stock of "academic decors" had no more to furnish than residues of past civilizations to serve for the last time as "ornament" to a century which was rapidly stepping ahead of its own future.

Architecture became the creator of organisms conceived and built from "*the inside to the outside.*" Architecture naturally had to take in its surroundings. Modern urbanism appeared as social ordainer and coordinator "par excellence." Architecture and urbanism revealed themselves as inseparable, being as two faces of the same phenomenon. Modern urbanism brought into play *compositions of building masses* and their relationship to space, thus resulting in no longer a two- but a new three-dimensional science.



CIDADE DOS MOTORES

Architecture and urbanism became one; to disassociate them would be crime or folly.

Together, they foresee social and economic developments; they determine the use of the soil (geography and topography) and consider climate; they fulfill the aspirations of our present worlds.

In 1928 technicians from many lands gathered at the Chateau de la Sarraz in Switzerland to take up the fight against the dishonesty and evil spirit with which the routine academicians meant to plan the Palace of the League of Nations. The C.I.A.M. (Congrès Internationaux d'Architecture Moderne) was founded. And now, in 1947, the same C.I.A.M. acts as a magnetic pole to all young professionals the world over.

Before the war, C.I.A.M. had penetrated strongholds in Europe. Today in the Americas, it is on its way to imminent victories.

In 1929, at Buenos Aires, at Montevideo, at Sao Paulo, and at Rio de Janeiro, I explained the doctrine of the "Ville Radieuse." In 1936 I was called to Brasil to design the plans for the University City of Brasil, together with an enthusiastic group headed by Lucio Costa. With the same group we went over the plans of the Ministry of National Education and Public Health. I had said at that time, "Use for your construction the magnificent local granite which colors the grandiose panorama of Rio. Combine it with the blue and white majolica which suits the architectural folklore of your mother-town, Lisbon." This was done. Rio began the construction of the "sun-baffle" which facilitates efficient work in modern offices in a tropical climate. The "sun-baffle?" It is a new architectural resource.

The four fundamental functions recognized by the C.I.A.M., *living, working, cultivation of the body and mind, and circulation*, have henceforth found the precise building organs to embody them.

## CIDADE DOS MOTORES—A CRITICISM

The work of Paul Lester Wiener and José Luis Sert, a planning and architectural work, admirable from all points of view, bears testimony to these tenets. I have examined these plans with deep joy and I have studied them with extreme pleasure. It is a work well done; landscape, climate, geography, topography, science of the engineer and of the architect combined result here in a harmonious and precise whole, inspiring confidence. Mastership radiates from these plans. It is stimulating to see these liberating principles of a sound doctrine being applied (especially when one had some part in its genesis). One finds that this doctrine does not act as a restraint but, on the contrary, furnishes a tool to bring about order. Here unity rules. Unity is achieved when man is master. Cidade dos Motores is a work well done. Years of research have been devoted to it. The functions are clearly defined. Here is planning in three dimensions, where geometry has supplied a wealth of combinations. Here spirit is satisfied. If we study in detail the plans and sections, if we virtually walk in this city, and if we try to live there as its inhabitants will soon do, we will note that a man's heart has been listening to other men's hearts so as to bring them the sensitivity of architecture. Boys and girls, men and women will feel the results of this composition conducted in such a fraternal way.

I am actually devoting my time to the same aims in France. I am reconstructing La Rochelle-Pallice; and in Marseille, my minister, showing courage and throwing aside all obstacles, has entrusted me to carry out (for the first time in history) what I had dreamed of for thirty years: "A Residential Unit of Suitable Scale." It is the "Vertical Garden City" replacing the "Horizontal Garden City" which is symbolic of the constraints that crush the modern world. We are, therefore, building at this time in Marseille this modern "unit of habitation" which by virtue of its size and organization permits the organization of "community services" (in the interior of the building) and makes for the "extension of the residence" at the outside.

Cidade dos Motores will extend its benefits to a considerable number of people. On the same principles, Warsaw is preparing reconstruction plans on an astonishing scale. If the planning of the headquarters of the United Nations, situated nearby New York\*, does not fall into the hands of speculators or incompetents, this pattern of a model city and of a modern way of living will serve as an example to the entire world.

The whole world longs to get out of the mess of our present declining society.

When a new type of architecture appears, then it is a sign that things are changing.

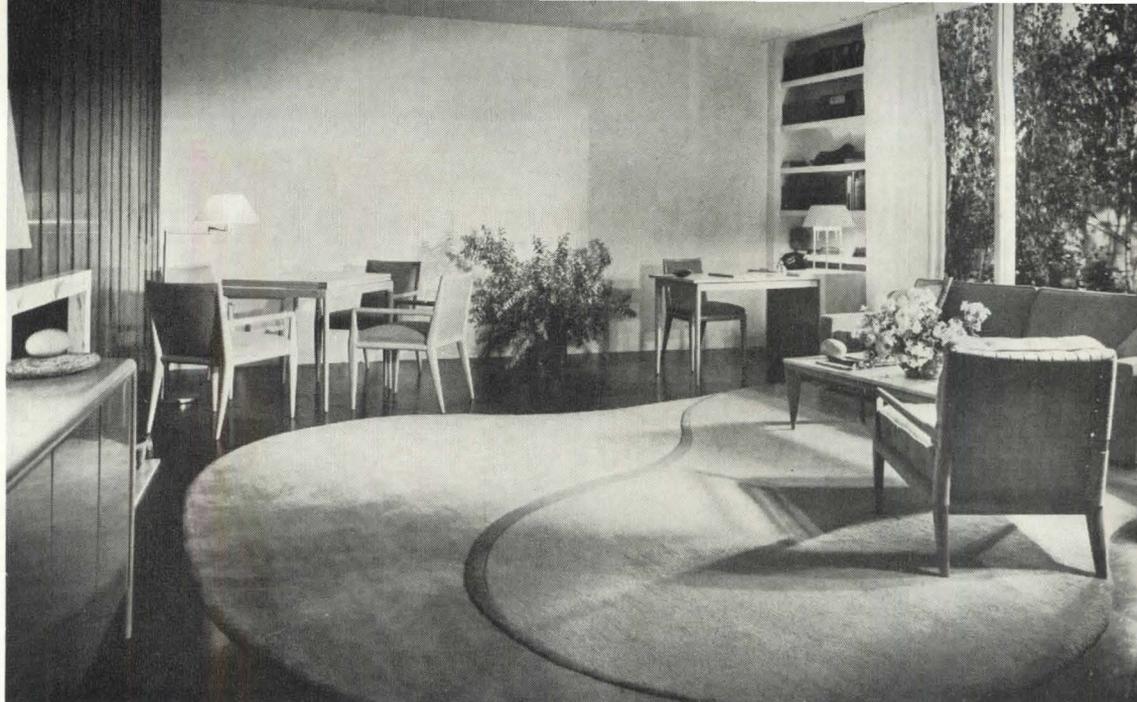
To lead things to good ends, responsibility rests in the hands of those entrusted with the mandate and authority to determine the program and to choose the builders.

\* Editor's Note: This was written before U.N. acceptance of the East River site in New York and the appointment of Wallace K. Harrison as "Director of Planning of the U.N. Permanent Headquarters."

Photo of this chair  
by William F. How-  
land, all others by  
Maynard Parker



**LIVING ROOM.** The fireplace wall is of walnut planking. All furniture is bleached oak, with bridge chairs covered in poinsettia red, this same color being used on settee pillows. Settee and chair are in gray woven fabric; settee table has a wood frame and marble top. The rug was designed by V'Soske. The bridge chair is framed in bleached oak. Upholstery is a smooth-weave material in a bright color.



## NEW FURNITURE

Designed by T. H. ROBSJOHN-GIBBINGS

Progressive designers always welcome good, new contemporary furniture. For whatever excellence existing furniture for today may have, there is only a limited choice. Doubly welcome is a line of furniture from a designer who, in his "Good-bye, Mr. Chippendale," did so much to place the whole question of proper furniture in accurate perspective.

"I do not believe that you have to design *down* for mass produced furniture," comments Mr. Robsjohn-Gibbings. "Nor do I think that you have to visualize the future American home in terms of a sort of slick, bargain priced machine for living." Hence, these pieces of fine craftsmanship, simple in line, but not stamped out with a die.

The rooms shown in the photographs are in the Grand Rapids showrooms of the Widdicomb Furniture Co., the firm that will manufacture the furniture.

The hope is that delivery will start in the summer and fall of 1947. Distribution will be handled through a selected list of stores which will have exclusive representation in their areas. At the time of going to press, no prices on the furniture were available.



**BEDROOM.** All furniture is cherry; bedspreads are bright yellow hand-woven material; carpet is gray and walls are white. The ceiling is yellow. One chair is covered in yellow, the other chartreuse.



**DRESSING TABLE.** Built of cherry, this unit has shallow louver-front drawers and cupboard doors with quarter-circular shelves attached to the inside.



**DINING ROOM.** Fireplace wall, white-washed brick; end wall, green. Chairs, table, and buffet are walnut, with chairs covered with green leather.

## HOUSING UNITS for PARAPLEGIC VETERANS

Designed by a COMMITTEE of the NEW YORK CHAPTER, A.I.A.

ROBERT M. CARRERE (Chairman), ALBERT G. CLAY

WILLIAM JENSEN, WILLIAM POTTER

HAROLD SLEEPER, HARVEY STEVENSON

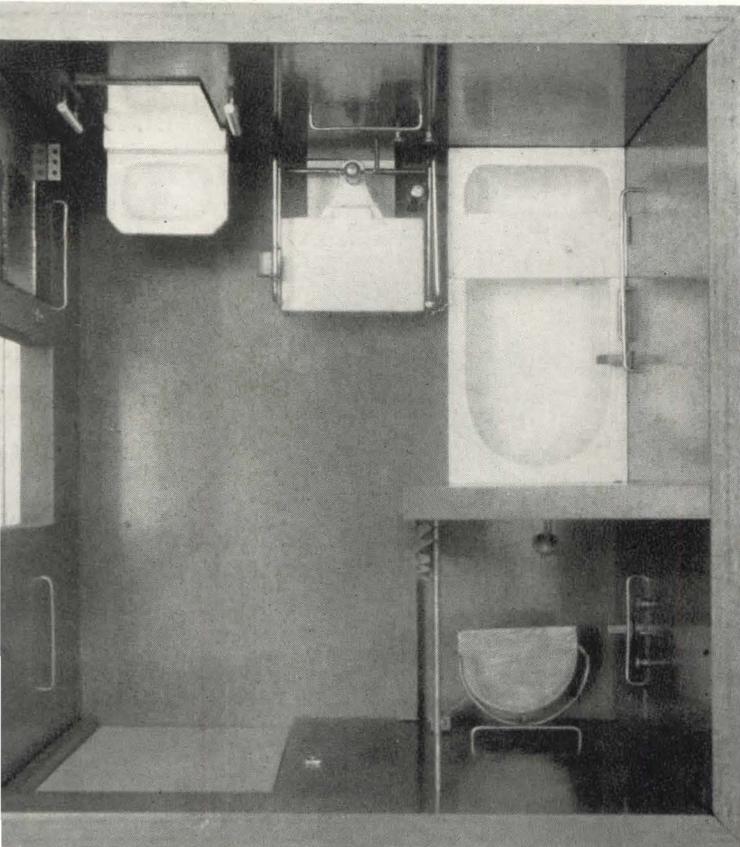
In cooperation with the Hospital and Recreation Corps of the New York Chapter, American Red Cross, a committee of the New York Chapter, American Institute of Architects, has been developing housing units for paraplegic veterans (those confined to wheelchair living). The project started in October 1946 at Halloran Hospital, Staten Island, N. Y., where the members of the committee have since worked in relays of two at a time, two evenings a week, with the continuous counsel and help of the Housing Committee, Paralyzed Veterans Association at Halloran.

In order not to design a "stock" house—which obviously would not suit all conditions equally well—the committee concentrated on the design of units, including bathroom, bedroom, workroom, garage, hallway, and front entrance, of which three are shown on these pages. A full-sized demonstration incorporating the units is planned. If changes become necessary, on medical advice or after further architectural research, the designs will be modified.

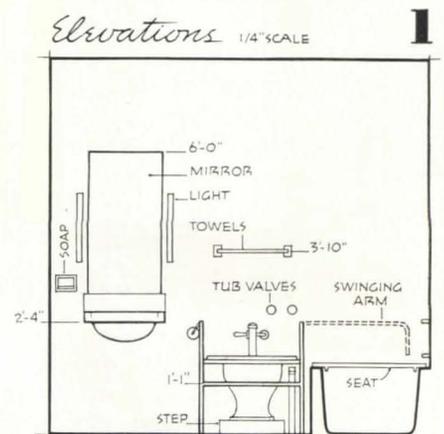
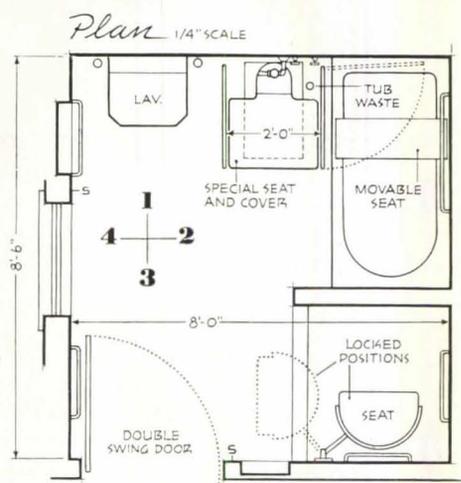
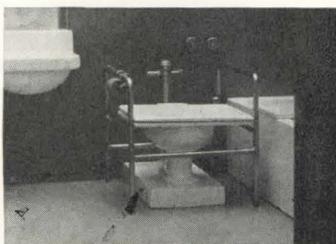
**Units not illustrated:** Garage requires a platform 3'-6" wide, raised 4" above normal floor, beside the car position to bring chair seat up to height of car seat. In halls, minimum width is 3' 6" and exterior angles at corners are either rounded to a 1' 0" radius or similarly cut diagonally, to facilitate wheelchair movement. Doors are all 3' 0" wide, double-acting, with saddles eliminated where possible, kick plates on both sides and knobs 2' 10" high; if single-swing doors must be used, they have a special door pull set 11" from the hinge side at same height as knob. At exterior doors, platform space 6' 0" long and a roofed space projecting 3' 6" are desirable; steps are eliminated and a ramp, pitched at less than 10%, is substituted.

Demand for the plans has been great even though the project has received little publicity. Although the details are admittedly preliminary, many requests have already been honored. Blueprints may be obtained free of charge from Standard Units, Homes for Paraplegics, New York Chapter, American Institute of Architects, 115 E. 40th St., New York, N. Y.; and also from Hospital and Recreation Corps, New York Chapter, American Red Cross, 315 Lexington Ave., New York, N. Y.

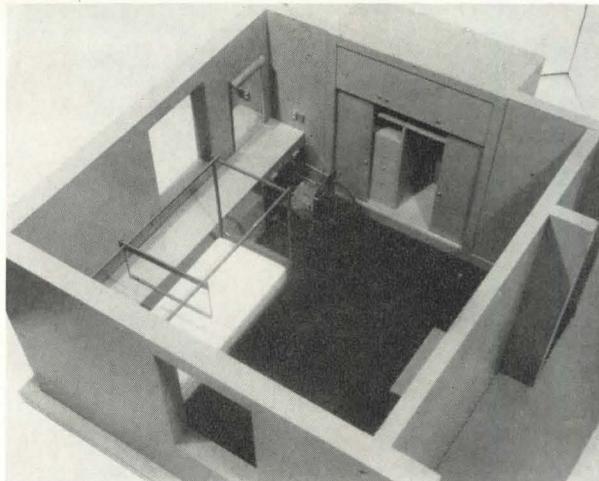
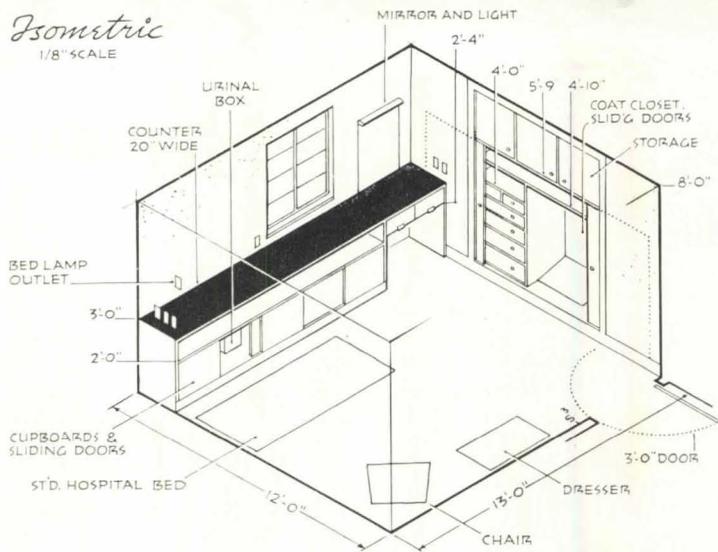
The committee has been greatly aided by Harold Peterson, Chairman, Housing Committee of the Paralyzed Veterans Association at Halloran; and wishes to thank publicly Drix Duryea, for his excellent photographs; and especially the firm of Voorhees, Walker, Foley and Smith, who made the models.



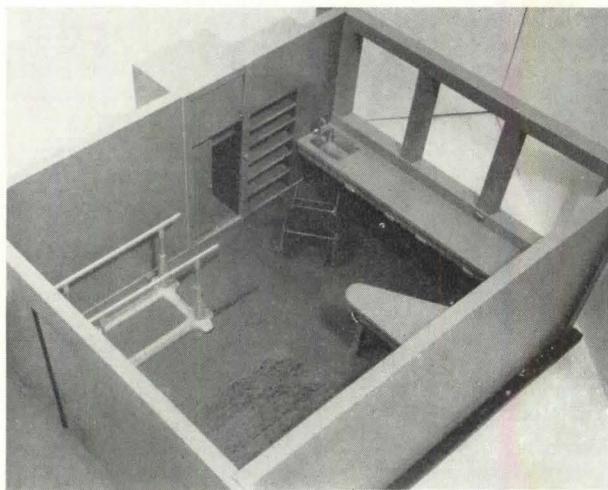
**BATHROOM:** Here, more than in other rooms, as complete independence as possible is desirable. Space beneath lavatory must admit wheelchair arms. Note provisions to simplify getting from chair to tub or shower, location of hand grips, valves, etc. Toilet, below, has special seat and cover, is raised on a block to bring seat to proper height, and has side rail to help in getting into tub.



*Isometric*  
1/8" SCALE

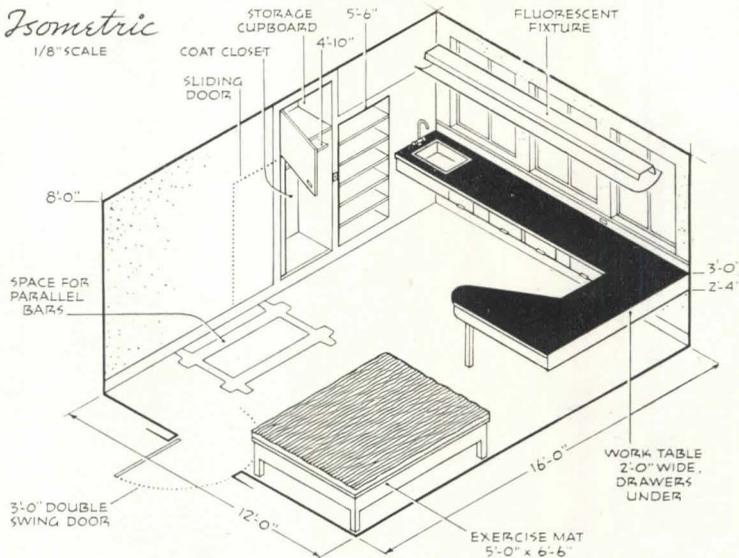


**BEDROOM:** Standard hospital bed has overhead frame; top of mattress nearly flush with counter; outlets at head of bed for radio switch, jack, also 3-way light switch here and at door.



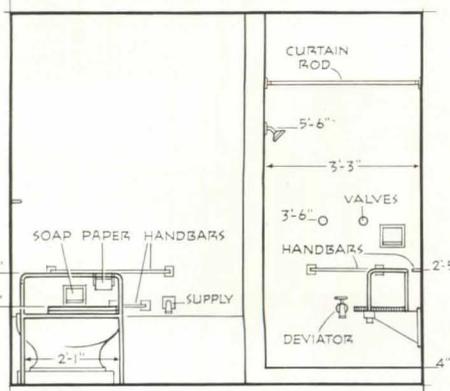
**WORKROOM:** For hobbies and exercising, this unit requires the same clearances for wheelchair, light-switching, etc. Note convenience outlet over counter; also use of sliding doors in this and other rooms to eliminate difficulty caused by door swing.

*Isometric*  
1/8" SCALE

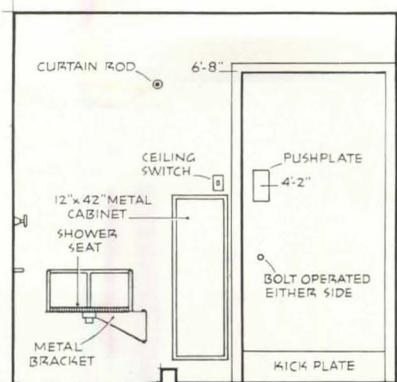


*Note* ALL DIMENSIONS UNLESS OTHERWISE INDICATED ARE HEIGHTS FROM FINISH FLOOR

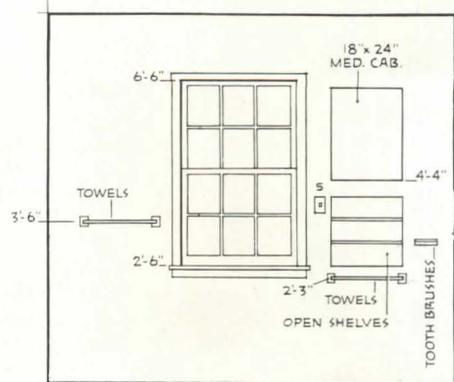
**2**



**3**



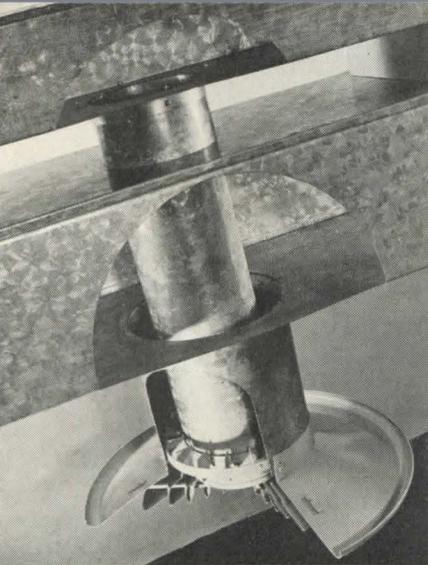
**4**



# THE SELECTION OF

From data prepared by

LEONARD R. PHILLIPS, Consulting Engineer



**TYPE AC:** Only Anemostat combining supply and exhaust; for flush ceiling or exposed duct installation, residential and commercial, for cooling or ventilating; may have droplight; max. mounting height 14 ft.

Architects need more than an elementary knowledge of air distribution, because air distribution can make or break air conditioning. If devices for this purpose are properly selected, conditioned air is distributed in a manner that meets the most exacting specifications for interior climate control. On the other hand, improper selection often leads to severe drafts, unequalized temperatures, poor humidity control, air stratification, stale air pockets, and other objectionable conditions. This is true because the size of the air duct is limited; if an air duct as large as a whole wall of a room were practical, proper air distribution would present no problem. Since such a large duct is impractical, air velocity must be increased so that a smaller duct can handle an adequate volume. For cooling, temperature of air in the duct must then be sharply lowered so that incoming air will establish the desired overall room temperature when mixed with the warmer room air.

But when cold, high velocity air leaves the small duct through an improperly selected fixture, it usually sweeps to the occupancy zone of the room before mixing with warmer room air, and before its velocity is appreciably reduced by entrainment of room air. Such unsatisfactory conditions can be avoided only by reducing incoming air velocity at duct openings. Then the cooled incoming air and the warmer room air can be mixed well above occupancy level before the mixture is distributed in a controlled, draftless pattern.

For buildings of virtually every type, there are available air diffusers. One is a patented device known as the Anemostat, which is composed of a series of cones (through which air passes when entering a room) which are so designed that air velocity is instantly reduced within the diffuser. Simultaneously, air from the room—equal to about 35 percent of the incoming air—is siphoned into the diffuser, where it is mixed with the incoming air stream before it is discharged. The pre-mixed air then leaves the device in a series of planes traveling in all directions at low velocity. No drafts are perceptible in the occupancy zone below, and pockets of stale air are eliminated.

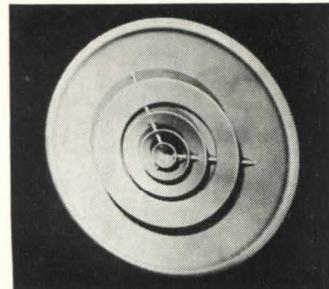
However, because of the many factors to be considered, no single design of air diffuser would solve all air distribution problems. Among the factors to be considered are: area of room, height of ceiling, design of ceiling, duct locations, duct sizes, duct velocities, appearance, allowable air velocities within the room, number of air changes per hour, permissible sound levels, cost, location of columns and other obstructions, location and type of lighting fixtures, location of exhaust outlets, unusual concentrations of internal heat, solar radiation, and other items. How, then, are the architect and his engineer to know what type of diffuser to specify for a particular job? Naturally, specialists are available, but for routine jobs and preliminary planning he may prefer to make his own selection. The accompanying illustrations give general information on most of the basic types of Anemostats.



**TYPE AR:** For high air changes at low velocity; residential, commercial, industrial use; projecting design; heating, cooling, vent., refrigeration; may have droplight.



**TYPE B:** For general use, residential, commercial, industrial; projecting design; heating, cooling, vent., refrigeration; may have droplight.



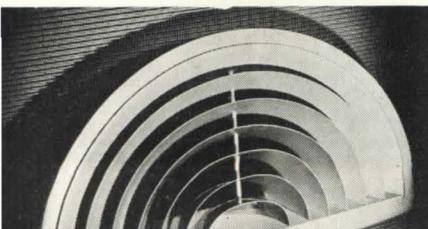
**TYPE C:** For flush ceiling mounting with concealed ducts, usually residential or commercial, anti-smudging; heating, cooling, vent.; may have droplight.



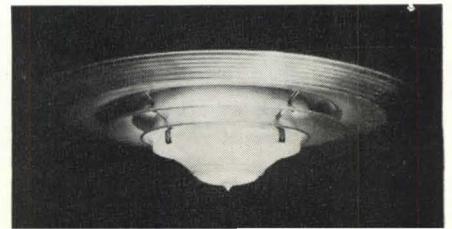
**TYPE CSL:** For combining with cove lighting, residential or commercial; heating, cooling, vent.

**TYPE HU:** Used with vertical-throw unit heaters; max. mounting heights: HU-3, 40 ft; HU-4, 20 ft.

**TYPE NL:** Has built-in light; for flush ceiling mounting, residential and commercial use; usually cooling or vent.; max. mounting height 20 ft.

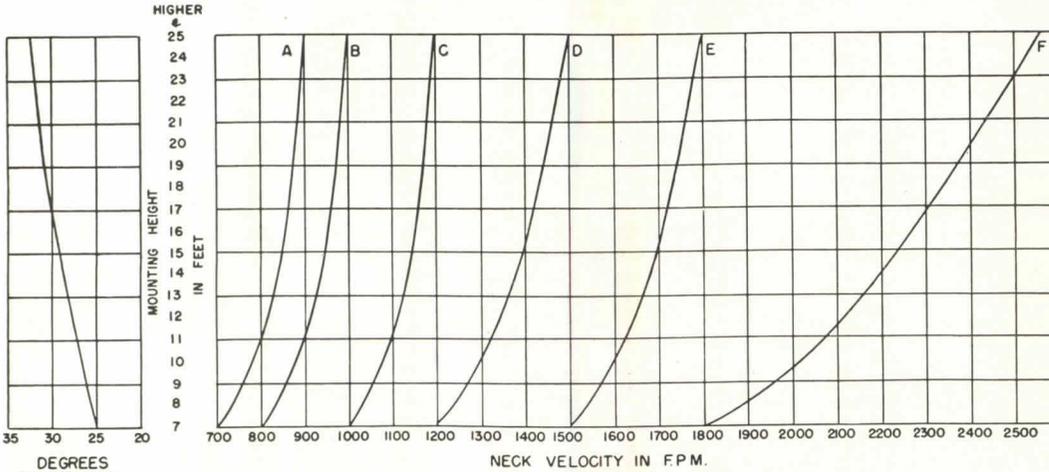


**TYPE W:** For wall mounting, residential, commercial, industrial; anti-smudging; heating, cooling, vent.; may be used with exposed ducts.



# AIR DIFFUSERS

FIG. 1: For Selecting Neck Velocities & Cooling Temp. Differentials, Type B Anemostat



DEGREES FAHRENHEIT  
RECOMMENDED MAXIMUM COOLING TEMPERATURE DIFFERENTIAL FOR THE VARIOUS MOUNTING HEIGHTS.

THE RECOMMENDED MAXIMUM HEATING TEMPERATURE DIFFERENTIAL IS SIXTY DEGREES F. FOR ANY CEILING HEIGHTS.

GRAPH LINE

- "A" Film, Television & Sound Recording Studios, and Broadcasting Control Rooms.
- "B" Private Offices, Hotel Bedrooms, Sick Rooms, Broadcasting Studios and Residences.
- "C" Libraries, under Balconies of Theatres and Auditoriums, Concert Halls, Classrooms, Museums, and Hospital Operating Rooms.
- "D" General Offices, Restaurants, Theatres & Auditorium Ceilings, Lecture Halls, Stores, Large Hotel Dining Rooms, and Dance Halls.
- "E" Department Stores, Hotel Lobbies, Industrial Exhibit Rooms and Restaurant Kitchens.
- "F" Factories, Store Rooms, Engine Rooms, Greenhouses, and spaces where Duct Noise is of no importance.

## TYPICAL STEPS IN SELECTING

Supposing that by examining the features of the principal types, an architect finds Type B most suitable for a 60 x 120-ft department store with a 20-ft ceiling. He divides the plan into two 60-ft squares and centers an Anemostat in each square.

Next he must determine the total air supply in cfm. This is simple: volume of the room, times air changes per hour, divided by 60.

For this illustration, assume that a little better than 4 air changes per hour are required. Then, 10,000 cfm is required for the entire room. One diffuser will then handle half the volume, or 5,000.

The architect must next know the suggested neck velocity for a Type B diffuser in a department store with a 20-ft ceiling. The graph (Fig. 1) shows this to be about 1800 fpm.

FIG. 2: Capacities, Cu Ft per Minute, Type B Anemostat

Size No.	Neck Dia. In.	Neck Area Sq. In.	Neck Area Sq. Ft.	NECK VELOCITY IN FEET PER MINUTE																
				700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2200	2500	3000
10	4	12.56	.087	61.1	69.8	78.5	87.3	96.0	105	113	122	*131	140	148	157	166	175	192	218	262
12.5	5	19.63	136	95.4	109	123	136	150	164	177	191	205	218	232	245	259	273	300	341	409
15	6	28.27	196	137	157	177	196	216	236	255	275	295	314	334	353	373	393	432	491	589
20	8	50.26	349	244	279	314	349	384	419	454	489	524	558	593	628	663	698	768	873	1047
25	10	78.54	545	382	436	491	545	600	655	709	764	818	873	927	982	1036	1091	1200	1364	1636
30	12	113.10	785	550	628	707	785	864	942	1021	1100	1178	1257	1335	1414	1492	1571	1728	1964	2356
35	14	153.94	1069	748	855	962	1069	1176	1283	1390	1497	1604	1710	1817	1924	2031	2138	2352	2673	3207
40	16	201.06	1396	977	1117	1257	1396	1536	1676	1815	1955	2094	2234	2374	2513	2653	2793	3072	3491	4189
45	18	254.47	1767	1237	1414	1590	1767	1944	2121	2297	2474	2651	2828	3004	3181	3358	3534	3888	4418	5302
50	20	314.16	2181	1527	1745	1963	2182	2400	2618	2836	3054	3272	3491	3709	3927	4145	4363	4800	5454	6545
55	22	380.13	2639	1848	2112	2376	2640	2904	3168	3432	3696	3960	4224	4488	4752	5016	5280	5808	6600	7919
60	24	452.39	3141	2199	2513	2827	3142	3456	3770	4084	4398	4712	5027	5341	5655	5969	6283	6912	7854	9425
65	26	530.93	3687	2581	2950	3318	3687	4056	4424	4793	5162	5531	5899	6268	6637	7005	7374	8111	9218	11061
75	30	706.86	4908	3436	3927	4418	4909	5400	5891	6381	6872	7363	7854	8345	8836	9327	9818	10799	12272	14726
95	38	1134.10	7875	5513	6301	7088	7876	8663	9451	10238	11026	11814	12601	13389	14176	14964	15751	17327	19689	23627

In the capacity table (Fig. 2) under 1800 fpm neck velocity is found 5655 for the size No. 60, Type B, Anemostat. Further examination of the table shows that the same diffuser handles air at 5027 cfm with a neck velocity of 1600 fpm. By interpolation, 5000 cfm will be delivered at 1555 fpm neck velocity.

FIG. 3: Radius of Diffusion, Ft, Type B Anemostat

Size No.	Neck Dia.	NECK VELOCITIES IN FEET PER MINUTE																		
		700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2200	2500	3000		
10	4"	3-5	3-5	3-6	3-6	3-6	3-7	3-7	3-7	3-7	3-8	4-8	4-8	4-8	4-9	4-9	5-10	5-11		
12.5	5"	3-6	3-7	3-7	3-7	4-8	4-8	4-9	4-9	4-9	4-10	5-10	5-10	5-11	5-11	5-11	6-12	7-14		
15	6"	4-8	4-8	4-9	4-9	4-9	4-10	5-10	5-11	5-11	5-11	6-12	6-12	6-12	6-13	7-13	7-15	8-17		
20	8"	5-10	5-11	5-11	6-12	6-12	6-13	6-13	7-14	7-15	8-16	8-16	8-17	8-17	8-17	9-18	10-20	11-23		
25	10"	6-13	6-13	7-14	7-15	7-16	8-16	8-17	8-17	9-18	9-19	9-20	10-20	10-21	10-22	11-23	12-25	14-28		
30	12"	8-15	8-16	8-17	9-18	9-19	9-19	10-20	10-21	11-22	11-23	11-23	12-24	12-25	13-26	13-27	15-30	17-34		
35	14"	9-18	9-19	9-20	10-21	10-22	11-23	12-24	12-24	12-25	13-26	13-27	14-28	14-29	15-30	16-32	17-35	20-39		
40	16"	10-21	10-22	11-23	11-24	12-25	13-26	13-27	14-28	14-29	15-30	15-31	16-32	16-33	17-34	18-36	20-40	22-45		
45	18"	11-23	12-24	12-25	13-27	13-28	14-29	15-30	15-31	16-33	17-34	17-35	18-36	18-37	19-39	20-41	22-45	25-50		
50	20"	12-26	13-27	14-28	14-30	15-31	16-32	16-33	17-35	18-36	18-37	19-39	20-40	20-42	21-43	22-46	25-50	28-56		
55	22"	14-31	14-30	15-31	16-33	17-34	17-35	18-37	19-39	20-40	20-41	21-43	22-44	23-46	23-47	25-50	27-54	31-62		
60	24"	15-31	16-32	17-34	17-35	18-37	19-39	20-40	21-42	21-43	22-45	23-47	24-48	25-50	25-51	27-54	30-60	33-67		
65	26"	16-33	17-35	18-37	19-38	20-40	21-42	21-44	22-45	23-47	24-49	25-50	26-52	27-54	28-55	29-59	32-64	36-73		
75	30"	19-38	20-40	21-42	22-44	23-46	24-48	25-50	26-52	27-54	28-56	29-58	30-60	31-62	32-64	34-68	37-74	42-84		
95	38"	24-48	25-51	26-53	27-56	29-58	30-61	31-63	33-66	34-69	35-71	36-74	38-76	39-79	40-81	43-86	47-94	53-106		

A final check (see diffusion table, Fig. 3) shows that size No. 60 has a satisfactory radius of diffusion: 21 to 43 ft.

Naturally, it is not always possible to divide the plan into squares—or to center the diffusers in the divisions—as in this example. Therefore, rectangles are permissible if the longer sides do not exceed the shorter by more than 3/2.

If a diffuser cannot be placed in the center of an area, the longer perpendicular distance from a side should not exceed the shorter by more than 3/2.

## 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 and Temperature Control

1-87. *New High Velocity Agitair Type "FM" Air Filter, AIA 30-J* (Bulletin FM-101), 10-p. illus. booklet on "FM" air filters for restaurants, theaters, railroads, etc. Advantages, how to specify, installation and maintenance data on "individual" and "prefabricated" filters. Also all metal grease filters, technical data, dimensions. Air Devices, Inc.

1-88. *Hydro-Flo Radiant Heating (C-1145)*, 19-p. illus. consumer booklet. General information on panel heating for houses; data on operating and control equipment. Bell & Gossett Co.

1-89. *The Bethlehem Dynatherm* (Bulletin D-3), AIA 30-C-14, 4-p. illus. booklet on a "whirling flame" oil burner heating unit. Dimensions, ratings, drawings. Bethlehem Foundry & Machine Co.

1-73. *Carrier Air Conditioning, Refrigerating, and Unit Heating Equipment, AIA 30-F-2*, Carrier Corp. Reviewed January.

1-74. *Certified Counterflow Air Conditioner Heating Systems (293C)*, Certified Furnace Co. Reviewed January.

1-75. *Type DMD Pumps* (Bulletin C-746), Economy Pumps, Inc. Reviewed January.

1-76. *Heat Electrically*, Electric Air Heater Co. Reviewed January.

1-90. *Electric Unit Heaters, AIA 31-K-3* (Bulletin 45-U), 12-p. illus. booklet; forced-air circulation electric heaters (portable, suspendable); residential, commercial, or industrial; control equipment, control table, drawings. Electromode Corp.

1-91. *What Does I.B.R. Mean to You?*, 4-p. folder on I.B.R. ratings: history, how determined, approved; objectives of I.B.R. Institute of Boiler and Radiator Manufacturers.

1-77. *Johnson Type 30-AV Fuel Oil Burner (Data 30 AV-2)*, S. T. Johnson Co. Reviewed January.

1-82. *Personalized Heat Control for Apartments (Form SA-1155)*, Minneapolis-Honeywell Regulator Co. Reviewed January.

1-79. *You Know the Answer to Packaged Heat, "Whirl-O-Matic"*, Persiro Mfg. Corp. Reviewed January.

1-92. *Heat Recovery from Internal Combustion Engines* (Booklet HR-2), 14-p. illus. booklet on exhaust gas-fired boilers and heat exchangers. Dimension and size tables, detailed drawings. Performance figures on both products. The Sims Co.

1-83. *Automatic Heat for Real Living*, Surface Combustion Corp. Reviewed January.

★ 1-93. *"Taco-One" Venturi System* (Form 471), 4-p. illus. folder on a one-pipe hot water heating system for residences. Drawings, design table, suggested specifications. Taco Heaters, Inc.



1-94. *U. S. Airco Air Conditioning Equipment*, catalog of equipment "engineered" for all types of heating, ventilating, air conditioning. Air friction and performance charts; tables on capacities, final temperatures and condensates, temperature rise and condensate factors; air volume conversion. Specifications. United States Air Conditioning Corp.

### Doors and Windows

4-76. *Allied Special Catalog of Builders Hardware*, 12-p. illus. catalog on hardware for residential interior and exterior doors. Examples of locks, door knobs, letter plates, house numbers, etc. Allied Hardware Corp.

4-79. *Enter Into Beauty*, 22-p. illus. booklet on "Curtis" woodwork—doors, stairways, mantels, cabinets, windows, etc. Brief descriptions, order numbers. Curtis Companies Service Bureau, Dept. of Curtis Companies, Inc.

4-77. *Mesker "American Home" Metal Windows*, illus. folder on standard sized metal windows for residences. Completely assembled, packaged, ready for installation; detailed drawings, standard sizes. Also metal storm sash, standard sizes, installation data. Mesker Bros. Metal Windows.

4-75. *New Modular Standard Stock Windows and Sash, AIA 19-E-1* (N.D.M.A. Manual WSS-45), National Door Manufacturers Assn. Reviewed January.

4-78. *Truscon Steel Doors (1946 Ed.)*, 18-p. illus. folder on steel doors for hangars and industrial buildings. Construction details, drawings, specifications, installation data. Truscon Steel Co.

### Electrical Equipment and Lighting

5-51. *Electric Time Systems and Equipment (Form 747)*, Cincinnati Time Recorder Co. Reviewed January.

5-56. *Planning Your Home for Better Living . . . Electrically*, 62-p. illus. consumer booklet; information on efficient use of electricity in houses. General Electric Co., Home Bureau.

★ 5-53. *General Electric Lamps* (Bulletin LD-1), 76-p. illus. spiral-bound book. General data, characteristics, design and operation of all types of incandescent, mercury, and fluorescent light sources. Details and perspective drawings. General Electric Co., Lamp Dept.

5-54. *Lighting for the Modern Restaurant (Y-549)*, 10-p. illus. booklet on the design of lighting and lighting fixtures in restaurants. Includes perspectives and details of fixtures and plans. General Electric Co., Lamp Dept. (5 cents per copy—make money order or check payable to General Electric Co.)

5-55. *Colovolt Cold Cathode—Low Voltage Lighting, AIA 31-F-2 (S-47)*, 4-p. illus. folder "for men who have to figure lighting layouts and calculate foot-candle levels for various types of installation." Mounting dimensions, details of four types of "Colovolt" units for commercial and industrial use. General Luminescent Corp.

5-58. *Firefly Fluorescent Fixtures*, 8-p. illus. booklet on fluorescent fixtures for industrial, commercial, residential use. Also new "Shelf-o-lite"—shelf (in different finishes) with concealed fluorescent bulb attached to bottom—for over

stove, desk, chair, bed, etc. Specifications, installation details, order numbers, prices. Kahn Mfg. Co., Inc.

5-52. *Cold Cathode Lighting Transformers* (Bulletin CC-107), Sola Electric Co. Reviewed January.

5-49. *Talk-A-Phone Has Everything*, Talk-A-Phone Co. Reviewed January.

5-50. *Standards for Visual and Auditory Facilities in New Educational Buildings*, Visual Education Consultants, Inc. Reviewed January. (25 cents per copy—make check or money order payable to Visual Education Consultants, Inc.)

5-57. *The Star (Section 5-46)*, 6-p. illus. booklet on a "new luminous indirect lighting unit." Includes description, installation drawings, purchasing information, test reports. F. W. Wakefield Brass Co.

### Finishers and Protectors

6-81. *The Trowel (Vol. 1—No. 9)*, The Master Builders Co. Reviewed January.

6-84. *Colors of the Year . . .*, 16-p. illus. booklet; color schemes suggested for interior and exterior of houses. O'Brien Varnish Co.

6-83. *Rocktite Waterproofing Process*, The Rocktite Co. Reviewed January.

6-82. *Aluminum Paints by Valspar*, Valentine Co., Inc. Reviewed January.

### Insulation (Thermal, Acoustic)

9-56. *Armstrong's Roof Insulation*, Armstrong Cork Co., Building Materials Div. Reviewed January.

9-57. *For Greater All Around Comfort Insulate Pipes, Ducts & Furnace (Form PB-5)*, illus. folder (3½x6½) on fuel economy through insulation of pipes, ducts, furnaces with "K&M" asbestos paper and millboard. Installation suggestions. Keasbey & Mattison Co.

### Load-Bearing Structures

★ 12-103. *Fire-Resistive Apartments Yield Better Income*, 58-p. illus. booklet. Study of multiple dwelling costs in New York City. Tables covering comparison of cost and rental income for four comparable fire-resistive and non-fire-resistive apartment buildings. Unit prices based on 1939 costs; typical plans. American Iron and Steel Institute, American Institute of Steel Construction, Steel Joist Institute.

12-97. *Cemadobe (Second Ed.)*, Cem-Adobe Co. Reviewed January. (\$1.00 per copy—make check or money order payable to Cem-Adobe Co.)

12-101. *Stone Data Folder*, loose-leaf binder available to architects only, contains information on types of rough stone (e.g., Briar Hill, Lannon, etc.) and their manner of setting. Additional literature is sent as issued to architects requesting original folder. Conco Building Products, Inc.

★ 12-102. *Cemenstone, AIA 4-K*, 12-p. illus. booklet on standardized prefabricated reinforced concrete structural elements called Cemenstone. Engineering and design information, complete tables; available to practicing architects, engineers, contractors. The Cemenstone Corp.

12-98. *The Naperville Plan*, The Home Ola Corp. Reviewed January.

12-99. *The Action of Embeco in Con-*

# 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 \_\_\_\_\_

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MAILING ADDRESS \_\_\_\_\_  HOME  
 BUSINESS

CITY \_\_\_\_\_ STATE \_\_\_\_\_

2/47

*crete and Mortars (Second Ed.)*, The Master Builders Co. Reviewed January.

19-74. *Macotta*, Maul Macotta Corp. (See No. 19-74 under "Surfacing Materials"). Reviewed January.

12-100. *Vi-Brik-Crete, Model 750*, R. S. Reed Corp. Reviewed January.

**Materials of Installation**

13-49. *A New Idea in Metal Trims (Form 114-A)*, illus. folder (3¼x6¼) featuring ten different types and sizes of packaged metal trim for door openings. Prices. B & T Floor Co.

13-50. *Pre-Engineered Sway Brace*, 4-p. illus. booklet on spring braces to prevent sway in pipe installations. Installation and operation data, detailed drawings. Prices. Grinnell Co., Inc.

13-48. *Monel Tie-Wire, AIA 20-B-11*, International Nickel Co., Inc. Reviewed January.

**Non-Load-Bearing Structures**

14-18. *Molding With Lumarith Celanese Plastics*, 86-p. illus. spiral-bound technical booklet. Handbook for laymen and experts on injection and extrusion molding of Lumarith thermoplastics. Terms, A.S.T.M. tentative specifications and tests; reference tables. Celanese Plastics Corp., Div. of Celanese Corp. of America.

★ 14-14. *Mahon Steel Decks, AIA 12-C (Bulletin 46)*, 8 loose-leaf pages in booklet (good for use on drafting boards). Data on installation of steel "decks" for roofs, sidewalls, ceilings, partitions, floors. Technical data, details of eaves, gables, roof saddles, and sidewalls. R. C. Mahon Co.

14-11. *Movable Steel Partitions and Methwal Paneling, AIA 35-H-6*, Martin-Parry Corp. Reviewed January.

14-12. *Metal Lath Specifications for Better Plastering and Concrete Stucco, AIA 20-B-1*, Metal Lath Manufacturers Assn. Reviewed January.

★ 14-15. *Welding and Brazing Copper and Copper Alloys*, 32-p. illus. handbook on materials and procedures of welding and brazing copper and copper alloys. Does not establish any one process as preferable but studies each case and selects process best suited. Includes characteristics, application procedures, recommended uses, standard sizes. C. E. Phillips & Co.

14-13. *PC Glass Blocks for Schools (G-2288)*, Pittsburgh Corning Corp. Reviewed January.

★ 14-16. *Plasteel Engineers Handbook*, 24-p. illus. booklet; on asphaltic-plastic protected corrugated steel sheathing, for steel and wood construction. Specifications for roofing, siding, and sheet metal work; technical data. Stock sizes. Protected Steel Products.

14-17. *Modern Skylights, AIA 12-J (Cat. S-46)*, 4-p. illus. folder on W-F single glazed and Thermag insulating glass block for skylights. Construction features, flashing and installation details, specifications. J. Merrill Richards.

**Sanitary Equipment, Water Supply & Drainage**

19-72. *Josam Moderator Shower Mixing Valve (Cat. MV-3)*, Josam Mfg. Co. Reviewed January.

19-89. *Automatic Oil Storage Water Heater (Series 70)*, AIA 29-D-2, well

designed 6-p. illus. pamphlet on a pot-type burner; operates on low flame; has safety-float control which stops oil flow if pilot flame fails. Specifications; roughing-in dimensions; list of all Rheem appliances. Rheem Mfg. Co.

19-84. *Hydrafilter*, 6-p. illus. folder on a grease interceptor that hydraulically filters grease by liquid grease. Basic principles, construction, design and working data, specifications. Wade Mfg. Co.

**Specialized Equipment**

19-78. *Venus Blue Band Coloring Pencil*, American Lead Pencil Co. Reviewed January.

19-79. *Guide for Architects and Engineers Having Veterans' Hospital Commissions*, American Sterilizer Co. Reviewed January.

★ 19-85. *Duplex Tubing (Technical Bulletin 746)*, 8-p. illus. pamphlet on anti-corrosive tubing consisting of two different metals (one inside, one outside) which may be varied to meet differing corrosive conditions. Technical data, methods of installation, details, selection aids. Bridgeport Brass Co.

19-80. *Diebold (AL-1779-246)*, Diebold, Inc. Reviewed January.

19-81. *Faries Presents the New Parkway*, Faries Mfg. Co. Reviewed January.

19-86. *Majestic Incinerator (Form 1-2)*, illus. folder on an incinerator for all rubbish and dry refuse; little odor. 2' in diameter, 3' in height, easily installed in basement. Data, specifications. Majestic Co.

19-82. *Mengel Module—The Furniture That You Design*, The Mengel Co. Reviewed January.

19-87. *Your Kitchen and You (Form 137)*, 14-p. illus. consumer booklet on planning custom-built kitchens. St. Charles Mfg. Co. (10 cents per copy—make check or money order payable to St. Charles Mfg. Co.)

19-83. *The Study of the Hot Water Requirements of Automatic Washers (5AW-0201)*, Westinghouse Electric Corp., Appliance Div. Reviewed January.

**Surfacing Materials**

19-88. *Low-Cost Wall of Lasting Beauty*, 6-p. illus. folder on "Monowall," hardened wood-fibre board in large panels, glossy surface. Available in wood, marble, tile, plain color effects. Armstrong Cork Co.

19-76. *Resilient Flooring in Today's Construction*, Armstrong Cork Co. Reviewed January.

19-73. *Make Blank Walls Live, AIA 28-J*, Kaufmann & Fabry. Reviewed January.

19-77. *K&M "Century" Asbestos Corrugated Will Protect Profits in Your Plant*, Keasbey & Mattison Co. Reviewed January.

19-74. *Macotta*, Maul Macotta Corp. Reviewed January.

19-75. *Flexwood-Flexglass*, United States Plywood Corp. Reviewed January.

**Traffic Equipment**

20-33. *Chelsea*, 8-p. illus. booklet on hand power and electric dumbwaiters and passenger and freight elevators. Selection suggestions, specification data, general description. Chelsea Elevator Co.

2 folders; one on Oildraulic elevators that are pushed up from the floor (includes preliminary layout data, recommendations, operation details); the second on Oildraulic levelators that handle freight from plant floor to loading dock (operation details, specifications, and engineering data on both levelators and levelator jacks). Rotary Lift Co.

20-34. *Levelators, AIA 33-Y (Cat. RE-201)*.

20-35. *Oildraulic Elevators, AIA 33 (Cat. RE-301)*.

PLEASE PRINT

# REVIEWS

## from the TECHNICAL PRESS

By JOHN RANNELLS

### FROM OTHER PUBLICATIONS

**Science and Research in Building.** *Twenty articles comprising the bulk of a special Building Research Number of Architects' Journal, 13 Queen Anne's Gate, Westminster S.W. 1, England. Nov. 28, 1946. 21 pp.*

This symposium covers several phases of the broad approach which the British are taking toward the problems of providing human shelter. Government organizations under the *Department of Scientific and Industrial Research* take the lead. Work in the building field is centered in the *Building Research Station* which maintains liaison with industry, the professions, and the other government bodies. In addition to investigations of materials this Station is largely responsible for *Codes of Practice* and for establishing the new *Functional Codes and Functional Standards* on which to evaluate new techniques. More and more attention is being turned toward the study of human requirements and of buildings considered as places in which to live and work. A joint architectural-scientific attack on mechanical plant for housing is a recent development.

The *Ministry of Works* institutes many of the studies which are carried out by the Building Research Station and other laboratories (*Forest Products, National Physical Laboratory*). The Ministry is also studying costs and human efficiency in the building industry. Several "runs" of about fifty houses each are being constructed under close scientific observation. Living habits of the families in the new houses will be studied by building scientists, architects, town planners, and social scientists working together. The results will be used to establish new standards for house planning and equipment.

The results of building research are put into practice most effectively in large organizations where special attention can be given to the application of research data to construction programs. Here is the proper place for *development* work which is frequently confused with *research* in this country. Publication of papers on research work in architectural and building journals is the most effective means of reaching architects and builders generally. The architect is expected to be more and more conversant with scientific results and should be able to incorporate them in his planning. To quote from Professor Bernal's conclusions: "The new scientific method tries, in the first place, to seize the essential problems, to proceed to their formal solution, and then

to embody that solution in new techniques . . . the scientist and the architect are not rivals but colleagues, who have been too long parted and must come together effectively in the common task of building cities which will be worth living in."

**Piles and Pile Foundations.** *Robert D. Chellis. Part I: Avoiding Detrimental Settlement. Part II: Field Determination of Damaging Stresses During Driving. Part III: Making and Interpreting Pile Load Tests.* Engineering News Record, McGraw-Hill Publishing Co., 330 W. 42 St., New York 18, N. Y. May 16, May 30, June 13, 1946. Reprints of the three articles obtainable from Engineering News Record for 25¢.

The first of this series gives a clear and basic understanding of how piles act in cohesive and cohesionless soils; why a load test on cohesive materials can have no relation to the final settlement of the structure; why pile-driving formulas are not to be trusted; why foundations for wide buildings on a soft soil may better be designed without piles. The author fully proves the value of thorough investigation by adequate borings and soil mechanics studies by an engineer who understands this baffling subject.

The subsequent articles are technically written studies for actual testing of piles and pile foundations during construction.

**Make the Theatre Building Pay.** *Jo Mielziner, Theatre Arts, 130 W. 56 St., New York 19, N. Y. Jun. 1946*

A plea to those who will mold tomorrow's theaters (whether architects, realty speculators, or business men): "Don't let another wave of inadequate and unglamorous theatres spring up as they did in the 1920's."

After outlining clearly the functional needs of the theater building on both sides of the footlights, Mr. Mielziner proposes a solution—to make the legitimate theatre more attractive and extend its hours of use by making it "a focal point for other outlets associated with an evening of relaxation." The lobby would be big and earn its keep by serving as a showplace for luxury goods during the day, or as a place for meetings or dances. After the performance such a lobby could quickly become a fine night-club. Association of the project with a big hotel and restaurant or a business building combined with retail stores would make it a focal center for luxury trades.

How about it, Billy Rose?

**Cantilevered Concrete Trusses Provide Open Working Areas in Hangar.** *Arthur J. Boase, in the Engineering News Record, 330 W. 42 St., New York 18, N. Y. May 30, 1946.*

Roof trusses cantilevered on both sides of central rigid frames give large clear floor areas with an overall height very little greater than height of doors. (Cant-type hangar at the Santos Dumont Airport in Rio de Janeiro.) The trusses are exposed above the roof which is made of thin shell arches between trusses. Structural design is intricate but advantages of this shape are great. Construction of trusses and frames in steel would probably be more economical in this country.

**Milk Plant Designed for Rapid Erection.** *Engineering News-Record, 330 W. 42 St., New York 18, N. Y. Aug. 22, 1946.*

Most notable is the floor system: 2-way panels carried by steel girders on the column centers and subdivided by concrete beams at third points. All concrete beams are 8 inches wide and the same depth as the fireproofed girders, resulting in a pleasantly cellular appearance of the ceiling and the economy of identical forms.

### PAMPHLETS, MANUALS

**General Electric Lamps, Bulletin LD-1.** *General Electric Lamp Dept., Nela Park, Cleveland, Ohio. 76 pp., 8½" x 11", illus., diagrams, tables. May 1946. 40 cents.*

This "condensed text on light sources" (incandescent, mercury, fluorescent) contains the cream of the technical data published in bulletins and technical articles by the Engineering Division of the General Electric Lamp Department.

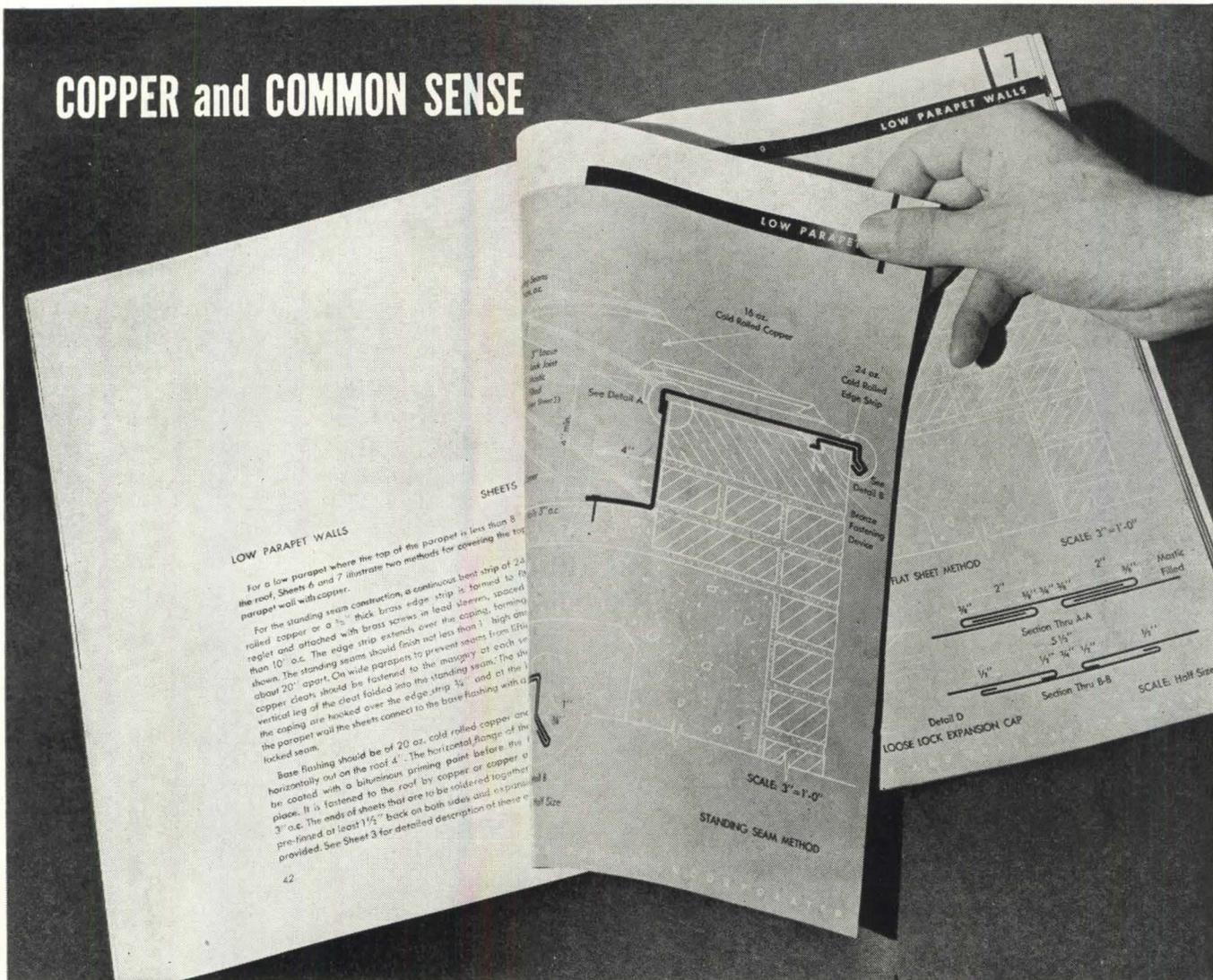
The material is presented very clearly and attractively. Description of the various lamp types with their characteristic applications, lamp economies, etc., is especially complete. A section on "Lamps and the Spectrum" is most informative, giving a graphic basis for understanding physiological responses to light and the various wave-length characteristics of the different lamps.

**Low Cost Housing Research, Bulletin LCHR No. 1.** *Louisiana State University Engineering Experiment Station, Baton Rouge, La. 12 pp., 8½" x 11". Free.*

The first of a series of bulletins directed particularly toward the veteran. Good

(Continued on page 80)

# COPPER and COMMON SENSE



**QUESTION:** What's the best way to cover the coping on a low parapet wall?

**ANSWER:** See Pages 42 to 45 in Revere Manual of Sheet Copper Construction\*

**N**EARLY all architects and sheet metal experts agree that the best material for a parapet wall cover is copper. But there are several different forms of copper as well as many methods of construction. Revere's sheet copper research has shown which of these gives best results, and why. It has thrown entirely new light, not only on this subject, but on every important aspect of sheet copper construction.

You'll find the complete story in Revere's authoritative 96-page manual.\* You can get all the facts on each construction problem from large, clear detail sheets that are designed for practical men to use. That's why it will always pay you to turn to this book first on all matters of sheet copper construction.

The Revere Manual has been sent to all holders of Sweet's Architectural File and to leading sheet metal contractors throughout the country. By

making full use of it you can be sure of fine and durable sheet metal construction based on sound engineering principles. Revere materials are sold only through Revere Distributors. A Revere Technical Advisor, Architectural, will always be glad to consult with you without obligation.

\*Entitled "Research Solves Problem of Stress Failures in Sheet Copper Construction."

## REVERE

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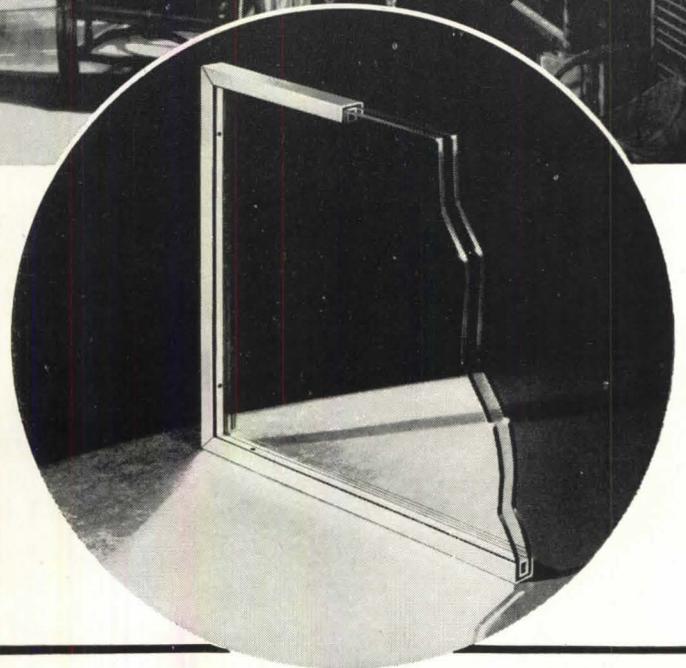
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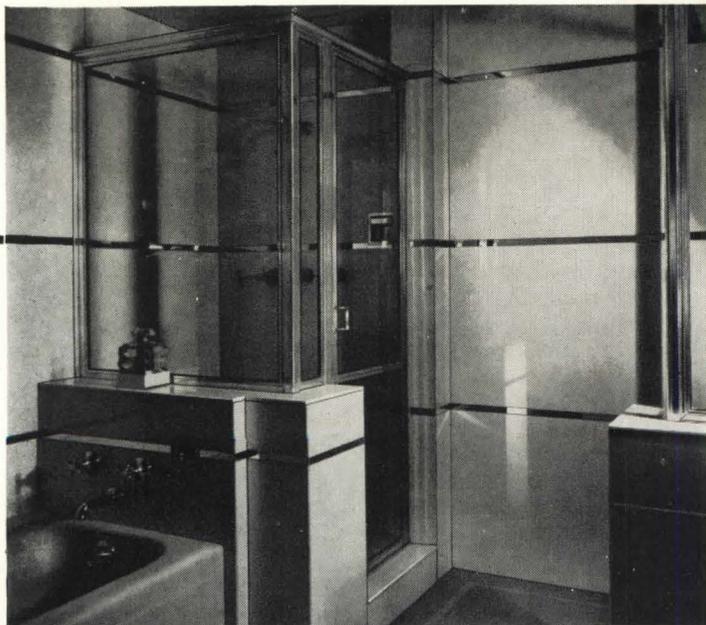
# Practical applications of Glass



**ATTRACTIVE SURROUNDINGS** are an invitation to the architect to take advantage of them in designing a home. For this reason large window areas, glass panels, even glass walls have grown in favor during recent years. Pittsburgh Polished Plate Glass has been consistently selected by many architects to glaze such areas. Now, Twindow, Pittsburgh's new window with built-in insulation, makes such applications more practical than ever before. For Twindow affords not only clear vision, beauty, and generous light transmission, but the comfort and economy of efficient insulation as well. Architect: Anthony Thormin.



**TWINDOW**, Pittsburgh's new window with built-in insulation is made up of 2 or more panes of Pittsburgh Glass with a sealed-in air space between them. When Twindow is composed of 2 sheets of glass, it provides almost double the insulating effectiveness of single-glazed windows—and even better insulation when 3 or more panes of glass make up the Twindow unit. Twindow cuts heating costs, minimizes downdrafts, virtually prevents steamed windows.



◀ **WIDE LATITUDE IN BATHROOM AND KITCHEN DESIGN** is made possible when Carrara Structural Glass is selected for walls, wainscots, ceilings. This glass comes in 10 beautiful shades. It won't craze, check, stain or absorb odors. It is readily decorated in various ways. It is easy to clean. (Note the Heavy Plate Glass shower enclosure in this room, the decorative, horizontal mirror strips in the Carrara walls.)

# in residential buildings



**DECORATIVE POSSIBILITIES** of Pittsburgh mirrors are illustrated by this example of a map, sandblasted on the mirror to 5 different depths, and then the whole mirror panel edge-lighted. Edge-lighting through the various levels of sandblasting, gives the map varying tonal values. Combined with mirror-backed shelves and glass desk, the effect of this "mirror mural" is striking.

**THE APPEALING GOOD LOOKS** and practical virtues of PC Glass Blocks have made them a favorite among the newer building materials. They transmit daylight generously and yet preserve privacy. They have noteworthy insulation properties. They are available in various attractive patterns and sizes. Designed by Paul Laszlo.



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## REVIEWS

(Continued from page 76)

simple material on financing, planning, structure.

**Manual of Standard Practice for Detailing Reinforced Concrete Structures (Proposed).** *ACI Committee 315. American Concrete Institute, New Center Building, Detroit 2, Mich. Spiral binding, board covers, 55 pp., 9x11¼, fully illus. 1946. \$2.50 to non-members of ACI.*

This proposed ACI standard is one of the most popular of the Institute's pub-

lications. It has the purpose of presenting improved methods and standards for preparing fabrication and placement drawings for reinforcing steel, in order to improve concrete construction as well as to simplify and reduce the amount of drafting required. There are five chapters: I, Engineering and Placing Drawings, covering such items as standards, marks, schedules, bar lists, the drawings themselves, and notes to designers and detailers; II, Fabricating Shop Practice, including shop procedure, stock, tolerances, extras; III, Welded Wire Fabric, covering fully commercial practice, manufacturing limitations, types, detailing, etc.; IV, Accessories; V, Typical Drawings.

Each principle or recommended application is amply illustrated and explained; the designs were selected to make these points clear, not as standards of excellence, although in general they meet the requirements of the ACI Code. Committee 315, of which A. J. Boase of the Portland Cement Association is chairman, is to be congratulated on its effort. The Committee was organized in 1940 and has been working on the Manual since then, with considerable help from a group appointed for the purpose by the Concrete Reinforcing Steel Institute.

**Planning the Kitchen Electrically.** *Westinghouse Home Planning Series, Manual No. 1. Westinghouse Electric Corp., Pittsburgh 30, Pa. 73 pp., 8½" x 11", diagrams, tables. \$1.00*

The bulk of this manual consists of a complete set of planning diagrams for the seven basic arrangements, each in four sizes (suitable for houses with occupancies of 2 to 6 persons). Key plans for all types and sizes are given at 1/16" scale and detailed layouts (plans, elevations, list of equipment) at ¼" scale. Diagrams are attractively presented in blueprint form enlivened by yellow borders. Very easy on the eyes.

Information on lighting, circuits, equipment, wiring devices, etc., is helpful and unobtrusive.

**Radiant Heating.** *Copper & Brass Research Association, 420 Lexington Ave., New York 17, N. Y. Paper bound, 19 pp., 8x10¼, illus. 1946. Free*

Devoted to copper-tube radiant heating, this explains the system's principles quite well in semi-technical language and presentations. Of great interest to architects will probably be the description of prefabricated copper coils and panels (patented) manufactured in standard sizes by a West Coast heating engineer and contractor. These are delivered to the job in units which require little field fabrication; the heating and plumbing contractor's work is thereby greatly simplified.

**Insulation in the Home.** *Bulletin, Vol. 43, No. 39. Small Homes Council, Mumford House, University of Illinois, Urbana, Ill. 8 pp., 8½x11, illus. Feb. 21, 1946. Free*

Authoritative information on insulation in popular language and presentation, covering briefly the purposes, types, quantities to use, where to use, and predictable results, all in relation to houses; excellent for clients. We could wish the Council, as publishers, would use the word "Home" less loosely. An architect designs, a builder builds, the house; the family creates the home.

## IMPLEMENT OF ARCHITECTURE



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(Continued on page 82)

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## REVIEWS

# PLANNING, HOUSING, ARCHITECTURE IN THE U.S.S.R.

By RITA DAVIDSON

[Part II: Continued from January]

### THE CITIES AND VILLAGES

#### Moscow

\*Ling, Arthur. RECONSTRUCTION OF MOSCOW (*Anglo-Soviet Journal*, April-June 1942, pp. 91-100) The plan for the city was approved in 1935 and a limit of five million persons imposed. The urban area was more than doubled and a wide greenbelt, with green wedges, established. Ling discusses the Moscow plan fully and it is a fascinating account. Moscow has not produced any startling or new town planning ideas but is rather actually practicing theories long advocated in

America and England but barely effected in the latter countries. He contrasts the results with the "snail's pace" planning in London during the same period, where the same aims, techniques, and skill exist.

\*Simon, Sir Ernest. MOSCOW, THE PARADISE OF THE PLANNER. (*Muncpl Jrl*, Dec. 10, 1943, pp. 1685-6) MOSCOW—THE PLANNER'S PARADISE. (*Rebuilding Britain—A Twenty Year Plan*. London: V. Gollancz, 1945, pp. 129-33) Both articles are similar and ring with extravagant praise for the Moscow tactics. "... the conditions in Moscow from the point of view of town planning are almost ideal ... in Moscow

opposition is not allowed to exist." Sir Ernest is especially impressed with the single authority in full control of the land, the elimination of problems of compensation and purchase price, and the basing of plans on labor and materials rather than money; he queries, "... are not a few personal injustices perhaps preferable to the utter impossibility of carrying through a greater residential plan of this sort under our present laws in Britain?"

Schusev, Alexei. LETTER FROM RUSSIA. (*Forum*, Nov. 1944, p. 198) Istra, famous ancient town, is being replanned as the "playground for Moscow." This letter furnishes an interesting description.

\*Werth, Alexander. MOSCOW PLANS. (*J RIBA*, Sept. 1944, pp. 289-90) Brief account of the architecture, streets, and parks planned for Moscow.

Photo by F. S. Lincoln



## "SMART" SPECIFICATIONS

North and East wall shall be covered with Tigerwood Flexwood, vertical grain, as selected by Architect from fitch sample to be submitted.

upholstered in Leatherwall with blind fastenings.

Floor shall be Leatherfloor in 8" blocks, applied to ¾" Weldwood sub-floor.

Dado on curved wall forming South and West sides of room shall be Leatherwall #382, applied in a flush treatment directly on plaster. Leatherwall above dado shall be corded in 16" squares and cemented to plaster. Chair rail shall be

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#### Stalingrad

Forum. STALINGRAD. THE CITY THAT STOPPED HITLER. (Nov. 1943, pp. 4 and 126) An account of the devastation and rebuilding of the city.

Strong, Anna Louise. STALINGRAD TOMORROW. (*The Nation Magazine*, Aug. 4, 1944, pp. 151-2) The rejection of Iofan's plan for Stalingrad (he designed the Palace of the Soviets) in favor of a more human one indicates a movement away from the "monumentality" of the '30's. Stalingrad, a long, narrow city, has been replanned with greenbelts and parkways which separate its various functions.

#### Leningrad

\*Archts' Jrl. LENINGRAD. (Oct. 16, 1941, p. 256) The city is described briefly.

Hersey, John. RECONSTRUCTION OF LENINGRAD. (*Forum*, Dec. 1944, pp. 117-22) The plan to rebuild Leningrad is compared with the County of London Plan; similar in that it is somewhat pretentious and stereotyped, it goes past it in terms of land use, openness of park and street, and the fact that it will be executed. The work of Leningrad's chief architect, Baranov, is noted.

#### The Ukraine

ASPO. TOWN PLANNING IN THE UKRAINE. (May 1944, p. 39)

Parker, Ralph. SOVIETS PLAN TO REBUILD SHATTERED UKRAINE IN FIVE YEARS. (*PM Newspaper*, Sept. 16, 1945, p. 7) The program for rebuilding one million homes in the Ukraine indicates that "ground-floor" democracy is present. Based on the needs of the citizens, the plans assure far better housing standards than in the prewar period.

#### The Russian Village

Infield, Henrik F. THE KOLKHOZ, A "SIMPLE AFFAIR." (*Cooperative Communities at Work*. New York: The Dryden Press, 1945, pp. 109-31) A composite picture of the salient features of the Soviet collective farm (the *Kolkhozy*) is presented. This chapter provides the necessary background for understanding the village replanning and it corrects many misunderstandings about the extent and nature of the collective.

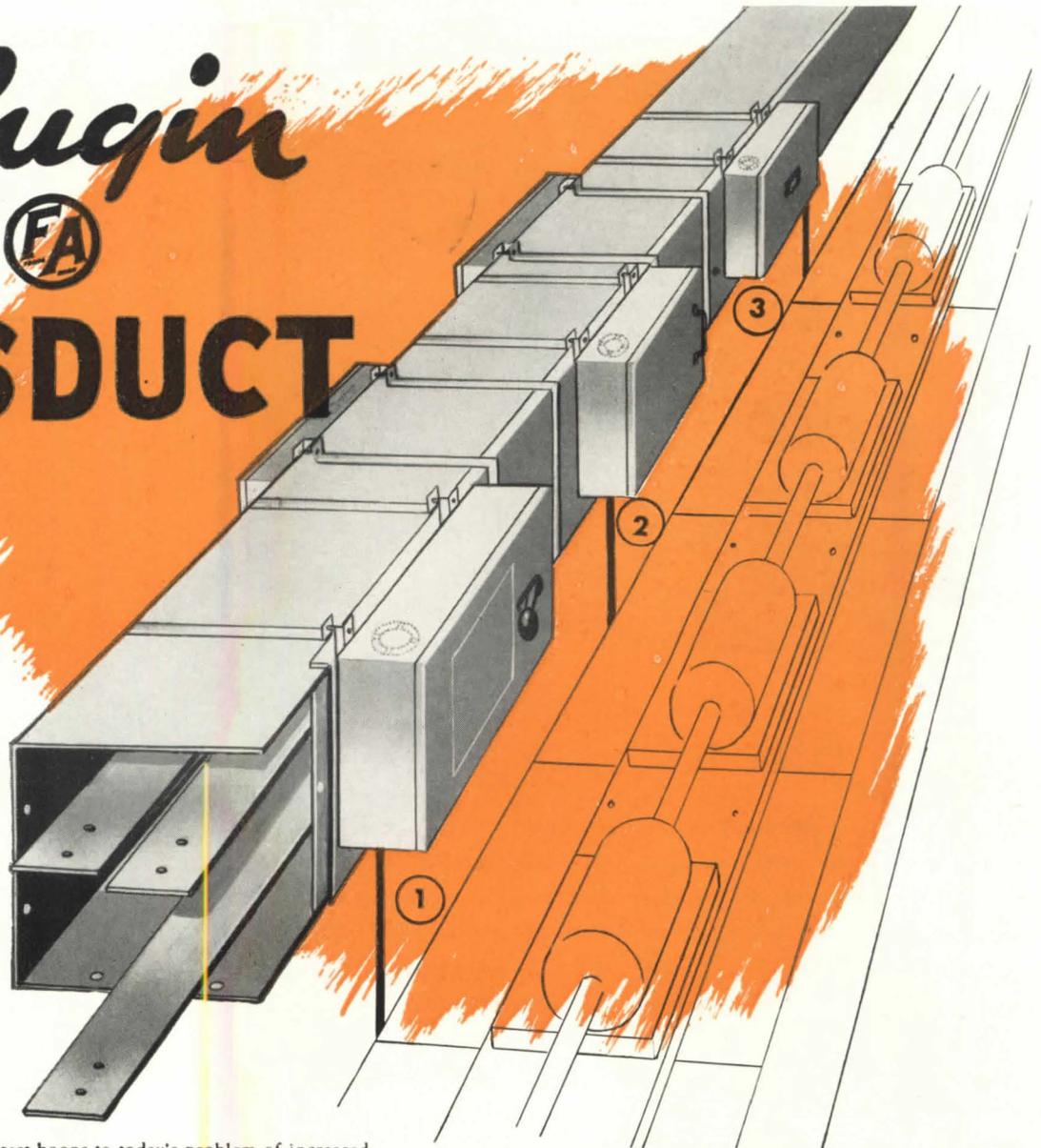
\*Pepler, G. L. RECONSTRUCTION IN THE DEVASTATED AREAS OF THE U.S.S.R. (*J RIBA*, Oct. 1944, pp. 308-310) This article on reconstruction has a section on village planning.

\*Shestopal, Nikolai. RUSSIAN VILLAGE. (*Archts' Jrl*, May 31, 1945, pp. 403-4) The rebuilding of entire rural districts is undertaken and instead of simply replacing what formerly existed, the goal is improvement of the rural living standard. The amount of Government aid to the farmer has been increased considerably.

\*Barnett, Harold. VILLAGE HOUSING IN THE U.S.S.R. (See below, under "Housing")

(Continued on page 84)

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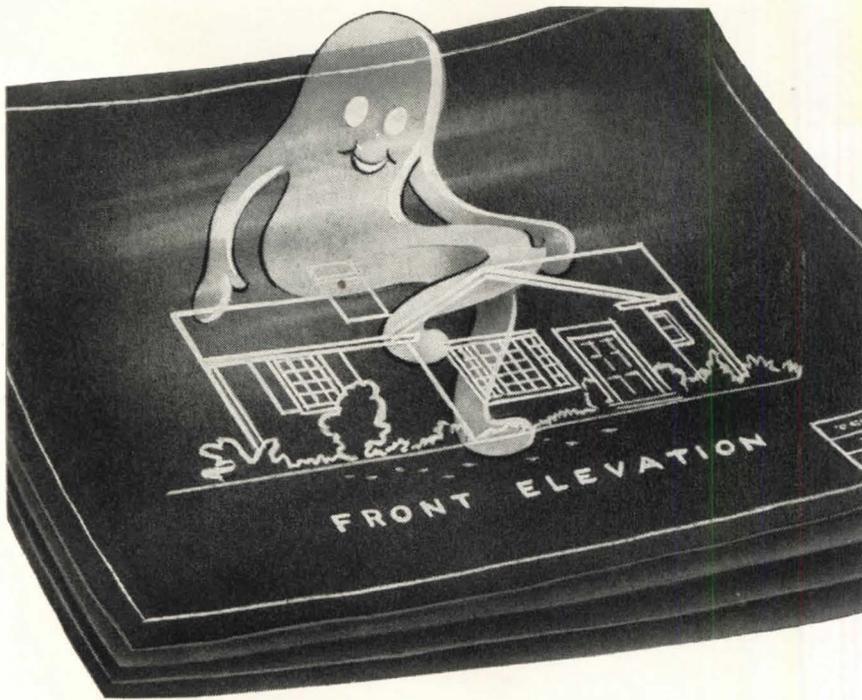
- 1 SHUTLBRAK**—Ideal for quick make and break, heavy-duty operation. Capacities: 30 to 200 amps.—250 and 575 volts.
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# Arkwright

## TRACING CLOTHS

AMERICA’S STANDARD FOR OVER 25 YEARS

## REVIEWS

(Continued from page 82)

### HOUSING

\***Barnett, Harold.** SOVIET HOUSING. (*We Must Go On*, noted last month, pp. 109-15) An Australian architect reviews the Soviet housing picture; useful for a quick review.

**Blumenfeld, Hans.** THE SOVIET HOUSING PROBLEM. (*Am Review of the Soviet Union*, Nov. 1945, pp. 12-25) This comprehensive article points out that the Russian housing problem is far more than mere rebuilding. Pre-revolutionary Russia never had good middle class housing and consequently there was no precedent of well equipped family units. In addition, the '20's and '30's saw acute shelter shortages in the major cities. Rebuilding programs call for variety in all phases: design, construction and materials, type of unit, means of financing, and ownership. All building will of course conform to existing city plans.

**Gray, George H.** HOUSING IN RUSSIA. (*Housing and Citizenship*, New York: Reinhold Publishing Corp., 1944, pp. 111-113) A general discussion of housing, particularly as “a subdivision of municipal and national planning.”

**Natl Muncipl Rev.** RUSSIA (housing). (Apr. 1945, pp. 200-1)

\***Shestopal, Nikolai.** VILLAGE HOUSING IN THE U.S.S.R. (*T & CP*, Summer, 1945, p. 80) Reviews briefly the housing program for collective farmers; indicates a higher standard for rural dwellings than that yet realized in the U. S. (Many of the articles on planning contain sections on housing but it was not possible to separate out those portions for inclusion here.)

### ARCHITECTS AND ARCHITECTURE

**Alabyan, K.** ARCHITECTURE IN THE DAYS OF THE PATRIOTIC WAR. (*Soviet Culture in Wartime* No. 1, June 1943, pp. 18-19) A short review of the Soviet architects’ wartime contribution.

**Architect and Engineer.** REBUILDING DEVASTATED AREAS OF THE SOVIET UNION. (Mar. 1944, pp. 22-5) Valuable largely for its pictures of Soviet architecture.

\***Arch Rev.** VASSILY BAZHENOV. (Jan. 1945, pp. 15-20) The life and architecture of this 18th century Russian architect who was “an outstanding example of native genius under conditions unfavorable to a native idiom.”

\***Carter, Edward.** SOVIET ARCHITECTURE TODAY. (*Arch Rev.* Nov. 1942, pp. 107-14) Intellectualized defense of the “people’s” architecture as the product “of a new heightened evaluation of the importance of popular taste;” the intellectual and artist is there to refine and develop mass experience, always under mass opinion, which is merely translating into terms of art theory and practice the political theories of communism. Mr. Carter’s case reinforced with excellent photographs is very strong but not completely convincing.

\***J RIBA.** ARCHITECTURE IN THE U.S.S.R. (July 1941, pp. 155-8) The development of architecture in the U.S.S.R. has not denied what history shows again and again, that “form derives its validity and significance not because it is ‘stylish’ but because it is well integrated with contemporary social development.” The reasons why the U.S.S.R. did not become the home of modernism are suggested, and of all the explanations about the poor form most Soviet architecture has taken this makes the best sense. Still one hates to infer that the nature of the “contemporary social development” accounts for the mediocrity of contemporary Russian architecture. There must be a better exegesis. (The article includes a bibliography on Russian art, architecture, and planning.)

**Life Magazine.** U.S.S.R. (Mar. 29, 1943) The entire issue is devoted to the Soviet Union and is a good overall, if somewhat cursory, pictorial review. See the article, “The Face of Russia,” for good photographs of past and present architecture.

**Meyer, Hannes.** THE SOVIET ARCHITECT. (*Task Magazine* No. 3, Oct. 1942, pp. 24-32) The work, training, and organizations of the Soviet architect indicate his important role to the nation. Meyer attempts to relate the “variety” of Russian architecture to the four economic stages of the U.S.S.R. This smacks of sheer rationalization, but otherwise he gives a good account of Russian architectural practice and its results.

(Continued on page 86)



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## REVIEWS

(Continued from page 84)

\***Osborn, F. J.** THE ARCHITECTURAL COMPOSITION OF TOWNS. (*T & CP*, Winter 1944-5, pp. 189-90) Review of a book in Russian by A. V. Bounin and M. G. Krouglova. (Moscow: 1940, 201 pp.) A book review well worth reading, especially since there is no English translation of this book on civic design. Inasmuch as Osborn considers it in the tradition of Sitte (and an English translation by Charles Stewart of *Der Städtebau* has just been published, *The Art of Building Cities*, New York: Reinhold Publishing Corp.) an English version of this interesting Russian work would be appropriate.

**Am City.** U.S.S.R. ACADEMY OF ARCHITECTURE MEETS. (July 1944, p. 109) The work of the U.S.S.R.'s Sixth Session of the Academy of Architecture.

**American-Soviet Building Conference.** PROCEEDINGS. (*Architect's Committee of the Natl Council Am-Soviet Friendship and the Forum*. New York: The Council, 1945. 206 pp.) Largely, concise descriptions of architectural and construction practices in America. Valuable information for our country but only a fleeting picture about the Soviet Union is provided.

**American-Soviet Building Conference.** (*Record*, June 1945, p. 20) Brief descriptions of the four days of panel discussions.

**Building Industry Committee, Natl Council Am-Soviet Friendship.** Bibliography. (Jan. 1946, mimeo. 2 pp.) Digests of material filed with the Council. Other bibliographies are issued occasionally.

**Journal of Housing.** HOUSING IN RUSSIA. (Nov. 1945, pp. 196-7) Highlights from the Am-Soviet Building Conference as it pertained to house construction.

**Kuznetsov, Grigory.** RUSSIAN PLANS FOR REBUILDING. (*Record*, Aug. 1944, pp. 120, 122) In reconstruction work the use of building materials and methods followed different lines. To make the best use of existing local materials and to limit materials transportation, the ancient and the new were utilized. Considerable use was made of industrial waste.

\***Marx House.** THE BUILDING INDUSTRY IN THE U.S.S.R. Preface by R. Coppock. (London: Lawrence and Wishart, Ltd., 1942. 47 pp.) Comprehensive study of the industry with descriptions of materials, production methods, and construction procedures. The training of new skilled labor is highly organized to convert untutored peasants into efficient workers, and their abilities are fully utilized at each stage of development.

\***Petrov, P.** UKRAINIAN ARCHITECTURAL ACADEMY AID REHABILITATION AND TOWN DEVELOPMENT. (*Municipal Jnl*, Dec. 21, 1945, p. 2548) The work of the Academy of Architecture of the Ukrainian Republic in Kiev. It is the largest of the many scientific institutions established in connection with the huge work of rehabilitation. It aids the local authorities in planning and city rebuilding and stresses the use of local raw materials. The Academy also assists in the restoration of the old architecture and monuments and compiles volumes on architectural history, building techniques, and the like.

### OTHER PUBLICATIONS

#### Natl Council of Am-Soviet Friendship.

*NEWS BULLETIN, ARCHITECTS' COMMITTEE OF THE COUNCIL*, mimeo. A summary for American architects of current, pertinent information.

*NEWS BULLETIN, BUILDING INDUSTRY COMMITTEE OF THE COUNCIL*, mimeo. A summary of current information for the industry.

*AM REVIEW OF THE SOVIET UNION*. A quarterly which is devoted to all phases of Soviet life and frequently contains articles about planning, housing, and architecture.

#### Society of Cultural Relations with the U.S.S.R.

(98 Gower St., London W.C.1)

*SOVIET RECONSTRUCTION SERIES: A BULLETIN ON TOWNPLANNING, ARCHITECTURE AND BUILDING*. Edited by Arthur Ling, mimeo. Represents a summary for the British of the latest available information about Soviet construction and parallels the American bulletins cited above.

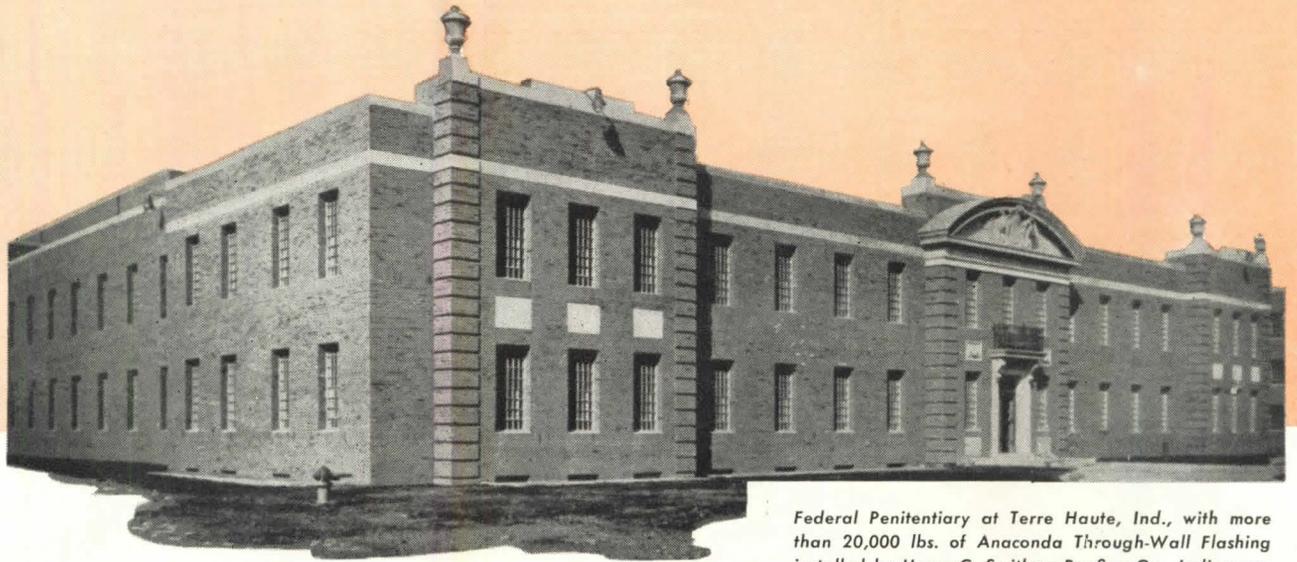
*ANGLO-SOVIET JOURNAL*. A quarterly which is similar to the *Am Review of the Soviet Union*.

(Continued on page 88)

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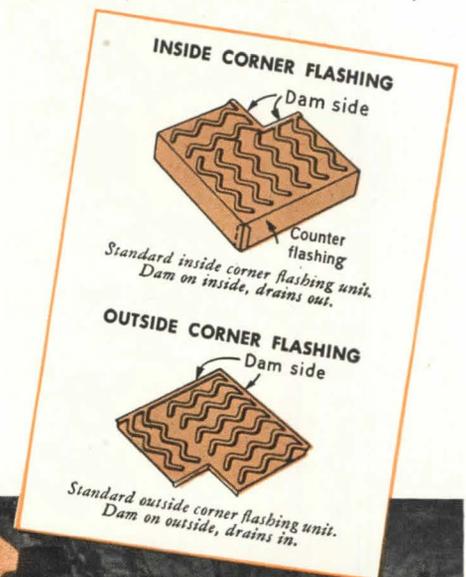
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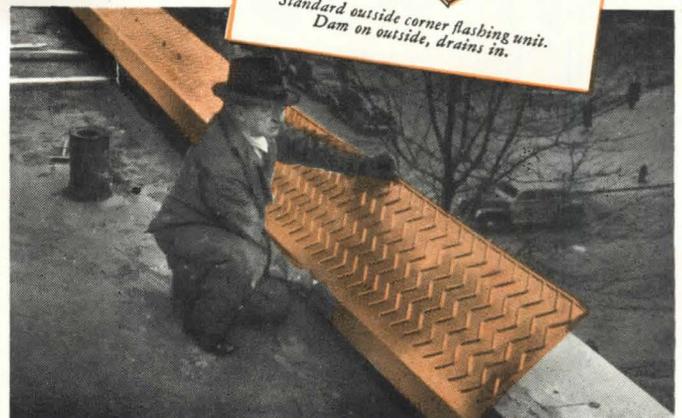
  
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## REVIEWS

(Continued from page 86)

**ARCHITECTURAL AND PLANNING GROUP OF THE SOCIETY.**—HOW BUILDING AND PLANNING ARE ORGANIZED IN THE USSR. (Reprint from *Archts' Jrl.*, Aug. 1, 1946, 8 pp.) Detailed answers to questions submitted to the Architects' Section of VOKS—the Soviet Society for Cultural Relations with Foreign Countries in Moscow dealing with the organization of architectural practice, the building industry, architectural education, housing, and town planning. (Photos and plans.)

(The American and British organizations mentioned here issue also from time to time other mimeographed or printed monographs, reading lists, and related material.)

### GOAD TO ACTION

*Breaking the Building Blockade.* Robert Lasch. University of Chicago Press, 5750 Ellis, Chicago, Ill., 1946. 316 pp. \$2.50

This study of city planning and housing by Robert Lasch merits a place with the work of Lewis Mumford, Catherine Bauer, Walter Gropius, Sigfried Giedion, Henry Churchill—among the scholarly and important contributions in this field. It is essentially a rich abstract of information on financial, sociological, political, cultural, technical, and legal facets of the subject.

The theme of the discussion is that people are what their houses make them. Since decent housing is more than houses, adequate city planning must provide appropriate spatial environment for its accomplishment. The adverse factors of the past are identified by the author for avoidance in the future.

Strong, selfish powers have planned and molded the city for their own immediate profit. Politicians, real estate men, bankers, unions (strange as that is), monopolies in building supplies, building codes, and the construction industry itself have each played an inglorious role. They have not been deterred from their questionable activities by the visible results: an increasing shortage for the past fifty years of housing which people could afford, mounting to the present crises.

The situation will not be righted until large groups of citizens of all classes unitedly exercise their enormous power and demand action. To goad the city's residents to such demand is one aim of this book. A program of sound housing objectives and of the steps necessary for its actualization are outlined.

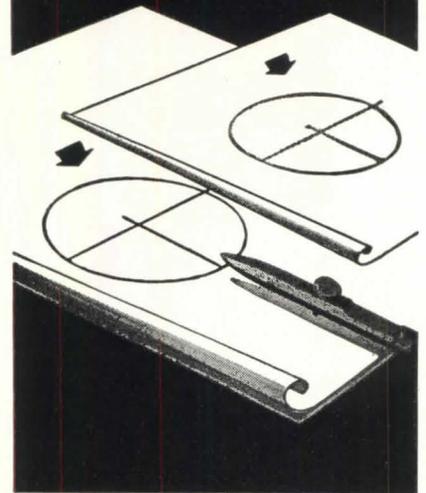
The author skillfully coordinates the vast amount of materials which he has marshaled for his purpose in a readable, convincing work.

LAWRENCE E. MAWN

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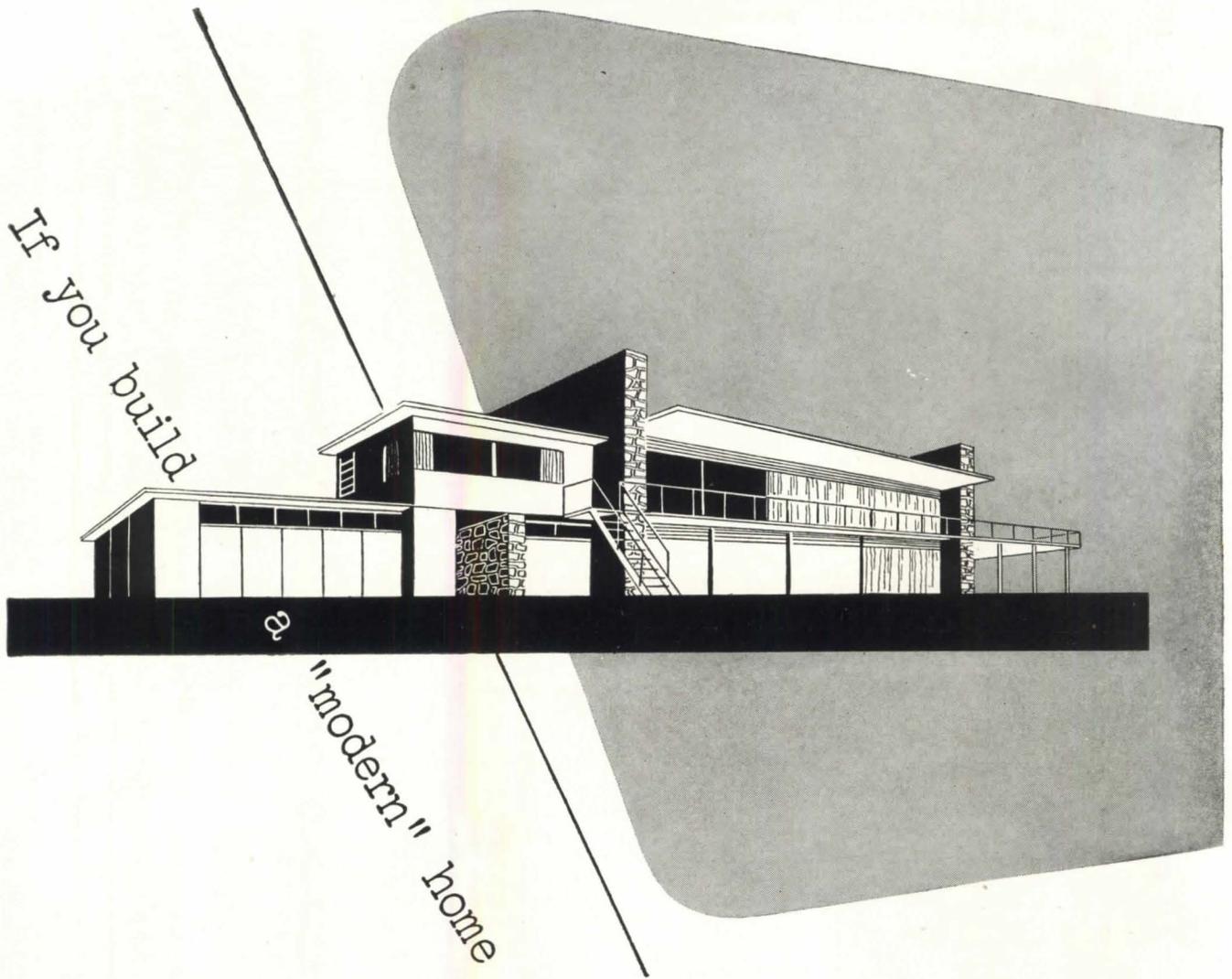
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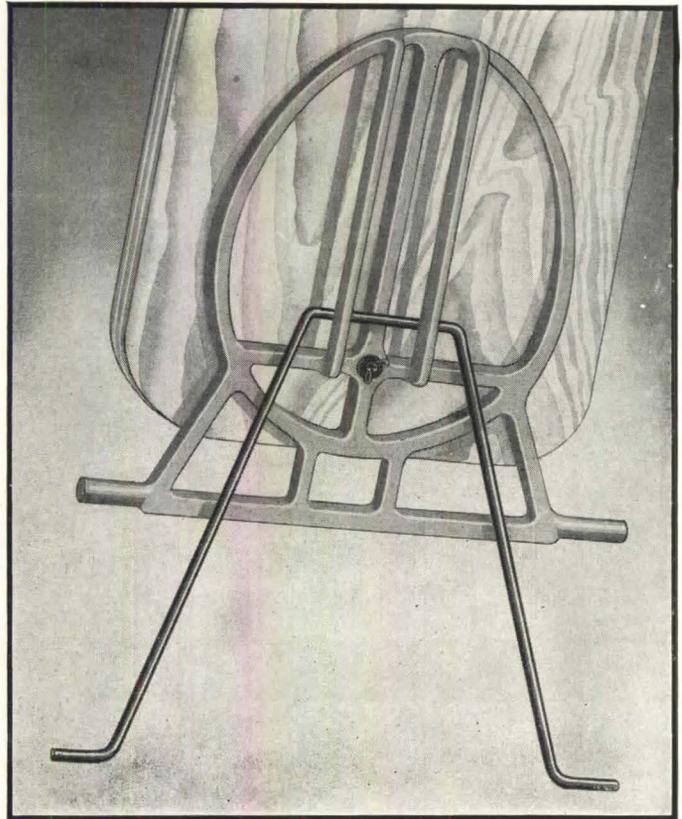
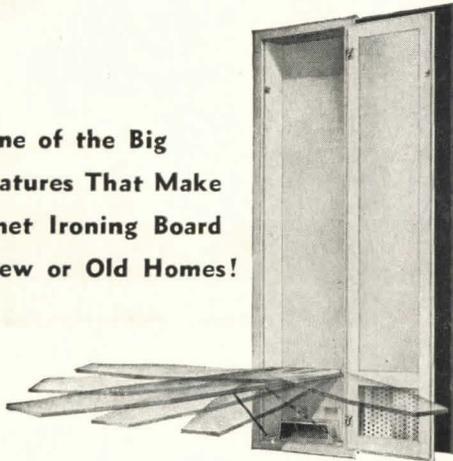
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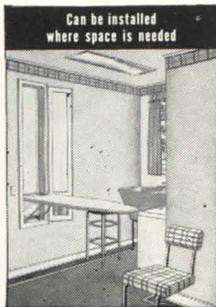
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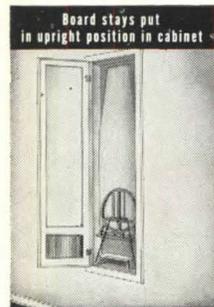


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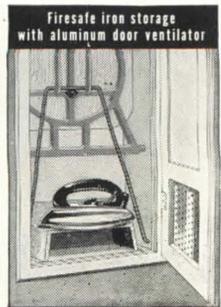
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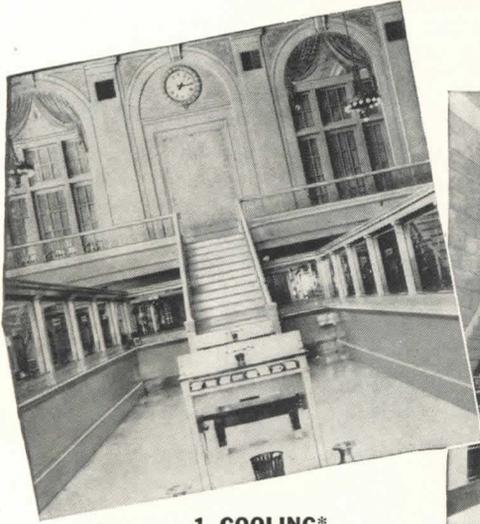
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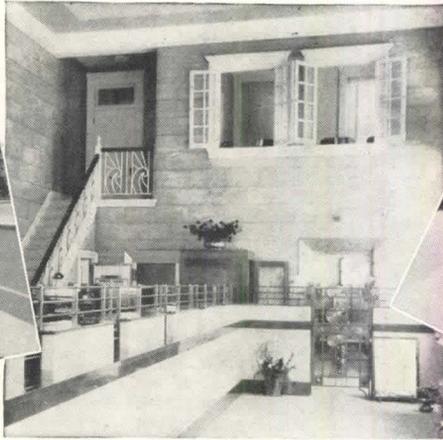
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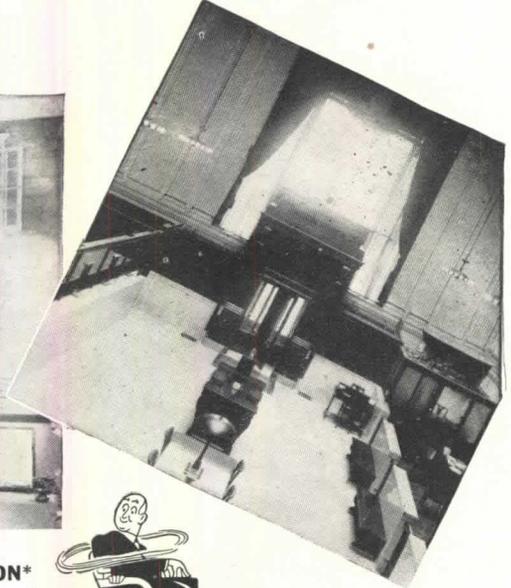
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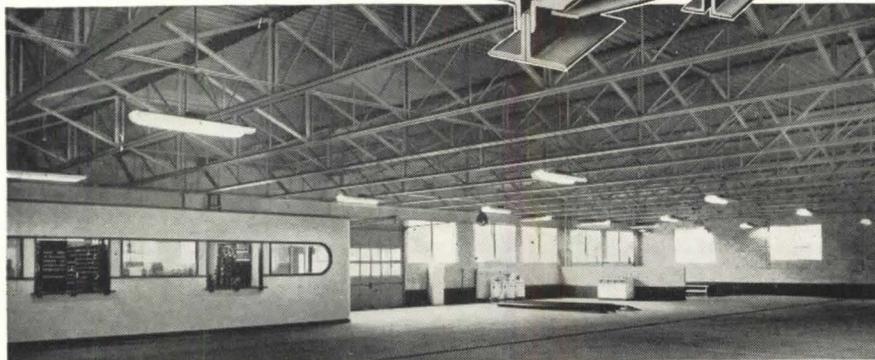


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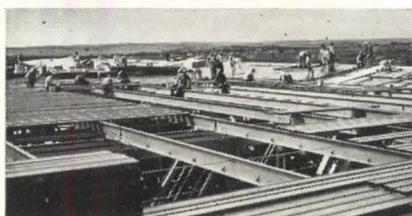


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"Ferrobord" Steeldeck consists of a parallel system of strong structural interlocking steel members, which present a smooth surface over which can be applied built-up roofing of any type, with or without insulation. "Ferrobord" is made from both 20-gauge and 18-gauge copper-bearing strip steel, having an ultimate strength of not less than 50,000 lbs. per square inch. Each unit is 6 inches wide and has a depth of either 1½ or 1¾ inches.

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*The Truscon Steel Company has engineering and sales offices in 43 major cities, strategically located throughout the United States. Each of these offices is manned by experienced men who have been in the designing and structural business a long time, and are capable of giving you helpful, intelligent service on your daily problems. There's a Truscon man in your own town, or just a short trip away. Don't hesitate to ask him to call on you, no matter where you are.*

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There are a lot of times when you need a commercial window that's not only good looking but one that must meet special requirements. For instance, if windows must be screened, the outward projected type is the answer. The same is recommended when the ventilator must not, in an open position, intrude on the interior clearance required for crane movement, nor interfere with shades. Conversely, the ventilators may project in and provide needed ventilation without extending beyond the building line. The Truscon Commercial Projected Window is especially made for requirements of this kind. It's a good window to use for designing large window areas, too. Write for literature on the Truscon Commercial Projected Window, giving you complete mechanical features, construction details, and types and sizes.



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Moreover, this book shows many beautiful bathrooms and kitchens in full color. These rooms were actually built and photographed to provide your clients with ideas and suggestions for the new bathrooms and kitchens they are planning.

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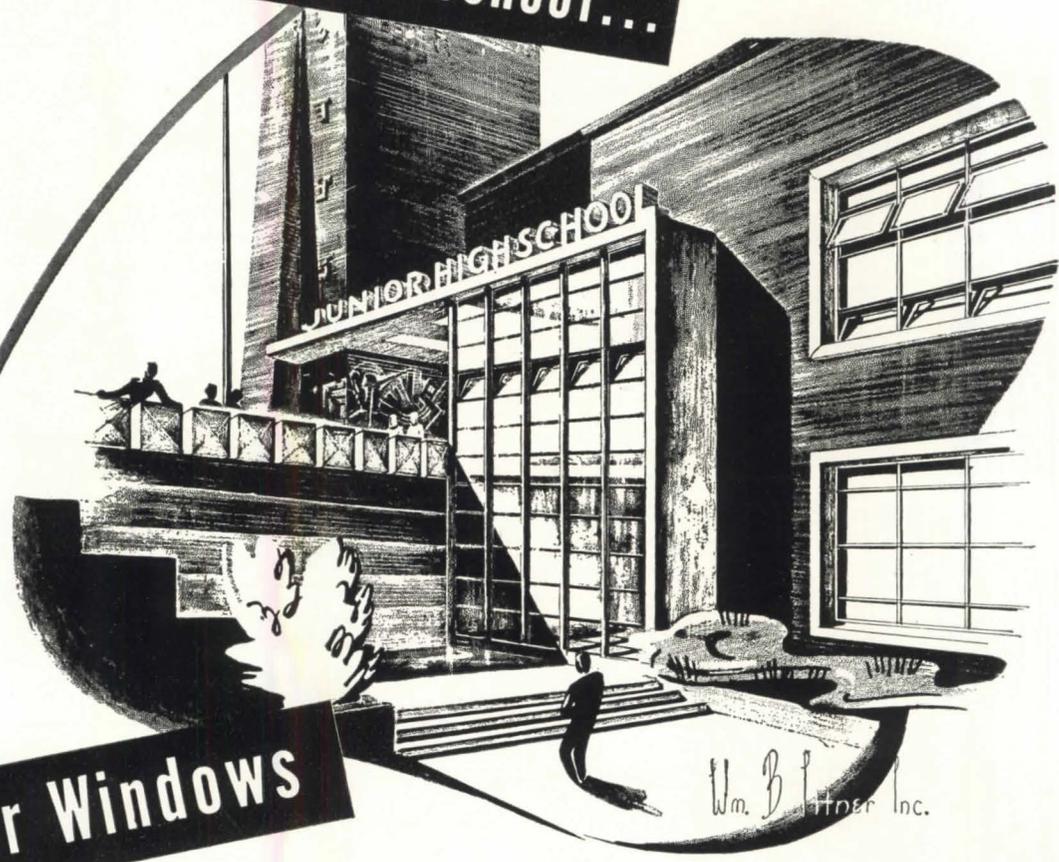
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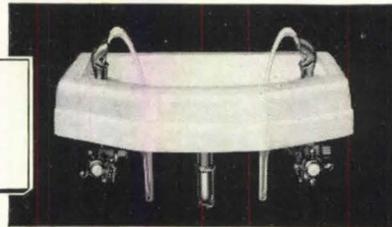
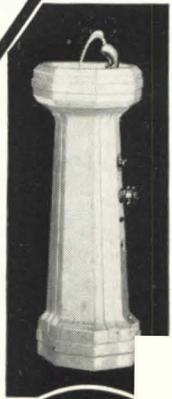
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A-51

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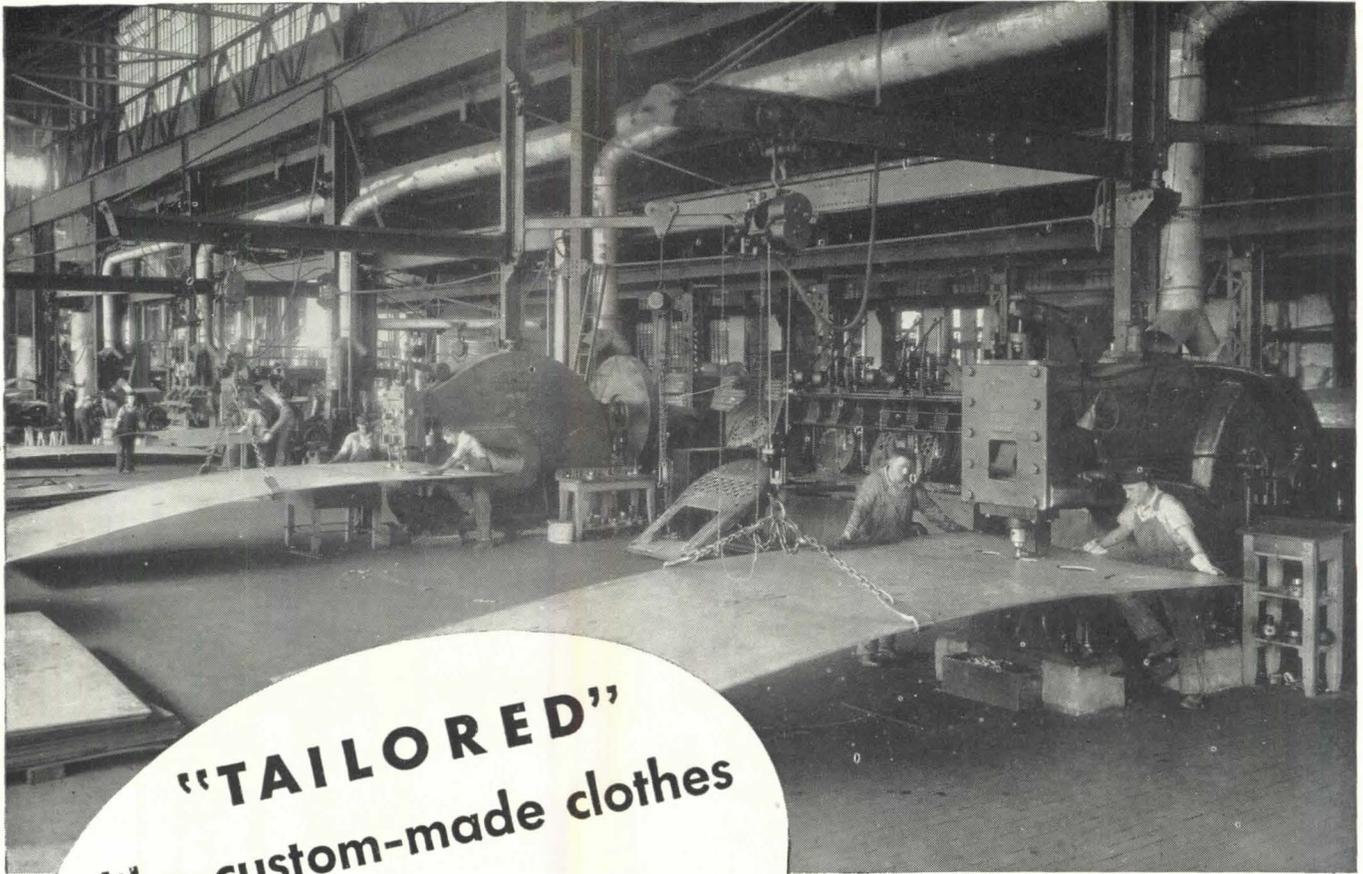
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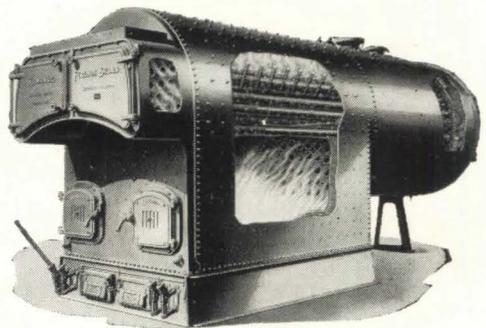
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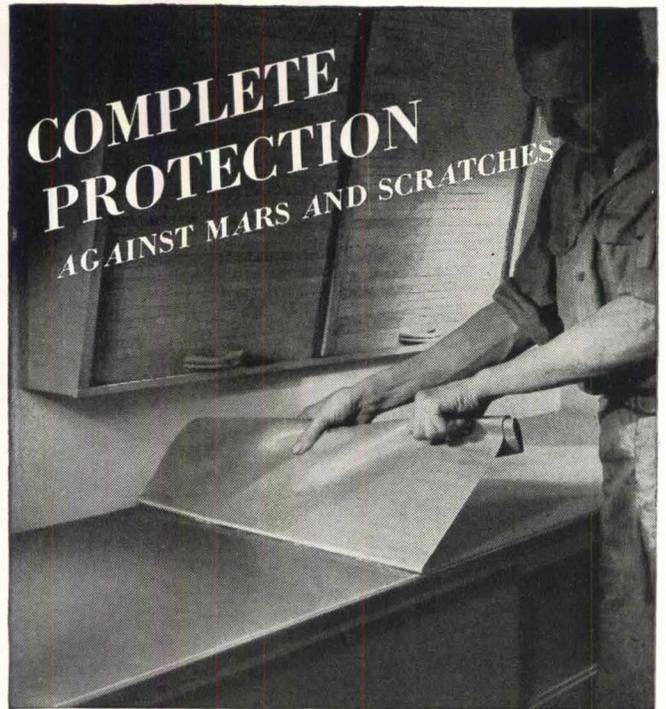
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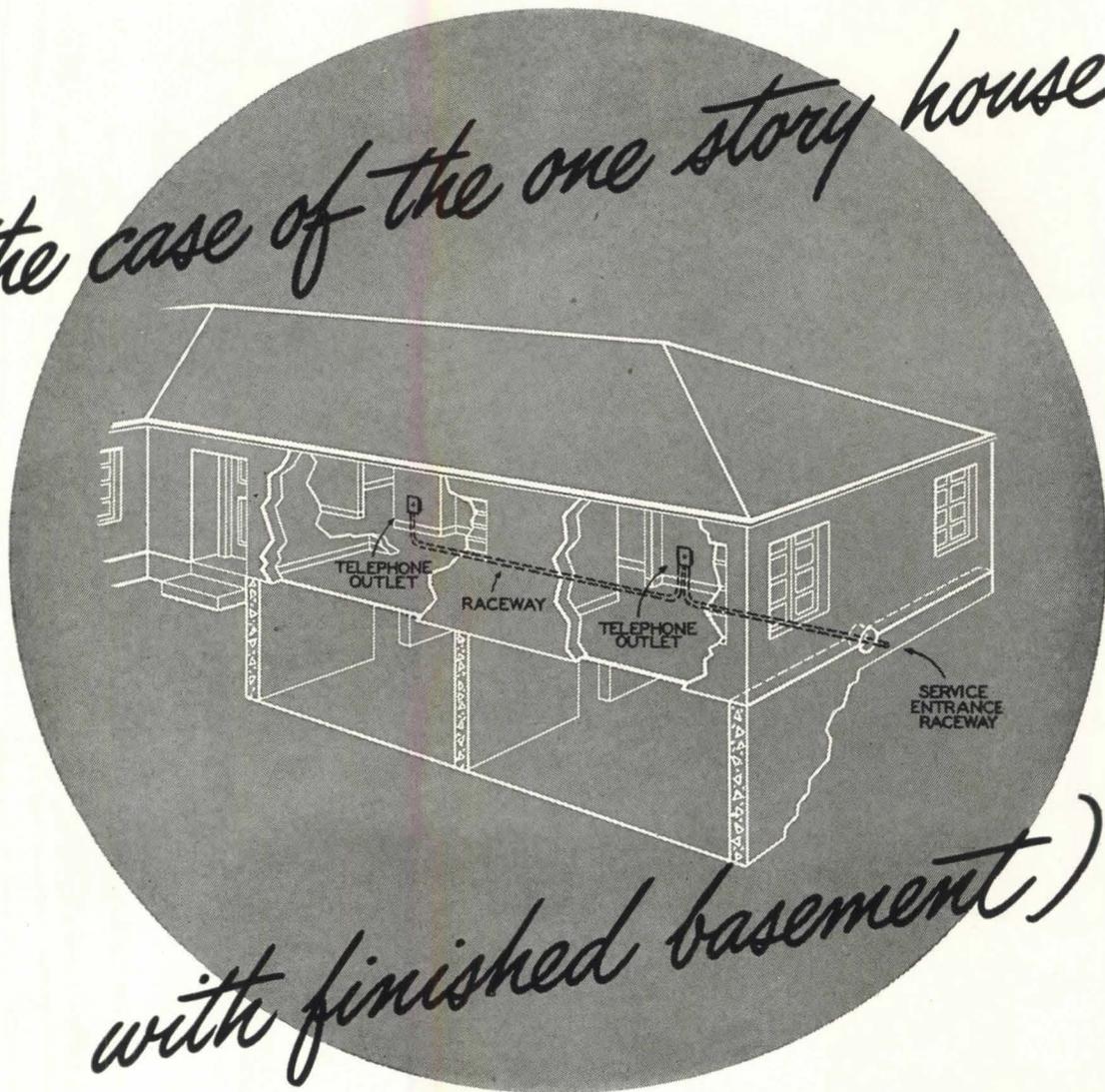
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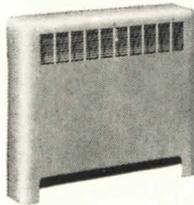
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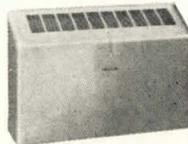
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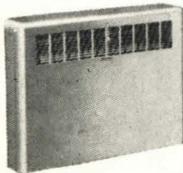
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Saves on installation costs; ideal for remodeling or new construction.



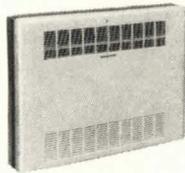
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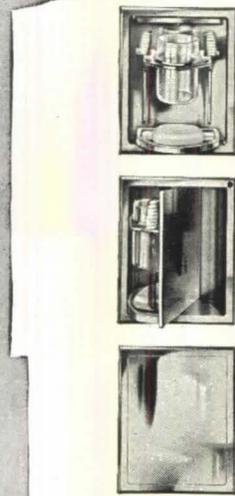
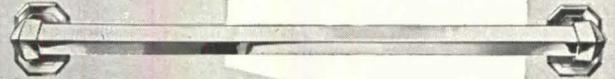
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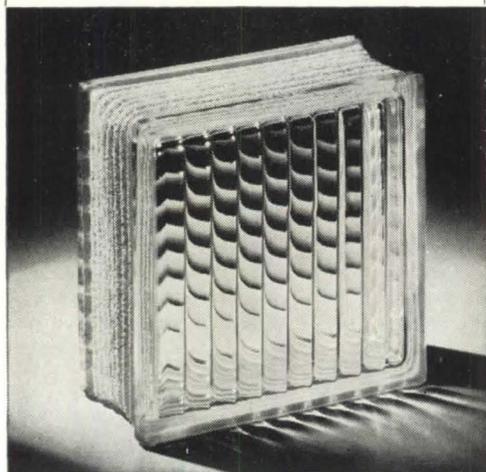
This entrance in Martha Maid Manufacturing Company's showrooms is highlighted by a gracefully curved floor-to-ceiling panel of Insulux Glass Block. The Insulux panel

transmits light from room to room—creates an atmosphere of spaciousness—for this Chicago manufacturer of women's lingerie. Architects are Loewenberg & Loewenberg, Chicago.

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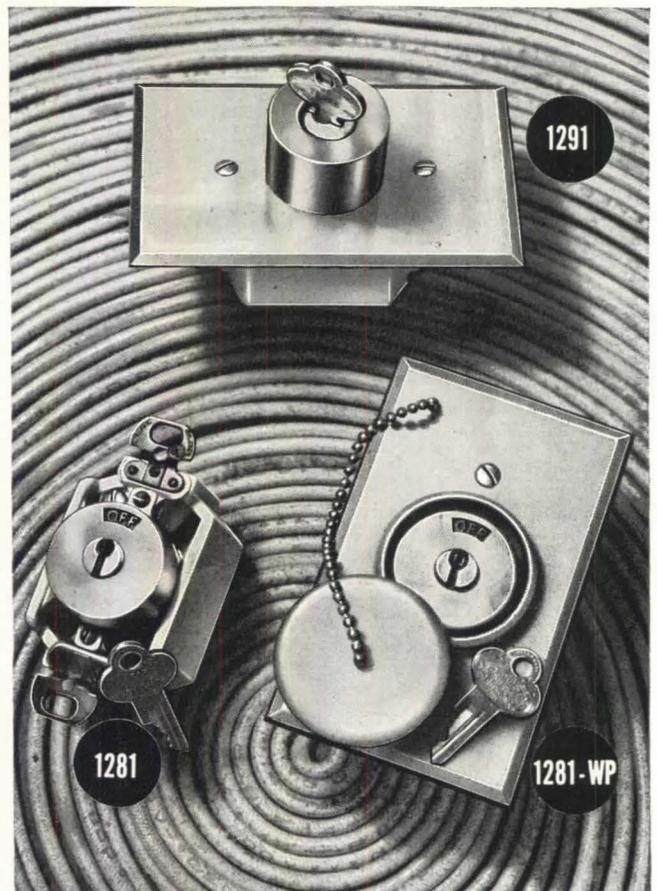
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The Lock Switches pictured here are no ordinary switches with locking device. They're time-tested H & H Rotary Snap Switches, operated only by turning the key in a Corbin Pin Tumbler Lock.

No. 1281 is standard type, single pole, available also in double pole, 3-way and 4-way. No. 1281-WP is weatherproof, with cadmium-finish screw cap plate fitting on a weathertight rubber mat. No. 1291 is a master lock switch, reciprocating type. After inserting key in lock, switch may be turned to right or left — ON or OFF, but key cannot be removed from switch in ON or OFF position. Write for specification data on this complete line.

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# How to Adapt Weldwood Paneling to Stock Door and Window Frames

For new construction or remodeling, you'll find it quick and easy to use Weldwood Plywood with stock sashwork.

Here are four methods selected from those illustrated in the Weldwood Installation Booklet. You'll find a host of other helpful and valuable suggestions for the many interesting structural details possible with this versatile material.

This profusely illustrated booklet is yours for the asking. Write for your free copy today.



*Waterproof Weldwood for exterior use is bonded with phenol formaldehyde synthetic resin. Other types of water-resistant Weldwood for interior applications are manufactured with extended urea resins and other approved bonding agents.*

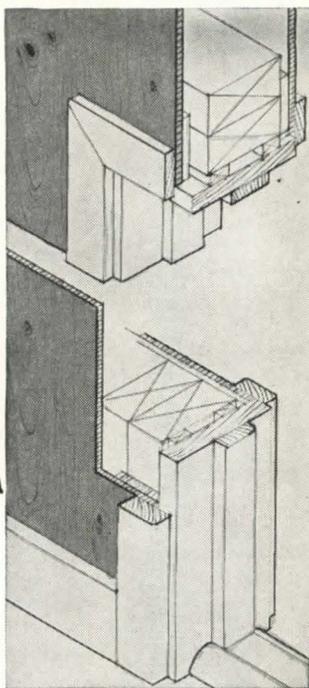
## WELDWOOD Plywood

*Weldwood Plywood and Mengel Flush Doors are products of*

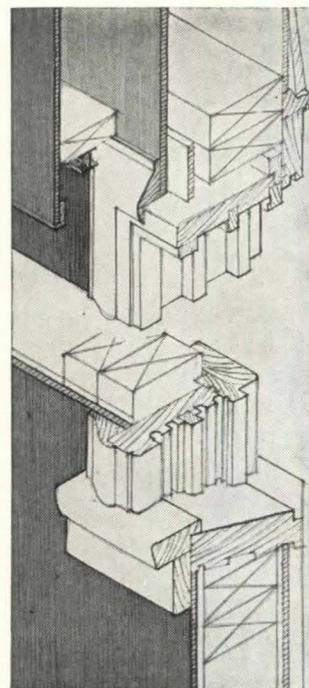
UNITED STATES PLYWOOD CORPORATION  
New York 18, N. Y.

THE MENGEL COMPANY, INCORPORATED  
Louisville 1, Ky.

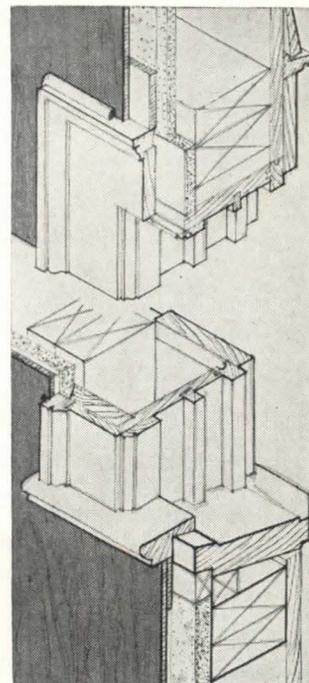
*Distributing units in Baltimore, Boston, Brooklyn, Chicago, Cincinnati, Cleveland, Detroit, High Point, Los Angeles, Newark, New York, Oakland, Philadelphia, Pittsburgh, Rochester, San Francisco, Seattle. Also U. S. -Mengel Plywoods, Inc. distributing units in Atlanta, Dallas, Jacksonville, Louisville, New Orleans, Houston, St. Louis. In Canada: United States Plywood of Canada, Limited, Toronto. Send inquiries to nearest point.*



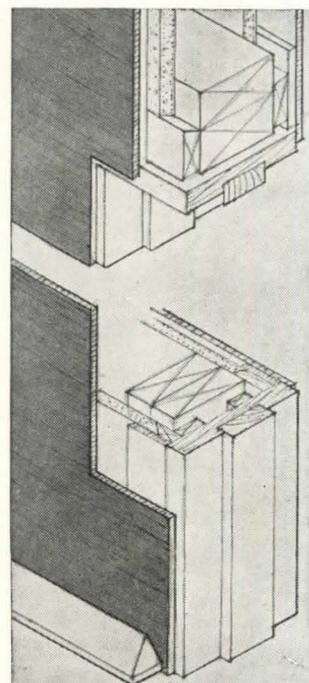
This detail shows a simple but effective method of adapting Weldwood Plywood to an inside door jamb during new construction. Weldwood is brought flush, and covered with stock molding.



Dri-bilt construction, with Weldwood adapted to stock window frame. Note the unique plywood valance, concealing all fixtures. Easily made from Weldwood during construction.



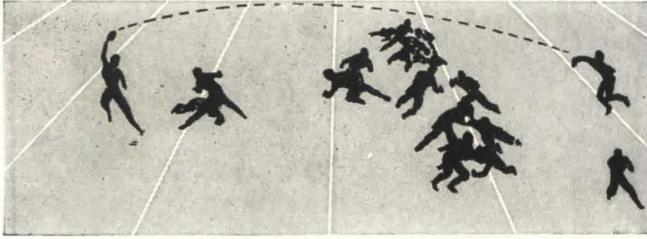
Double-hung window in standard plaster wall construction, with back band casing. Banding must be thick enough to install small molding around opening, to cover fitting imperfections.



You can use Weldwood equally well without any type of casing, as this detail of an interior door opening shows. This method is equally satisfactory for new construction or remodeling.

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is the key to an economical  
trouble-free Heating System



## THE DUNHAM HEATING "TEAM"

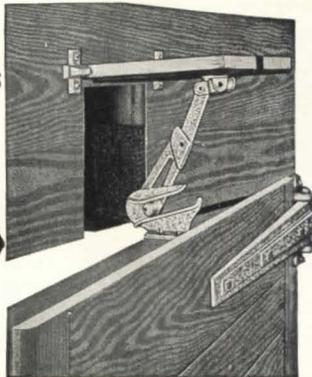
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3. Hairline contact of bottom chord with plaster prevents streaking.
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5. Shielded arc welds withstand three times the designed stress.
6. Ceco steel joists are approved by the Steel Joist Institute.

Ceco catalogs are in Sweet's Architectural File

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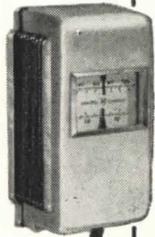
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A POINT FOR EVERY PURPOSE



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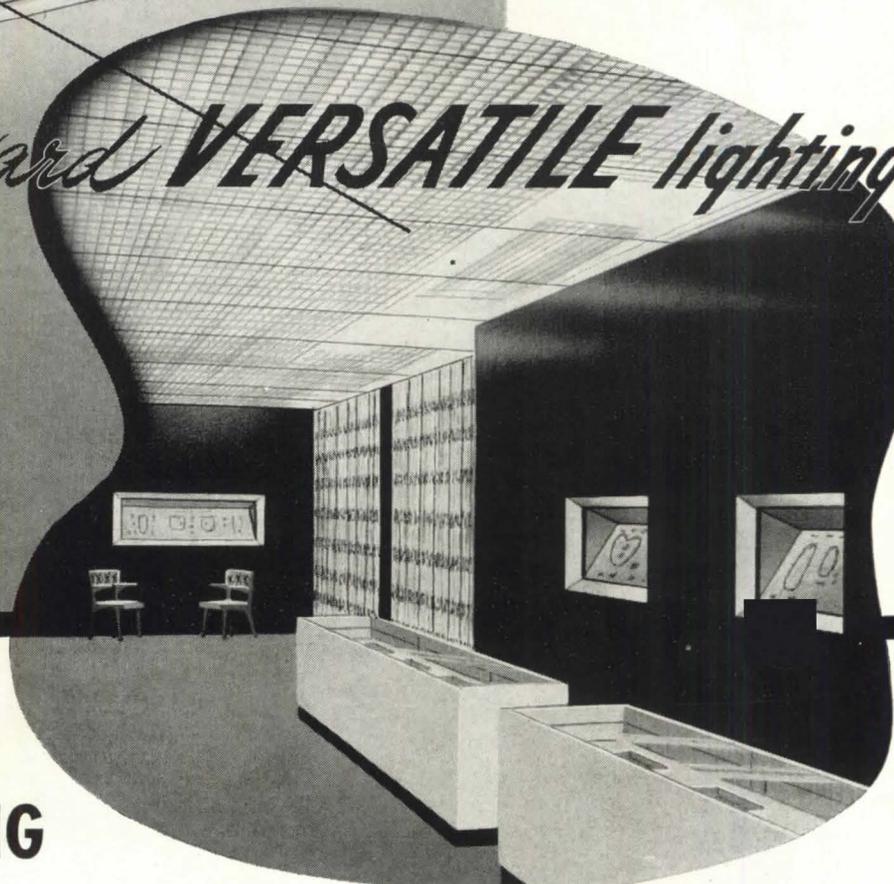
... is toward **VERSATILE** lighting

FEDERAL

## Cold Cathode



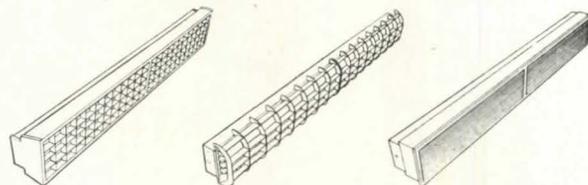
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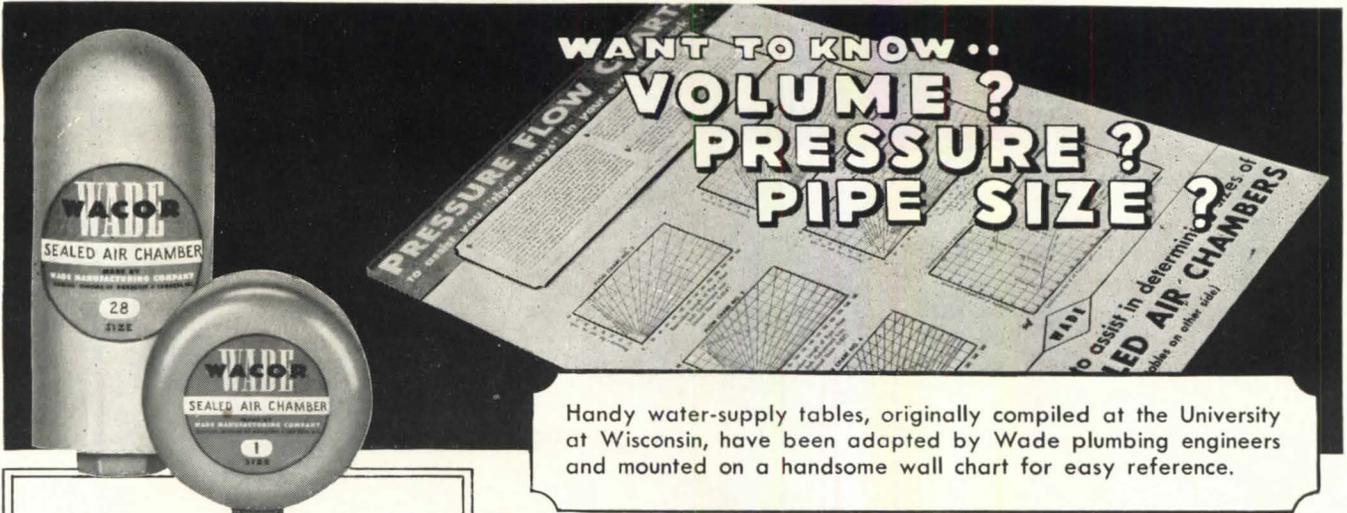
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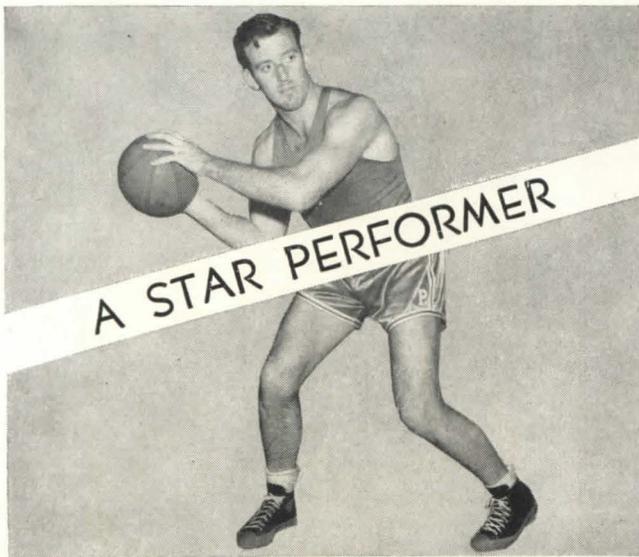
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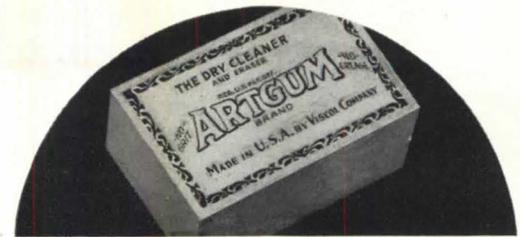
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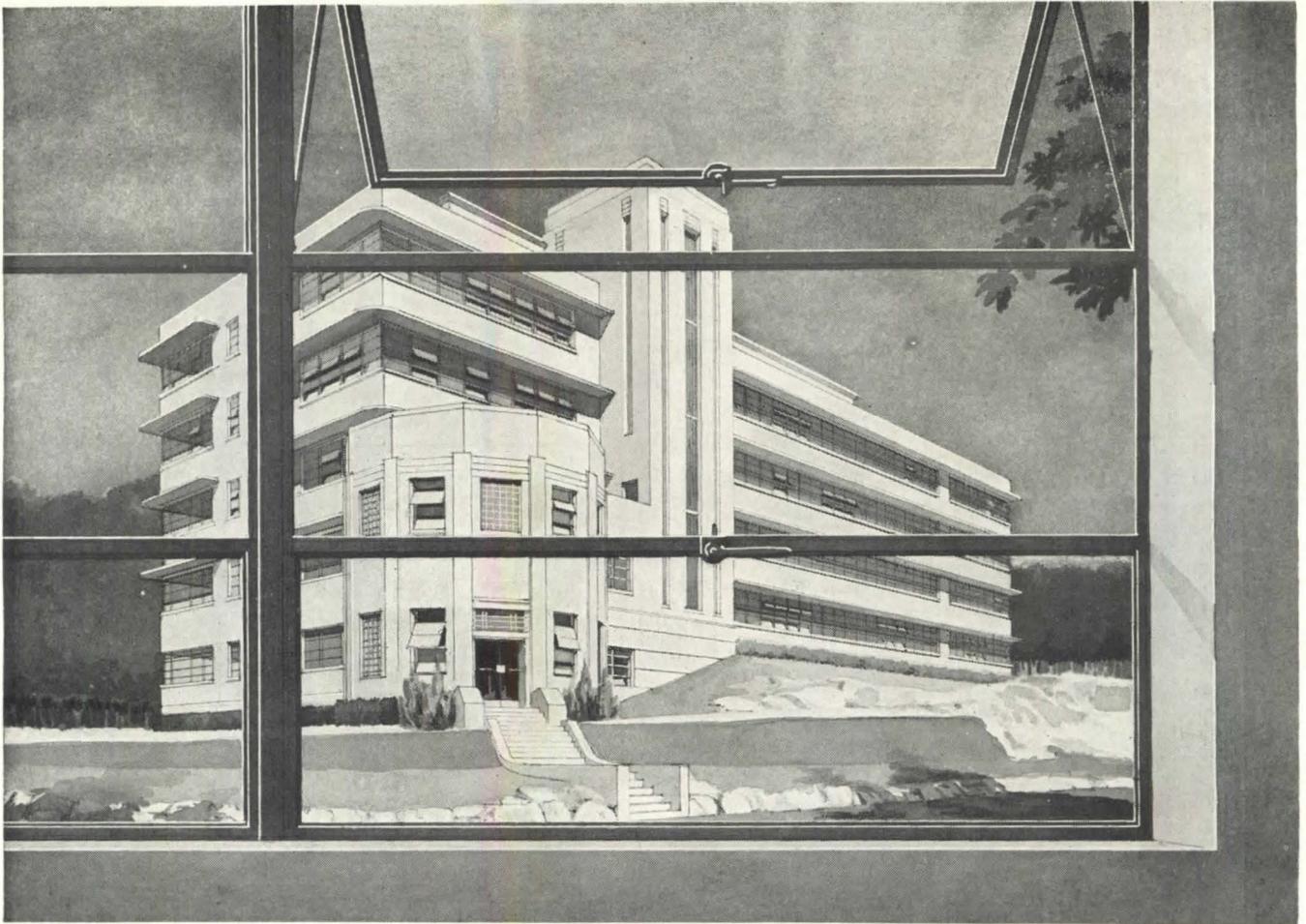
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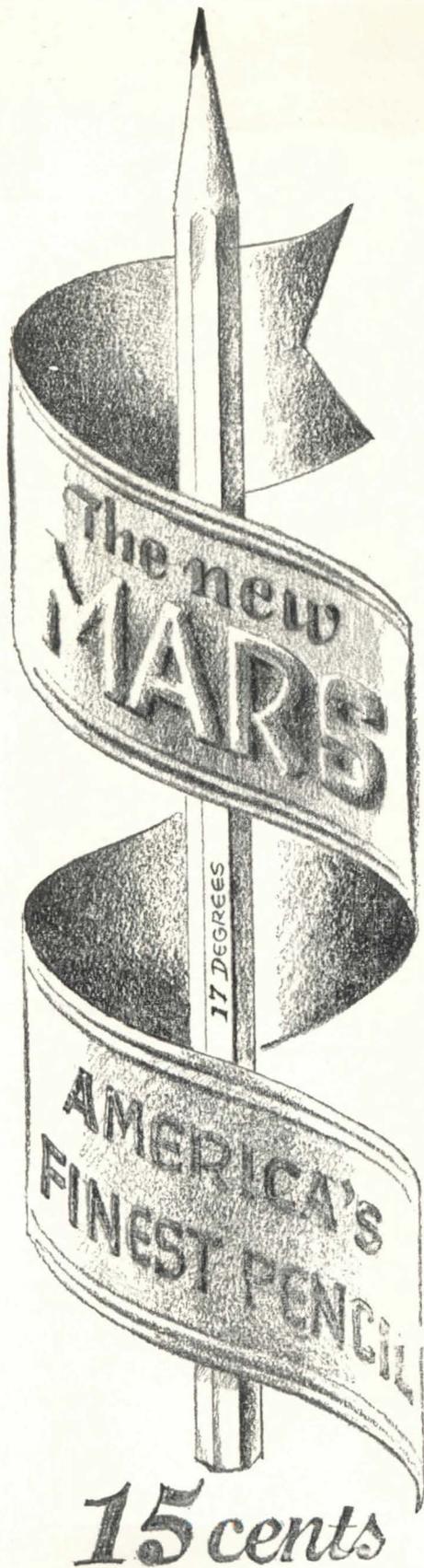
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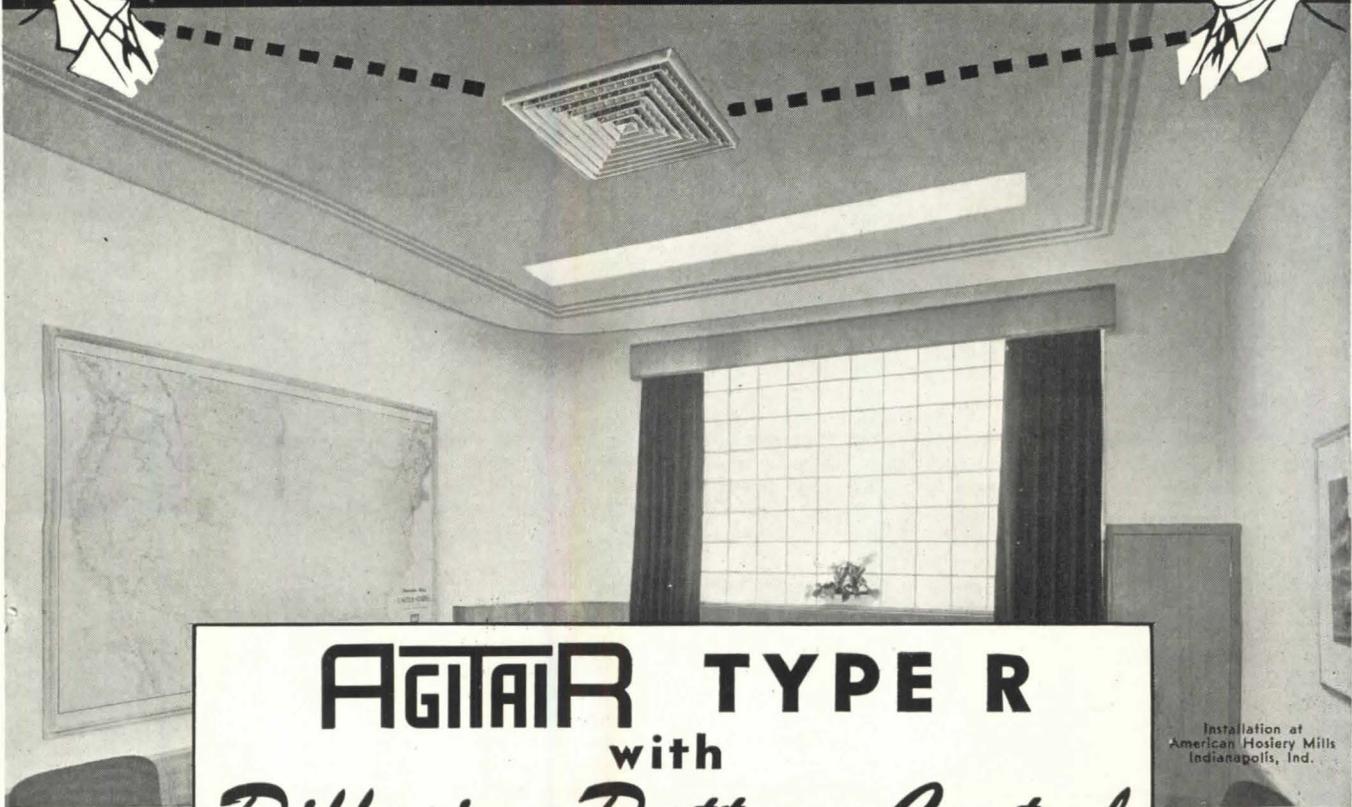
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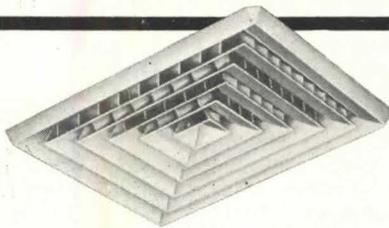


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I AM GETTING VERY TIRED OF HEARING ARCHITECTURE REFERRED TO AS "A PART OF THE BUILDING INDUSTRY." Jim Edmunds, that indefatigable president of the A.I.A., has been traveling the country, delivering at many chapters and state association meetings a speech which begins, "The architects as a group are numerically and politically weak. We can be effective only if we realize that we are an integral part of the building industry." I submit that this evaluation is a very sure way to reduce architects to professional impotence and architecture to a minor aspect of real estate maneuvering. Edmunds and the A.I.A. are not alone guilty in this sense; every day material comes to my desk which says "the building industry" when it means architecture.

It is entirely laudable that architects have climbed down from the ivory tower they occupied for so long and come to an appreciation of the realities of building. While they were up there drawing paper facades, the engineers and the contractors stepped in and took away many of their prerogatives. However, if the profession now meekly lines up in back of the NAHB, the AGC, and the NAREB, and plays snap the whip in the tail position, it's going to get flung off the line entirely.

What is the "building industry" in your town? Several speculative home builders, not always bothering with architectural services; a couple of general contractors who don't always agree when you propose a change in their usual method of building; a few real estate people who are not always interested in proper community development; some mortgagors who do not always applaud progressive design; some dealers in building materials, who aren't always concerned with selling the best product for a particular purpose. Is your proper place in the community "an integral part" of this group? Or do you aim to be recognized as the planner, the designer, the coordinator, the professional who makes sure that the community and the people in it get the best possible buildings that the contractors can build and the bankers will finance, on the best sites the real estate operators can provide, constructed of the best and most appropriate materials that can be furnished?

A great many architects, designers, draftsmen, and students, in and out of the A.I.A., are bursting with a new feeling of importance. There is activity ahead; there is progress afoot. As a profession, we can move now to re-assume our proper place in society. Or we can slip back, comfortably, to the role of draftsmen for the construction industry. It will be interesting to see whether the A.I.A. assumes leadership

in a real fight for proper professional stature or whether it will pass and let the bid go to another group that will, in that case, inevitably emerge.

THE PRESENT COMPARATIVE IMPORTANCE OF THE VARIOUS FACTORS IN AN IMPORTANT BUILDING OPERATION WAS ILLUSTRATED WHEN U.N. LUNGED AVIDLY AT THE ROCKEFELLER PROPERTY, forgetting all the criteria that had been established by a technical staff and approved by a professional advisory committee. The papers carried long stories about Webb & Knapp, the real estate firm that held the land, and their vice president, Mr. Zeckendorf (*The Architectural Forum*, October 1946, p. 9), but the matter of architecture (PROGRESSIVE ARCHITECTURE, March 1946, p. 51; April 1946, p. 98; August 1946, p. 70; October 1946, p. 156) was casually referred to Trygve Lie, to whom Webb & Knapp have offered plans prepared for another purpose on this site by Harrison & Abramovitz.

PROGRESSIVE ARCHITECTURE has made every effort possible to urge an international competition for this world-important design. Our final gesture was to wire Mr. Lie, pointing out that we have support for the competition principle from architects, architectural journals, and architectural societies all over the world. *The New York Times* carried a story that PROGRESSIVE ARCHITECTURE "has reported to Trygve Lie . . . that the magazine's suggestion for an international competition . . . had received strong support. . ." We have urged action once more on the committee the A.I.A. set up to advise on U.N. headquarters, which has taken a unanimous stand for a competition. Any of you readers who feel strongly about the matter can write to Mr. Trygve Lie, Secretary General, U.N., 610 Fifth Avenue, New York, N. Y. Otherwise the architecture is likely to be consummated as part of the real estate deal. That's the way "the construction industry" operates. I think the people of the world who are placing their hopes in U.N. have a right to expect something better.

ILSE MEISSNER'S STUDENT THESIS IN THIS ISSUE MAKES ME WISH THAT WE KNEW PRECISELY WHAT IS GOING ON IN THE SCHOOLS. Reports are conflicting, and research we attempted turned up extreme pride on the part of the faculties and some dissatisfaction in the student body. We'd have to attend all the schools, one after another, to get a

really objective picture of the quality of architectural education today. We do know that the schools are crowded, and that the students are eager, interested, and intelligent. We know that many schools are still directed by people who are out of sympathy with the times, and that good instructors are hard to find; yet we have had releases indicating a remarkably high level of ability in the faculties. For instance, Pratt Institute announces Walter Sanders, Philip Johnson, Caleb Hornbostel, and William Breger as design critics. Buford Pickens has become dean of Tulane's architectural school. William Wilson Wurster is still at M.I.T. with an excellent staff, now including Vernon DeMars, Carl Koch, and Ralph Rapson. Gropius at Harvard has Stubbins and Chester Nagel.

Syracuse announces the addition of William Lescaze and James Britton to its Cooperating Committee. Joseph Denis Murphy at Washington University in St. Louis, and Henry Kamphoefner at the University of Oklahoma are producing results. We hear good things of Alabama Polytechnic, Georgia Tech, and the University of Florida. We published some University of California work last year, designed under Howard Moise.

And yet—we get a copy of a design problem (Architecture 4, Problem 2) from that same University of California, calling for the ground floor of an existing building to be remodeled for banking purposes, which reads as follows:

"The bank front, occupying the whole area, approximately thirty-six feet wide by thirty feet high, shall be designed as a 'distyle-in-antis' composition in some direct derivative of the Greek Ionic or Corinthian Order, for execution in its entirety in a fine cream-white marble. It shall, therefore, have 'antis' or square piers at the two sides and two intermediate round columns clothing the steel ones, all surmounted by an entablature."

Perhaps the tables are being turned on the eclectics. For years the argument against rational design has been that "the public won't accept it." I defy the man who wrote that program to find a bank client today who wants his public space hidden behind a distyle-in-antis.

WE INVITE YOUR ATTENTION TO OUR NEW COVER. For some time we have realized that a pictorial cover with or without glamour, with or without symbolism, with or without relation to the content of the magazine, was not professionally appropriate. Hence the typographic design which lists the entire contents, for your convenience in reading and filing, on the cover of the magazine. We hope you like it.

Thomas H. Wright