

ARCHITECTURAL RECORD

COMBINED WITH AMERICAN ARCHITECT AND ARCHITECTURE



WELL, HERE'S THE MAY ISSUE! And a glance at the table of contents will disclose at least a round half-dozen editorial offerings of more than passing interest and value. Among them is the Building Types study on *House Modernization*, which, with a Time-Saver Standards check list and a number of out-of-the-ordinary illustrated case studies of remodeled houses, packs a lot of useful reference facts into its twenty pages. Incidentally, this is the kind of material which would also interest your clients; and we suggest you let them in on it before discussion of spring remodeling plans has advanced much beyond the preliminary stage.

The residential field isn't confined to remodeling in the pages of this issue. We've reported—in the kind of descriptive portfolio which, our scouts tell us, is increasingly popular—a regional variety of *New Houses with Two Bedrooms*; and the section on residential details this month is concerned with *Bars*. Last month we started the inclusion of scale drawings to complement photographs and captions; and future issues of the RECORD will contain detail sections with much to offer along the same lines.

All this—and the other *New Build-*

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VOLUME 87

MAY 1940

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*Material and equipment schedules sent on request.

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MAY 1940



• Stucco houses built by H. W. Cheel are easy to sell. When properly applied as in Cheelcroft, stucco made with Atlas White will stand up in the severest weather, and needs practically no upkeep. Architect for house at extreme right, Royal Barry Wills, Boston; Architect for others in row, Harvey E. Mather, Ridgewood, N. J.

FOR GOOD LOOKS AND LOW COST— SPECIFY *Stucco*

H. W. CHEEL has built over 250 houses in "Cheelcroft," Hohokus, and in Ridgewood, ranging in price from \$8,500 to \$45,000. The architects for these houses in New Jersey designed many of them to take advantage of portland cement stucco—either wholly or in combination with brick, stone, or wood.

There are many reasons for this: Stucco offers freedom in design. Since Stucco can be applied in an almost unlimited range of colors and textures, it blends effectively with practically any type of architecture.

In addition, Stucco, made with Atlas White cement, combines strength with low cost. For instance, Mr. Cheel, speaking of these steel-and-concrete overcoats on his houses,



One of the many houses Mr. Cheel has built in the past 15 years with exterior walls of stucco. Prices range from \$8,500 to \$45,000. Mr. Cheel finds stucco, made with Atlas White, creates the appearance and economy that ring up sales. Architect for above, J. Norman Hunter, Teaneck, N. J. Stucco made by Artstone Rocor Corp., Brooklyn, N. Y.

says portland cement stucco made with Atlas White cement is the most economical type of masonry both in first cost and over a period of years.

Figure on using Stucco, made with Atlas White cement, on your next job. See how it makes possible a low-

cost exterior that will please your clients. Universal Atlas Cement Co. (United States Steel Corporation Subsidiary), Chrysler Building, New York City.

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AR-S-15

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ARCHITECTURAL RECORD

BEHIND THE RECORD

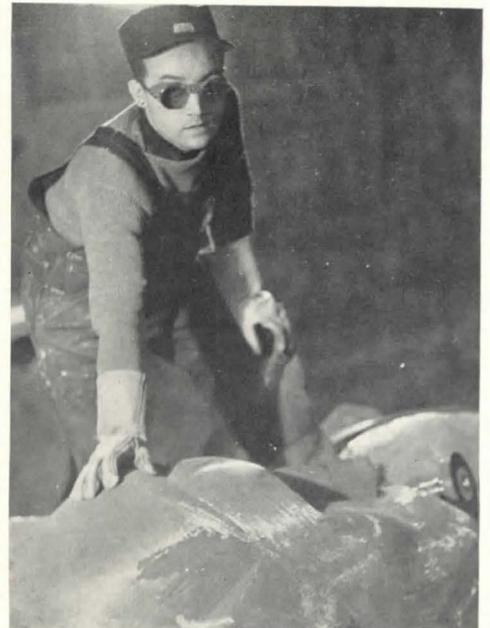
(Continued from page 5)

ings reported in this issue—are on the design and production side of architecture. For the information and guidance of the front office, Arthur B. Holmes, AIA, has compiled as significant a set of statistics and comments on matters of professional import as we have seen in some long time. With RECORD help he surveyed 1000 architects in all sections of the country, asked them questions and invited them to answer, categorically and *ad lib*. To study their replies, turn to page 75 and read *Five Questions on the Profession's Future*. If the survey engineers are on solid ground in maintaining that, in any group, opinions of a 1% minority reflect accurately the attitude of all, this study contains a lot of food for thought—and maybe a basis for some sort of future action.

An unveiling set for April 29 puts us, we believe, on the seat right alongside a popular national weekly that takes pride in keeping its readers posted by unerring topical prognosis. Months ago we scheduled a Trends study on *Art Forms in Architecture*. As this issue goes to press with it (pp. 80-85), the new Associated Press Building, Rockefeller Center, New York City, is having mounted over its doorway what is said to be the largest metal bas-relief sculpture in history. Conceived by Sculptor *Isamu Noguchi* and engineered and cast in Stainless Steel by the General Alloys Company of Boston, Mass., the plaque (see cut, above, right) measures approximately 24 by 18 ft., was cast in nine sections machined to "invisible" hairline joints, and is the largest sculpture of any kind in Rockefeller Center.

Next month—what a month!

TWENTY PAGES in June—more space than we've ever devoted to a single building—will go to describing the new \$2,000,000 Home Office Building of the Bankers' Life in Des Moines, Iowa. In *design*, it is planned to make the work flow like Sweet Afton among the various departments; in *structure*, it frames the largest uninterrupted work areas ever provided in an office building; in *service equipment*, it is the first multistoried office building to employ radiant-panel heating in combination with winter and summer air conditioning—and that's only what we show you on the outside, gentlemen! The building of the decade—and its presentation will be in four colors!



Left: Plaster model of 24 by 18-ft. Stainless Steel plaque for Associated Press Building, Rockefeller Center; symbolises "newsmen in action—with the tools of their trade." Right: Sculptor Noguchi finishing a section with high-power grinder.

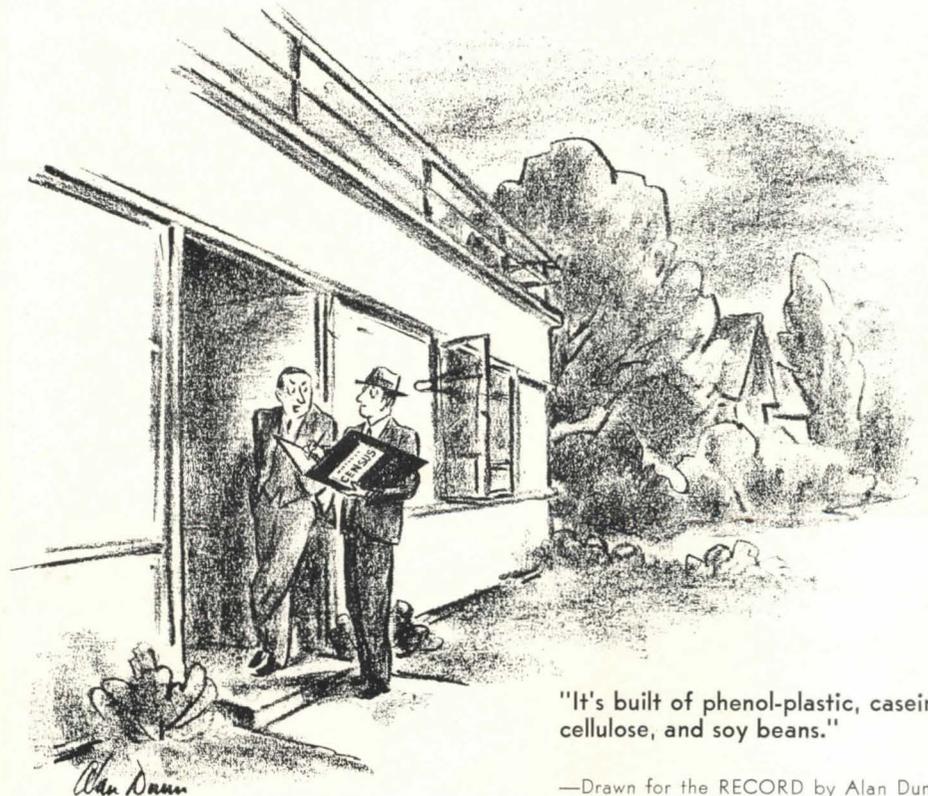
Fourteen pages on *four-bedroom houses* and a units portfolio on *kitchens* will round out the News section. Trends will report on two exhibitions of *Industrial Arts*—one in New York, the other in Chicago. In addition, there will be coverage of the *AIA Convention*, *trends in building costs*, and reviews of *new books*.

Building Types will button up the June issue with a compact, cogent

twenty-two page examination of *retail shopping centers*—drive in, drive out, and what you will. There will be illustrated case studies on various exemplary projects, and, in addition, pertinent Time-Saver Standards Data.

Correction

THE PHOTOGRAPH on page 72 of the April issue should have been credited to Richard Garrison.



"It's built of phenol-plastic, casein, cellulose, and soy beans."

—Drawn for the RECORD by Alan Dunn





“..it’s them old windows in 418 again..”

CROSS “window fixing” off the irritation list for apartment dwellers where the windows are Aluminum. About the only fixer they see is the window washer on his regular rounds.

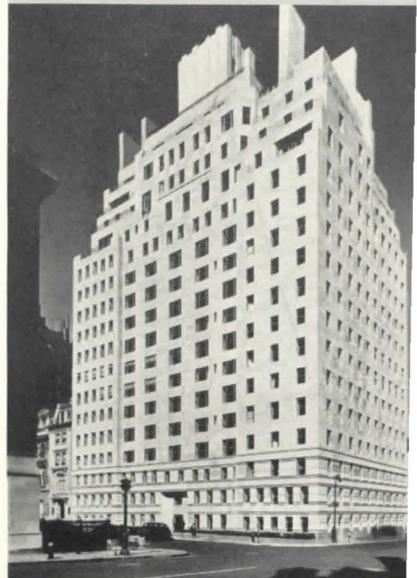
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Aluminum Windows in Abbottsford Apartment Building, Milwaukee, Wisconsin. Buehning & Jahn, Architects.



Aluminum Windows in apartment house 19 East 72d Street, New York City. Ros Candela and Mott B. Schmidt, Architects.

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Recent surveys indicate that nearly 50% of all residential lighting fixtures now in use are unshaded, obsolete. At their first meeting, on April 18, the Advisory Board of Design (above) of the newly organized American Lighting Equipment Association began a study to determine how residential overhead lighting may be stepped-up to contemporary engineering and design standards. Left to right: William A. Kimbel, Chairman; Virginia Conner, Edward D. Stone, Arthur L. Harmon, Raymond Loewy.

AIA Protests at Omitted Architects' Names

RECENTLY the AIA issued a protest against the omission of architects' names from illustrations of their work appearing in "Public Buildings," a volume newly published by the PWA (see page 122 of this issue).

In a letter to *John M. Carmody*, Administrator of the Federal Works Agency, *Edwin Bergstrom*, AIA president, pointed out that although most of the 600 buildings illustrated in the survey were designed by architects in private practice, no credit was given them. "The omission," he declared, "is particularly unfortunate . . . because the implication may well be that the buildings were designed by the Federal Departments."

To Which the PWA Replies:

"WE CLEARLY STATED in several places in the text that the designing of these projects was done by private architects and engineers employed by the various owners on non-Federal projects, or by the staffs of the several Government departments on Federal projects. The authors of the book are both architects and we debated the question of inclusion of the architects' names for some time. Our decision to omit them was due to many reasons, chiefly among which were the facts that PWA does not keep a current list of architects or engineers. To have accurately ascertained the names would have involved a tremendous amount of work and time in searching thousands of records in Wash-

ington and in the field. The architects who were named in the original applications were generally superseded by others later appointed by the owners. We attempted to circularize those names in the applications of the projects we selected but received replies from only about 35%. In some cases there were numerous architects and engineers on a project, too many to list on one of our pages. One docket, Los Angeles Schools, had 110 architects, and one Connecticut project had one architect who employed 52 architectural firms to design 52 buildings. No records were ever kept by PWA of architects or engineers employed directly by the architect, and in many cases we know that those so employed actually did the designing. In other cases we do not know who did the designing."

Kudos and Cash to the Deserving

ANNOUNCEMENTS of Guggenheim Fellowships recently awarded include the name of *Gregory Ain*, 30-year-old designer from Los Angeles. The Fellowship will enable Mr. Ain, for several years an associate and collaborator of *Richard J. Neutra*, Architect, to complete work in the field of architecture on which he is at present engaged.

Two buildings on the basis of which the Guggenheim Foundation recognized Mr. Ain's merit are: the garden house for Slavko Vorkapich in Beverly Hills, which received an award in the 1938 House Beautiful Competition; and the Dunsmuir Flat Building in Los Angeles,

for an account of which, see pages 45-47 of this issue of the RECORD.

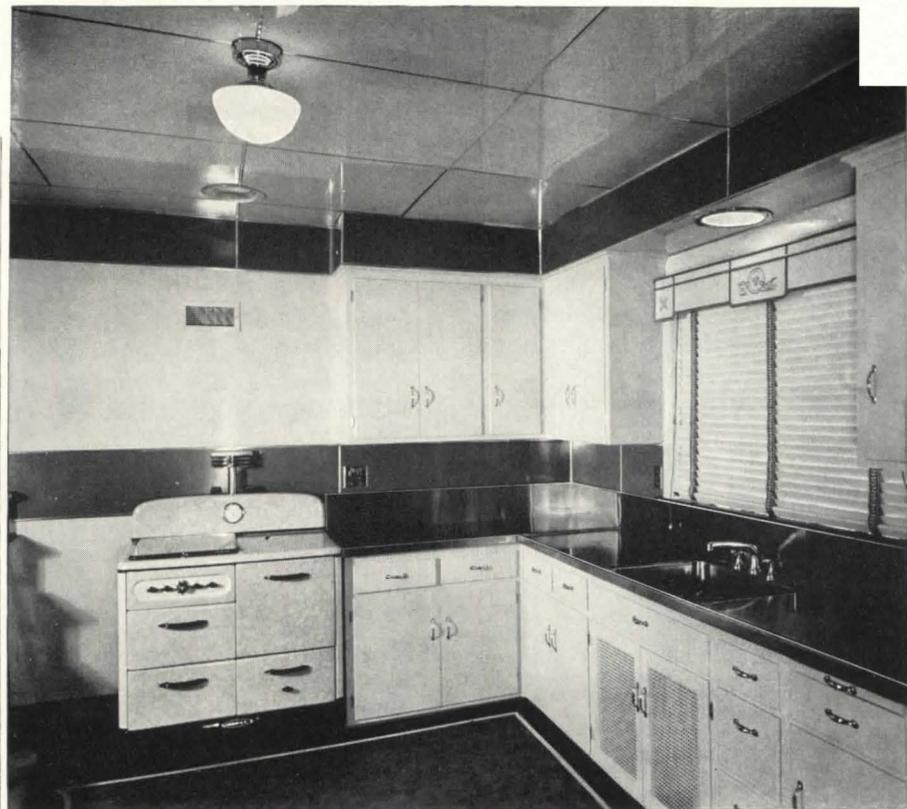
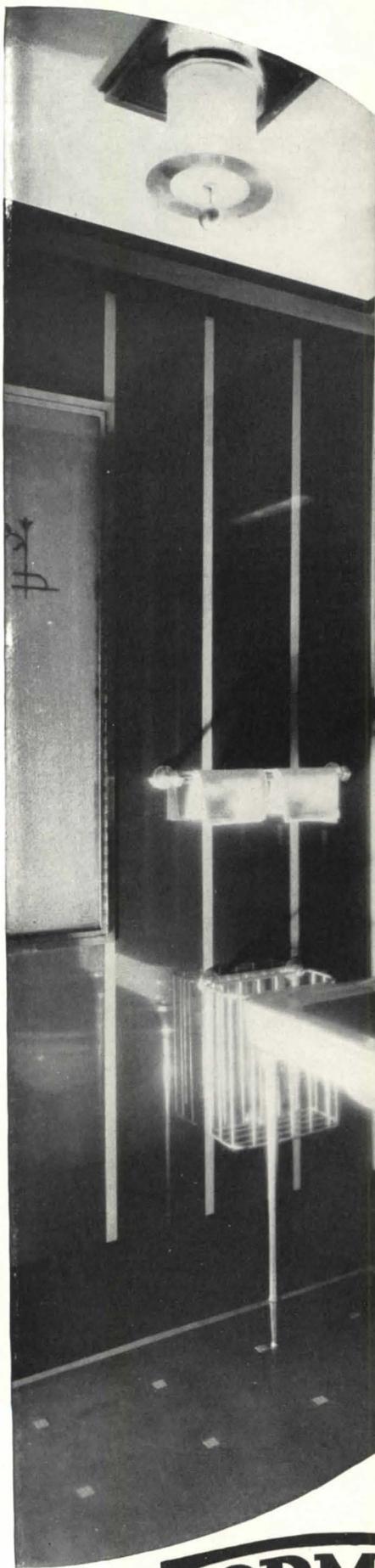
* * *

THE LEBRUN SCHOLARSHIP Competition Jury, of the New York Chapter, AIA, recently completed their preliminary consideration of scholarship applicants. Jurors *Francis Keally* (Chairman), *William A. Delano*, *Otto Eggers*, *John T. Haneman*, *Otto Langmann*, *Wallace K. Harrison*, and *John V. Van Pelt* nominated the following six candidates as best qualified on the bases of academic background, achievement, and potentiality to compete for the scholarship: *John J. Brady*, Washington, D. C.; *James Breed*, Richmond, Va.; *Joseph Caponnetto*, Brooklyn, N. Y.; *John L. R. Grand*, Gainesville, Fla.; *Spencer R. Smith*, Flushing, N. Y.; and *Eugene Wasserman*, Kansas State College, Kansas. First alternate was *George W. Edwards* of Frankfort, Ky.; second alternate was *Arthur A. Carrara*, Chicago, Ill.

(Continued on page 12)

CALENDAR OF EVENTS

- April 30-September 15—Exhibition of Contemporary American Industrial Art: 1940, Metropolitan Museum of Art, New York City.
- May 4-31—First Annual Midwest Industrial Designers' Show, Art Center Chicago, Fine Arts Building, Chicago, Ill.
- May 6-8—Spring meeting of governing and advisory boards, Associated General Contractors of America, Schroeder Hotel, Milwaukee, Wis.
- May 13-14—First Annual Meeting Managers' Division, National Association of Housing Officials, William Penn Hotel, Pittsburgh, Pa.
- May 15-17—Eighth Annual Meeting, National Association of Housing Officials, William Penn Hotel, Pittsburgh, Pa.
- May 21-24—72nd Annual Convention, American Institute of Architects, Brown Hotel, Louisville, Ky.
- May 31-June 2—Fifth National Convention, International Federation of Architects, Engineers, Chemists & Technicians, CIO., Hotel Pennsylvania, New York City.
- June 1-July 1—Exhibition of Van Gogh Paintings, Holland House Galleries, 10 Rockefeller Plaza, New York, N. Y.
- June 3-6—32nd Annual Convention, Special Libraries Association, Claypool Hotel, Indianapolis, Ind.
- June 17-20—Semiannual meeting, American Society of Mechanical Engineers, Hotel Pfister, Milwaukee, Wis.
- June 23-August 3—Visiting Session of Chicago School of Design (L. Moholy-Nagy, Director), Mills College, Oakland, Calif.



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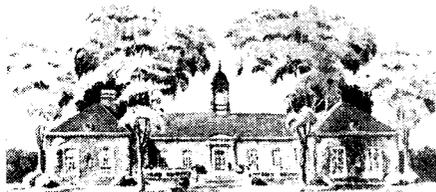
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WITH RECORD READERS

(Continued from page 10)

The candidates will meet in New York during the week of May 13. The competition will be in one stage, undertaken *en loge* at the Beaux Arts Institute of Design.

* * *

NOTEWORTHY among architectural awards is the Hamlin Prize of the Columbia University School of Architecture, won this year by *Robert Berne* of the Bronx, N. Y., a fourth-year student.

The award, highest bestowed by the School for decorative design, is a bronze medal cast in commemoration of *Alfred Dwight Foster Hamlin*, Columbia faculty member from 1887 until his death in 1926.

Competitors were instructed to produce a design within the actual limitations of a quadrangle at Columbia. Mr. Berne's design was declared most competent by a jury consisting of Dean *Leopold Arnaud*, Chairman; Professor *William H. Hayes*; *Donald A. Fletcher*, Associate in Architecture; and *Talbot F. Hamlin*, Avery Librarian and son of Alfred Dwight Foster Hamlin.

* * *

THE FRANKLIN INSTITUTE of the State of Pennsylvania recently included four persons associated with the building industry in its list of recipients for 1940 Medal Awards.

The Edward Longstreth Medal, founded in 1890 for the encouragement of invention went to:

Games Slayter, vice-president, Owens-Corning Fiberglas Corporation "in consideration of his achievement in devising improved methods and apparatus for making spun and blown glass filaments." (Mr. Slayter has also been honored recently by the National Association of Manufacturers as a "Modern Pioneer.")—and:

Maxwell Mayhew Upson, president, Raymond Concrete Pile Company, "in consideration of his contributions to the scientific development of foundation engineering and construction, characterized by genius for invention and technical skill."

The Elliott Cresson Medal, founded in 1848 for distinguished contributions to the realm of physical science, was awarded to:

Frederick Mark Becket, president, Union Carbide and Carbon Research Laboratories, Inc., "in consideration of his outstanding achievements in the development of processes for the production of low-carbon ferro alloys, which

have led to the wide use of many well-known alloy steels, particularly low-carbon stainless steels, and the higher chromium oxidation-resistant steels; and also his many inventions and contributions in the field of electrometallurgy."

The Franklin Medal, founded in 1914, was conferred on:

Leo Hendrik Baekeland, president (retired), Bakelite Corporation, "in recognition of his inventions and his contributions to the improvement of the industrial arts, and, in particular, of his invention and manufacture of the synthetic product, 'Bakelite'."

* * *

THE THEOPHILUS PARSONS CHANDLER FELLOWSHIP of \$1,000 for a year of graduate study at the University of Pennsylvania has been awarded to *J. Lee Thorne* of Philadelphia. It was his fifth major award in architectural competition this year.

* * *

DUPLICATE AWARDS of the third Charles Peck Warren Medal, highest competitive prize in construction bestowed by the Columbia University School of Architecture, have been made to *Vincent G. Kling* of East Orange, N. J., fourth-year student, and *Gordon J. Wise* of Brooklyn, N. Y., third-year student. The competition problem was the design of a permanent reviewing stand for Fifth Avenue. The medal jury found the winning solutions were of equal excellence.

Lincoln Foundation Announces \$200,000 in Awards

THE INDUSTRIAL PROGRESS PROGRAM sponsored by the Lincoln Foundation offers a group of awards totaling \$200,000 for improvements in the entire field of industry.

(1) There are 16 awards amounting to \$6,400 which are specifically designated for subjects in the building industry. These are composed of four awards (\$700, \$500, \$250, and \$150) for studies in each of the following divisions: Structural Buildings (Div. E-1); Structural Bridges (Div. E-2); Structural Houses (Div. E-3); and Structural Miscellaneous (Div. E-4).

(2) There are 4 other awards amounting to \$6,800 for the 1st, 2nd, 3rd, and 4th best papers in the entire Structural Group. The prizes are \$3,000, \$2,000,

(Continued on page 14)

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mortar (1), it is much easier to shove the brick accurately into place, with a full head-joint, than it is to do the same thing with the other mortar (2).

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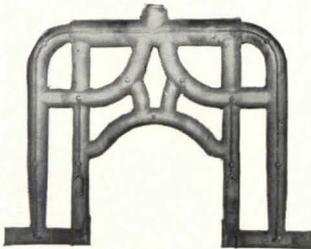
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WITH RECORD READERS

(Continued from page 12)

\$1,000, and \$800 respectively.

(3) Studies on the building field are also eligible for three other awards amounting to \$22,500. These are the Main Awards consisting of \$10,000, \$7,500, and \$5,000 for the three best papers in the entire program.

(4) Additional prizes totaling \$22,300 will be awarded to 223 meritorious studies on the above subjects which have not received any other awards.

The awards are for reports describing advances and improvements made between now and Jan. 1, 1942, by application of arc welding in design, manufacture, fabrication, and construction. Further information may be had by addressing the James F. Lincoln Arc Welding Foundation, Cleveland, Ohio.

Athens College Requests Book Donations

STEPHEN DUGGAN, Director, Institute of International Education, has issued this request: "Athens College is an instrument of good will between Greece and the United States. . . Sympathizers may contribute to this intercultural relationship by donating books with which they have finished, on any subject." Mr. Duggan may be addressed at 50 West 50 Street, New York, New York.

National Architectural School Accrediting Board Organized

FOR PURPOSES of accrediting the schools of architecture in the United States, a National Board has been organized collaboratively by the American Institute of Architects, the Association of Collegiate Schools of Architecture, and the National Council of Architectural Registration Boards.

The primary objective of the accrediting program," the announcement states, "is to ensure that the graduates of an architectural school which gives a degree in architecture have a sound background for entering and practicing the profession.

Edwin Bergstrom of Los Angeles, head of the American Institute of Architects, has been chosen as the first president of the National Architectural Accrediting Board. Together with *Charles D. Maginnis* of Boston, he will represent the Institute. Professor *F. H. Bosworth, Jr.*, of Cornell University and Professor *Roy Childs Jones* of the University of Minnesota have been named representatives of the Association of Collegiate Schools of Architecture. *Wil-*

liam L. Perkins of Chariton, Iowa, and *Clinton H. Cowgill* of Blacksburg, Va., will represent the National Council of Architectural Registration Boards.

New Addresses

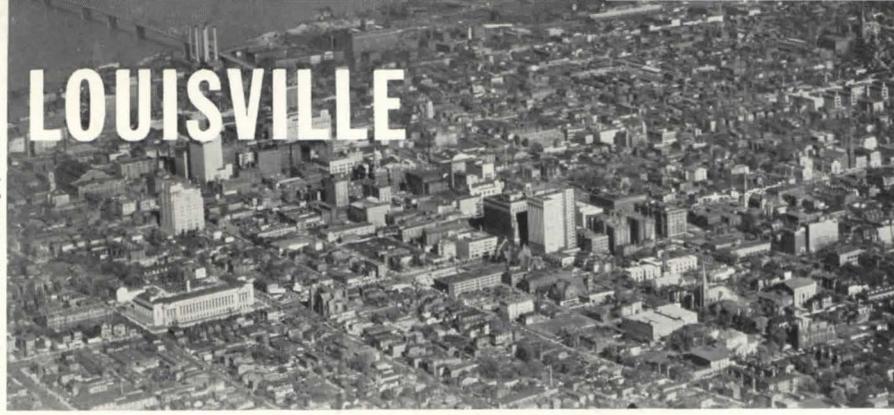
THE RECORD publishes changed and new addresses only on submission, making no attempt to keep a day-by-day account. The only organization in the country with facilities for doing this is **Sweet's Catalog Service**, whose painstakingly maintained list undergoes an average revision of 23 changes for every working day in the year. Below are the new addresses recently brought to our attention:

Gregory Ain, Designer, has moved to new quarters at 672 South Lafayette Park Place, Studio No. 34, Los Angeles, Calif. . . . *Eugene H. Callison*, AIA announces the removal of his office to Calibur Hill, Red Hook, N. Y., for the general practice of architecture. . . . *D. H. Greer* and *W. N. Chambers*, Registered Architects, announce the association with them of *Walter N. Holmquist*, Registered Architect. The firm will continue the general practice of architecture, and will include landscape design and town planning under the firm name Greer, Holmquist & Chambers, Architects, at 2401 Montevallo Road, Mountain Brook Village, Birmingham, Ala. . . . *G. H. Huntington*, *Harold Stuart Jones*, and *James M. Hunter* announce their partnership in the general practice of architecture, under the name of Huntington, Jones & Hunter, Architects, in the Citizen's National Bank Building, Boulder, Colo. . . . *Interior Design and Decoration* has moved to new editorial offices at 521 Fifth Avenue, New York, N. Y. . . . *Robert Allan Jacobs* has been admitted to the firm of *Ely Jacques Kahn*. The new firm will be known as Ely Jacques Kahn-Robert Allan Jacobs, Architects, with offices remaining at 2 Park Avenue, New York, N. Y. . . . *Thomas Larrick*, AIA, Architect and Engineer, is now teaching architecture at Ohio University and will carry on his private practice as Thomas Larrick, Architect, at 400 Elmwood Place, Athens, Ohio. . . . The partnership of Peter and Stubbins, Architects, has been dissolved. *Marc Peter, Jr.*, will retain the address at 1062 Park Square Building, Boston, Mass. *Hugh Stubbins's* new address will be 1134 Glenview Road, Birmingham, Ala. . . . *John N. Richards* has been admitted to membership in the firm of Mills, Rhines, Bellman, and Nordhoff, Inc., Architects and Engineers, Toledo, Ohio. . . .

RECORD POLL IN LOUISVILLE

Brought into particular prominence, architecturally speaking, by the impending AIA convention (May 21-24), Louisville comes up a "natural" as this month's RECORD Poll precinct. As usual, a number of recently erected buildings are pictured—the recipients of most "lay" citizen votes as noteworthy examples of contemporary Louisville architecture. In addition, there is presented a gallery of outstanding historical buildings (ante 1860) in Louisville and the vicinity, nominated for presentation by a group of local architects.

McLaughlin Aerial Surveys, Inc.



Seat of Seventy-second Convention of the American Institute of Architects.

LOUISVILLE ARCHITECTS VOTE ON THE HISTORICAL

NEITHER FOR PURPOSES of comparison or contrast—either favorably or unfavorably with the new—are these old buildings of the historical periods offered. The RECORD simply invited a number of Louisville architects to nominate several examples which each considered noteworthy. The buildings receiving most mentions as a result are pictured in order from this page forward. They are presented under no other billing than as architectural cynosures to which these local architects would normally call either the reader's or the visitor's attention.

Nominations were submitted by the following architects: *Brinton B. Davis*, F.AIA; *Gaarwood M. Grimes*; *Edd R. Gregg*; *Stratton O. Hammon*, AIA; *E. T. Hutchings*, AIA; *H. M. King*; *Bergman S. Letzler*, AIA; *Sam C. Molloy*; *D. X. Murphy and Brothers*; *Urban J. Rademaker*; *Carl D. Russell*; *Arthur G. Tafel*, AIA; *Ossian P. Ward*, AIA; *Wischmeyer*, *Arrasmith*, and *Elswick*.

© Caulfield & Shook



THIRTEEN VOTES: Jefferson County Courthouse, erected 1838-1850; Gideon Shryock (1802-1880), Architect. Restored 1909 by Brinton B. Davis, Architect.

LOCAL LAY CITIZENS VOTE ON THE CONTEMPORARY

WITH THE CLEAR SEGREGATION here of architect and lay groups, an opportunity is presented for explaining the emphasis placed, in this and in the reporting of previous polls, on the "lay" or non-architect character of the citizens answering the RECORD's invitation to nominate noteworthy examples of recent architecture. It has been felt that RECORD readers would be interested in the results obtained through this perspective for the following reasons: Primarily, it is believed that since the citizens polled are beforehand recommended by architects as being persons of taste and judgment, the buildings that turn up as a result of their nominating may be considered reasonably representative of the contemporary work being done in the various cities visited. Secondly, the significance of any insight, that may be provided by these polls, into the extent of public awareness of the architects' present work and function can scarcely

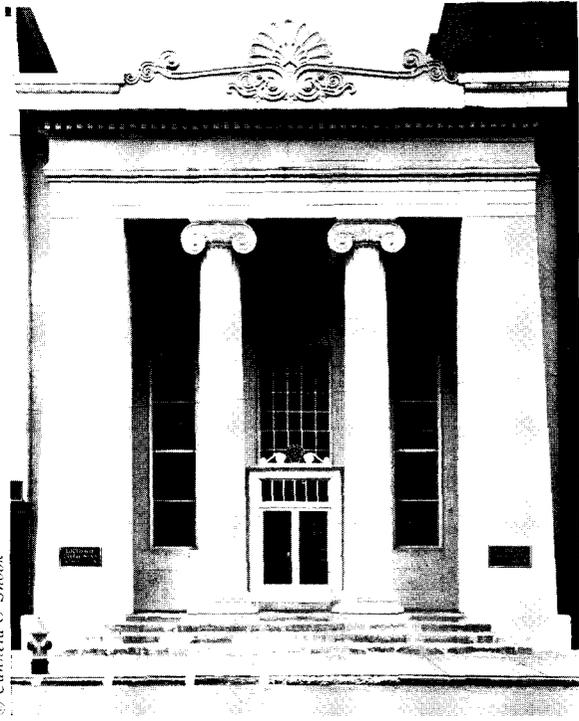
(Continued on page 19)

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FOURTEEN VOTES: The new Law Department Building of the University of Louisville, seen here through campus gates. J. Frederick Larsen was the architect.

HISTORICAL

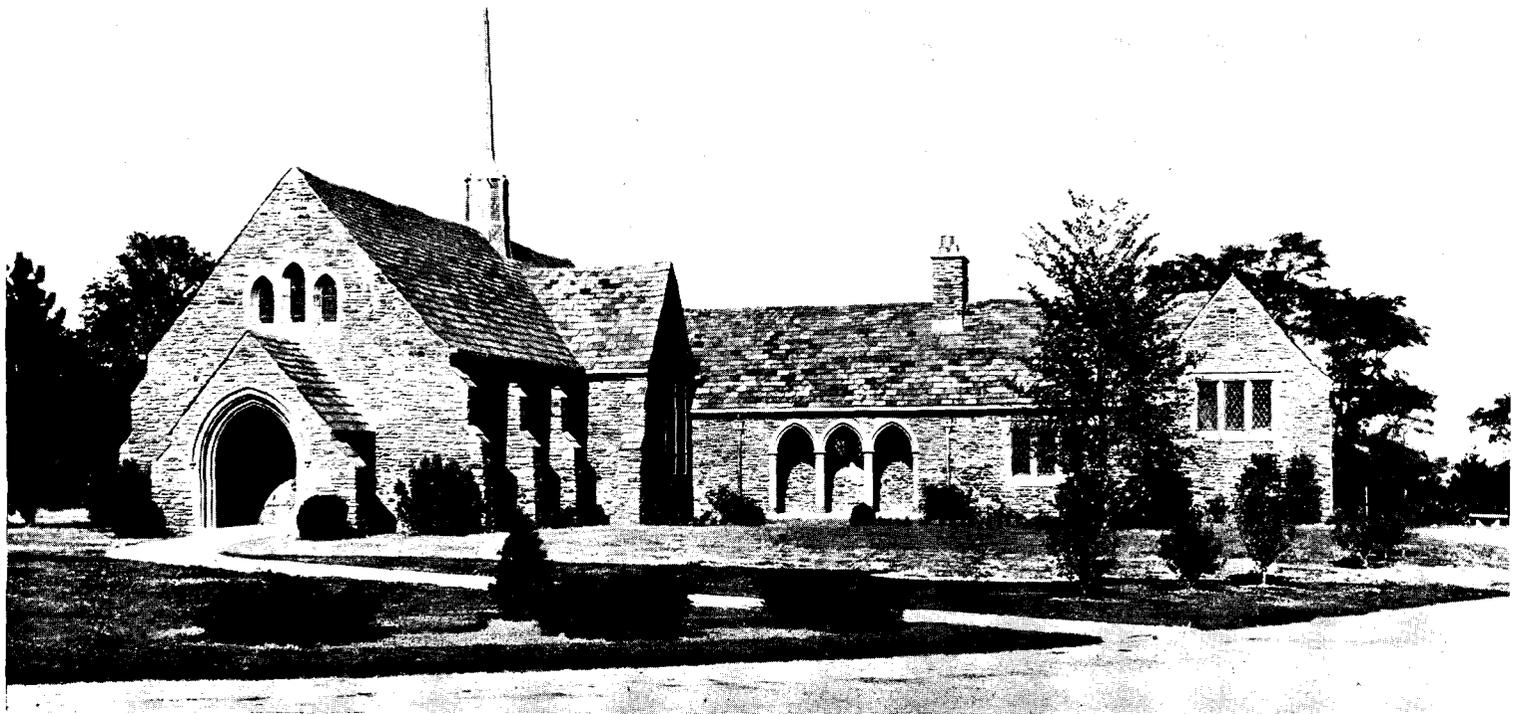


NINE VOTES: Old Bank of Louisville, erected 1837; Architect Gideon Shryock is said to have been largely responsible for Greek Revival Style in Kentucky. Credit Men's Association uses building today.



EIGHT VOTES: "The structure that guarantees to Shryock the regard of all who love classic architectural beauty is the Old Capitol in Frankfort," says Rexford Newcomb, AIA, in his recently published "Old Kentucky Architecture". Erected 1827-29, the building now serves the Kentucky State Historical Society.

CONTEMPORARY



TWELVE VOTES: The Duncan Memorial Chapel in the Floydsburg Cemetery, Crestwood. Frederick Elswick was the architect.

HISTORICAL



SEVEN VOTES: Federal Hill, Bardstown, begun in 1795 by Judge John Rowan, then a young attorney. This famous old Georgian residence is known and celebrated generally as "My Old Kentucky Home". It is said that here Stephen Foster, kinsman of the Rowans, composed some of his ballads of the old South.

CONTEMPORARY



ELEVEN VOTES: G. Ouerbacker home; Wischmeyer, Arrasmith, and Elswick, Archs.

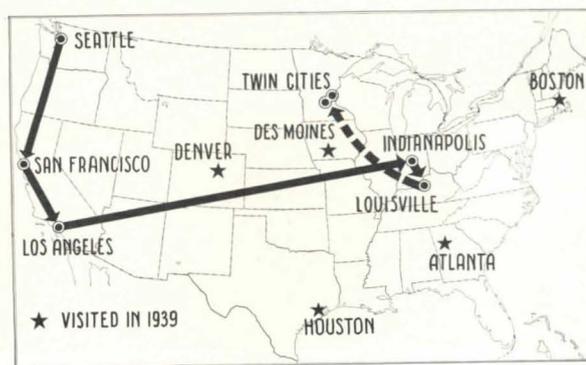
(Continued from page 17)

be overrated—particularly in the face of mounting agitation in the field for improved public relations and heightened recognition of the architect's indispensability in building planning.

The recently erected Louisville buildings on these pages are pictured on the basis of nominations received from the following citizens: *Irvin Abell*, M.D.; *Winthrop Allen*, manufacturer; *W. T. Baker*, M.D.; *Philip F. Barbour*, M.D.; *Mrs. Walter K. Belknap*; *Barry Bingham*, publisher; *C. R. Bottorff*, manufacturer; *Helm Bruce, Jr.*; *Robert T. Burke*, lawyer; *Rt. Rev. Charles Clingman*, Bishop of Kentucky; *Carlile Crutcher*, newspaper man; *William H. Crutcher, Jr.*, lawyer; *R. Hayes Davis*, M.D.; *Wallace M. Davis*, banker; *Walter Dean*, M.D.; *Morris Flexner*, M.D.; *Ralph C. Gifford*, banker; *E. L. Henderson*, M.D.; *Ainslie Hewett*, artist; *Charles W. Hibbitt*, M.D.; *E. A. Jonas*, newspaper man; *R. A. Kent*, university president; *Miss Ludie J. Kinkhead*, historical-society curator; *Miss Carolyn A. Leech*; *J. B. Lukins*, M.D.; *Pope McAdams*, banker; *A. T. McCormack*, Secretary, State Board of Health; *Orville Miller*, M.D.; *W. E. Morrow*, Secretary, Board of Trade; *E. J. O'Brien, Jr.*, President, Board of Trade; *Samuel A. Overstreet*, M.D.; *R. C. Riebel*, advertising man; *Mrs. Frederick G. Speidel*; *J. Adger Stewart*.

Buildings receiving a number of mentions but less than the pictured winners are: Brown-Williamson Co. (Ossian P. Ward, Architect); Children's Center (William Netherland); Christian Church, Douglas Blvd. (Wischmeyer, Arrasmith, and Elswick); W. C. Dabney residence (Nevin, Morgan, and Kolbrook); Greyhound Bus Terminal (Wischmeyer, Arrasmith, and Elswick); Hazelwood Sanatorium, new building (D. X. Murphy and Bros.); L. E. Johnson residence (Stratton O. Hammon); J. B. McCormick residence (Wischmeyer, Arrasmith, and Elswick); Pendennis Club (Nevin, Morgan, and Kolbrook); Presbyterian Church, 4th and Kentucky Sts. (E. T. Hutchings); St. Thomas Orphanage (D. X. Murphy and Bros.).

In June the RECORD Poll will swing northward to the Twin Cities, Minneapolis and St. Paul.



(More winners on next page)

HISTORICAL



FIVE VOTES: Kentucky School for the Blind, erected 1855. Francis Costigan (1810-1865) was architect for this example of Greek Revival.



FIVE VOTES: St. Joseph's Church, Bardstown, erected 1816-19; contains many art masterpieces.

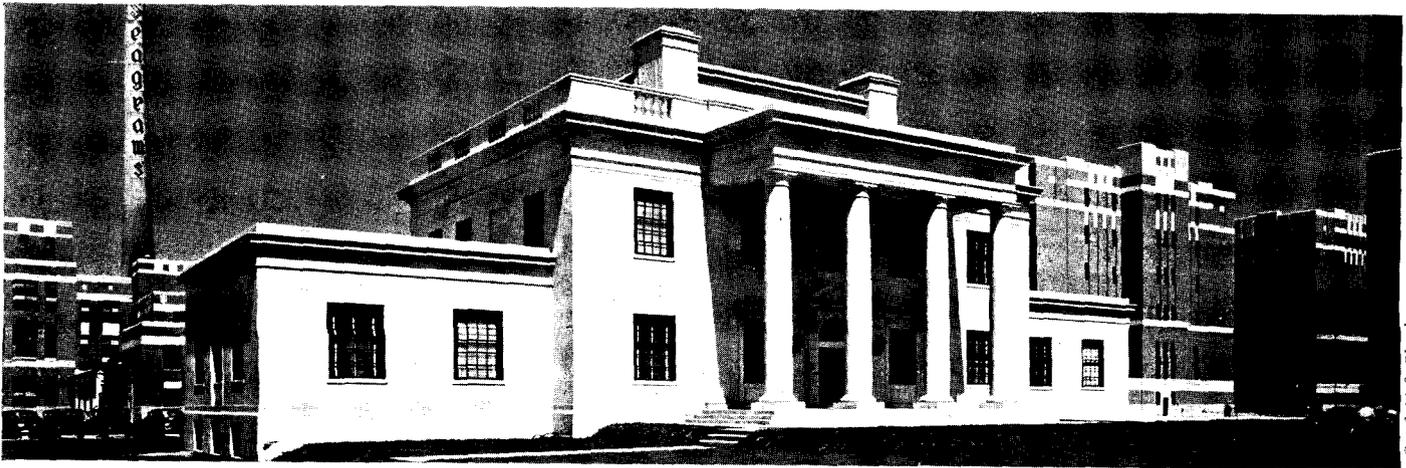
CONTEMPORARY



SIX VOTES: Collis home; Nevin, Morgan, Kolbrook, Archs.



SIX VOTES: Baptist Seminary; J. G. Rogers, Architect



SIX VOTES: Seagram Distillery, Administration Building in foreground; Smith, Hinchman, and Grylls, Architects



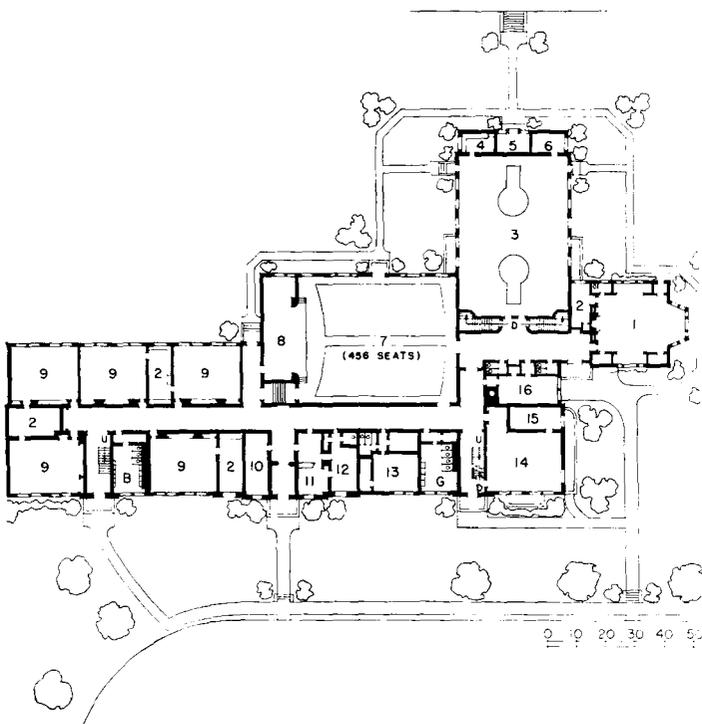
Dayton Snyder

SCHOOL REFLECTS TODAY'S TEACHING TREND

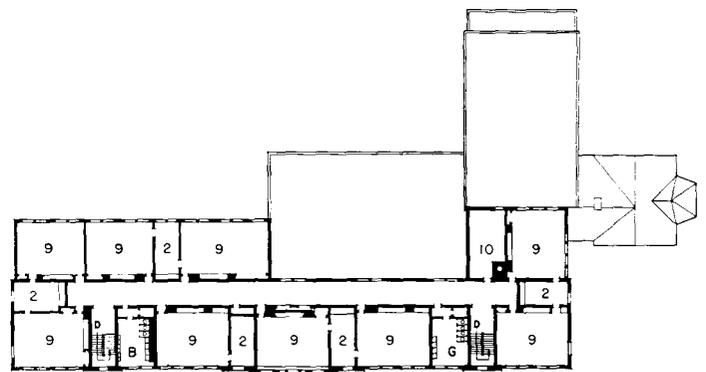
In the New Willard School in Stamford, Conn., Architects WILLIAM J. PROVOOST and RICHARD EVERETT, JR. have developed a thoroughly functional scheme, in line with modern educational trends, within the framework of a style that respects local tradition. The major elements are 14 classrooms, kindergarten, library, auditorium, and gymnasium.

NEW WILLARD SCHOOL

Photos by Dayton Snyder



First floor



Second floor

1. Kindergarten. 2. Activity room. 3. Gymnasium. 4. Kitchen. 5. Tools.
6. Apparatus. 7. Auditorium. 8. Stage. 9. Classrooms. 10. Receiving
and supply room. 11. Clerk. 12. Principal's office. 13. Teachers' room.
14. Library. 15. Workroom. 16. Medical inspection.



The kindergarten unit was designed to be used quite independently of the rest of the school, as it has its own outside entrance (above), lavatory, and activity room.

THE SCHOOL takes care of children from kindergarten age up through the sixth grade. In all, there is room for approximately 450 students.

The equipment in each of the 14 classrooms is movable, so that it may be arranged in various groupings, depending on the type of instruction being given at any particular time. Adjacent to each classroom, and in some instances shared by two rooms, is an activity room, equipped with sink, workbench, and storage cabinets. These serve part of the modern educational program. Here children prepare realistic visualizations of the projects being discussed — anything from freehand sketches to actual models made at a carpenter's bench.

Entirely separate from the main classroom area is the kindergarten unit. Like the classrooms, however, this room is equipped with mobile furniture and its own activity room. All classrooms face either east or west; the kindergarten has light on the east, south, and west.

Equally accessible from all parts of the school is the library, located at the corner of the L-shape plan. Noteworthy, too, is the placement of the auditorium and gymnasium. One of the basic demands was that these two large rooms should have ample and independent access so that, in addition to routine school uses, they could be used by the community for evening gatherings. Thus, a single public lobby serves both of these rooms. Below the gymnasium are the boys' and girls' shower and dressing rooms, reached by a pair of stairways near the gym entrance. The principal's office, teachers' rooms, and a medical inspection room complete the basic layout.

The exterior of the building is of common face brick, with white-painted wood trim and a slate roof. Inside, all walls are of plaster; the floors (except in the gymnasium) are surfaced with asphalt tile; acoustical tile is used on the ceilings. The gymnasium floor is of woodblocks. In the corridors is a glazed-tile wainscot; a cork wainscot rims the gymnasium. The building is equipped with automatic program-control, fire-alarm, and clock-control systems. Total cost of the school came to 32 cents per cubic foot, or a total of \$220,755.



The auditorium seats 456 persons. The stage is accessible from the rear by a corridor.



Photos by Dayton Sneider

A typical classroom in which all the equipment is mobile for maximum flexibility in use

FROM THE BOOKLET

"PURE INSULATION"

ABSORPTION TESTS

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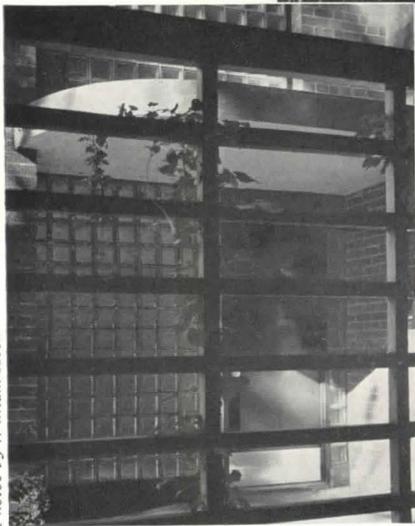
MANUFACTURERS ASS'N

FROM THE BOOKLET

THE "INCUBATION"

ABSORPTION TESTS

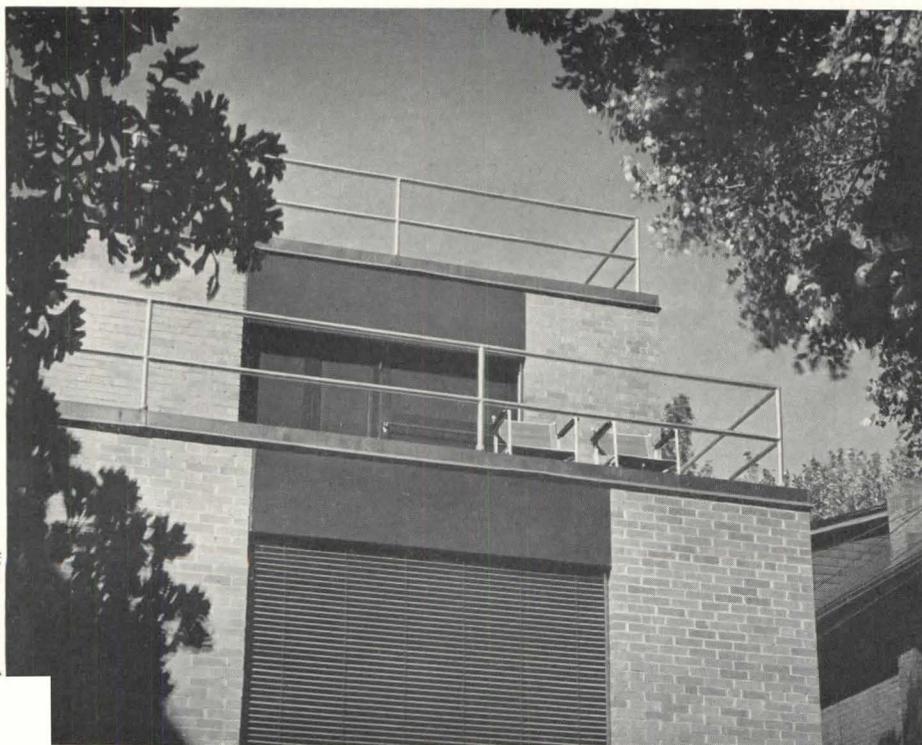
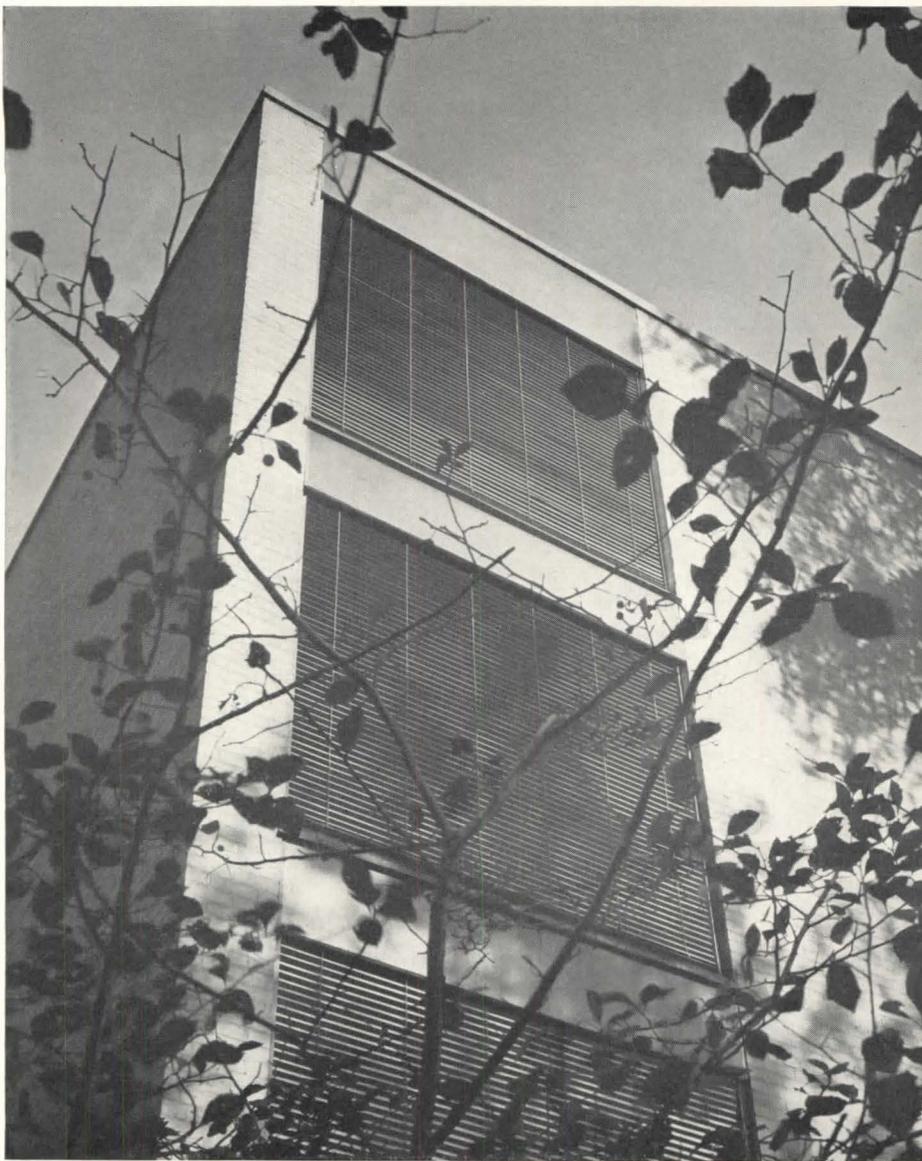
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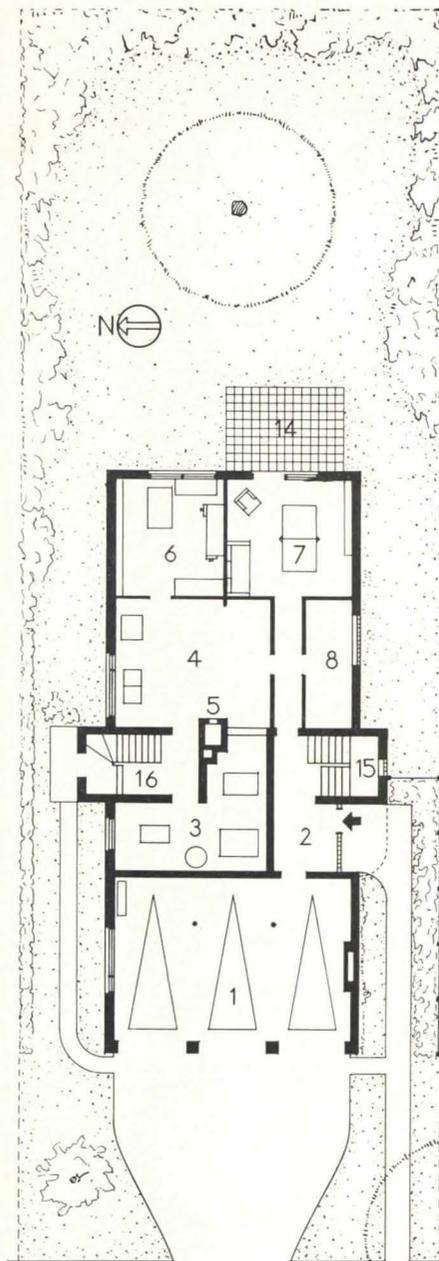
Photos by William Keck

NEW APARTMENTS STRESS FLEXIBLE PLANNING

To serve present needs, this Chicago building by Architect **GEORGE FRED KECK** contains two large apartments and a small one above the ground floor. But the house is so planned that each of the large units may easily be converted into two small apartments. The rear of the ground floor may be made into yet another small-sized unit.



by William Keck



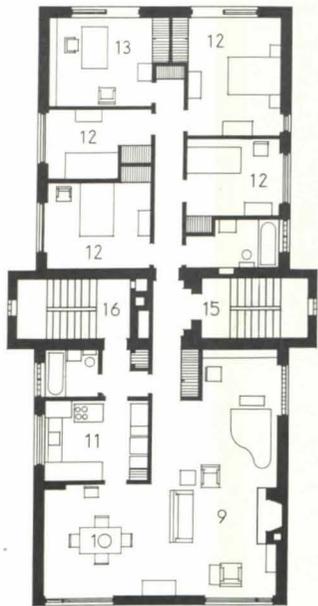
First floor

- 1. Garage. 2. Front entrance. 3. Heater room.
- 4. Laundry. 5. Incinerator. 6. Workshop. 7. Recreation room. 8. Storage. 9. Living space.
- 10. Dining space. 11. Kitchen. 12. Bedroom.
- 13. Study. 14. Terrace. 15. Entrance stair.
- 16. Service stair.

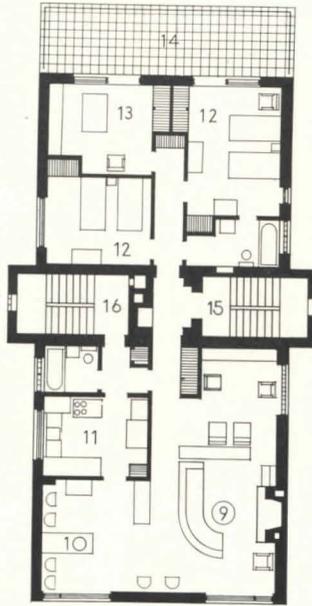
The building is constructed with load-bearing brick walls and concrete floors of "tilecrete" construction. Orange-red brick is used on the exterior and all wood trim is painted black. The windows are either glass-block panels or inswinging transom-type wood sash. The exterior Venetian blinds are of aluminum, of the chain-tape type. These are operated from inside the house. Flashings throughout are of copper; rail around third-floor terrace is made of aluminum.

TWO PLAN FEATURES in particular give the house unusual flexibility so that it is possible to convert each large apartment into two small units: (1) The placement of the stair halls in the center provides a complete division between the front and rear areas when doors between are closed. (2) The large apartments are so laid out that each of these two areas already has a bath. Should it prove desirable,

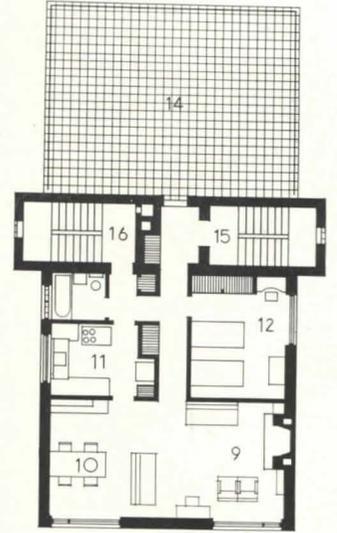
the rear of the ground floor, now used for recreation, work, and storage, can also be easily made into a rentable unit. The main stairway is of steel, with non-slip cement treads and pipe railings. Floors throughout the building are surfaced in waxed black asphalt tile. The apartments are heated by individual gas furnaces which are located on the ground floor between the garage and service-stair hall.



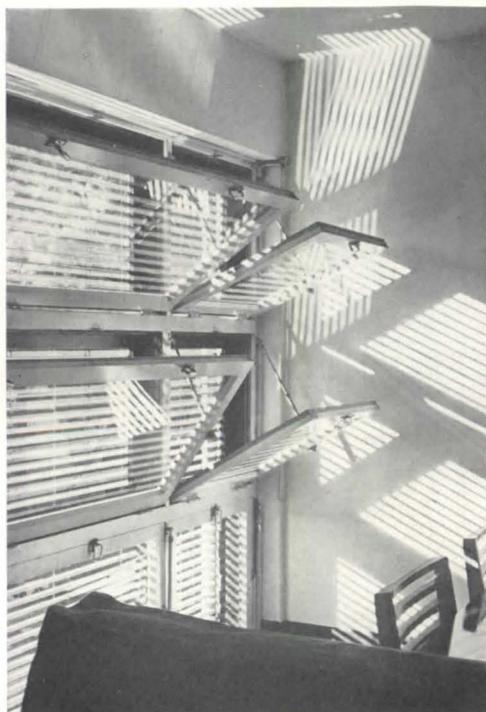
Second floor

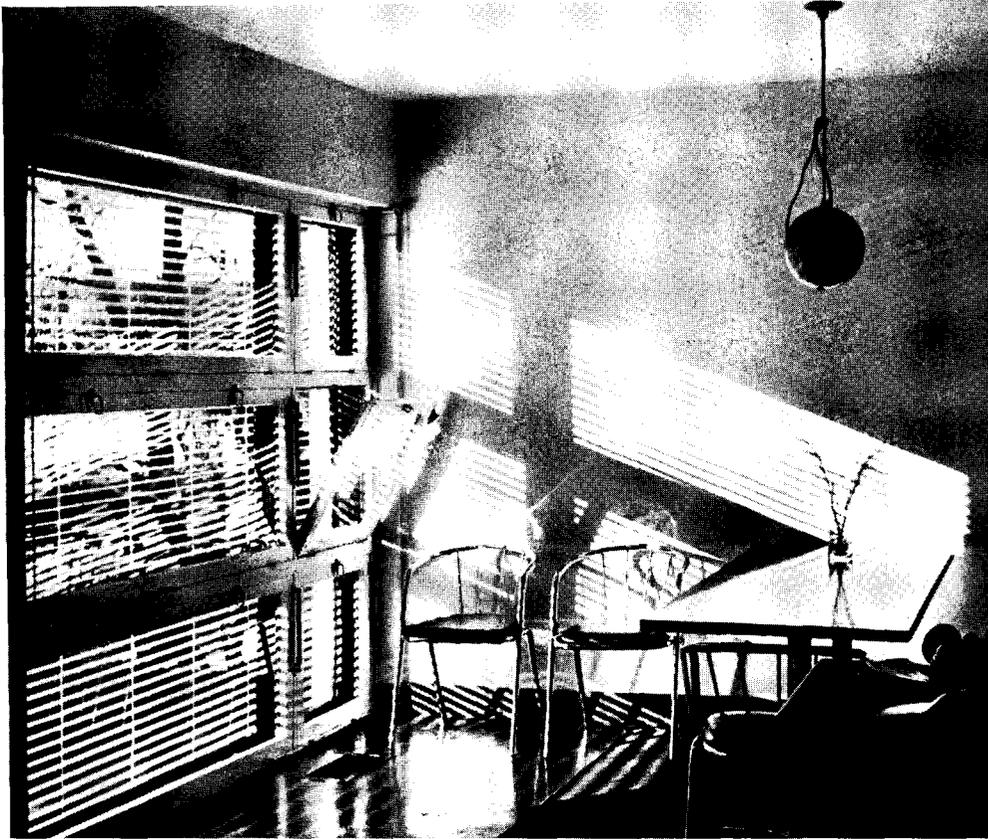


Third floor

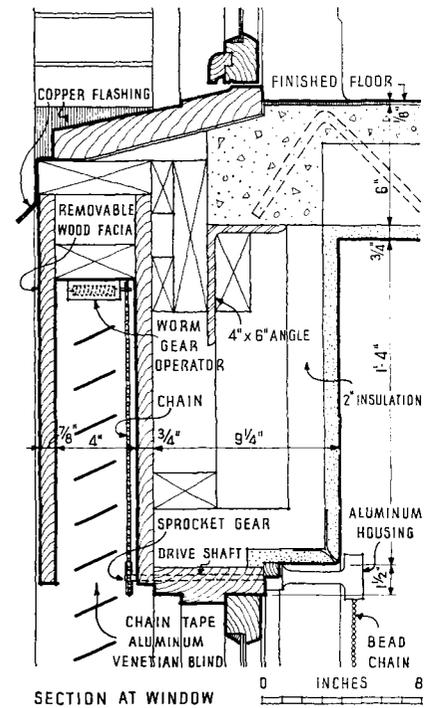


Fourth floor





The dining area of the second-floor apartment, showing the inswinging transom sash

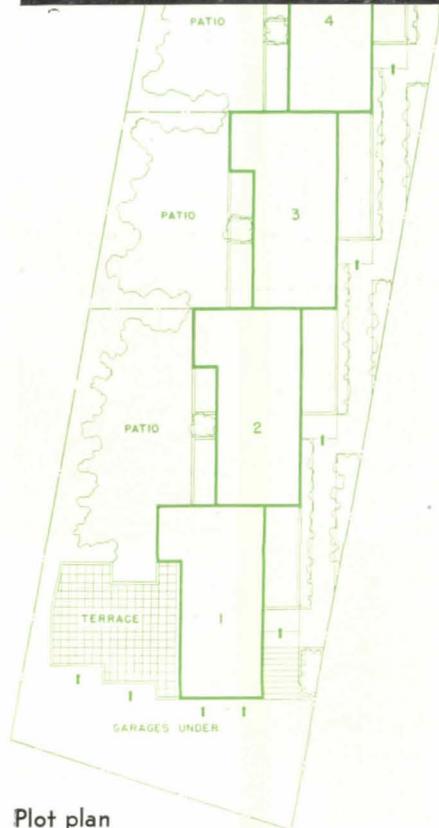


Photos by William Keck

Rear corner of living space in third-floor apartment, showing glass-block light source



Detail of built-in wood dressing table

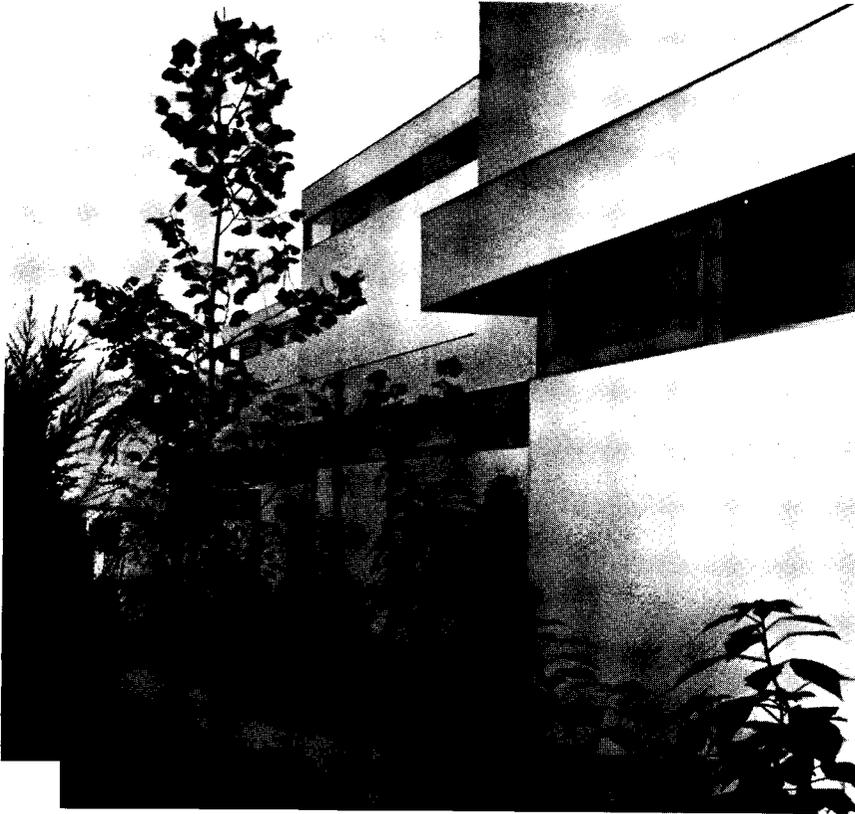


Plot plan

STEP-BACK PLANNING GIVES PRIVACY

In the Dunsmuir Flat Building, erected on a 49-ft. Los Angeles inside lot, Designer GREGORY AIN managed to meet an exceptionally rigorous set of basic demands: complete homes for four small families, each with a private patio, cross ventilation and sunlight in all rooms, and as much privacy for each one of the units as is usually obtained in detached single-family dwellings.

MR. AIN TELLS US that "reactions by house hunters, unacquainted with 'modern architecture', were interesting. It took a month longer to rent these flats than to rent a conventional flat building erected simultaneously on the same street. But when they were rented, these flats were leased for a year (rather unusual for inexpensive flats in Los Angeles), and the owner reports a 25% higher rental than for neighboring flats of the same size." Principal vertical construction members are 4-by-4 posts, continuous for the two stories. These are notched to receive continuous lintels, providing a strong, earthquake-resistant rigid frame. The uprights also serve as finished door and window jambs, thus eliminating much detail. The cost of the group came to approximately \$3500 for each of the units.

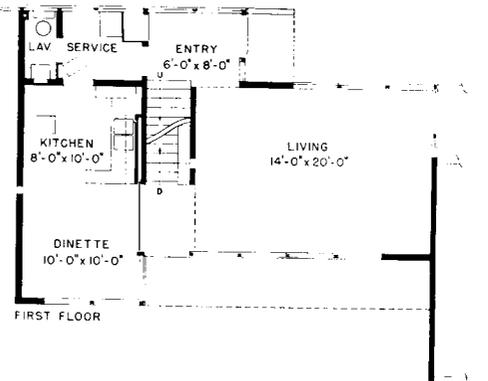
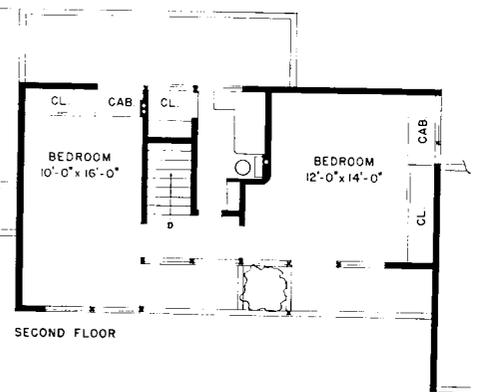
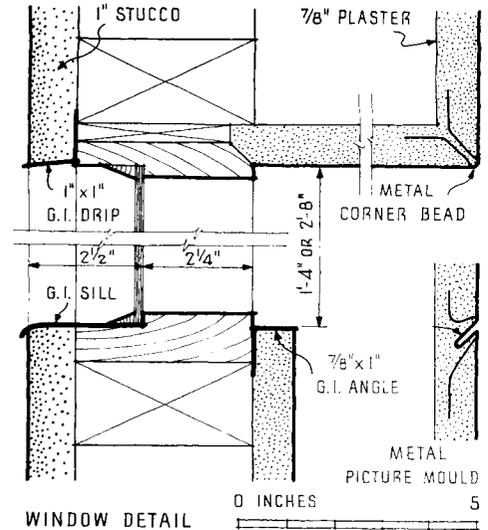


On the sides toward the street and entrances, clerestory windows are used.



Photos by Julius Shulman

Toward the patio, the sill level of the windows is dropped to 26 in.



Plans of typical unit

ALL ROOMS of each unit are directly accessible from the entrance and stair hall. The living room, kitchen-dinette, and both bedrooms in each apartment have windows on three sides. Yet this entails no loss of privacy, as those facing the entrance or street fronts are clerestories, above eye level. Between the living room and the dinette is a sliding glass door, 6 ft. wide, which permits closing off of the cooking space from the living room, while retaining the light. From the living room, a glass door leads out to the private patio.



The garden front of the Dunsmuir Flats. Note how the step-back arrangement contributes to the privacy of the individual units



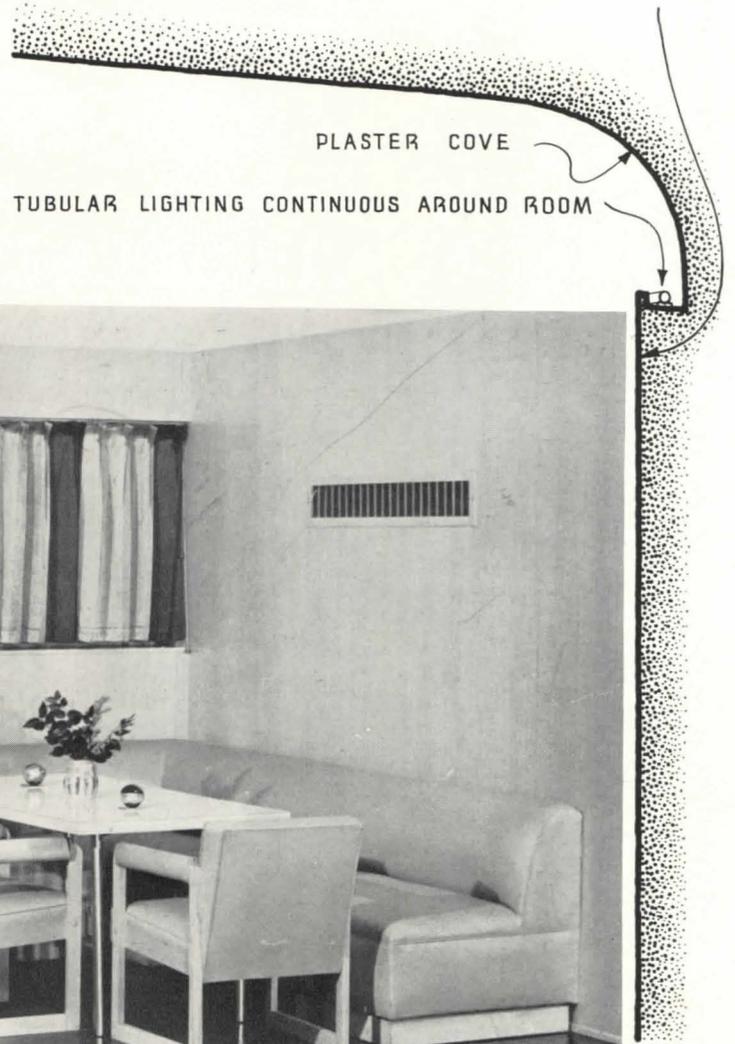
A COCKTAIL ROOM FOR A TEXAS CLUB

For this addition to the Columbian Country Club in Dallas, Architect HOWARD R. MEYER designed not only the building but furnishings and fixtures as well. To minimize style divergence, he employed the same exterior materials as those on the club building.



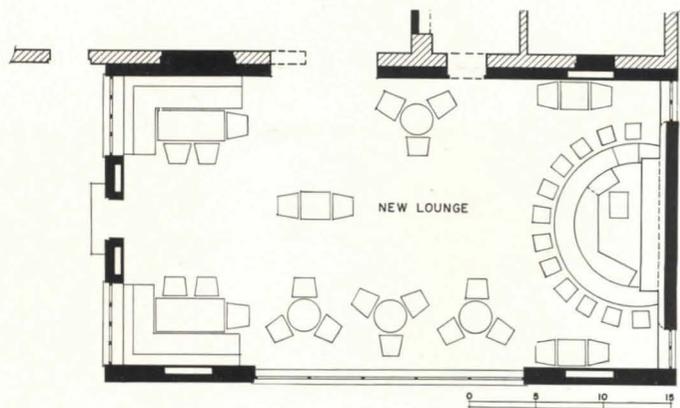
1/4" PRIMAVERA PLYWOOD

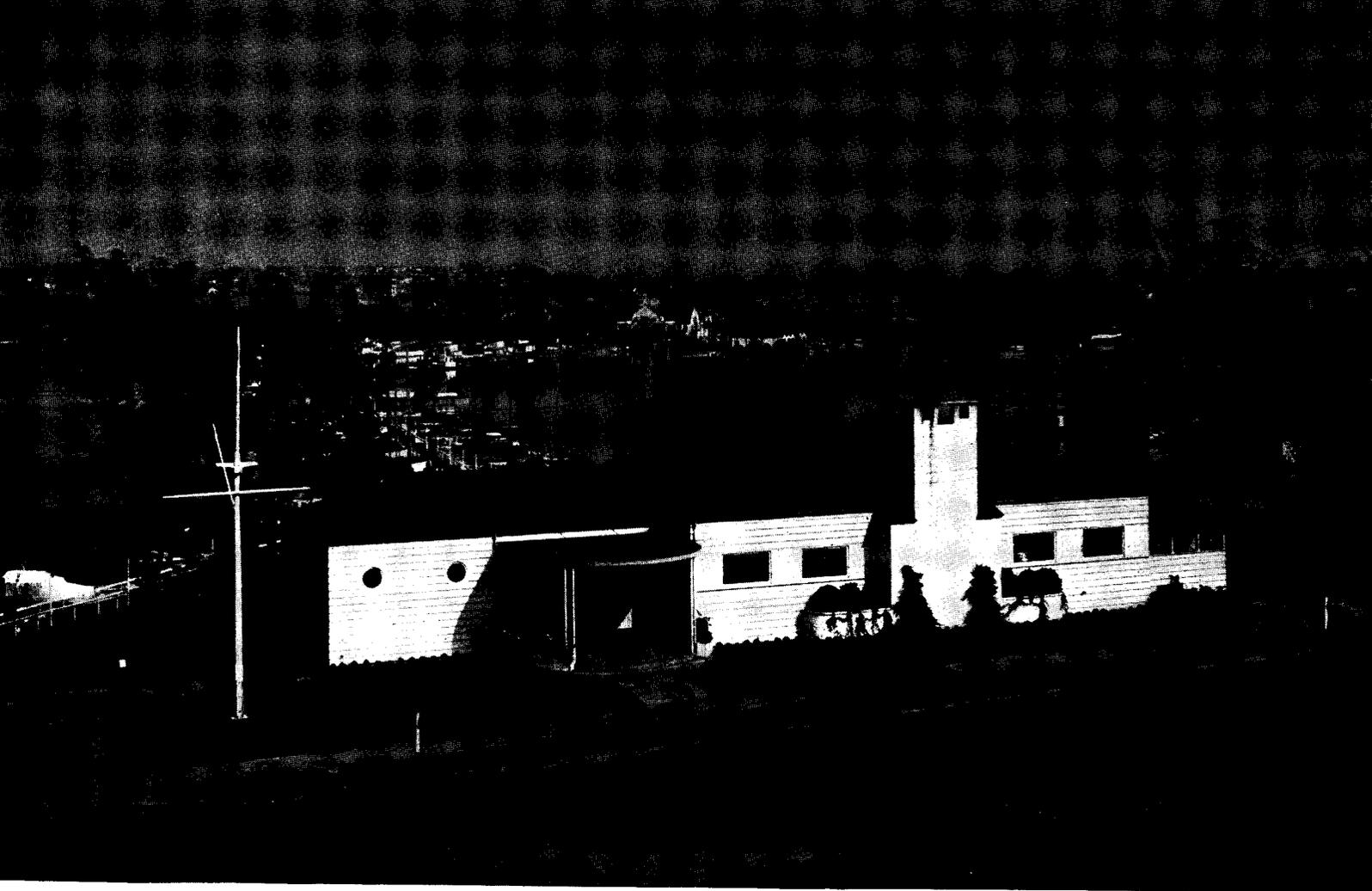
CONSTRUCTION of the wing is of frame, with a 6-in. veneer of stone and brick trim around openings. The interior of the room is both simple and colorful. The walls are of primavera wood veneer, slightly grayed in the finish, and the floor is of



cadet-blue plain linoleum, laid in 1-ft. squares. The ceiling, of smooth plaster, is painted oyster white. Lighting is from concealed lumiline strips.

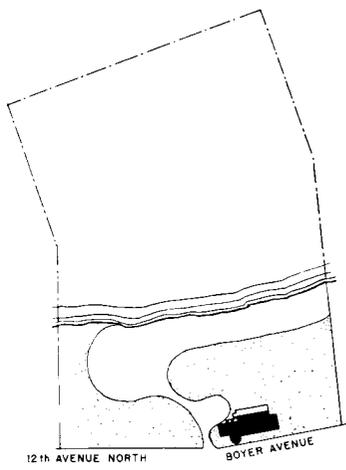
All exposed metal in the room is brushed aluminum. A rayon and cotton fabric, in tones of blue and silver beige, is used for the draw curtains. In designing the furniture, Mr. Meyer chose light-colored materials and fabrics. Chairs and divans are made of white birch, finished to match the wall veneer, and are upholstered in chartreuse leatherette. Table tops and the bar surface are an oyster-white fabric-textured laminated plastic. The front of the bar is covered with oyster-white leatherette, set off in squares with aluminum-headed tacks.





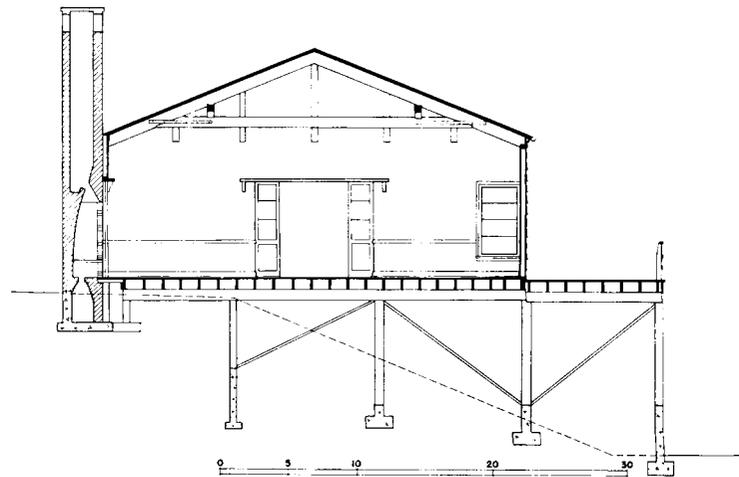
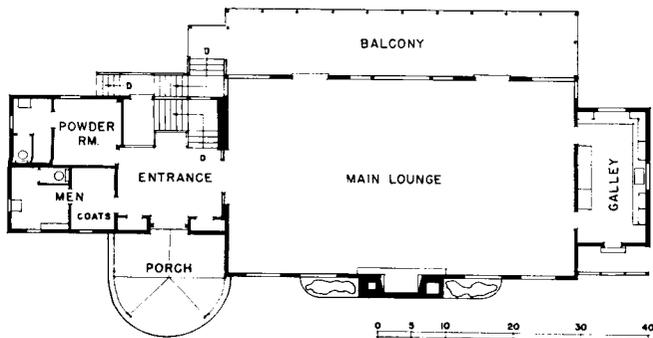
SMALL YACHT CLUBHOUSE IN SEATTLE

In working out his hillside scheme for The Queen City Yacht Club, Architect **GEORGE WELLINGTON STODDARD** located all of the main rooms on the uppermost level. At a later date when expansion is necessary, the space beneath the house is to be made into locker rooms and other club facilities.



12th AVENUE NORTH

BOYER AVENUE





Opposite the entrance door is this broad view window which overlooks the dock.



Panels of diffusing glass frame the doorway opening to the main lounge from lobby.

THE BUILDING is an interesting example of a transitional style that is increasingly popular in the Northwest. Typical of this are the broad, unbroken expanses of wood, the hip roof, and the large window areas where there is an outlook. In this particular club, the plan elements are almost minimum—an ample galley with its service entrance at street level, a large general lounge and entertainment room, an entrance hallway and adjacent wash-room facilities. At the rear, a 10-foot-wide balcony runs the full length of the lounge.

Photos by Roger Sturtevant

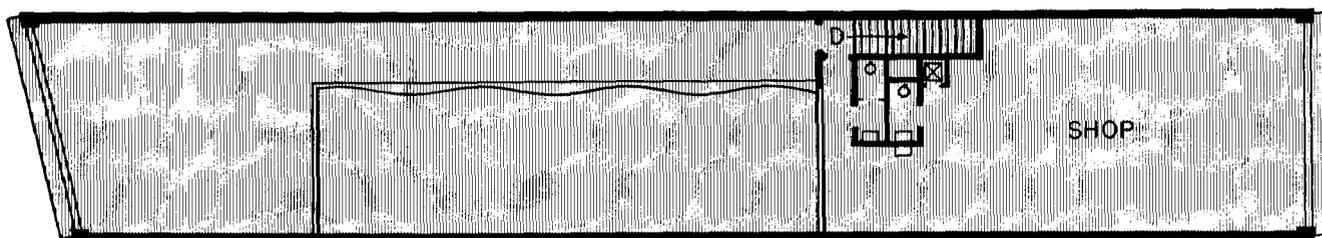
CALIFORNIA SHOP HAS TWO DISPLAY FRONTAGES

In the George Benioff Fur Shop in Oakland, Calif., Architect JOHN EKIN DINWIDDIE capitalized an unusual opportunity—a site with a main-street frontage at either end. Open display was restricted to these two show-window areas; storage and dressing rooms line both long walls, leaving the center aisle clear for use as a passageway.

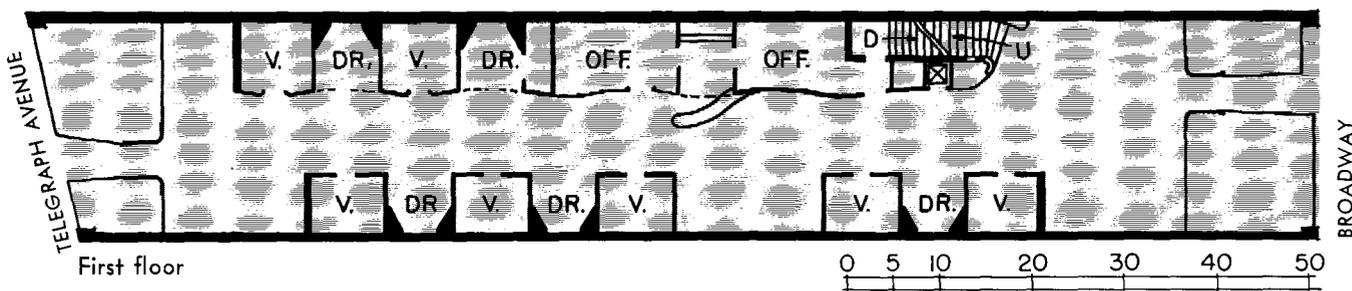
As shown in the sectional drawing, the central section of the shop extends to the full height of the building and is covered with a large ceiling skylight. This both adds to the appearance of spaciousness and provides general illumination. The building is completely fireproof, of reinforced concrete construction. All windows are steel sash, and the entrance doors are of special heavy plate glass. Primavera-surfaced plywood is used both as casework and to line the dressing alcoves along one side of the sales area. The modern lighting fixtures are by Karl von Hacht; George Benioff, the owner, designed the lettering for the firm name on the exterior.



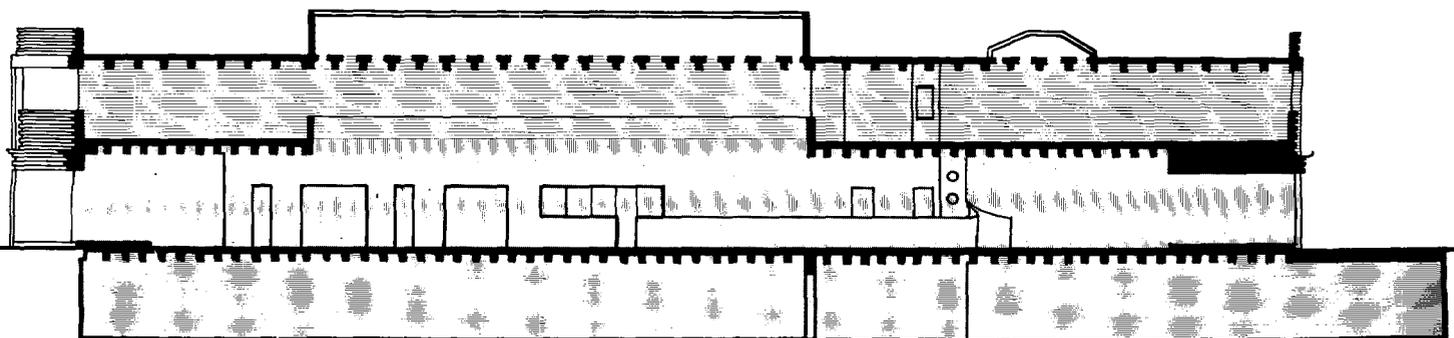
Photos by Philip Fein



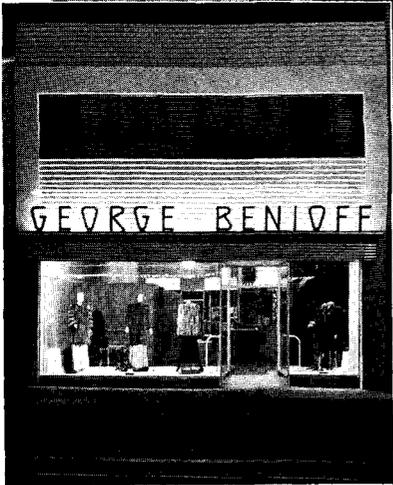
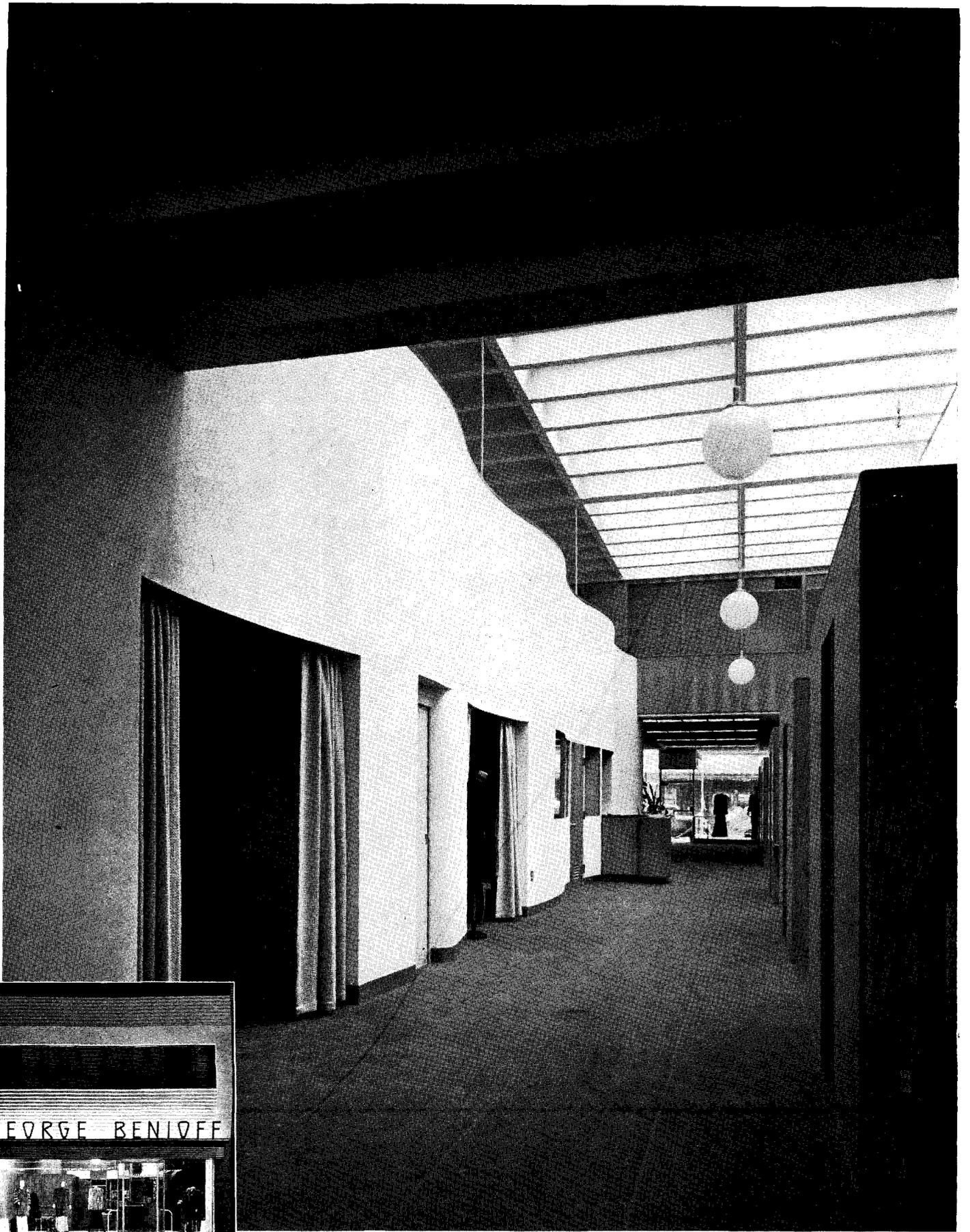
Mezzanine



First floor



Section



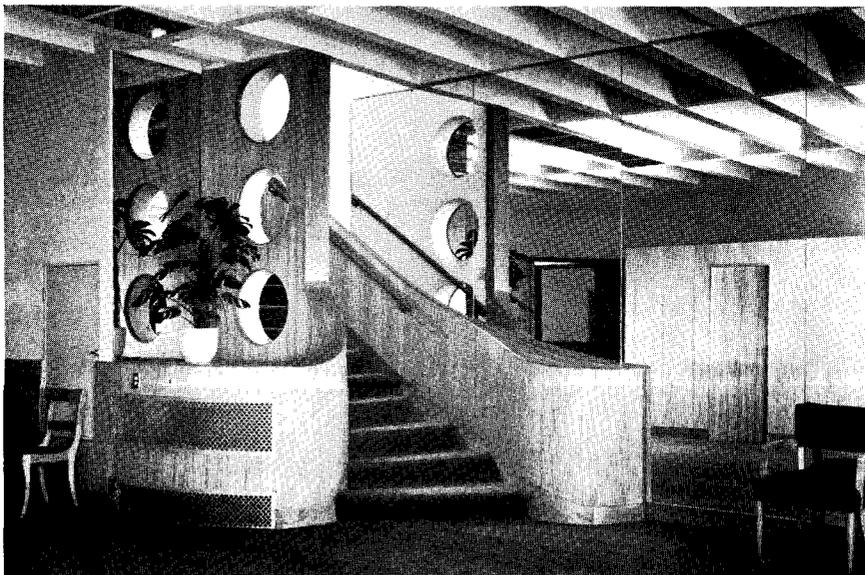
A balcony (at left) leads from a mezzanine office above the Telegraph Avenue entrance to an upstairs shop above the Broadway end of the shop. This area is reached both by stairs and an elevator. Between dressing alcoves are storage vaults.



Detail of ceiling skylight. The reinforced members were poured in place. Sash are steel; glass is opaque for diffused light.

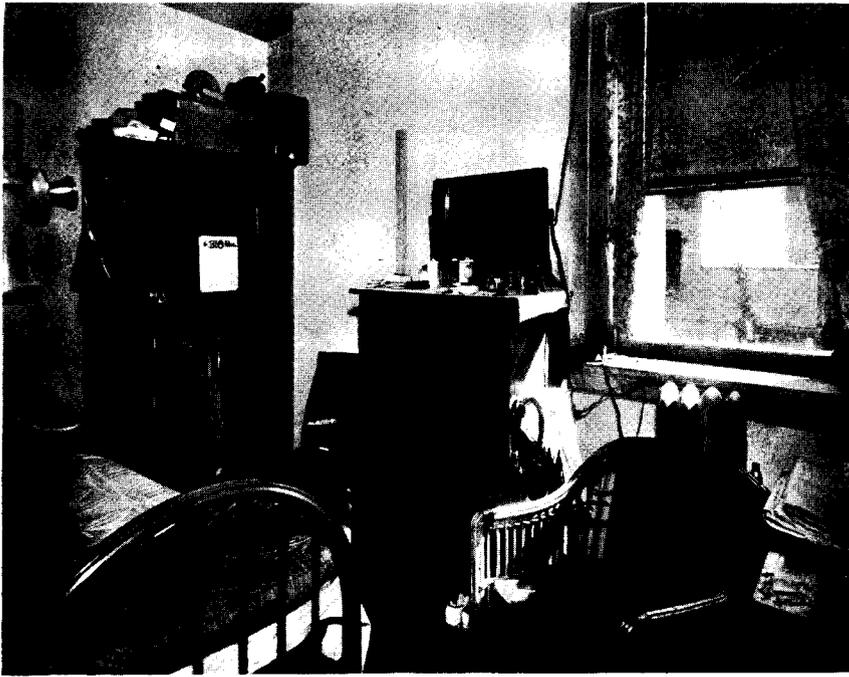


View toward Telegraph Avenue. Note service counter at right.



Stairs at the Broadway end lead up to the mezzanine shop

Photos by Philip Fein

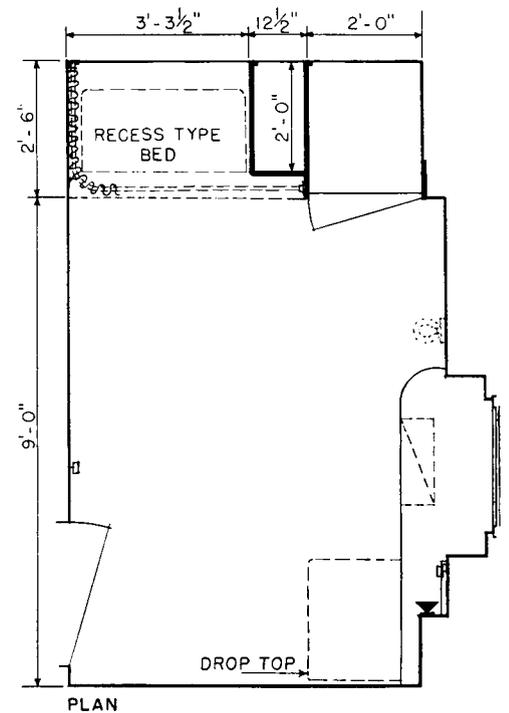
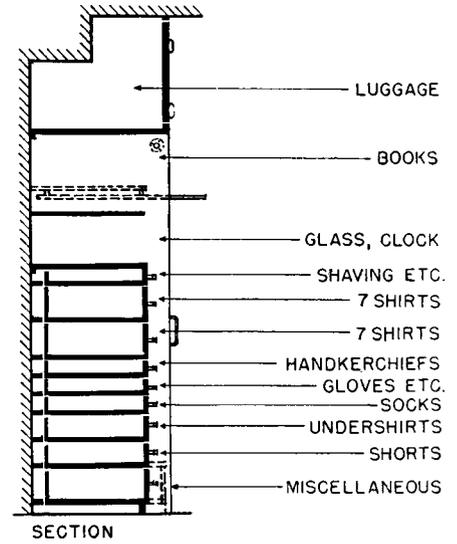
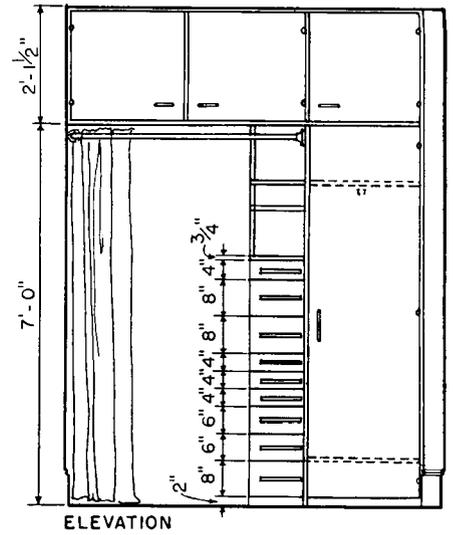


Bronx Brothers

Y.M.C.A. ROOM REVAMPED AT LOW COST

Designer L. M. SCOTT remodeled this small room at the 23rd Street branch of the Y. M. C. A. in New York City to demonstrate what could be done, at minimum cost, to make such quarters more efficient and inviting.

THE ORIGINAL ROOM is typical of about 100 others in this particular building and any number of similar ones in clubs, hotels, etc., throughout the country. Two main factors controlled Mr. Scott's design: (1) equipment should take care of all ordinary needs of an occupant of the room; (2) the remodeling cost should be kept to a minimum. The detail sketches serve as a check list of the items taken into consideration. Total cost of carpentry and refinishing work came to only \$178.



WHAT'S NEW IN MATERIALS AND EQUIPMENT

Fluorescent Plastic Inlays

A DECORATIVE plastic material, fluorescent-inlaid "Formica," appears to have interesting possibilities for murals and signs. The development utilizes black light which makes visible ordinarily invisible ultraviolet rays. By extinguishing the white light and turning on the black light, the panel's inlays become visible, complete with fluorescent effects. Formica Insulation Co., 101 Park Ave., New York, N. Y.

Non-Slip Alloy

A NEW NON-SLIP abrasive safety metal called "Hi-Tenso 'X'" is furnished in the form of stair treads, floor plate, trench and coal-hole covers, platform nosings, etc. It is described as having shock- and corrosion-resistant qualities at least equal to those of cast iron. Eastern Malleable Iron Co., Wilmington, Del.

Concrete Form Lining

AN ABSORPTIVE form lining is said to caseharden the surface of concrete by removing trapped air and excess water. Designed primarily for use in the construction of walls, basements, dams, and bridges where weather resistance is important, its application brings about a voidless outer layer of concrete extending to a depth of about 1½ in. Other points mentioned in its favor: less crazing, a lower grade of lumber may be used for backing, elimination of stoning or grinding, and easily obtained decorative effects. Fir-Tex Insulating Board Co., Porter Bldg., Portland, Oreg.

Wires and Cables of Smaller Diameter

DILEC WIRES and cables are made with a new type of fibrous covering composed of a series of cotton yarns laid side-by-side in contact relation and overlaid by a special rayon binder thread. It is claimed that this method provides 100% coverage of rubber insulation, as compared to about 60% coverage by other methods. Because this new covering eliminates all thread crossovers, these wires and cables have a small over-all dimension, regardless of the thickness of insulation. George C. Richards, Licensor's Agent, 155 E. 44 St., New York, N. Y.

Moderate-Price Lightproof Shade

FOR SCHOOLS, X-ray laboratories, operating rooms, etc., a new moderately priced lightproof shade is announced whose spring roller has no battens or braces. Clamp-on split-bronze balls on edges of shade are said to assure retention in channels and at the same time allow free daylight opening. The shade material is a leather-like, opaque double fabric, doubly treated; it is impervious to moisture, noninflammable, and will not stick. Andel and Co., 5218-20 N. Kedzie Ave., Chicago, Ill.

Metal Shims

A NEW METAL shim, designed to replace shingles, wooden wedges, and other makeshift expedients, is described as giving accurate, permanent, and inexpensive results on all types of leveling and alignment work. The device is manufactured in three sizes: lightweight for ordinary work; medium for heavier construction including the shimming of joists and girders; heavy-weight for use with metal construction, masonry, etc. Loxit Co., 605 W. Washington Blvd., Chicago, Ill.

Clip for Nu-Wood Tile or Plank

A CLIP, DESIGNED exclusively for Nu-Wood tile and plank, eliminates the necessity for surface nailing during the application of these products. The manufacturer reports that the use of the clip, which fits either tongue or groove, increases speed of application, allows for movement normal to construction, and increases the acoustical value of the tile and plank because they are not in direct contact with the interior finish. Wood Conversion Co., St. Paul, Minn.

Tester Spout for Showers

THE "DEVIATOR" is a spout for built-in stall showers which permits testing the temperature of the water with hand or foot before the shower itself begins to operate, thus avoiding the unpleasantness of being deluged with either too hot or too cold water. After the desired temperature has been attained, the flow is diverted to the shower by raising a knob on the spout. The force of the flow holds the knob in the raised (or closed) position, but when the water is turned off, the knob drops of its own

weight. The next time it is used, the entire flow is out the spout. Crane Co., 836 South Michigan Ave., Chicago, Ill.

Quick Calculator for Drains

THE "DRAINicator" is a device about 9 in. in circumference which provides at a glance such information as: the proper-size drainage pipe for any specified roof or floor area; recommended type and size of floor, area, gutter, or roof drain for any specific installation in all types of buildings; a unit fixture table; maximum rainfall in inches per hour; and other data. Although it is nominally priced, a limited number of the calculators will be distributed free to those engaged in this work. J. A. Zurn Mfg. Co., Erie, Pa.

Connecting Cord for Console-Type Ranges

A NEW THREE-WIRE, all-rubber range cord has an attachment whose prongs form an inverted pyramid. This product was developed to permit connection of electric ranges to outlets with a single smooth bend in the conductors. Use of the range Unicord saves space and makes it possible to place the range closer to the wall. General Electric Co., Bridgeport, Conn.

Inexpensive Stoker

THE "CHALLENGER" is an automatic coal stoker moderately priced and designed for low-cost homes. It has a feed capacity of 25 lbs. per hour, automatic air control, and is finished in baked enamel. Link-Belt Co., 307 N. Michigan Ave., Chicago, Ill.

Steam Heat Without Plumbing

A PORTABLE STEEL radiator with a small built-in boiler provides a steam-heating radiator, for auxiliary use, without the usual plumbing fixtures. The boiler contains two quarts of water. To generate steam, the unit is plugged into any electrical outlet. Other points mentioned in its favor: absolute safety; freedom from fumes. Electric Steam Radiator Co., Detroit, Mich.

Prefabricated Window Unit

THE FENESTRA "Package Window," the manufacturer claims, is a completely prefabricated steel window unit, special-

(Continued on page 124)

HOUSES WITH TWO BEDROOMS

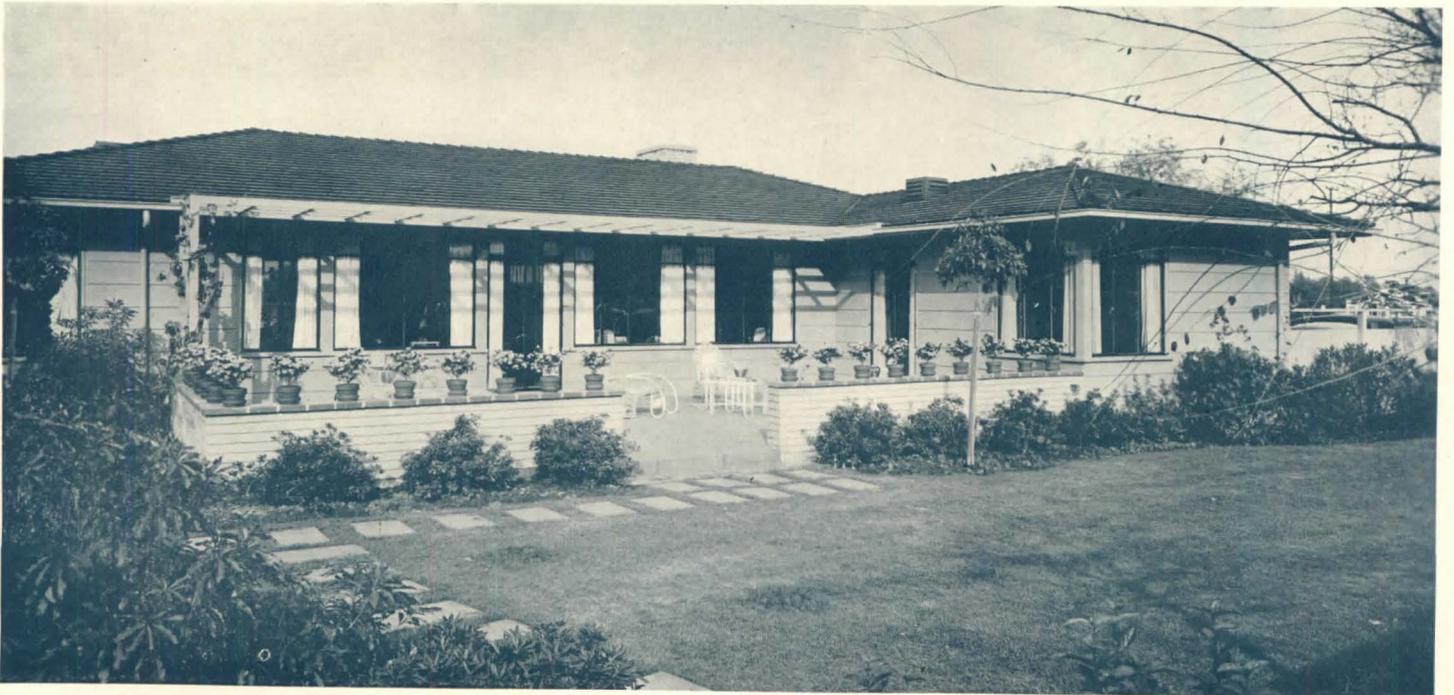
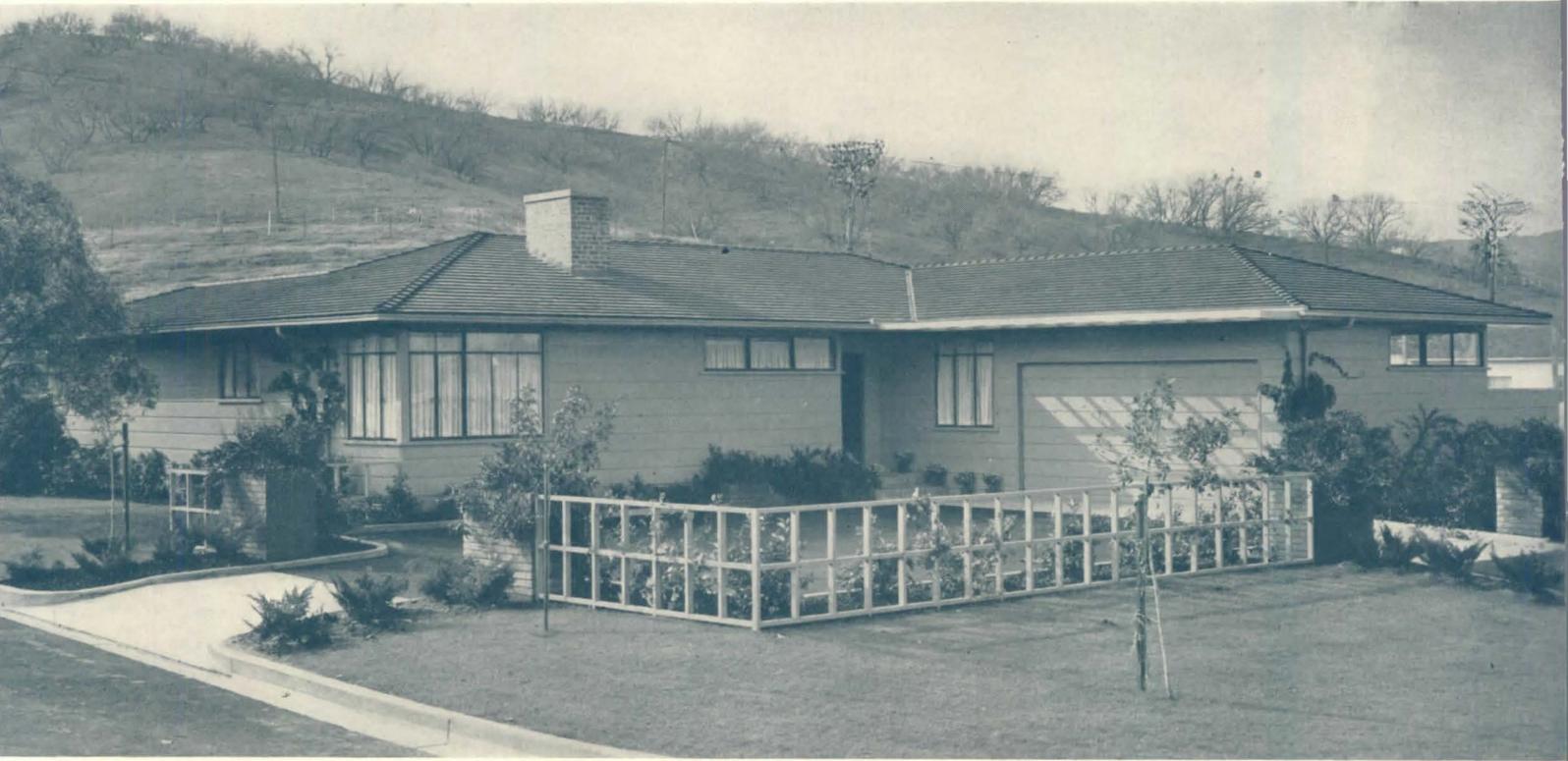
are a common enough problem to every architect. In the following pages are presented a group of residences in different parts of the country, showing a variety of solutions to this basic problem. In every case, environment (site, local custom, climate, etc.) as well as client needs was a determining factor in shaping the character of the finished house. (Outlines of equipment and materials used in these houses are available and will be forwarded to readers upon written request to the editors.)



Miles Berné

HOUSE BLENDS INDOOR AND OUTDOOR LIVING

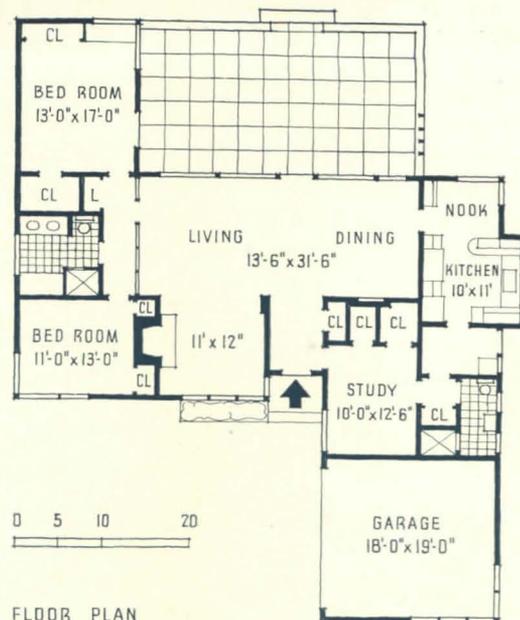
This model house in North Hollywood, Calif., is the result of close collaboration between Architect SUMNER SPAULDING, Builder Kersey Kinsey, who financed the project, and the Bureau of Interior Decoration of Los Angeles' Bullocks Wilshire store. Evidence of public approval is the fact that it was sold within a week of the opening. The house represents, says Mr. Spaulding, "a sincere effort to combine the best materials and equipment available for livability indoors with the enjoyment of the outdoors."



Photos by Miles Berné

The main entrance is through a motor court (above); the living room looks out on and is accessible to a terrace (below).

THE HOUSE WAS designed to fit into, and take full advantage of, its environment; this factor, rather than any particular style, gives the house its character. The terrace side of the large living room is given over entirely to windows and a door for access to the terrace and garden. Mr. Spaulding says of the living area: "The combination of living and dining rooms, with a special portion of the living room set aside for the fireplace, is a departure from custom, but is a frank admission that one sits by the fire in the evening when garden vistas are less inviting." The satin-finish glass partition between living room and hall not only gives privacy to bedrooms but avoids a stereotyped dark hall. The garage is completely finished in plywood so that it can be turned into a game room. All exterior walls are of specially detailed, clear vertical-grain redwood siding, backed with impregnated felt. Interior finish is fir plywood.



The dining room (left) is an alcove off the living room, but the study (right) has a secluded location away from activity area.



Living room, looking toward glass partition. Photo at left: furniture group for daytime use facing garden; at right, fireside group

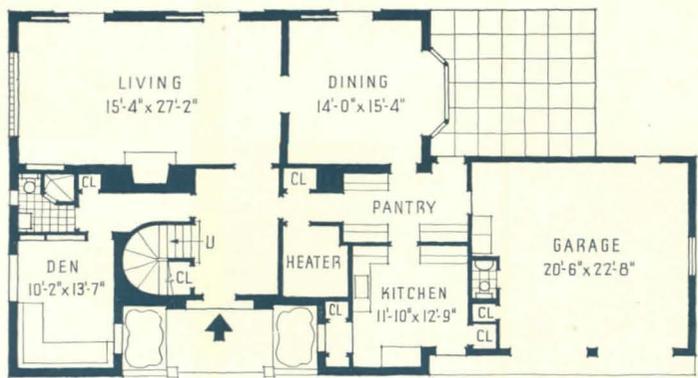
HOUSE FRONTS ON GARDEN

Architect JOHN F. STAUB designed this house in Houston, Tex., for Mr. and Mrs. R. D. Straus so that the real front elevation of the house is on the garden side, thus obtaining privacy for all main rooms and the garden as well. Main requirements for the job were privacy and the inclusion of a small swimming pool.

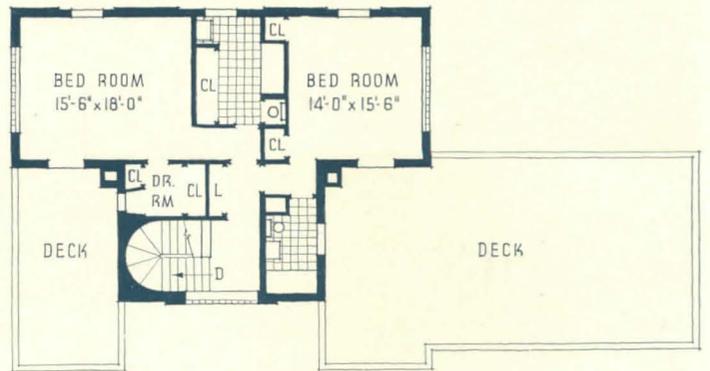


Photos by Elwood M. Payne

THE STREET SIDE has an eastern exposure but this factor—especially desirable in the Texas climate—was sacrificed to provide an atmosphere for living which would be free from outside intrusion. To compensate for this western exposure on the garden front, a recreation pavilion was placed at the opposite end of the pool; the eastern exposure makes this a pleasant hot-weather retreat. The house is equipped for both winter and summer air conditioning; this accounts for the relatively small number of windows and also for the extensive use of large glass-block panels. The house has reinforced concrete floor slabs; steel studs, joists, and rafters were used. Exterior finish is brick veneer; this is painted white, as is the brick trim. The interior walls are of pine, painted old white, except in the den, where fir plywood glazed with pale bamboo color was used.



FIRST FLOOR



SECOND FLOOR



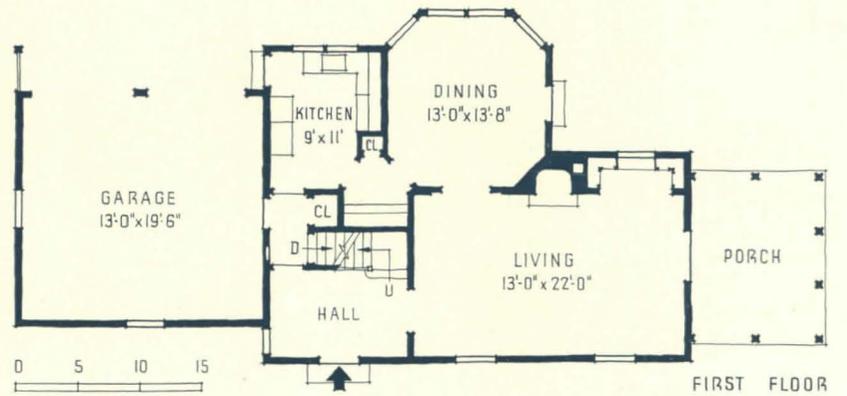
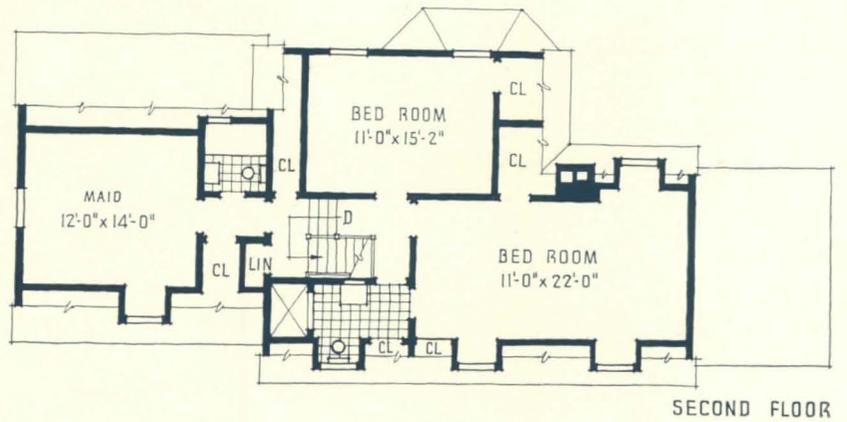
PLANNED FOR LOUISVILLE SUBURB

This house in Louisville, Ky., for Mr. and Mrs. Arthur Peter, Jr., was designed by Architect STRATTON O. HAMMON. Local tradition and living requirements decided the character of the house and the plan type.

IN PLANNING this house, Mr. Hammon faced the problem of providing a design which would fit into the environment and would also provide for the exigencies of a variable climate. The compact plan is an advantage for the winter months; the large windows and screened porch answer the need for plenty of fresh air during the summer. Windows in living and dining rooms are arranged for cross ventilation. A feature of the living room is the book alcove which includes a built-in radio. The kitchen is connected to the entrance hall by a short passageway; access to garage and cellar is also from this passage. On the second floor, the maid's room is located in a wing independent of the family's bedrooms. Floors are of random-width oak except in the kitchen where yellow pine was used and on the porch, which is floored with concrete. Walls are plaster, papered.



Photos Ernest Graham



HOUSE PLANNED FOR FUTURE EXPANSION

This house for Dr. and Mrs. Charles E. Strother, in Seattle, Wash., was planned by Architect JOHN T. JACOBSEN to meet the owners' present requirements and to allow for future needs as well. A further requirement was that the plan be flexible enough to permit entertaining and at the same time be comfortable for family living. The house cost approximately \$6400.



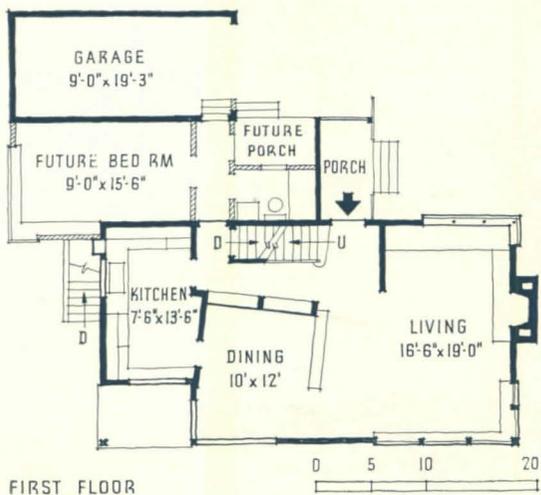
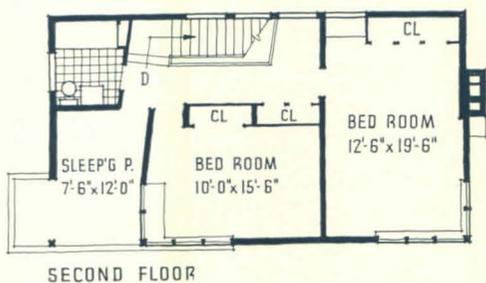
THE SIMPLE ARRANGEMENT of the house was determined partly by the rectangular plot, which slopes gently to the south, and the view over the nearby lake toward the distant mountains, and partly by the owners' minimum requirements. The rear entrance, the raised first-floor level, and the large glass areas on the south side are a direct recognition of the view of lake and mountains to the south. As a result of the higher floor level, the basement recreation room receives plenty of south light. Because the owners wanted a house in which it was easy to entertain, living room and dining room are essentially one room, with only a low partition between. The kitchen is convenient to dining room and entrance hall. Provision has been made for adding another room and bath between the house and the garage. This room could be used as a study or as a guest room. Exterior is finished in oil-stained boards laid vertically with battens; trim is white.



The south elevation (above) faces a view, so entrance (below) is from the rear.

Main and service doors; garage at right

Exterior photos by Roger Sturtevant

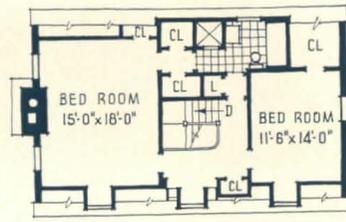


Walls in the living room (top) are of off-white plaster except on the north side, where 1/4-in. plywood, painted pale chartreuse, was used behind the built-in davenport with its blue chenille upholstery. The south side of the living room (center) overlooks the lake. The kitchen (bottom) has cupboards of pine with natural lacquer finish.

Interior photos by Richard Garrison

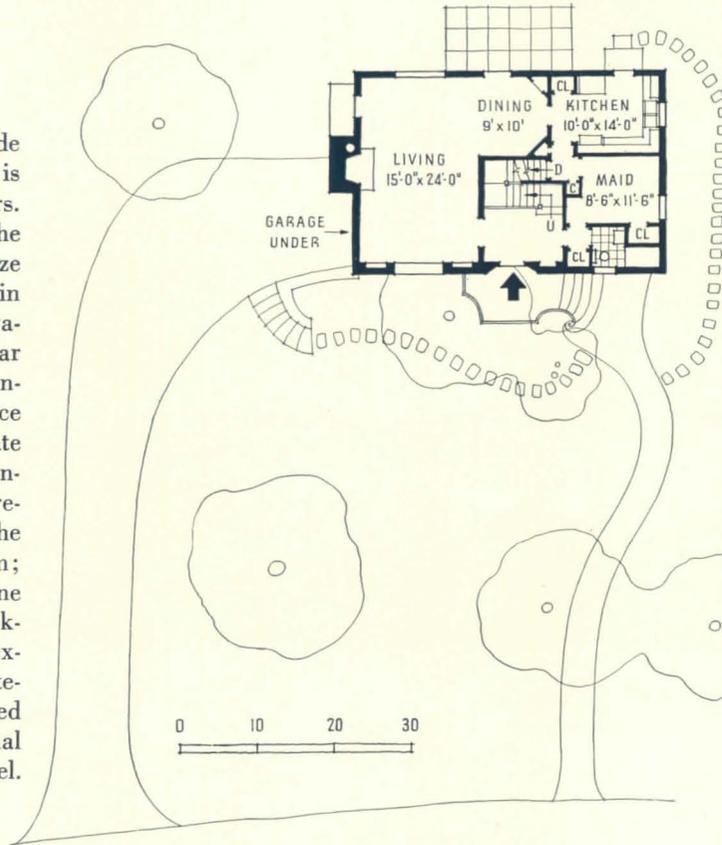
COMPACT 1 1/2-STORY PLAN

Situated in a wooded section of Scarsdale, N. Y., this small house for Dr. and Mrs. Prange was designed by Architect VERA COOK SALOMONSKY. Raised copings at gables, steep roof, and red base are reminiscent of French Canadian houses.



SECOND FLOOR

THIS HOUSE WAS designed to provide for a family of two, and its plan is unusually compact. In fact, Mrs. Salomonsky says "the house met the minimum requirement regarding size allowable for the development in which it stands." The front elevation faces a main highway; the rear elevation is toward the woods. Opening off the dining alcove is a terrace which provides a pleasant and private place for outdoor lounging and dining. Inside furring gives deep reveals to the main doorway and the front window of the living room; this permits a recessed telephone desk in the hall and recessed bookshelves in the living room. The exterior is of brick veneer, white-washed; the trim is wood, painted white. Sash, except for the octagonal window in first-floor bath, are steel.

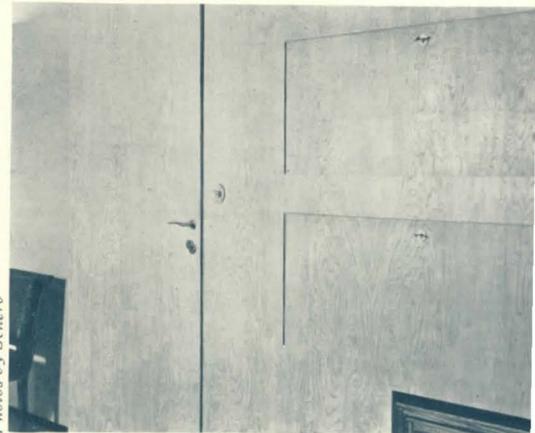


Harold Holiday Castain



BARS

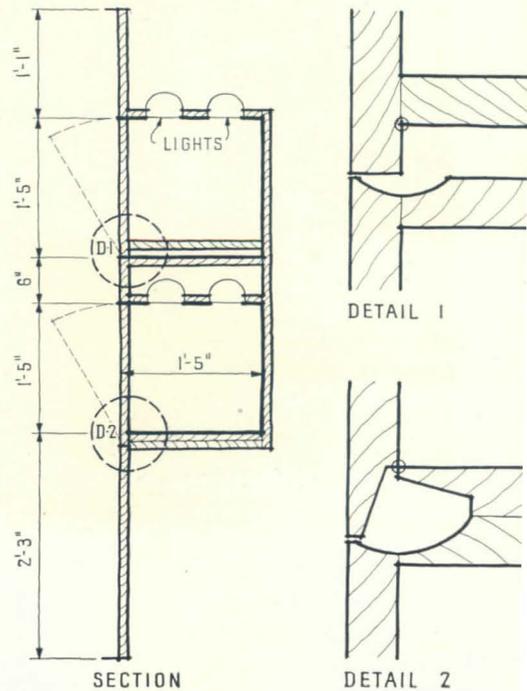
are an increasingly popular feature of residential planning. That the private bar is no longer a privilege of the large house is evidenced by examples shown on the following pages. Although designed for residential use, these bars of different sizes are adaptable to use in offices, hotels, small restaurants, night clubs, and similar types of projects. (Outlines of equipment and materials used in these bars are available, and may be obtained upon written request to the editors.)



Photos by Scherb

1. ERNST LICHTBLAU, Architect

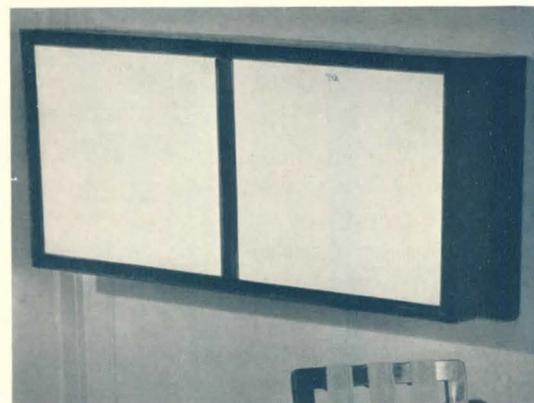
RECESSED IN THE WALL, this bar requires but little space for its use. The top section, for storage of glasses and other accessories, has a drop-leaf door which slides into a groove. The bottom section has a metal-lined sink for cooling beverages in ice and a shelf for bottle storage; the drop-leaf door gives additional work space. Both sections have built-in indirect light. Under the bar proper is an open recess for storing small tables.



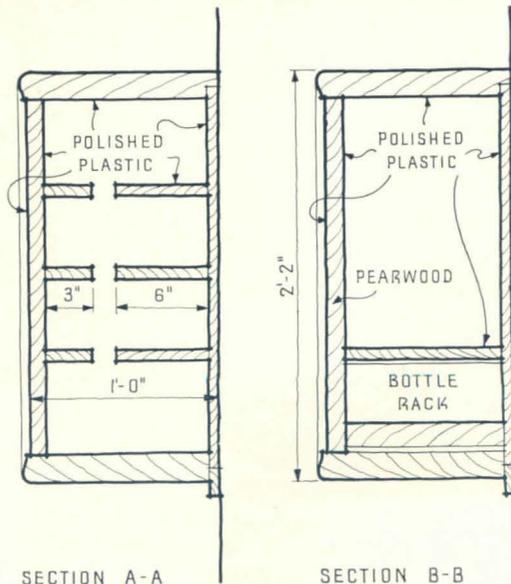
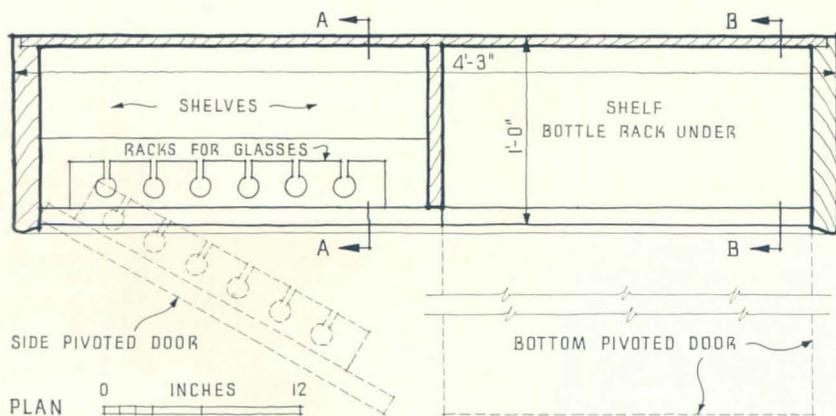


2. PAUL BRY, Designer

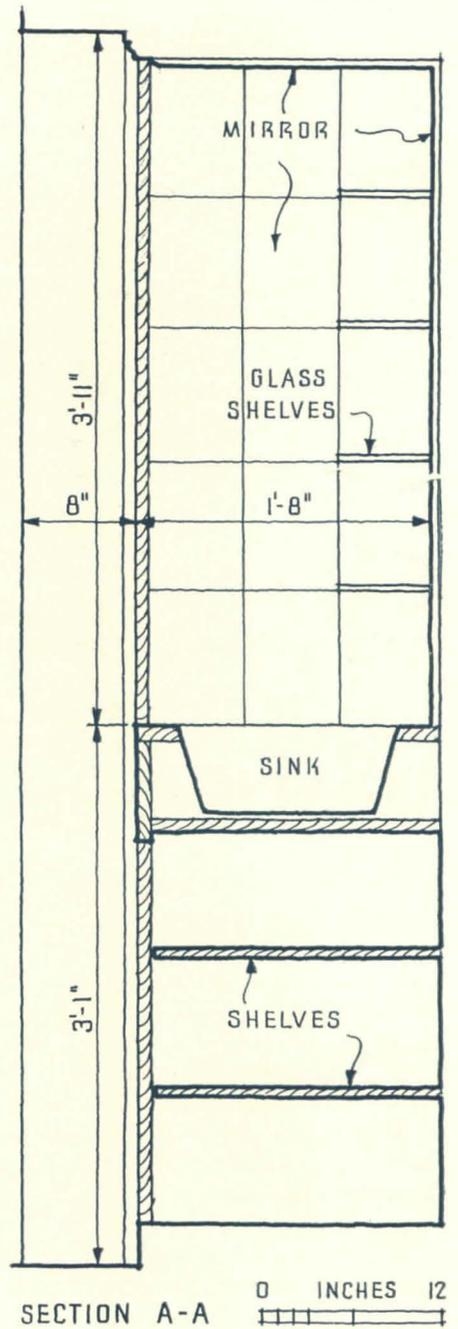
THIS BAR HANGS ON the wall, and is an advantageous solution both in its compactness and in its demountability. One side of the cabinet is devoted to storage; the other provides space for bottles and accessories, and the drop-leaf door serves as a work shelf. The interior of the bar is entirely lined with a polished plastic material; the same material is used on the exterior door panels. Frame is black pearwood, dull varnished.



Kollar

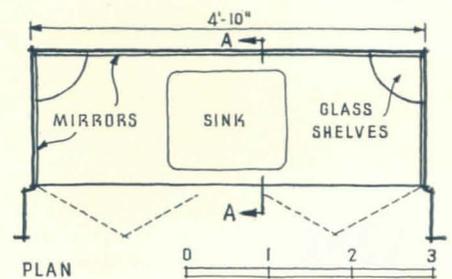


Gottsch



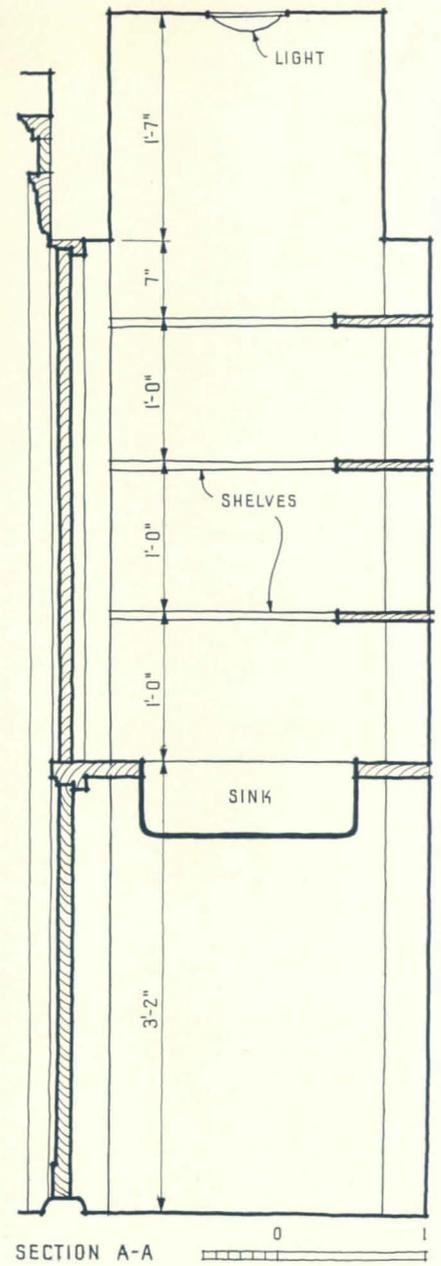
3. JOHN and COULTON SKINNER, Architects

BUILT IN AS permanent equipment to the house, this bar occupies a special alcove. In addition to shelves for glasses and bottles, and a sink with drain, the bar has drawers for silverware and linen, and cabinets below for bottle storage. The folding doors are in four parts. The woodwork is cypress; the shelves are of glass. Mirrors line the back, sides, and ceiling, and add to the apparent size of the bar. To maintain scale, small square mirrors were used rather than large panels.



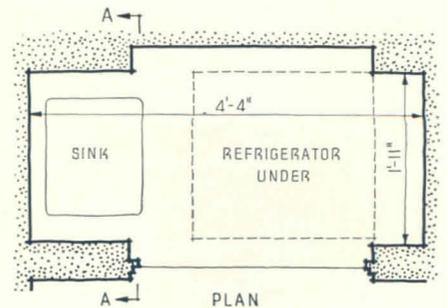


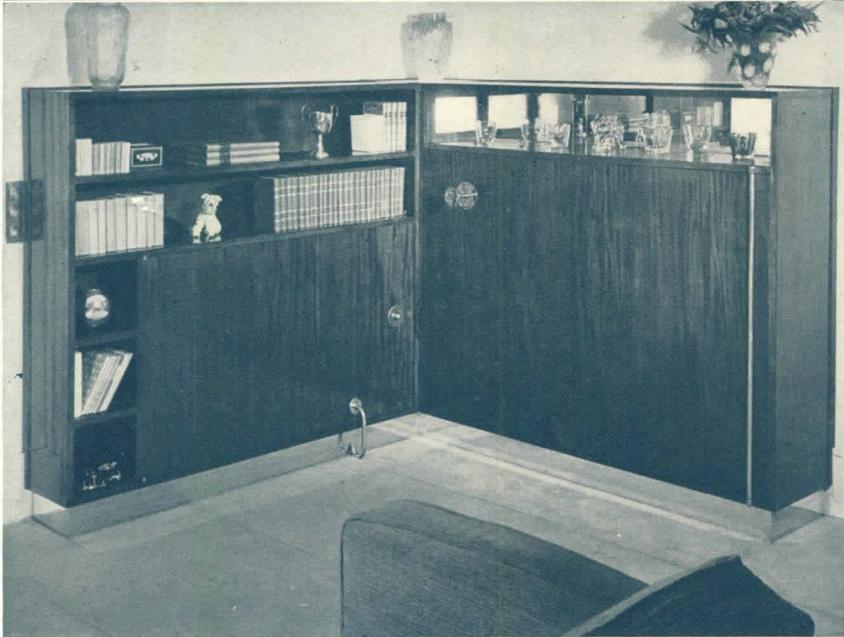
Gottschalo



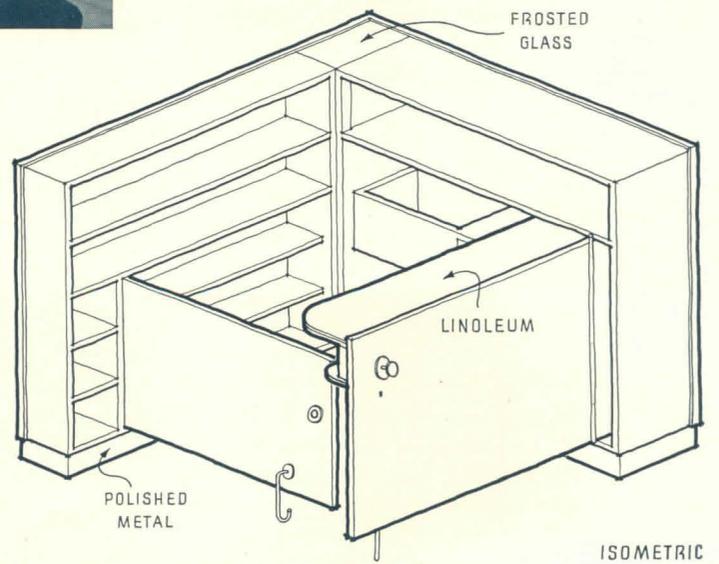
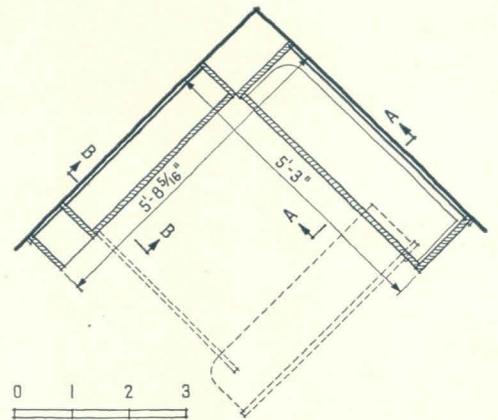
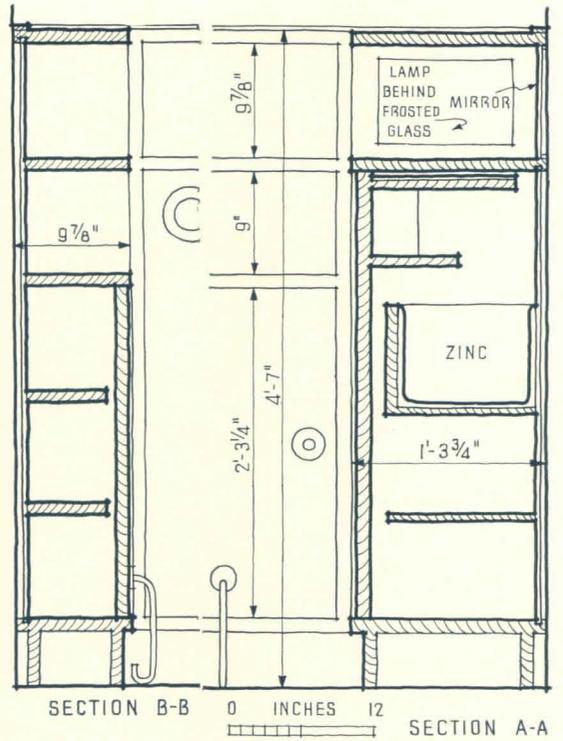
4. BRADLEY DELEHANTY, Architect

THE SPACE FOR this bar was formerly a shallow passage (the thickness of the chimney) between the library and the dining room. The dining-room side was closed in to make the bar. Shelves of varying height and width are arranged on three sides; the work space has a complete sink lined with stainless steel. Under this space and concealed behind the louvered doors is an electric refrigerator. Since the existing room was finished in pine paneling, this same wood was used for the bar.



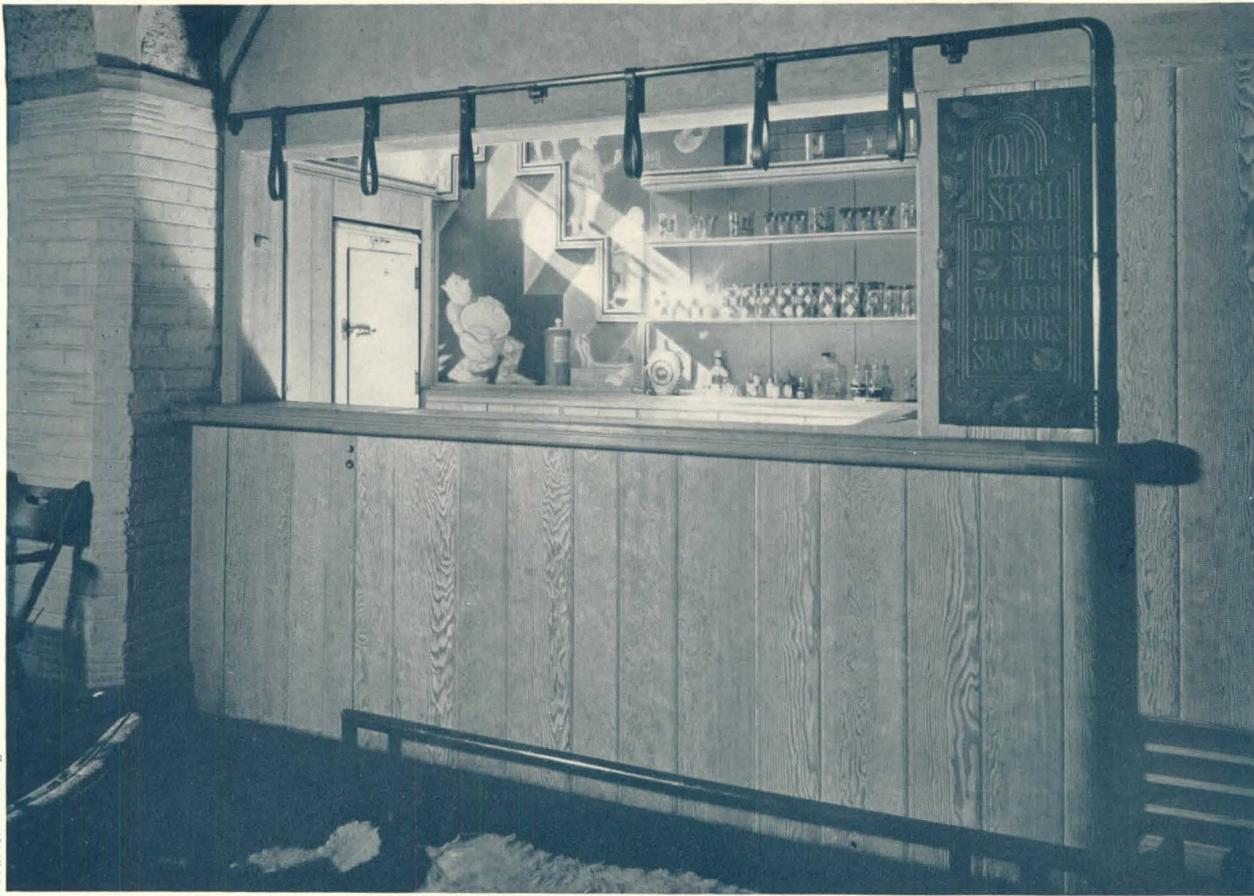


Photos by Paul Kowaliski



5. O. BAUER, Architect

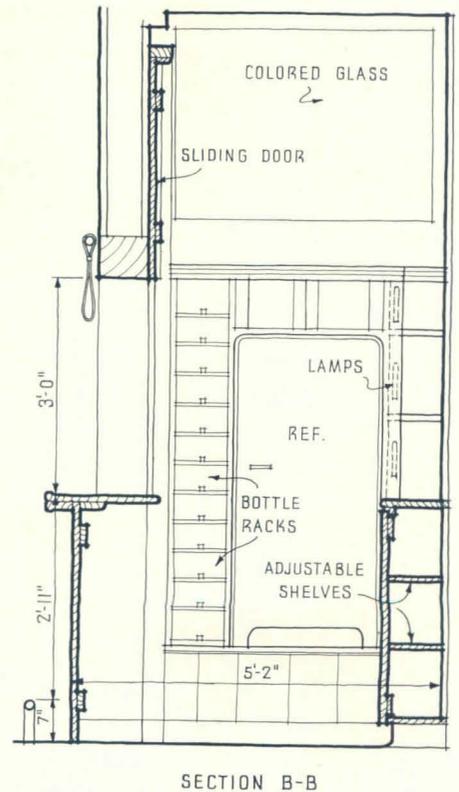
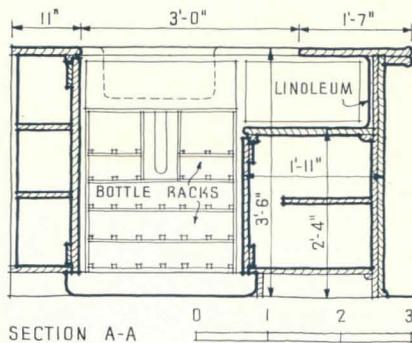
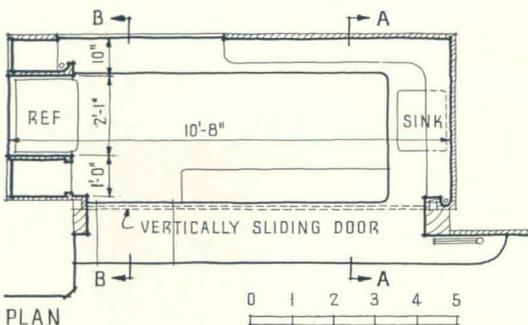
DESIGNED TO FIT INTO a corner, this folding bar is compact but complete. Not only has it ample shelf space for glass and bottle storage, but it includes a counter and a zinc-lined removable tray for cracked ice. The top shelf at the right is mirror-backed; at one end is a light source concealed by frosted glass. The area formed by the two open doors will comfortably accommodate the bartender. Frame is wood, veneered; the counter top is of linoleum; and the base is of highly polished metal.



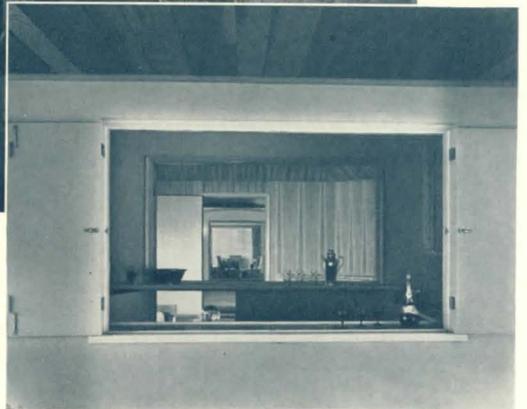
Hedrich-Blessing

6. BURNHAM HOYT, Architect

THE WHIMSICAL CHARACTER of this bar derives from the fact that it is located in a recreation room. Equipment here is as complete as in most commercial bars; the organization of the various elements is compact and convenient. At one end is an electric refrigerator flanked by cupboards for bottle storage. At the opposite end is the sink; under the counter and along the back wall are shelves. The mural represents the seven ages of man and proclaims the drink most appropriate to each. Colors used in this painting are red, yellow, and blue; the stepped moulding is in yellow and blue. Woodwork is fir, painted white and wiped off to show dark grain.

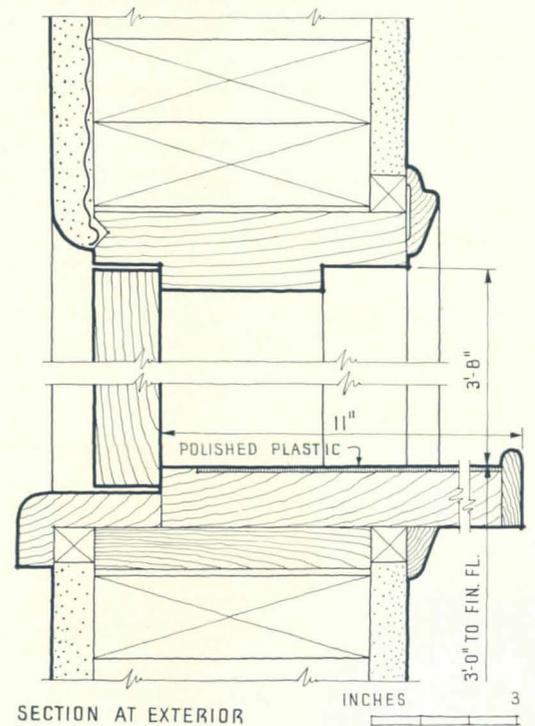
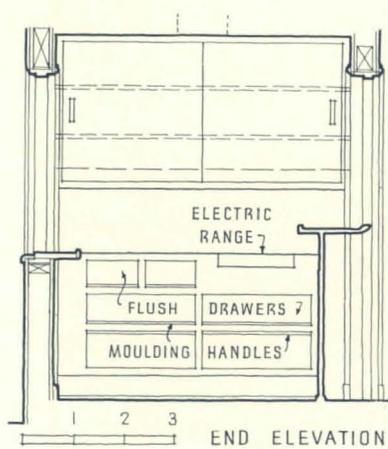
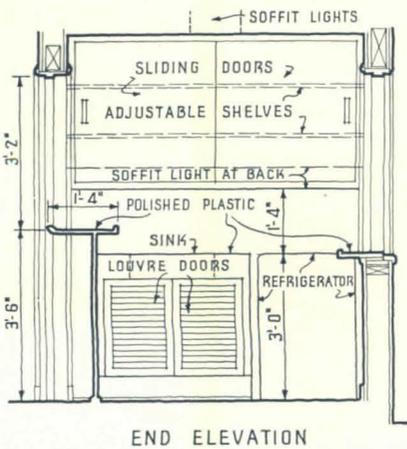


Julius Shulman



7. PAUL LASZLO, Designer

THIS TWO-WAY BAR opens into a den, and out to a play porch (inset). The four full-length hollow-core doors on the den side are set flush with the wall; on the porch side half-doors are used. Equipment includes electric refrigerator and stove, stainless-steel sink with hot and cold water, and plenty of storage space for glassware, china, utensils, and bottles. Counter tops and work shelf are covered with a plastic material. The woodwork, walls, and ceilings are enameled in gray, and the floor is covered with green linoleum. Walls in the den are finished in seaside zebra paneling. The bar has indirect lighting.

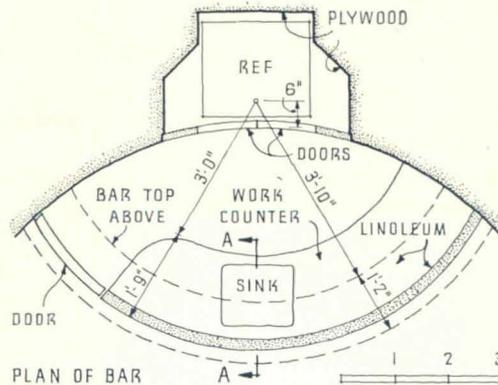
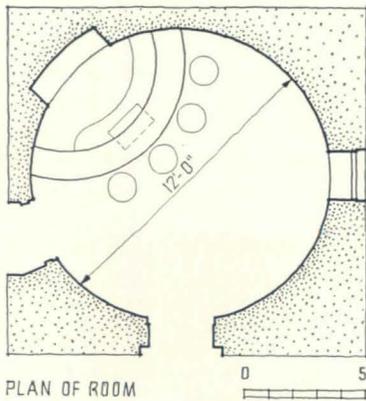
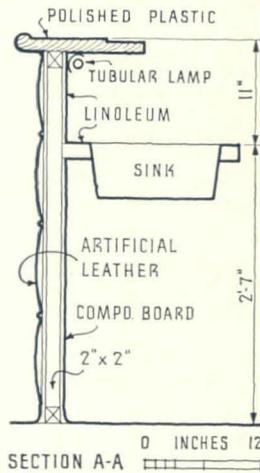


Hedrich Blessing



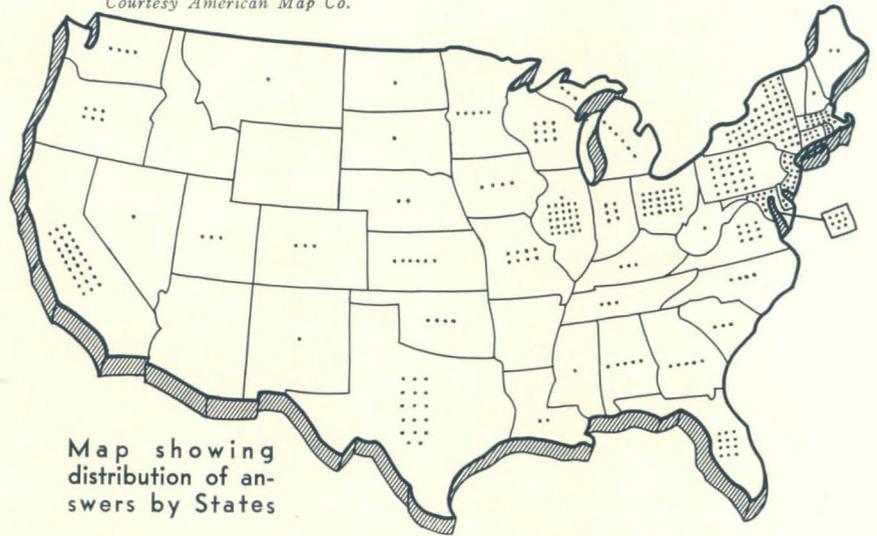
8. HAROLD SPITZNAGEL, Architect

THIS SEMICIRCULAR BAR is located in a basement room whose corners have been rounded off to form a circle. Wainscot and bar front are of imitation pigskin leather. Above the wainscot, photomurals by Drix Duryea showing airviews of lower Manhattan and of the Golden Gate Bridge, are used. The ceiling has a curved surface; indirect cove lighting provides general illumination, and tubular lighting lights the mirrored recess at the back of the bar. The floor is of black rubber.



How Representative Architects Answered FIVE QUESTIONS ON PROFESSION'S FUTURE

Courtesy American Map Co.



Map showing
distribution of an-
swers by States

by Arthur B. Holmes, AIA

WHEREVER ARCHITECTS assemble, the subject of the status and future of the profession generally enters the conversation. It would appear from these discussions that the profession holds a belief, frequently incoherent, that all is not right with the practice of architecture. However divergent the views on this leading subject, there seems to be general agreement that "something should be done about it." But the difficulty lies in determining the nature of the ailment and prescribing the proper remedy.

The sincere desire to bring the architect's problem out into the open in professional circles for diagnosis and possible cure has prompted a questionnaire, prepared by the writer in co-operation with ARCHITECTURAL RECORD. Copies were forwarded, with an explanatory letter, to approximately 1000 architects of our country, selected impartially in order that they might convey as comprehensive and typical an expression as possible. There was one exception, small numerically, to the random character of the selection. Many known and recognized leaders of the profession have, through their leadership, earned the right to be heard in such a poll. Consequently 200 of them were addressed as members of a selected list.

The distribution of the returns from the different states is comparable to that of the registered architects therein, as indicated on the accompanying map (above). Consequently the opinion here tabulated may be fairly construed as national. In one respect only can the replies be considered not typical of the thought of the entire profession. The architects covered by the questionnaire were chosen from lists of those whose offices have been among the most active during the past few years. A canvass of those whose practice has been less prolific and, consequently, probably less remunerative would offer another area for exploration which would be both interesting and illuminating.

It would take a brash optimist to hope for highly constructive results from one contact with a representative percentage of the practitioners of the country through a ques-

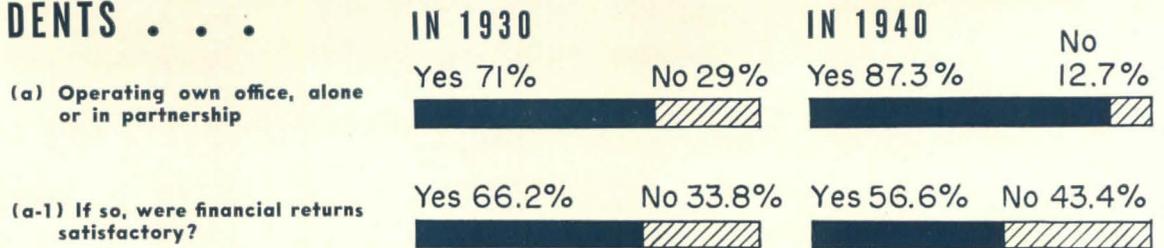
tionnaire prepared by a group which, lacking the very knowledge which it hoped to gain, was forced to grope for what might prove the opening wedge of a more complete analysis. That the questions may have been considered insufficient, loosely phrased, or unclearly presented was natural, and a few of the replies called this fact to our attention. One respondent considered the questionnaire "very elemental." So it was—and should be—in a preliminary approach to such a fundamental research. Furthermore, a more detailed study should probably be made by a recognized body within the profession before its findings were released.

As it is, the character of the returns merits considerable study, and the collateral expressions of opinion included on many of the replies indicate definite trends of thought and opinion which are worthy of consideration. This could not be done thoroughly in the short period available for tabulation and inclusion in this issue of the RECORD, but it is hoped that further analysis will prove the basis for future expression in the pages of this magazine or elsewhere. In projecting the study, both ARCHITECTURAL RECORD and the writer have been moved by the single desire to render a service to the profession and to society.

The reception given the questionnaire has been enthusiastic and co-operative. Of those sent to the selected list of 200, 58% have been returned, and on 80% of these the respondents supplemented their replies to the questions with thoughtful comments. Of the 800 sent to other practicing architects, not including the group employed by government and private agencies, a total of 41% of replies was received, of which 72½% included comments. (Much of the opinion therein expressed is indicated toward the close of this article. All of it has been copied and classified by subjects and is available for study if desired by any authorized group of architects.) Returns from the architects in the employ of government and private agencies were not so high—only 16½%. It would appear that their interest in the problems of the profession is less keen than that of the independent practitioners.

1

SHIFTS IN PROFESSIONAL AND FINANCIAL STATUS OF RESPONDENTS . . .



THE RETURNS indicated that, of those practicing in 1930, a much higher percentage were AIA members than non-AIA, the figures being respectively 83.5% and 64%. This seems to indicate that the latter group is largely composed of younger men who, in 1930, were still at school or employed in an architectural office. In 1940 the figures were slightly reversed: 91.5% of the AIA members were in active practice, while 94% of the independents were "on their own."

By the same token, greater earning power of the older, established practitioner in 1930 was indicated: 12% more of the AIA members were able to show satisfactory returns than was true of the non-AIA architects. By 1940 they stood at nearly the same level, separated by only 1%.

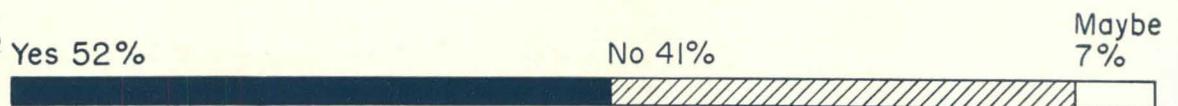
The real significance of these conditions becomes more apparent when their effect on subsequent answers is indicated.

Membership in architectural organizations

The steady absorption of the architects into recognized professional organizations is shown in the next question, for the replies indicated that of those 1940 members whose returns were tabulated, the AIA gained 25% during the decade, while the State Associations jumped 50% during the same period. The discrepancy is understandable when it is recognized that the State Associations have, in the past three years, come into their own and greatly increased in number as well as membership.

2

DO YOU BELIEVE THAT AN INCREASED BUILDING VOLUME WILL OF ITSELF SERVE TO RESTORE ARCHITECTS TO THEIR 1930 ECONOMIC STATUS?



HERE THE ARCHITECT was required to ascend to the realms of conjecture, but in doing so many of them forced the tabulator into the same rarified stratum for, ignoring the phrase "of itself," the temptation was apparently strong to check "Yes" and then qualify the reply to such an extent that it was obviously the opinion that it would take additional factors to bring about this desired result. Such replies, of necessity, were transferred to the "Questionable", or even the "No" column if the qualifications were pronounced enough. But a judicial consideration of the replies indicated that approximately 52% were optimistic, 41% were firmly in the negative, and 7% were on the fence.

Among the private practitioners (AIA and non-AIA) there was a general agreement in the percentage arrived at; but the architects in government or private employment, after perhaps a closer contact with the outside world, were less sanguine, only 48% believing that an increasing building

volume alone would bring the architect back to his former economic status.

Contributing reasons for the doubt of recovery were freely indicated among the comments offered. Chief among these was the alleged encroachment on the architect's preserves by other factors in the building field—mainly "free" stock plans, and the current practice of government bureaus (municipal, county, state, and federal) of setting up their own architectural departments to the exclusion of the private practitioner. Further qualifying considerations, in the opinion of the respondents, were the lack of proper registration and practice laws in a number of the states, and certain conditions directly chargeable to the profession itself, namely fee cutting and free sketches, unethical practice, limited educational qualifications, lack of professional initiative, and, most emphasized of all, a woeful ineffectualness in public relations on the part of our architectural organizations.

3

DO YOU BELIEVE YOU COULD IMPROVE YOUR ECONOMIC POSITION IF EXISTING ETHICAL RESTRAINTS WERE LIBERALIZED, THEREBY PERMITTING YOU TO . . .

THIS WAS modified by ten specific proposals for consideration. It was recognized that some of the sub-questions were possibly to be interpreted within the present ethical scope and that others might be considered on the borderline. The fact that those questioned showed a lack of agreement regarding present ethical limitations would seem to indicate that the code* might prove more effective if it were rephrased in a simpler and more direct manner than at present.

The lack of unified thought in the profession was well-illustrated in the replies to the itemized questions under the subject of liberalization. Certain conservatives consistently voted "No" to all suggestions for broadening the scope and a corresponding left wing checked "Yes" just as consistently. But the great majority indicated a bewildering lack of consistency in the measures which they checked favorably. In at least some cases this can be charged to either lack of definition in the questionnaire or no clear knowledge of just what the proposed liberalization includes. Tabulation and analysis of the voting on the ten proposals follows:

(a) Take Over Contractor Functions in Building Yes 31% No 69%

In the supplementary comments this question appeared to be one of the most controversial but no clear-cut conclusion can be reached as a result of it, since many interpreted it to mean letting separate bids with no general contractor, presumably for a higher fee, to the architect as the owner's agent. Against this there appears to be no ethical restraint intended in the present Principles of Professional Practice. However, there was a decided feeling on the part of a not inconsiderable number that the architect might well contract the work which he had designed.

(b) Engage in Operative Building Yes 33% No 67%

There does not seem to be much opportunity for misunderstanding in replies to this query and the 1/3-2/3 division is a clear picture of the opinions expressed. Again, there might be many who would question whether there was any prohibition of this activity expressed in the AIA Code.

(c) Associate Financially With Builder, Realtor, or Developer Yes 35% No 65%

The present code definitely prohibits this procedure with little opportunity for misunderstanding. The approval expressed in one third of the replies indicates a trend toward the left in the viewpoint of the profession. As in all of the answers under 3, AIA members are more conservative than their independent confreres, but the distinction is not great, for 30% of the AIA members voted "yes."

*AIA's "Principles of Professional Practice".

(d) Guarantee Building Costs Yes 23% No 77%

Acceptance of this responsibility was definitely frowned upon, but some conservative men considered it thoughtfully as having possible merit. Others linked it with (a) and (b) as a necessary adjunct of building practice.

(e) Duplicate All Services Offered by Industrial Designers Yes 52.5% No 47.5%

Uncertainty as to the full service of the industrial designer caused some men to avoid answering this question but, among the balance, opinion appears to be rather equally divided. The method of determining how the designer is to be compensated might well have colored the opinion of a considerable number of our architects.

(f) Engage in Interior Decorating on a Fee Basis Yes 62% No 38%

(g) Engage in Interior Decorating on the Basis of a Contract to Deliver Yes 20% No 80%

A purely professional approach to interior decoration from the standpoint of architectural ethics would not seem to permit (g) although it might well allow (f), even within the most strict interpretation of the code. Several commentators point out that many architects would be compelled to forego it on the basis of the first provision of the code—that of "offering (one's) services on any basis other than competence and experience."

(h) Accept Full-Time Employment by a Manufacturer in Developing, Promoting, and/or Merchandising Building Products Yes 22% No 78%

(i) Accept Part-Time Employment on Similiar Work While Also Conducting a Practice Yes 35% No 65%

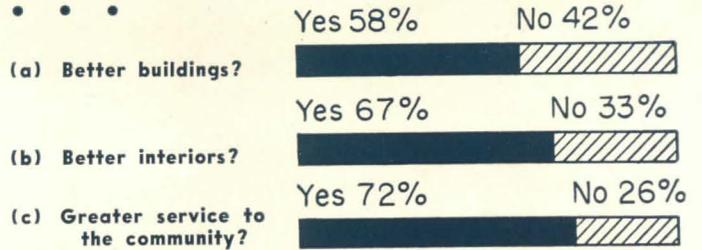
It is difficult to understand why the respondents reacted so differently to these two questions. Apparently those who split their vote did it on the basis of "economic benefit" rather than ethics.

(j) Use Paid Advertising Yes 42% No 58%

Again, no clear-cut determination of opinion can be formed here, for some expressed themselves as referring to group advertising and others may have so intended without mentioning the distinction. This is not definitely in opposition to the written code for therein the stipulation is against "Permitting the publishing of *obtrusive or ostentatious* advertising of one's practice or achievements." But the question was probably largely responsible for many of the constructive comments regarding more active publicity for the profession as a whole, its work, its aims, and its services to society.

4

IF YOU WERE ABLE TO DISCHARGE THE FUNCTIONS CHECKED IN 3 WOULD IT RESULT IN . . .



DESPITE THE REMARK of one commentator that there is absolutely no relation between Question 3 and Question 4, a more careful analysis might indicate otherwise. For 3 discusses economic benefits to the architect and the question which follows asks whether the results would justify the possibly greater income in terms of better architecture and

greater service to society. Without an affirmative opinion in respect to the latter question, few architects would feel that the better economic condition would be desirable. The remarks accompanying the returned questionnaires indicate that idealism is a dominant principle in the profession and that service is often stressed in terms of personal sacrifice.

5

DO YOU BELIEVE THAT GROUP EFFORT, AGREEMENT, AND ACTION THROUGH PROFESSIONAL ASSOCIATION CAN EFFECT RESULTS WHICH WOULD BENEFIT YOU MATERIALLY?



IN ADDITION to the overwhelming desire for organization expressed above—and here the independent architects voted in the affirmative even more strongly than those now organized—this subject was dwelt upon in the incidental comments by 21% of the architects who returned their questionnaires, ranking first among the various subjects selected for discussion. The craving for strong leadership, for a national organization which can bring the profession out of the wilderness, can be read into many of the replies which do not mention organization by name. It would be entirely pertinent to quote from a few of these statements, even though there are not many specific proposals.

"I am convinced that if we are to survive and maintain our standing we must form a fast functioning, mobile business organization, based on courage and dexterity, and having complete control over all the architects of the nation. . . . However the principles and integrity of the American Institute of Architects should not be molested."—*California*.

"Consolidation or unification of architectural organizations, both local and national, would tend to create more widespread recognition of the profession and enable the enforcement of laws governing practice."—*Illinois*

"I believe that by developing a stronger, more completely representative organization of architects, by combining existing organizations to the extent of at least making concerted

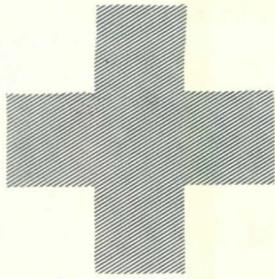
action readily possible on matters of common importance, the position of the profession can be greatly improved. This will require strong leadership."—*New York*

"My answer to Question 5 is "Yes", but I feel that group agreement and group action should be directed with imagination and foresight, not to maintaining the status quo but toward the anticipation and interpretation of the changing position of the architect in a changing world."—*New York*

"Group action for proper legislation to protect the profession against loss of business through encroachment would, in my opinion, be the first important step."—*Ohio*

"I favor group action if operated on a broad scale, and for all concerned, where no petty jealousies exist but only an effort for co-operation in the interests of the entire profession, with the Golden Rule as a motto."—*Maine*

"Volumes can be said on the subject of group endeavor. I believe the profession of architecture will stumble along in its present groping way until the architects pool their interests, ideas, and, to a limited extent, their finances in a broad program of education of (1) architects, to fit them efficiently to serve the public as members of the profession, and (2) the public, to acquaint it with the definite leadership of the architect in the building industry. But first the architect must prepare himself to assume that leadership."—*Illinois*



CROSS TABULATION OF QUESTIONS AND ANALYSIS OF ADDITIONAL COMMENTS

A CROSS TABULATION of certain of the questions uncovers some interesting facts, and indicates the relation of cause and effect. That the concept of a broader scope of operations results from necessity is clearly shown. Of those who signified satisfactory financial returns as of today, an average of 28.4% voted in favor of liberalization, but among the group which is finding it more difficult to make ends meet we find 36% who approve this change.

Even more pronounced is the discrepancy in thought between those who indicate optimism or pessimism in the outlook toward the future. Those who feel that increased volume of building is all that is necessary to restore the architect's economic status average 27.8% in favor of liberalization, as contrasted with the 44% urge for expansion from those who are not so sanguine.

A direct corollary of this is seen in a check of question 1a against 2. Here we discover that the financially successful practitioners are 66% optimistic in their prophecy, while those whose remuneration is less satisfactory expressed but 46.7% belief that conditions would correct themselves with a pickup in the building market.

Cross tabulation of the comments on the questionnaires also brought to light interesting relationships. There was a clear indication here that those who voted against the suggested avenues of liberation in question 3 had not closed their minds to the thought of some necessary readjustment in our professional outlook. Only 10% of the commentators favored an ethical status quo, while 21.2% envisioned the need of some revision in our concepts to meet the challenge of a changing world. An itemization of these comments showed that of the 10% "standpatters" only 20 detailed comments were made, whereas the more vocal "progressives" registered 85 comments on such subjects as stronger group effort, greater professional publicity, more protective legislation, and better quality of professional service, with sharp criticism of government encroachment, fee cutting, free sketches, stock plans, etc.

Discussion of comments

The diverse approaches to the same subject on the part of the commentators greatly increase their interest. They are sober and humorous, scholarly and "popular" in presentation, bombastic and restrained, self-critical and defensive; but all of them are sincere expressions of men who are close to their subject and seriously concerned with the advancement of the profession as well as of themselves. Fantastic panaceas alternate with highly constructive suggestions from those more tempered by the fires of experience.

The comments indicate no sectional problems, other than legislation, and little if any distinction in the state of mind within and without the AIA. That the profession as a whole is keenly interested in this preliminary research is clearly indicated in the attitude expressed in letters received by the writer and by the fact that two AII Regional Conferences will have included this subject in their agenda, prior to publication.

It does not seem premature to discuss certain trends which appear to be indicated in the observations incorporated in the questionnaire. The survey in the RECORD (3/40, pp. 81-87) of the status of the recent architectural graduate disclosed a sentiment favoring some revision of the curriculum in our architectural schools. This new thought has also come to light in faculty circles, if the opinions of our educators are correctly expressed in the present survey. The following comment was received from one of our southern educators:

"I am a firm believer in the controlling policy and the unification principles of the AIA and am an active member, but I also heartily believe that the time has come when, through the AIA or some similar organization, the architectural profession must get off its high horse and approach our problems in a more modern way—without the aloofness of the past—without the social snobbery so often laid at our door—and without the aesthetic indifference of many of our profession. I have little confidence in the group-effort idea except in the matter of opinion obtained as you are doing—but do feel that something can be done to liberalize ethics without damaging our lofty professional philosophy."

From an architect connected with another southern college comes the following:

"There is no doubt that the architect needs some revision of his general procedures and it is difficult to find the exact place where improvement should be made. I think the education of the architect has been incomplete and vague in past years and in many instances in the present does not prepare the graduate for the realities of competition in the creation of buildings. In the past too much emphasis has been placed on training the student to become a draftsman, a unit in an organization which prepares plans only. The schools have allowed him to elect to be a 'designer' or a 'constructionist.' This has made a man weak in one or the other side of his calling, which is a psychological error. The architect should receive better basic training so that he feels more at home in all divisions of the work, and instead of being a 'designer' he should be a 'designer of buildings'—and in addition should receive training in finances as well."

And from the Middle West an educator speaks thus—

"I have come to question the professional ethics which insist on individual private practice as the only status under which an architect should operate. I begin to suspect that the architect's chief skill, that of a designer of habitable space and all that is implied thereby, has a much broader application than to buildings alone, and that this skill would have more scope if direct relationships with building manufacturers, community planning agencies, etc., could be established."

A further listing of some of the more pertinent comments on Mr. Holmes' questionnaire, together with a complete tabulation of the results, begins on page 114.—Ed.

ART FORMS IN ARCHITECTURE

—to be, or not to be?



Michele Coma

Form may follow function pretty clearly when the function is of a mechanical nature—as in a truss; but when the function is psychological, as in the case of a mural, design standards are by no means so clearly defined. This is nowhere more sharply illustrated than in current discussions concerning the place of art in contemporary architecture. American architects—many of them for the first time—have been brought face to face with this problem in the widespread use of art by various governmental agencies. Since the theoretical and technical aspects of the problem are complex, **ARCHITECTURAL RECORD** feels it important that architects understand the artists' position. For this reason, the **RECORD** has arranged the following symposium; technical developments in murals and sculpture will be similarly handled later.

A sly comment on a current problem: Three plaster Winged Victories caught in a web of modern steel scaffolding.

1. IS THERE A NEED FOR ART FORMS IN TODAY'S ARCHITECTURE?

by Elizabeth McCausland*

ARCHITECTS WORK at a tangent from artists, some "modern" architects and critics going so far as to deny that there is a *place*, let alone a *use*, for art in present-day building. The artist is driven back psychologically to a position not very different from that of the nineteenth century when he had to content himself with easel painting and "free" sculpture because architecture had abandoned art to the studio. This in the face of the fact that government programs for the support of art have produced such a ferment of mural and sculpture production as the world has not seen since the Renaissance.

*Miss McCausland, a well-known critic, is art correspondent for the *Springfield* (Mass.) *Republican*.

Why this contradiction? Plainly, architecture is in no happier state than art. It functions under the frustrations of technology, its theory more potential than its opportunities. A theoretician may outline mass production of shelter; the practicing architect is limited to the construction of small detached units in traditional "styles."

Let us say architecture is in transition, with several divergent schools of thought about the future. But no one school has all the answers. The "modern school" can claim that its materials and construction methods are "modern," yes. Yet in content and form it is often archaic. (Flat roofs do not a "modern" make.) This duality is expressive of the historic cultural lag. Such conceptions as *the machine for living* and *efficient minima* may well have been necessary simplifications of the transition. But the austerity of the "International Style" was the personal

escape mechanism of highly sophisticated and probably neurasthenic individuals, creating "an art of real order" out of the machine-made materials of modern construction. The reduction of color to primary constituents; the exploitation of glass, metal, and concrete in ascetic terms; and the apotheosis of the cubical were the regimen of mental hygiene. The world's disorder and chaos harried and fatigued these stylists of architecture; a metaphysical discipline was to be imposed upon the world through absence of color, ornament, and *décor*.

In this rationale the human race was omitted. Man was reduced to a slide-rule computation. Take care of his physical functions, and the soul could take care of itself. The syllogism was satisfactory to its makers, not necessarily to mankind. Indeed one may assume that the perseverance of art through the ages under widely varying

THE CASE OF THE LONDON CARYATIDS. In one of their recent apartment houses, the English architects Tecton desired a concrete canopy over the entrance door which would offer "a dynamic contrast to the static mass of the building." A full cantilever—aside from being expensive—would "give a disturbing visual sensation of instability" (1). Hence the need . . .

Courtesy "Architectural Review"



cultures constitutes an *a priori* case for the usefulness of art in building design.* The purposes of commemoration, communication, decoration, embellishment, education—which have flourished in all times known to history—are not to be eliminated from human consciousness by the adoption of the steel-frame technic. Nor, even though the nation becomes completely migrant in mass-produced, die-stamped trailers, will the hunger for enrichment of the immediate environment vanish.

The contemporary use of art in building design is not, therefore, a synthetic activity of public or private patrons, nor is it "made work." Rather it is the re-exploration of art in terms of human life and social environment. Yet the external constructed world of present-day architecture often leaves no place available for murals and sculptures. The most pathetic proof of this truism is to be found in our public buildings—city halls, schools, libraries, museums, etc.

From the artists' point of view

But what of the artist himself? His problems here are twofold—*theoretical* and *technical*. To begin with, in producing murals and sculptures for public buildings, artists have been faced with a problem new to the generation's experience. A few "art factories" had been in operation all along, turning out expensive jobs. But generally ornament went out of fashion with Sullivan and Richardson. For the richer visual and plastic impact of the mural and sculpture, there was no native tradition, and indeed no contemporary standards. The artist could only turn to the past for guidance, and his psychic dependence was the more intensified as he was usually considered a problem child by the architect. The fault lies partly with

*The embellishment of the die-stamped steel body of our mobile shelter, the auto, with chrome garnitures and plush upholstery, may be due to the reaction against mechanical materialism as much as to the bad taste of "styling" experts. The search here is not for the psychological security of tradition, of well-known and familiar old materials, but for the warmth of human sensory experience in colors, materials, shapes.

architects, partly with artists, mainly with history.

Moreover, in the vast empirical laboratory of architectural art maintained by the government, the artist has had little freedom to experiment. The first task has been to find walls and niches where "art" might be placed. The pressure of economic need made the early "emergency" programs urgent and to a degree unplanned. In seven years' endeavor, much has been learned. But, supported by public taxation, the artist had to produce to justify his wages. There were no funds for research in materials and methods. It remained for the outside groups to explore technics like baked enamel on steel panels, rubber base paint, the synthetic resins, murals in electric lights, plastics, polarized lights, etc. This is probably the main reason for the technological lag, noted among artists, in materials and methods: research requires funds.

The esthetic function of art

To state theoretically why art is useful in building design is not simple. Human psychological needs are complex. One could not argue that murals on a wall or sculptures in a court are essential from a *structural* point of view. In this respect, the integration of art with modern architecture differs from a past in which art forms were structural as well as ornamental members.

True, the steel framework may be utilized for the esthetic enrichment of a building. But this is scarcely art in the common sense. How can painting and sculpture be made a useful working part of exterior and interior? In the first place, the question may be asked: Is there not a maximum of emptiness and blankness which the human sensory apparatus can accept? What human experience is to be sought as people enter and leave their homes or their places of work? Can the environment of everyday living and work ameliorate the pressure of existence by giving the eye pictorial and plastic sensations which may compensate for the myriad

unpleasant and actually horrible visual stimuli encountered in the ordinary city or industrial scene? Even if the dwellers in office buildings and apartments do not pause more than a second to look at these works of art, do they not benefit from an environment more urbane and cheerful than blank walls and empty spaces?

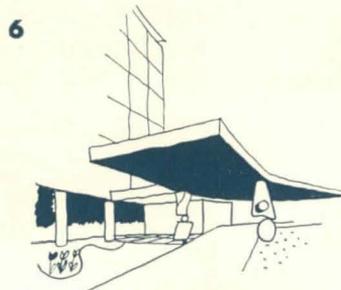
Why art forms are useful

It is in this realm of peripheral perception that much art for buildings must function. The fact itself is no hardship. Architecture itself functions in the same realm. Its user is not constantly aware of the glory and the majesty of modern technics, by virtue of which the thousand-foot building withstands the gale as stable as an Alp. The harmony between the use of a building and its visible form is not a matter on which the user of the building constantly ponders in his own everyday use. The suitability of the building's design is, however, an indispensable factor in the user's sense of well-being in that building. Other factors may be more urgent, or more irritating. But the building is his spatial base of operations. If it is unharmonious or inappropriate, the user's subjective happiness is so much the less.

In asking the question, "Is there a use for art in building design?", we imply that there is a *maximum* to be attained. This maximum is to integrate in building design all factors which will add to the physical equation a *plus* of happiness, gaiety, laughter.† But the function of art in the man-made physical environment of twentieth-century men and women would be to remind them that they are not minimal human beings, not automata, not robots, not Frankenstein's monsters, dedicated to mechanical performance of mechanical operations, but sensate, conscious and willful, informed by thought and emotion, and capable of making for themselves a more desirable environment.

†In certain instances—as the Department of Justice Building in Washington—the plus might be awareness of the depth and tragedy of human life, rather than joy, as Symeon Shimin's murals suggest.

. . . for vertical supports. . . . But what sort of supports? Concrete columns, such as carry the eight-story building itself, would be too "heavy" (2), while steel columns of required section would appear too "light" (3). Sculpture, then. But sculptures like (4) and (5) are "stylistically foreign to the building." The obvious alternative, abstract sculpture (6), while less symbolic, was felt to be "still too personal." . . . Thus—until such a time as a "standard sculptural support" appears—casts of the Caryatids will "carry on" at High Point (7).





Berenice Abbott

NEITHER THE STYLE, "TASTE", NOR MEDIUM of a given mural is the issue here, says Prof. Meyers. American artists offer American architects a richer and more diversified production than the world has hitherto seen. There is a subject . . .

2. PROBLEMS THE ARTIST FACES IN TODAY'S ARCHITECTURE

by Bernard Meyers*

IN THE HIGHLY mechanized and "refined" architecture of the twentieth century, pictorial or sculptural decoration are practically extinct. Consciously or not, the architects and their patrons have reached a point where they would as soon put murals on the fenders of their automobiles as over their fireplaces, and sculpture as willingly over the driver's seat as over their doorways. It is a shocking fact to realize that those embellishments which were once considered essential are today the exception rather than the rule.

A brief examination of the so-called historical styles of architecture will show that the Egyptian, the Greek, the late Medieval, or the Baroque produced building designs in which there was a highly integrated relationship between architecture and sculpture. Today, the use of mural decoration is generally limited to certain types of public buildings, and under the specific limitations of the small number of government agencies interested. A similar condition exists in sculptural ornamentation except that the limitations are even more severe. It is perhaps not too much to say that, until the recently extended aid of the Federal Arts Projects to mural painters

and sculptors, these two groups seemed destined to disappear.

The question naturally arises as to how this amazing historical change occurred, and why. Obviously, it is basically the gradual shift from one type of society to another which has brought about a complete change in the character of patronage and the position of the artist in society. An examination of the history of western Europe shows that the patrons of architecture in the late Middle Ages and Renaissance were either the church or the individual nobles. Under this system the artist found himself a useful and well-integrated factor in the social scheme. His work, during this period and the following epoch of absolute monarchy, was something for which there was a guaranteed public.

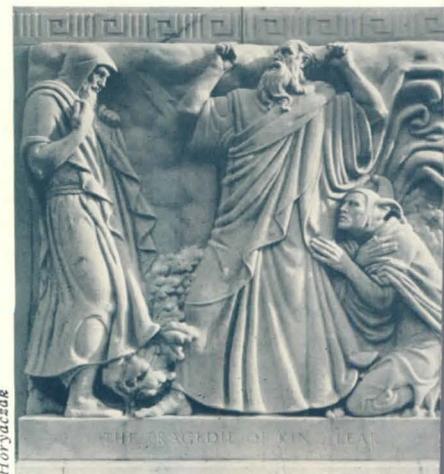
During the seventeenth and eighteenth centuries, however, the new middle class became increasingly important. By the middle of the nineteenth century America and most of Europe had shifted from a late feudal to an industrial civilization. No longer were patrons confined to the church, monarchy, or nobility; democratic governments and wealthy individuals took over the leadership in building.

Two things must be noticed here: first, the so-called "public" buildings and most residences continued to be built under the inspiration of the architectural styles of the past; and, second, the rapid rise of specialized types of commercial and industrial structures from the last quarter of the nineteenth

century on. In the first classification, a desiccated and moribund type of pictorial and sculptural decoration persisted, dominated by the point of view of the new patrons of art. The second group was more and more influenced by the necessities of utility and speed, and was increasingly affected by what, for lack of a better term, we can call the machine point of view. Primarily utilitarian in purpose, it developed along sleek and precise lines, almost completely excluding "artistic" ornamentation.

But it was to be precisely these industrial and commercial types which were increasingly to dominate the American architectural scene. The lessons—both practical and esthetic—learned here be-

SCULPTURAL PRODUCTION



Horydczak

John Gregory, Sculptor



Kaufman & Fabery Co.

... matter, a style, and a medium to meet every design problem and every budget. In these terms, any contemporary esthetic problem is capable of solution.

gan to be applied to other buildings, and even began to invade the residential field. From a purely esthetic viewpoint, this development must be regarded as a form of revolt against the overdecorated and pompously nonfunctional character of the architecture of the Victorian period. Today, the tug-of-war between these two trends may be said to be a "tie," with both existing side by side to give the startling impression that we think in two separate channels.

We are not so much concerned here with the "modern-vs.-classic" issue, however, as with its *effect* on the artists' work. It does not require any detailed knowledge to see the position of the sculptor and muralist in this situation.

Both the quantity and the quality of their work have been drastically affected. The recent activities of the various government agencies have served sizeably to increase the total quantity of art produced: and this steadier patronage has favorably affected the quality of current American art. There is evidence that this support for the artist has somewhat broadened his opportunities in the field of private enterprise. Both the New York and the San Francisco Fairs, for example, not only make a wide use of both sculpture and murals, but have staged art exhibitions which proved very popular.

The opponents of art in modern architecture may say that there are not,

as yet, suitable and sufficiently modern types of pictorial and sculptural ornamentation for their eminently efficient buildings. To be sure, it would be esthetically unsatisfactory to employ the type of photographic realism associated with the older architectures. But neither the technique nor the media of the past need be employed, once we grant the fact that art forms are actually *useful*.

If the modern architect feels that he requires new media, there are many artists who are constantly experimenting with additional materials, such as waterproof paint suitable for concrete exteriors and usable even on the bottoms of swimming pools. Additional examples of new media may be found in the technically effective murals shown at the 1939 New York World's Fair.

In the realm of sculpture, experiments are quite as prolific. Sculptors are now working in new metals and alloys, in plastics, in concrete. Both raw and baked-enamel metals are being modeled with the oxyacetylene torch. These sculptures, for the most part, are endowed with a highly abstract quality, expressive of the angular efficiency of many of our modern buildings.

Nor is there reason for the architect to feel himself limited to conventional concepts of pictorial or sculptural decoration. Why should not painting or sculpture, as we know it (traditional or abstract, old or new media), yield to newer—and more peculiarly American—esthetic standards based upon neon and fluorescent tube, polarized light, and plastics? Materials, technics, and talent lie ready to hand. The architect will find the artist ready to cooperate.

... likewise runs the gamut from photographic realism to complete abstraction, from chiseled granite to welded steel. The question, again, is not a moral one of "good" and "bad", but of whether sculpture in general is useful in raising the over-all value of buildings.



Maurice Glickman, Sculptor

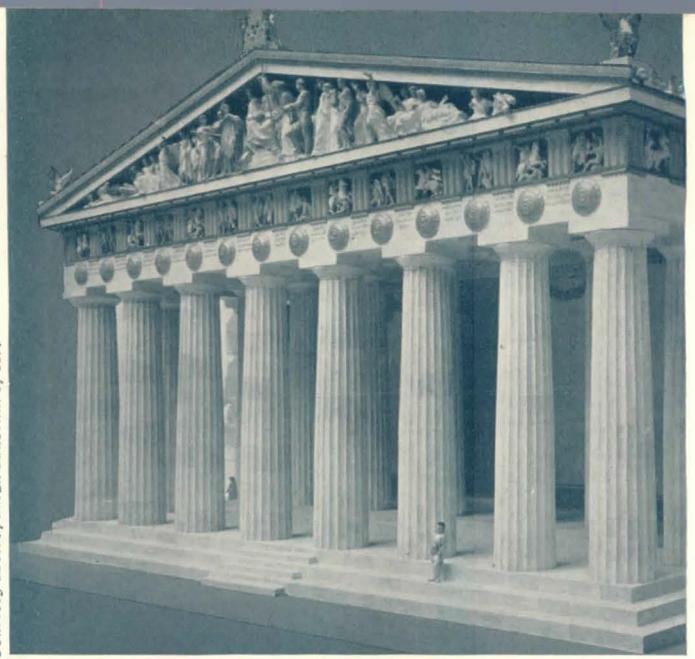


Isamu Noguchi, Sculptor



Andreas Feininger

David Smith, Sculptor



3. A LESSON FROM HISTORY ON SCULPTURE AND ARCHITECTURE by Maurice Glickman*

HISTORIANS AND ESSAYISTS of the last 50 years have often shown us that the unity of architecture and sculpture is natural, but never have they hinted of the existence of a working principle for this union. To make up for this deficiency they issued esthetic dogmas and became violent partisans of one "school" after another. First, it was the classical Greek that was great and, therefore, the favorite; then the Baroque and, again, the Gothic; and so on, in a dizzy circle, they adopted one and excommunicated the other. Not a few among the sculptors and architects followed suit, and were it not for the fact that the recent past did not furnish much stimulus for the use of sculpture in architecture, the union would have been esthetically catastrophic.

But you cannot argue with the past, you can only learn from it.

Historically speaking, the relation between sculpture and architecture equaled the relation between sculptor and architect. That is to say, when either one understood the technical and esthetic problems of the other, they collaborated in such a manner as to make any structure both technically and esthetically plausible. This, as will be shown later, was possible only on the basis of the existence of a working principle. Such an attitude may be said to have existed

*Mr. Glickman, himself a sculptor, won a Guggenheim Fellowship and is the author of a forthcoming book on this subject.

from the most archaic period until about the Renaissance. Then followed confusion and style hybridization until the end of the nineteenth century. With the introduction of modern structural methods—particularly in steel and concrete—building design began to drop most decorative and practically all sculptural embellishments. The present revitalized interest in sculpture has once more revived the problem of the use of sculpture in architecture.

History indicates that sculpture in architecture—while showing due consideration for structural laws—rarely served as a basic structural element. Balance and order were necessary to achieve architectonic perfection. Sculpture was therefore not only used with little or no sacrifice to the basic constructional concept, but was intended mainly to complete the esthetic unity of the building, and at the same time express its spiritual significance.

In considering various architectural forms, we cannot but classify some of them as either dynamic or static. Sculpture may be similarly classified. In the history of architecture we see that it is only when a proper relationship between a dynamic architectural and a static sculptural form (or vice versa) was achieved that a balanced esthetic concept was expressed. This, of course, as will be seen upon further analysis, is the principle, or law, of the relationship between sculpture and architecture.

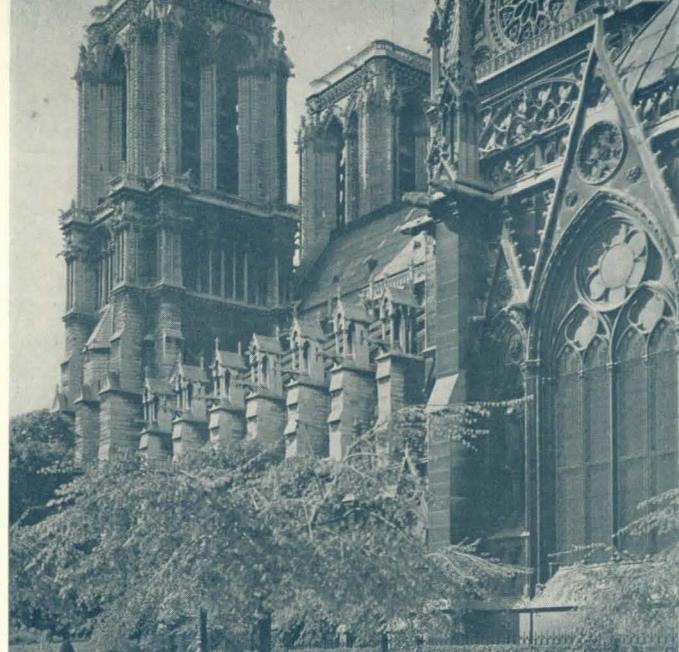
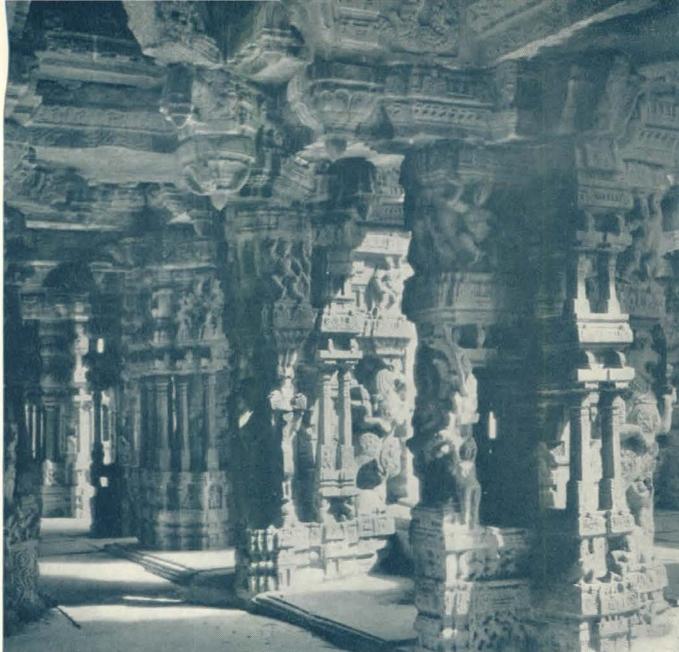
Again, in considering the development of architecture from the purely structural angle, it becomes evident that with the development of the lintel, the arch, and the buttress, sculpture was

shifted from one place to another on the building according to the plausibility of the architectonic concept. But at all times it must be observed, *this shifting was done where it helped achieve certain esthetic concepts where no purely architectural means existed.* To wit: the Greeks used the frieze and the sculptured pediment; the Romans, relief sculpture over the archways; the French, the sculptured facade of the Gothic cathedral. Let us see why.

The Greeks used the lintel as their main structural concept. Stone, placed upon these lintels to support the sloping roofs, in turn produced pediments as frontal and dorsal terminations. These pediments, as well as the entablatures, gave a strong sensation of "top-heaviness" and necessitated the introduction of sculpture in the spaces, in order to "lighten" and "break up" any undesirable effect of massiveness. The use of a dynamic sculpture on this static architecture produced the desired esthetic relationship (above, left center).

The Romans, having perfected the arch, used sculpture to lighten its bulkiness by breaking up the mass above the archway. Also, having maintained most of the Greek structural concepts, and to some extent their esthetics, in the creation of temples, they naturally employed sculpture on the pediment with similar purpose.

The Gothic cathedrals, in a similar way, show the French architects' understanding of the use of sculpture on architecture. New methods of construction were invented to meet the great need for light in these large edifices. Flying buttresses served to take the



Monkmeyer

weight of the vaulted roofs from the walls. The spaces between the buttresses, thus freed, were used as window space. Around the exterior of nave and apse, the flying buttresses produced a dynamic effect. By the concentration of static sculpture on the entrance facade (where the buttresses were not used) and the resultant breaking up of all the large wall spaces, the beholder was given a sensation of balanced movement. The facade was thus rendered consistent with the rest of the structure. The introduction of tracery carried this principle to completion. In contrast to the Greek or Roman fusion of a dynamic sculpture and a static architecture, the Gothic relationship is between a static sculpture and a dynamic architecture, producing a most stirring esthetic result (above, right).

There are historic examples, of course, where a static sculpture was used on a static architecture, or dynamic sculpture on a dynamic architecture. For example: Egyptian architecture, which throughout was static in itself, had a static sculpture related to it, and is therefore very somber and awe-inspiring (above, left). At the opposite pole may be cited the Hindu temple architecture. Its overabundance of decoration is most disturbing in movement, a dynamic sculpture used with a dynamic architecture (above, right center). Thus, it is obvious that the successful integrations of the past have as their basic principle *the juxtaposition of a dynamic sculpture to a static architecture, or vice versa.*

Sculpture has been little used by architects recently, and it seems that

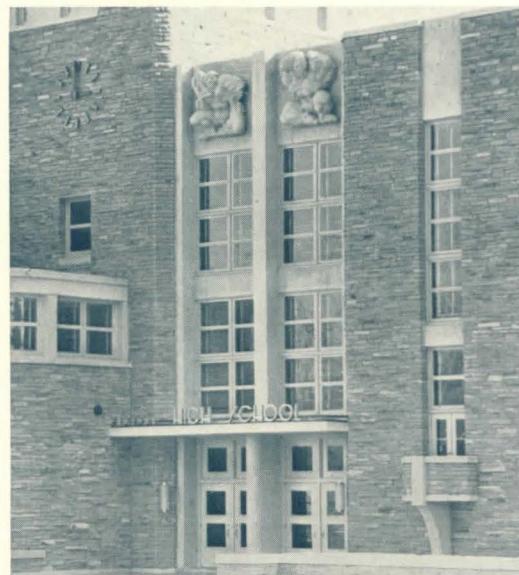
most of it was placed over the main doorway. This seems, alas, to be true of almost every major building in New York and elsewhere. The sculptures are generally concentric in design, in which case they do no harm to the general architectural concept, but it may be added, parenthetically, they do not help it much either.

The question arises, then, where has sculpture been more or less successfully integrated in recent building design? Commercial structures seldom show anything more than ornament; ecclesiastical edifices are usually imitative of the Gothic or Colonial; and public buildings are generally Romano-Greek in character, abundant in architectural clichés. It looks very much as if the contemporary creative architect has consciously evaded the problem.

Yet the writer believes that, on the basis of the adduced principles, sculpture can *still* be successfully used on all types of buildings and with all "schools of design"—excepting perhaps such derivative concepts as Lescaze's Aviation Building (right, bottom) at the New York World's Fair, which is itself almost a sculptural form.

There remain, of course, the many knotty problems of both technical and theoretical nature which both artist and architect face. But these can and will be resolved. History offers no support for the theory that art is no longer necessary to architecture. Certainly an appropriate use of sculpture can add the same brilliance and humanity to the esthetic concept of modern architecture that it has done so often and so successfully in the past.

THE SUCCESSFUL INTEGRATIONS OF THE PAST (photos above) are due, Mr. Glickman believes, to observance of a basic working principle which both artist and architect understood and which operated independently of the various spiritual concepts and various degrees of skill through the ages. The fact that this relationship has become obscured in modern life does not necessarily mean that it is not still operative, nor does it conflict with either the ideas or the technics of modern life (photos below).



Morris, Freeman & Huntington, Architects



William Lescaze, Gordon Carr, Architects

New York Suggests a Plan for URBAN REHABILITATION BY PRIVATE INITIATIVE

by Thomas S. Holden

PROVISIONS OF the Urban Redevelopment Corporations Bill are important because they could expand possibilities of privately financed construction operations in urban blighted areas, and would tend to stimulate large-scale building projects in cities of New York State. The bill's significance to architects springs from the fact that it invites private enterprise into the field of slum redevelopment, and aims to implement modern ideas of neighborhood replanning as an integral part of a city plan.

The bill was sponsored in the New York State Legislature by Senator Joseph A. Noonan and Assemblyman MacNeal Mitchell. Its potential far-reaching importance is evidenced by the fact that it was endorsed in principle by the National Association of Real Estate Boards, which has long advocated some of the principles embodied in the bill, and was strongly recommended in a report by the U. S. Chamber of Commerce as a basis for study by local Chambers of Commerce, business and civic organizations all over the country. The New York Chapter of the AIA was the first organization to endorse the Urban Redevelopment Corporations Bill when the draft of the bill was made public by the Merchants' Association of New York City.

The Slum Redevelopment Committee of the Merchants' Association of New York, which prepared the draft of the bill, consisted of an architect, a builder and operator of large city projects, a manufacturer, a savings-bank president, another banker interested in suburban development projects, an insurance man, and a lawyer, with the writer acting as chairman. Breed, Abbott, and Morgan, corporation lawyers, prepared the draft, and Ira S. Robbins, counsel in the field of housing and city-plan legislation, was retained as consultant.

The bill proposes a kind of partnership between a municipality and a Redevelopment Corporation, giving to the corporation certain special privileges and imposing certain obligations in order to protect the public interest and the investment character of redevelopment



McLaughlin Aerial Surveys, Inc.



An urban redevelopment project of the type envisaged by the New York bill: Above, an air view of a crowded section of Manhattan. Below, a scheme for rebuilding, originally proposed by the New York Land Utilization Committee

Rebuilding of blighted urban areas is a problem of national concern. New York State has taken the lead in proposing a method whereby such rehabilitation might be undertaken by private initiative. As reported in this article, the Redevelopment Corporations Bill suggests a procedure that might serve as a basis for solution of similar problems in other states. It was first drafted by the Slum Redevelopment Committee of The Merchants' Association of New York: Thomas S. Holden, Chairman; Charles M. Chuckrow, Raymond Craerin, Arthur C. Holden, Robert L. Hogue, DeLancy Kountze, Ralph N. Morrell and Colby N. Stilson.

projects. Public supervision is provided for so that these obligations will be met.

A redevelopment corporation may exist as such only after it has presented to a City Plan Commission a plan for redevelopment of a specific area and has received the approval of such a plan by the commission. The area must be within locality designated as "substandard and insanitary" (to use the language of the recent housing amendment to the New York State Constitution). The plan need not call for immediate demolition and replacement of all buildings; it may include modernization of existing buildings and may call for redevelopment scheduled over an extended period of time. When such a plan has been approved and after control has been secured—through ownership or option—of 60%, by assessed value, of the area to be cleared, the corporation may be given power to condemn the remainder of the property necessary to carry out the plan. Provision is also made whereby the city may condemn the property and sell it to the corporation.

The second proposed special privilege is an incentive tax arrangement. Subject to action by the local legislative body, the municipality may agree to tax any real property held by the corporation, over a period of 10 years, on the basis of assessments as of the date of acquisition. This incentive tax arrangement has ample precedents in similar arrangements that have been made from time to time to induce new enterprises (factories, for example) to acquire and develop property in a particular city.

These corporations would not be, strictly speaking, limited-dividend companies, although there is proposed a kind of limitation upon disbursements to holders of income debentures and shares of stock during the 10-year maximum assessment period. During that period, the corporation may not disburse as interest on debentures and dividends on stock a total sum greater than 5% of the equity base (which is defined in the bill as development cost minus indebtedness incurred for acquisition and development of property).

After the 10-year period is completed, dividends will no longer be limited, but any extra disbursements over 5% of the equity base will be subject to a special tax to the municipality, consisting of an amount equal to 50% of such disbursements.

As a consequence of these provisions, there is opportunity for stockholders in such enterprises to earn extra dividends and an equity appreciation. The limitation on disbursements is conceived as assuring conservative, nonspeculative

As this issue goes to press word is received that the Urban Redevelopment Corporations Bill has been vetoed by New York State's Governor Herbert H. Lehman. The Governor's comment on the measure follows:

"The real-estate interests favor this bill. The State Commission of Housing opposes it. The Mayor of the City of New York strongly opposes it. It is obvious that without the co-operation of the New York City administration, the bill is futile. Moreover, all—even real-estate groups—concede that the bill in its present form contains several serious defects.

"It is my suggestion that the real-estate groups, the Commission of Housing, and the New York City administration study this problem and draft legislation mutually satisfactory. Such proposed legislation can then be submitted to the next session of the legislature."

management of these enterprises, and not as limiting their possible fair earnings over the years.

The aim has been to strike a proper balance between the special privileges given to redevelopment corporations and their public obligations and to provide adequate supervision so that the public obligations will be met. Supervision is also conceived as serving the important purpose of assuring the non-speculative investment character of projects to be undertaken. All matters concerning approval of plans, acquisition and disposition of real property, revision of plans, and certification that re-

quirements have been met—which entitle a redevelopment corporation to powers of condemnation—would be placed under jurisdiction of the City Plan Commission. Matters concerning the financial set-up of corporations, their accounting procedures, and business management would be under jurisdiction of a supervising agency designated by the local legislative body. Supervision is thus placed entirely within jurisdiction of the city and would involve no new state administrative agency and no state appropriations. It is assumed that in many cases existing agencies of city governments, or of the state, could function in this supervisory capacity.

The bill does not define what kinds of buildings shall be built in redevelopment areas, and leaves open the opportunity for whatever kinds of projects may be judged as sound economic uses of the area. New buildings may be commercial, industrial, or residential in character, or combinations of all classes. Consequently, this is not a housing bill; the approach is from the point of view of large-scale replanning of insolvent property.

Provision is made in the bill whereby institutional mortgagees holding claims on real property in areas to be redeveloped may exchange their claims for debentures or stock of the corporation. It is believed that this would operate as a strong incentive toward a pooling of existing mortgage and equity claims for rehabilitation purposes. Provision is also made whereby projects may take advantage of financing opportunities offered by FHA-insured mortgages.

If enacted, this legislation might do much toward solving the problem of blighted areas in cities of New York State. The basis of practical co-operation between various departments of city governments and organizers of redevelopment corporations must be patiently worked out. For architects, there is a great opportunity and a great challenge. Much is to be done in developing the technique of economical replanning on the neighborhood basis as to character and scale.

REVIEWS OF CURRENT BOOKS

PLANNED A. R. P. Based on the investigation of structural protection against air attack in the Metropolitan Borough of Finsbury. By Tecton, Architects. Westminster, England, 1939. 138 pages. Illustrated. Price, 5s.

NOT ONLY because of its concluding proposals but also because of the thoroughness of research upon which it is



based, this work is probably the most important contribution yet made to the problem of providing protection against aerial attack.

Shortly after the crisis of September, 1938, Messrs. Tecton were commissioned by the Council of the Borough of Finsbury to investigate the suitability of existing basements in the Borough for use as public air-raid shelters. When they reported that any plan for the protection of Finsbury's population must proceed from a far more comprehensive investigation, they were instructed to prepare a scheme for the protection of the *whole* population of the Borough, providing as close to complete immunity from air raids as possible. The result of their researches was submitted to the Council in a report, which essentially comprises the contents of this book, though it is here presented in a form not intended for experts but for the general public.

Messrs. Tecton introduce their thesis with a few general observations on the menace of aerial bombardment. Today, many months after the time when they were writing, it seems superfluous to argue that this menace actually exists in many parts of Europe, and that adequate means of protection are urgently required. Perhaps the architects feared that their large-scale shelter plans might be found fantastic. At any rate, they recall that as long ago as 1921 Marshal Foch contended that the potentialities of aircraft attack were almost incal-

culable. Indicating the great advances since made in military aircraft, they then point to the recent experiences of Spain, Abyssinia, and China. However, in an attack upon London, they suggest, the aggressor would expend far greater resources and with greater fury. Their ominous conclusion is that it is "impossible to overestimate the danger from air raids on London in the present military and political situation, and the example of Spain, terrible as it seems to us now, cannot give even an approximate idea of what would be the nature of such raids."

Obviously any consideration of modes of protection must first require an examination of the actual menace—the bomb itself—and this the authors proceeded to do, drawing upon all available data covering the present-known types of bombs (incendiary, percussion, gas, semi-armor-piercing, and general-purpose bombs). Their researches also included such factors as methods of attack, the weights of bombs, the angles at which they are likely to strike, and their effects: impact, shock, penetration, blast, splinters, fire, gas, and falling debris.



On the basis of these and many other factors covered by their investigations, the authors have been able to calculate the danger coefficients of different types of shelters, thus arriving at a scientific method of comparing one type with another. These are variously presented throughout several chapters, in which are discussed the protective value of basements, trenches, surface shelters, prefabricated shelters, tunnels, and other types.

All of these types are found inadequate, if not entirely useless. For example, in Spain it was found that a basement was anything but a safe place to be in during an air raid. Trenches can accommodate only a small part of

the population, are difficult to supervise, present many discomforts, and do not contribute to the morale of their occupants. Prefabricated shelters, like those now marketed for family use, can be obtained at low cost, but offer scanty protection.

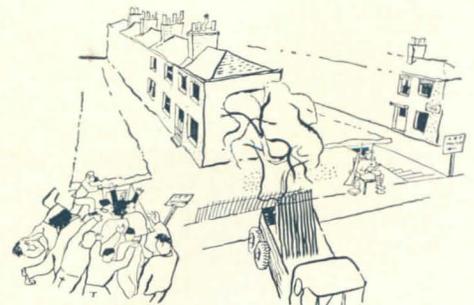
In arriving at their own solution of the problem, Messrs. Tecton have sought to determine "what is the highest standard of protection that can be reasonably expected for money spent." Their conclusion is that large bombproof shelters provide the most economical means of giving complete protection and that, among such large shelters, the safest and most economical type would be a *multistoried bombproof shelter* like that which they propose.

One general guiding principle is responsible for their conception of this multistoried shelter — *the roof area must be kept as small as possible*—first, because the smaller the area of the roof, the less possibility of its being directly hit; second, because a smaller roof would require a smaller (and consequently less expensive) bombproof slab. The roof area can be reduced by making the shelter itself small; however, in order to protect more people, obviously the same roof could be used to cover a structure consisting of several stories. Hence, the multistoried shelter.

A second design principle guiding the plan of this shelter is that a structure of circular shape is preferable, and for two reasons: first, because it takes less wall to enclose a circular space than to enclose a rectangular one of the same area; second, because a circular wall has greater resistance to the pressure exerted by the explosion of bombs outside it.

These design principles would be embodied in a shelter in the form of a cylinder several stories in height, having

(Continued on page 122)



Illustrations from "Planned A. R. P."

HOUSE MODERNIZATION

Approximately 14½ million dollars were spent on architect-planned house modernization in 37 eastern states during 1939; and the estimate for 1940 is 15 million dollars, according to F. W. Dodge figures. Other surveys have disclosed that, between 1920 and 1929, dwellings wrecked or otherwise withdrawn for use equaled not more than 10% of the new units built. Add to this that even in a peak year, 1925, new dwellings totaled only approximately 5% of the existing supply, and the extent of the remodeling market becomes apparent. . . . The useful age of a house has been estimated to be as high as 142 years. Short periods of occupancy of rented dwellings; comparatively frequent changes of ownership; technical progress in the building industry; changes in neighborhood, urban, and regional patterns—all these necessitate periodic modernization and reconditioning of houses. Remodeling to obtain increased return from investment property involves careful estimation and balancing of neighborhood trends, physical deterioration, and obsolescence of style, plan, equipment, and decoration, in order to evolve a financially justifiable scheme. . . . Such important factors of remodeling design are considered in this study to which numerous architects, Federal agencies, and realty and appraisal organizations have generously contributed.



BUILDING TYPES

NEIGHBORHOOD TRENDS AND BUILDING DEPRECIATION ARE MEASURABLE



Photos by McLaughlin Aerial Surveys, Inc.

Urban residential neighborhood in top photo, while not "blighted", is depreciating and will soon support a modernization program. Queensbridge Housing, below, is a project designed to forestall such changes.

Neighborhood trends: Maps on page 91, showing changes in Richmond, Va., and accompanying statements of principles, indicate factors to be considered when investigating the trend of a residential neighborhood. The natural outward trend for high-rent residential areas is almost never reversed. Zoning laws, development restrictions, etc., can cause slight changes in trend directions, or accelerate or retard natural rates of growth. Office building centers, etc., ordinarily follow rather than lead residential areas; but development of a new office building center may produce rapid high-rent residential growth in readily accessible surrounding localities.

The reasonably well-protected modern urban residential area is somewhat isolated from main thoroughfares. Its streets tend to be winding and noncontinuous, to discourage through traffic. It has its own community centers.

The formerly typical development along a highway is, however, still extant in cases like the waterfronts along Lake Michigan, Miami Beach, and the New Jersey coast; and the fashionable suburban town remains a continuous type of high-grade area.

Building depreciation includes both *physical deterioration* of parts and *obsolescence* of plan, equipment, and decoration. Reliable means of estimating the need and value of remodeling are presented in the accompanying data. The *Specification, Cost, and Depreciation Analysis* is based on typical frame construction examined by Frederick B. Bourland, HOLC State Manager, Illinois, who found that given comparable quality of materials, workmanship, and maintenance, there is little or no difference in depreciation rate between frame and brick construction; with other common types of residential construction, rates are also decidedly similar.

Number of Dwelling Structures Existing in 1934-35, by Years of Original Construction

Years in Which Structures Were Built	Average Percentage Built Annually*	Age of Structures (Years) as of 1940	Percent in this Age-Group*	Number of Structures in Group (75 Cities)	Number in All Urban Areas in United States†
1929-33	1.10	7-11	5.5	157,359	720,000
1924-28	3.52	12-16	17.6	504,591	2,295,000
1919-23	2.48	17-21	12.4	357,470	1,615,000
1909-18	2.12	22-31	21.2	608,180	2,765,000
1899-1908	1.84	32-41	18.4	528,912	2,400,000
1884-98	.97	42-56	14.6	418,796	1,900,000
1859-83	.33	57-81	8.3	238,777	1,080,000
Before 1859	.14‡	over 81	2.1	60,002	275,000
TOTALS			100.1	2,875,087	13,050,000

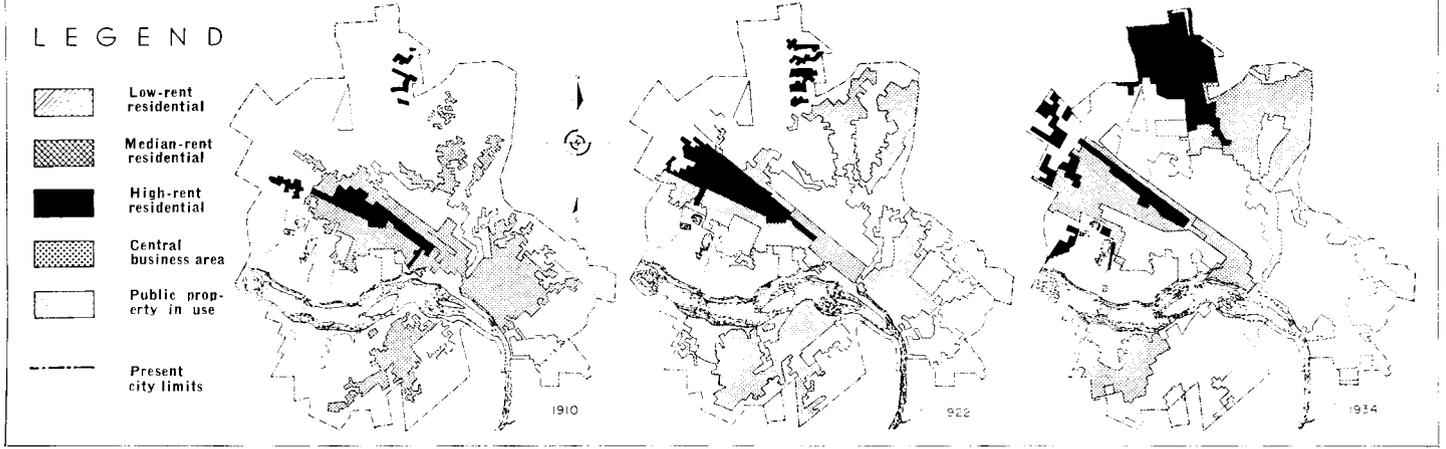
*The figures for 75 cities were secured in Real Property Inventories made in the years 1934-35, and consequently are for structures existing in those years. The percentage figures are based on the figures for the 75 cities and thus disregard new construction and demolitions since 1934-35, which would lower the percentages for all years from 1933 back.

†Assuming that the percentage distribution for the 75 cities would hold good for all urban areas. The total number of urban dwelling structures is from the 1930 Census, rounded.

‡Total number of structures constructed before 1859 arbitrarily distributed over 15-year period for computation of average annual percentage.

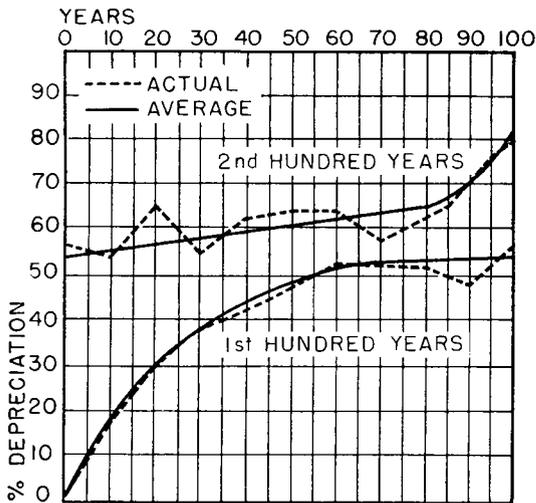
From Construction and Real Property Section, Bureau of Foreign and Domestic Commerce.

MOVEMENT OF TYPES OF RESIDENTIAL AREAS, RICHMOND, VA., 1910-1934



CONCLUSIONS

1. High-grade residential growth tends to proceed from the given point of origin, along established lines of travel or toward another nucleus of building or trading centers.
2. The zone of high-rent areas tends to progress toward high ground which is free from the risk of floods and to spread along lake, bay, river, and ocean fronts, where such fronts are not used for industry.
3. High-rent residential districts tend to grow toward the section of the city which has free, open country beyond the edges and away from "dead end" sections which are limited by natural or artificial barriers to expansion.
4. The higher-priced residential neighborhood tends to grow toward the homes of the leaders of the community.
5. Trends of movement of office buildings, banks, and stores, pull higher-priced residential neighborhoods in same general direction.
6. High-grade residential areas tend to develop along the fastest existing transportation lines.
7. The growth of high-rent neighborhoods continues in the same direction for a long time.
8. De luxe high-rent apartment areas tend to be established near the business center in old residential areas.
9. Real-estate promoters may bend the direction of high-grade residential growth.



SPECIFICATION, COST, AND DEPRECIATION ANALYSIS

	ANNUAL DEPRE.	COST	PERCENT	LIFE YEARS
FOUNDATION	\$2.43	\$485.00	10.0	200
CEMENT WORK	3.10	155.00	3.2	50
FRAMING AND SHEATHING	4.69	938.00	19.2	200
EXTERIOR WOODWORK, cornices and windows.....	7.70	616.00	12.6	80
SIDING	2.11	152.00	3.1	72
EXTERIOR WOODWORK, porches.....	3.90	74.00	1.5	19
ROOF, asphalt shingles.....	5.44	136.00	2.8	25
SHEET METAL, G. I.	2.00	40.00	.8	20
PLASTER, G. I.	4.95	340.00	7.0	69
INTERIOR FINISH, oak and pine.....	3.99	499.00	10.0	125
FLOORS, hardwood	3.27	180.00	3.7	55
TILE, bathroom floor.....	1.00	30.00	.6	30
HEATING, furnace	4.25	85.00	1.7	20
ducts and registers.....	3.83	115.00	2.4	30
PLUMBING, stacks, etc.	1.00	200.00	4.1	200
water pipes	3.63	145.00	3.0	40
fixtures	5.43	190.00	4.0	35
ELECTRICAL, wiring	1.47	110.00	2.3	75
fixtures	1.60	40.00	.8	25
PAINTING, exterior	18.33	110.00	2.3	6
DECORATING, trim	2.76	80.00	1.6	29
walls and ceilings.....	17.50	70.00	1.4	4
floors	3.33	40.00	.8	12
SHADES	2.50	20.00	.4	8
SCREENS	3.00	36.00	.7	12
	\$113.21	\$4,886.00	100.0	

Brick and frame houses show almost identical depreciation curves. Many parts are shorter-lived than the structure as a whole.

BUREAU OF INTERNAL REVENUE ESTIMATES IN YEARS OF THE PROBABLE USEFUL LIFE OF BUILDINGS (For Tax Purposes)

	1-Family Dwellings	2, 3, or 4 Family Dwellings	Ap'ts & Flats, no Elevator	Hotels & Elevator Apartments	Row Houses	Stores With Flats	Stores	Office Buildings
MASONRY, brick, concrete, reinforced concrete, brick and steel, steel frame, steel and stucco (fireproof).....	50	45	40	35	45	40	50	40
MASONRY, slow-burning, with or without steel frame.....	50	40	35	30	40	35	40	35
MASONRY, with frame interior.....	50	33	30	25	35	30	35	30
FRAME	33	30	25	22	30	25	28	25

NOTE—These estimates are published only as a guide or starting point from which correct rates of depreciation may be determined in the light of the experience of the property under consideration. They are predicated on a reasonable expense policy as to repairs and maintenance, but do not contemplate an indefinite term of usefulness due to high expense on maintenance and repairs. They include normal but not sudden or extraordinary obsolescence rates, such as those arising from shifts in the character of the neighborhood, from the development of new types of building construction, etc.

DOES RECONDITIONING PAY?

It can pay both architect and owner, judging by experience of Federal agencies

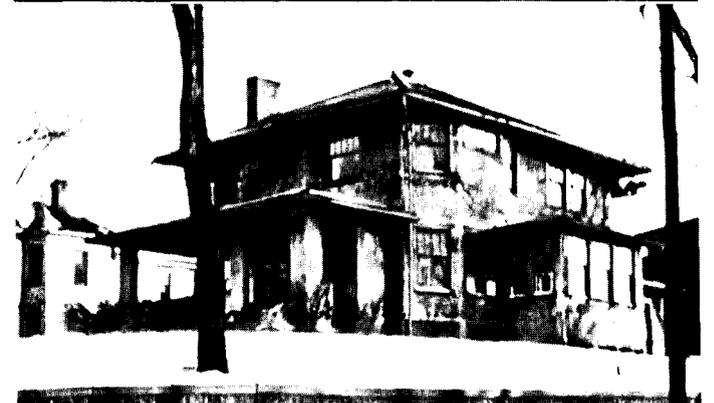
THE ACCOMPANYING photographs indicate, in pairs of "after" (upper) and "before" (lower) views, the range of typical reconditioning projects which have as their object protection of mortgages under the Home Owners' Loan Corporation program.

A great proportion of such work, whether done for HOLC or for private parties, consists of minor repairs and redecoration; in this field, the architect's function may be largely supervisory. From similar small projects, jobs range upward in size to include a reasonable amount of redesigning and structural change. It is necessary in all cases—and particularly when the object is resale or rental for profit—to conduct a careful appraisal and arrive at conservative estimates of probable increased valuations. Thus the amount of work to be done on each job can be limited to the essentials which will pay their way.

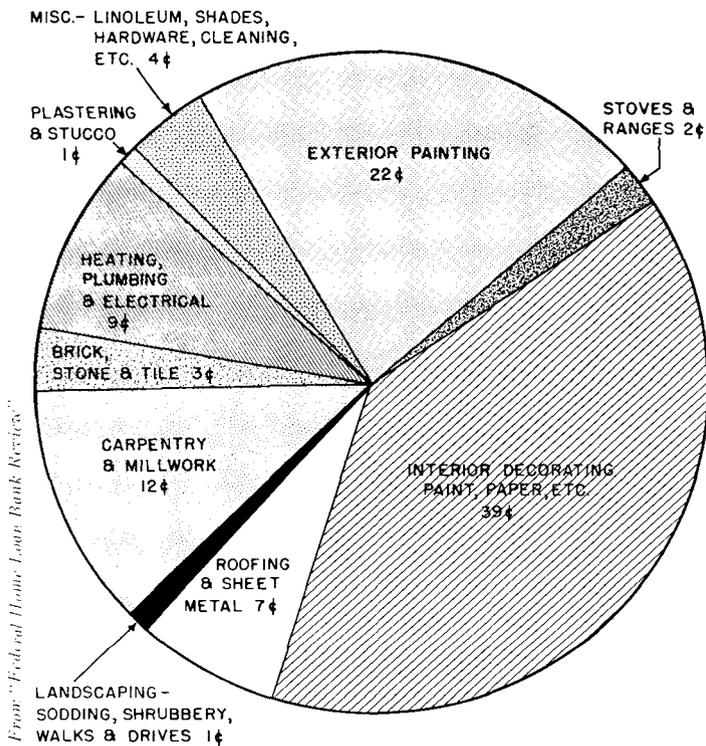
Since its inception some years ago, HOLC has completed (in January 1940) 722,970 reconditioning jobs at a total cost of more than \$145,000,000. The Corporation's Reconditioning Division has found it profitable to limit expenditures to an average of about 10% of the original HOLC-appraised valuation, or an average of approximately \$300 for each of 45,000 properties. As an indication of the possibilities of such a program, it is noteworthy that most of the professional men—architects, engineers, and other construction technicians—whose services HOLC has obtained have been retained on a fee basis.



Iowa house: original market value, \$3,800. New siding, exterior, redesigning, painting cost \$696; sale price, \$4,500.



A second Iowa home gained \$1,750 in value when it was over-coated with clapboards, refinished inside and out for \$1,167.



"Where the reconditioning dollar goes"—diagram based on representative HOLC cases in process during March 1938



Repairs and decoration costing \$1,668.70 raised the value of this Oklahoma house from \$8,000 to \$10,750.



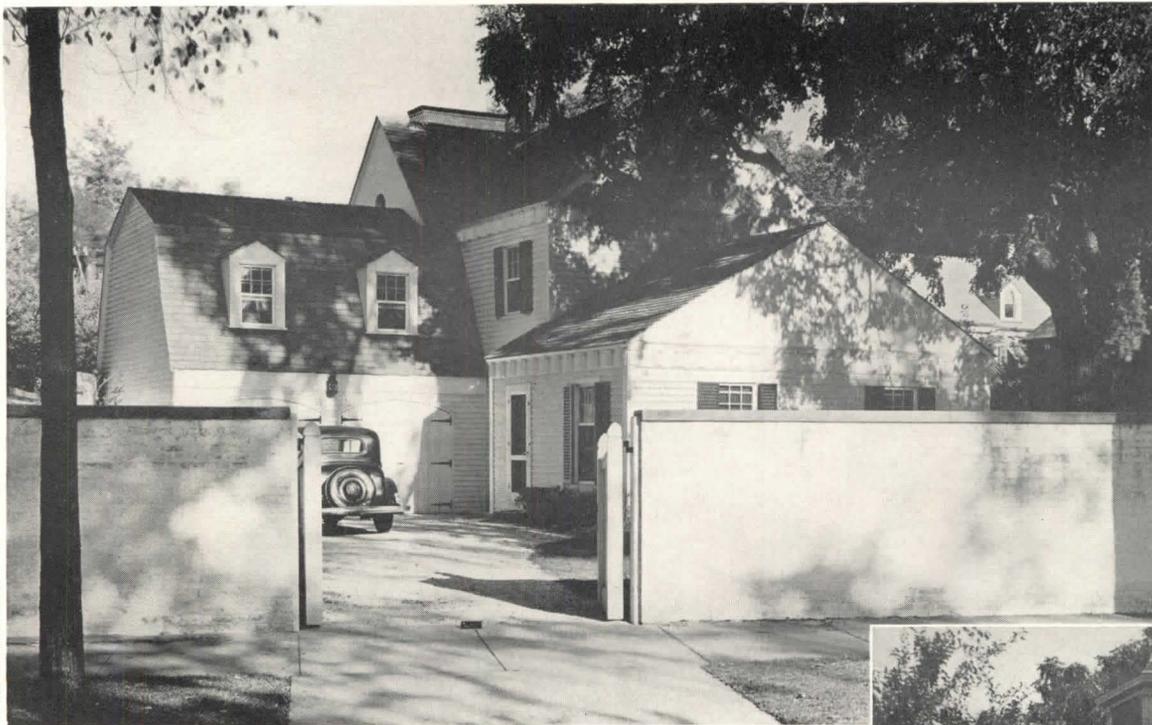
Another Oklahoma house, reconditioned inside and out for \$1,263: previous valuation, \$3,100; sold for \$4,500



\$1,046 converted kitchen into garage, removed porch, etc., on this \$1,200 North Dakota house. Today's value: \$2,500



Roof, porch, garage, and siding cost \$2,421 on this North Dakota home. Former value, \$2,500; new sale price, \$5,500



"General Grant Gothic" house in Evanston, Ill., remodeled for W. D. Nance by Jerome Robert Cerny, Architect.



For BETTER REMODELING PRACTICE....

A discussion and check list applicable to all types of jobs, by BURTON ASHFORD BUGBEE, Architect

REMODELING work is a severe test of the architect's ability: transformation of an outmoded house into an integrated and livable home requires judgment and ingenuity, and entails a quantity of labor which is well worth the higher fees usually charged for alteration work. A good remodeling job represents a judicious compromise between the ideal and the maximum use of existing elements. No two jobs present the same problem, and no set formulae can be established. Sentimental considerations of the owner often outweigh the purely financial aspects.

If the operation is to be based on pure economics, the architect may have to consider the following possibilities:

- a. Demolishing entire house and using site for new house;
- b. Demolishing portion of house, then remodeling;
- c. Moving house to more favorable site before remodeling;
- d. Remodeling house as is.

From simple modernization of a run-down house, where paint and a few kitchen and bathroom changes will make the house acceptable, the range extends to almost total reconstruction, where favorable location, owner's wishes, or other factors justify the expense. Remarkable results have been attained by ingenious architects in transforming valueless monstrosities into attractive and comfortable houses.

Especially in the east, an interesting problem is alteration—or restoration—of early American houses of architectural merit, even historic value. Here the difficulty is usually to introduce modern equipment and comforts without doing violence to the original character of the house, while maintaining the initial advantage of a mellowed setting. A specialized case is the alteration of barns into dwellings, which is an increasingly common practice.

In measuring old houses it is well to take nothing for granted—walls are not

necessarily parallel nor ceiling heights equal. Complete data are vital, for missing dimensions may cause drafting-room delays. Use of the original working drawings, which can often be found on file in the local building department, will be helpful.

While office procedure on a remodeling job need not vary greatly from that on the ordinary commission, many decisions, it should be noted, must be made on the job as it progresses, for it is impossible to predict what conditions will be uncovered. For this reason, before the time arrives to take bids, the architect should make clear to the client the factors against obtaining favorable estimates under a fixed-sum contract, since a contractor, to protect himself against unknown conditions which may affect costs, must add to his bid a sum sufficient to cover contingencies. A system advantageous to the client is some form of cost-plus contract, of course with a reputable contractor.

Each alteration job is a unique problem; therefore, the following check list contains many generally applicable items. It is intended as a guide from which the architect can select specific points which may be enlarged as remodeling conditions demand.

STRUCTURE

1. Make thorough survey of foundation. Extend footings below frost line. Repoint, grout, or reinforce masonry, especially if laid with old lime mortar. Walls out of plumb, uneven floors, or cracked plaster usually indicate foundation settlement. Jack or shore up structure and level. Reinforce sagging or uneven floors with columns and girders.
2. Provide adequate clearance and ventilation for cellar spaces. 7-ft. headroom in cellar, 2 ft. 6 in. in unexcavated portions should be minimum. Build in vents or windows with areas if needed. To keep dampness out, 3-in. cinder concrete may be needed over unexcavated portions.
3. Eliminate dampness or leaks in cellar. Repoint walls or apply waterproofing, preferably on outside. Grade surroundings so water drains away from house. Where bad leaks or hydrostatic pressure exist, complete membrane waterproofing on floor and walls, or sump and automatic pump, may be required. Install tile footing drain.
4. Examine sills, girders, and other wood members exposed to dampness or in poorly ventilated areas. Check entire structure for dampness or dry rot, poor workmanship, or past fires. Remove sections of exterior finish for thorough examination.
5. Check structure and finish for evidence of termite or other insect attack. Replace all affected portions with chemically-treated material.
6. Examine chimneys for open joints or structural unsoundness. Old chimneys laid with lime mortar, or only one brick thick, or having no flue lining, are potential fire hazards. Modern oil-burner and other heating systems with high flue temperatures require flue linings and at least 8 in. of masonry at all points. It is often cheaper to build an entire new chimney than to attempt to rebuild an old one.
7. Equip fireplaces with dampers to give control of draft and to reduce heat loss up to the flue. Install fire-brick lining and back hearth in existing fireplaces. Existing flues, even if unlined, may be safe for fireplace use.
8. Rehang sagging doors, and make good any damage. Check all windows for easy opening and closing. Replace broken or weak sash cord. Check all hardware. Replace defective, worn, or defaced parts. Investigate advisability of using solid brass in place of plate steel. Install window screens and screen doors, storm windows and doors, or repair.
9. Patch cracked or broken plaster. Replaster loose areas. Relath with metal, gypsum, or insulating lath.
10. Reputty glass in windows and doors. Replace cracked or defective panes. Provide window shades or Venetian blinds.
11. Renail loose flooring and stairs to eliminate squeaks. Repair or replace damaged interior trim. Remove or simplify outmoded heavy dark trim, or repaint in light colors.
12. Redecorate interior. Light colors make rooms seem larger. Scrape and refinish floors. Replace soft wood floors with oak or other hard wood, or scrape and cover with resin varnish, linoleum, or carpet. Remove wall and ceiling panel moulds and plaster ornaments. Simplify mantels, or replace.
13. Remove obsolete exterior elements, such as porches, porte-cocheres, bays, etc.
14. Simplify roof lines. Eliminate turrets, towers, gables, cupolas. Lower eaves. Repair or replace roofing, preferably with fireproof materials. Check flashings. Improve roof pitches.
15. Apply stucco, shingles, siding, or brick-veneer facing over frame house to improve appearance or cover decay. Widen or corbel foundation and revise window and door trim.
16. Repaint exterior. Light colors will minimize defects. Repoint defective masonry, and clean surfaces.

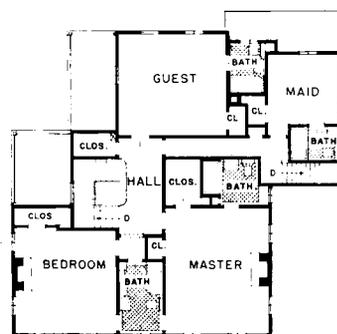
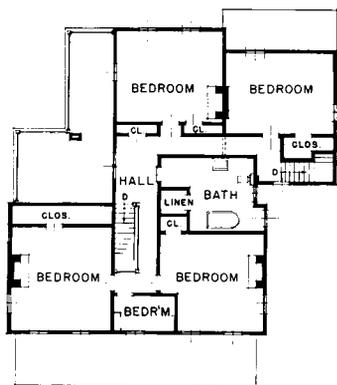
REPLANNING

1. Consider drastic reorientation of rooms to obtain sunlight, view, summer breezes, or privacy. Major living rooms at rear may open on sheltered terrace or garden. Kitchen, halls, and minor rooms on street side will minimize effects of traffic noise.
2. Attach garage to house for sheltered motor access and short driveway. Garage at rear of lot may be moved, or remodeled into garden house or play house.
3. Combine two small rooms into one to obtain large living room. Shore up and install girder if bearing partition is removed. Restudy living room to keep traffic lanes away from fireplace group. Close up unnecessary doors. Remove undesired sun porch, or enclose to form study or guest room.
4. Consider relocating stair or installing additional stair to give flexible plan and reduce halls. Decrease excessive entrance hall by building-in coat, storage, and other closets.
5. Restudy plan for access from kitchen to front hall without passing through major rooms.
6. Add first-floor lavatory, preferably not conspicuous. Locate near plumbing stack.
7. Decrease oversize dining room, and study location of doors and windows for furniture.

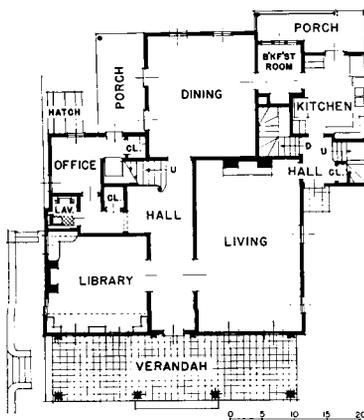
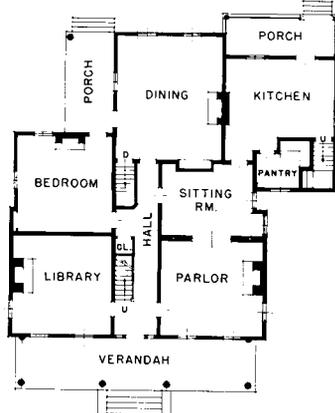


Top, damage caused by water seepage from masonry foundations. Below, preparing to install membrane water-stop by sawing wall at a brick joint

Horace L. Woodward



Before and after, second floor



Replanning: before (upper) and after (lower) of first floor. C. C. Palmer, Architect; Lois Rogers, Associate

8. Enlarge, decrease, eliminate, or concentrate window areas to utilize view or prevailing breezes, or cut off encroachments and give proper furniture spaces. Consider use of built-in furniture to fit particular situations. Build bookshelves in living room.
9. Build in storage cupboards. Consider space requirements of following:
Games and sports equipment Movie projector and screen Household records and accounts
Firewood Phonograph records Table leaves
10. Restudy bedroom areas for greater usefulness. Row of closets between rooms, opening both ways, utilizes existing partition. Concentrate room and closet doors in one area of room for better traffic lanes. Relocate doors and windows to provide proper space for beds out of drafts; consider built in beds.
11. Provide adequate closets. The shallow wardrobe type is 2 ft. deep, has full width doors. Two separate hanging closets should be provided for each double bedroom. Increase usefulness of closets with built-in equipment. Provide full-length mirrors.
12. Provide closets for storage of out-of-season garments, preferably in hall. Provide closet for storage of cleaning equipment in bedroom area.
13. Install outside stair to basement. Study use of basement space for following purposes:
Playroom Dark room Laundry
Workshop Specialized storage

BATHROOMS

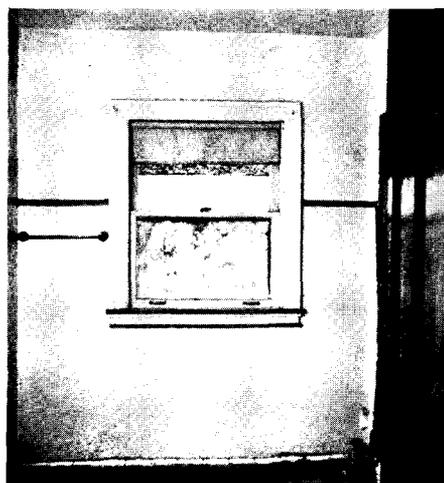
1. Study location of bathrooms for convenience and economy. If possible locate new bathroom near existing plumbing stack. Reduce size of present bathroom.
2. Install bathroom flooring material with following characteristics:
Easily cleaned Of low thermal conductivity Non-slipping
Nonabsorbent Resilient Pleasing in appearance
Linoleum, rubber tile, asphalt tile, ceramic tile, cork, marble, and other materials provide these characteristics in varying degree.
3. Refinish walls with washable, sanitary material; consider tile, linoleum, washable fabric, paint, composition boards, washable paper. Replace obsolete or damaged fixtures with modern types. Replace noisy flush toilets. Replace old toilet seat and cover.
4. Install compartment shower, or add shower head over bath tub. Provide curtain rod and hold-back. Consider use of metal shower-cabinet unit.
5. Provide cupboard in bathroom for towels, linen, and bulk supplies.
6. Install medicine cabinet and other bathroom accessories, of metal or porcelain. Consider items in following list:
Towel bars Soap holder Strop hook
Tumbler holder Grab bars at tub Bag hook
Toothbrush holder Toilet-paper holder Robe hooks
7. Replace fittings which are tarnished, worn, leaking, or outmoded. Replace separate faucets and plug stopper with mixing spout and mechanical waste. Install stops in all fixture supplies. Replace tarnished exposed supplies and traps.
8. Provide access panels for tub and shower valves.
9. Install built-in electric heater for cold mornings; laundry hamper or chute; built-in scale.
10. Consider multi-use bath room, larger in size, with exercise and dressing-room equipment.

KITCHEN

1. Study entire service area for deliveries, access to front door, kitchen entrance, children's play space, garage, cellar stair, and other portions of house.
2. Alter door and window openings to permit scientific arrangement of equipment. Keep openings small in number and concentrated to avoid traffic lanes through work areas.
3. Restudy kitchen area, when size and shape are determined, for proper sequence for efficient operation: service entrance--refrigeration--work area--sink--work area--range, serving, and dining room.
4. Consider provision of space for informal meals in kitchen, either built-in breakfast set or movable furniture. Install planning desk for household accounts.
5. Consider ease of supervising children's play area.
6. Build-in laundry equipment in kitchen, if desired. Provide built-in ironing board, washing machine, ironer. Consider combination sink and laundry-tub unit.
7. Eliminate or simplify door and window trim.
8. Install resilient, waterproof, nonabsorbent floor, preferably with continuous sanitary cove base; consider linoleum, rubber, asphalt tile, cork, etc.
9. Cover exposed wall surfaces with washable nonabsorbent materials. Consider paint, enamel, lacquer, linoleum, tile, glass, enameled metal, composition, fabrics, etc.
10. Install kitchen cabinets with wall and base units and continuous sanitary waterproof work counters. Provide storage, located at point of use, for following:
Cooking utensils Bulk vegetables (ventilated) Electric appliances
China Bread box Cutting board
Kitchen cutlery Spices (on shelves) Flour and sugar bins
Brooms and mops Towel racks, trays Pot-cover rack



Metal ceilings can easily be furred down



Before and after: a remodeled bathroom; Martling & Benedict, Architects

11. Replace obsolete range. Consider value of attachments such as oven control, timer, light. Replace obsolete sink with flat-rim type, preferably two-compartment, with deck fittings and rubber hose spray. Install automatic dishwasher. Install garbage-disposal equipment.
12. Restudy lighting to avoid shadows on any work areas.
13. Install ventilator fan near ceiling over or adjacent to stove; also clock-hanger outlet.
14. Study arrangement and position of electric outlets for all present and future appliances.
15. Install package receiver in outer wall for burglar-proof delivery of milk and supplies.

HEATING

1. Survey present heating system, if any. Examine boiler or furnace for leaks, cracks, or other defects, dismantling if necessary. Study by a disinterested expert is worthwhile on larger jobs. Check radiator and duct sizes and locations. Install oil burner, gas burner, or mechanical stoker to give thermostat-controlled heat if existing system is of proper type in good condition. Be sure smoke pipe and chimney are adequate and safe. Add indirect heating coil for domestic hot-water supply.
2. Install new heating system if none exists or if present system is obsolete. One-pipe steam or forced-circulation hot-water systems have low installation cost in existing houses. For small house, "one-pipe" warm-air system can be installed simply. Warm-air ducts may require extensive cutting. Cover heating pipe or ducts to reduce heat loss.
3. Enclose radiators in major rooms, increasing size if required, or replace with concealed radiation. Install circulating fan in existing gravity warm-air system. Install humidifier in existing warm-air system. Check radiator valves and replace defective units. Modern valves, of automatic and adjustable type, increase heating efficiency. Check pitch and size of radiator supplies and returns to avoid traps.
4. Install weatherstripping on doors and windows. Add storm sash or double glazing.
5. Insulate exterior wall and roof surfaces. Insulation may reduce heat loss to extent that existing heating plant can handle added rooms or enlarged window areas.

PLUMBING

1. Investigate house sewer, soil, and waste lines for obstructions. Install proper cleanouts at each change of direction. Check existing system for improper layout. Add vents, traps in accordance with latest practice. Replace fixtures subject to back siphonage. Be sure all inlet spouts and faucets are well above water line.
2. Survey sewage-disposal equipment if not connected to public sewer, for capacity and condition. Clean existing cesspool or septic tank; or fill in existing cesspool and replace with septic tank of concrete or corrosion-resisting metal, with proper tile field. Study topography and subsoil conditions to avoid contamination of water supply.
3. Survey sources of water supply. If city water is not available, have water tested for bacterial and chemical content. Eliminate possible sources of contamination. Clean and seal dug well if used for water supply, or replace with new cased drilled well. Install automatic water pump with ample noncorroding tank.
4. Check size of water-service connections. Increase to meet added demands. Replace corroded piping.
5. Add plumbing as required. Study layout to give minimum cutting of structure. Concentrate plumbing for economy.
6. Check existing hot and cold water lines for obstructions and corrosion. Repipe with non-corrodible material. Flexible copper tubing can be installed in existing construction with minimum of cutting. Cover plumbing lines in outside walls or other exposed positions to prevent freezing.
7. Survey domestic hot-water supply system in light of new requirements. Add automatic water heater of adequate capacity with aquastat control, fired with gas, oil, or electricity. Replace hot-water tank with noncorrodible tank of proper size. Insulate hot-water tank and piping to cut heat loss; consider asbestos cement, air-cell asbestos, hair felt, etc.

ELECTRIC WORK

1. Check service connections, panel board, fuses. Replace with three-wire service if electric range or water heater are used. Check requirements of local power company. Replace overhead service with underground.
2. Rewire with modern armored cable, in place of knob and tube or other obsolete systems. Provide adequately-sized mains and branches.
3. Add convenience outlets, so no lamp or appliance cord need be longer than 6 ft. Provide special-purpose outlets for radio, clocks, fans, heaters, outdoor Christmas trees, flood lights. Add or replace fixtures. Replace defaced switch and outlet plates. Study installation of indirect lighting system. Remove undesired ceiling fixtures and cap outlets.
4. Install three- and four-way switches to provide control of lights from more than one point.
5. Install circuit-breaker panels in place of fuse boxes.
6. Install separate circuits for heavy-duty equipment such as oil burner, electric range, electric hot-water heater, air-conditioning apparatus.
7. Obtain Underwriters' Certificate.

ILLINOIS BARN BECOMES HOUSE

The original intent was to modernize and add to the farmhouse which stood on this 200-acre farm near Chicago, and to recondition the barn. But on examination, Architects SCHWEIKHER and LAMB found the barn to be better built and more adaptable, so the house was razed, new barns were built, and the old barn is now the dwelling.



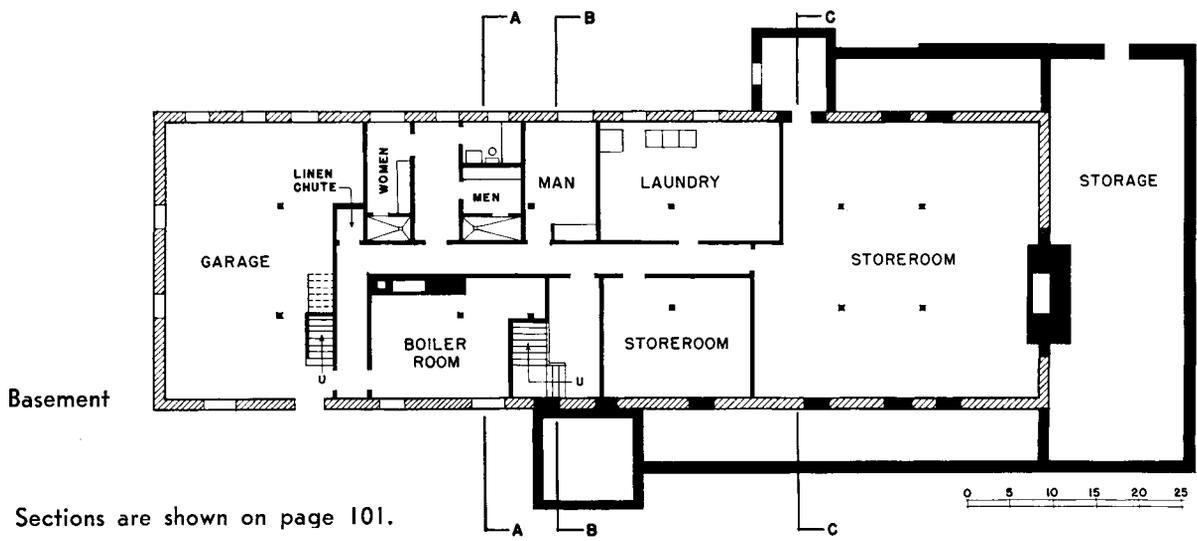
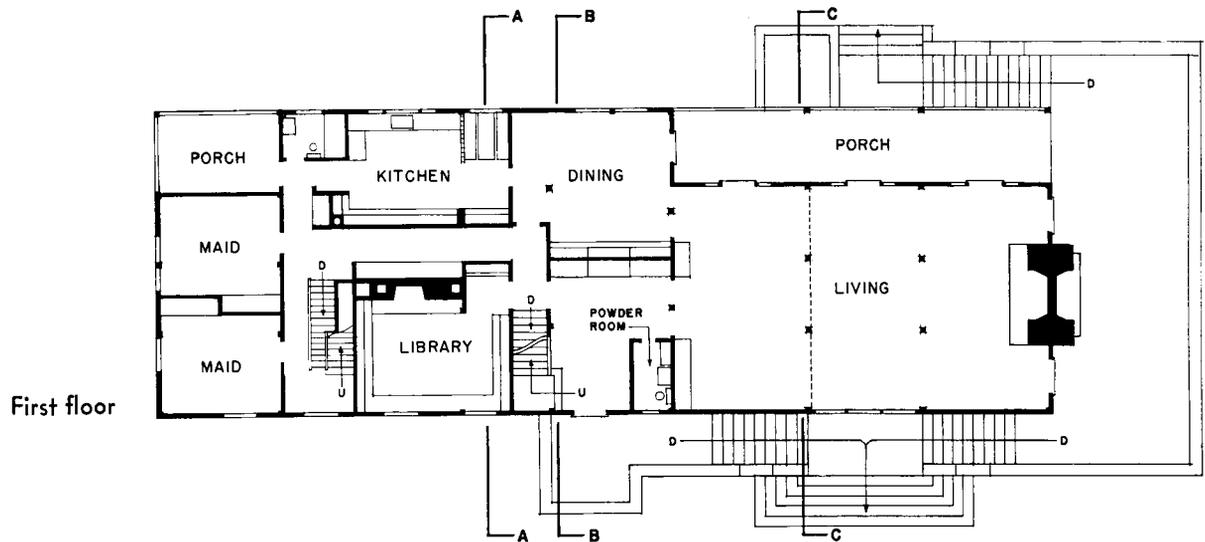
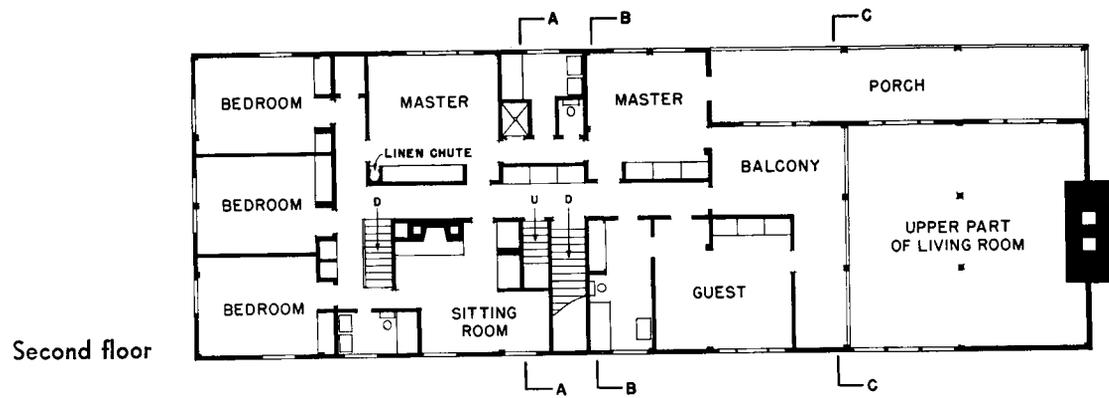
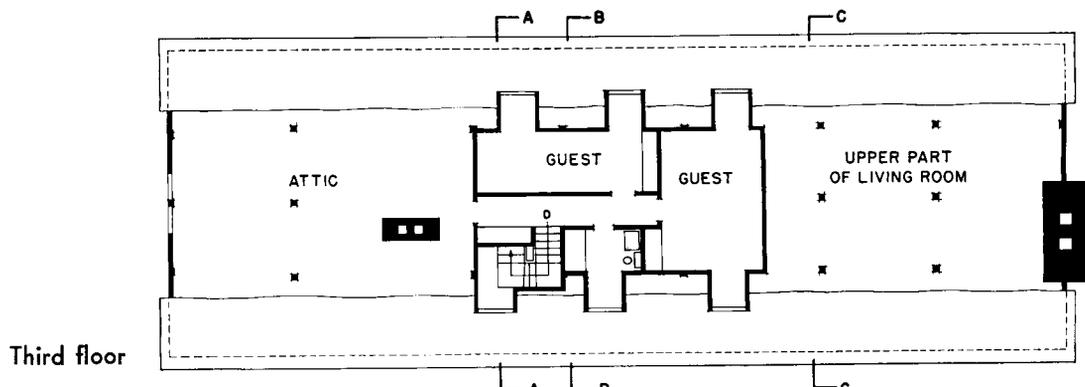
Hedrich-Blessing



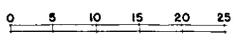
The barn was a rectangular building with an earth ramp to the stable door and two wide doors at each end of the foundation which encloses the structure at ground level. Original timbers were oak, put together with pegs.

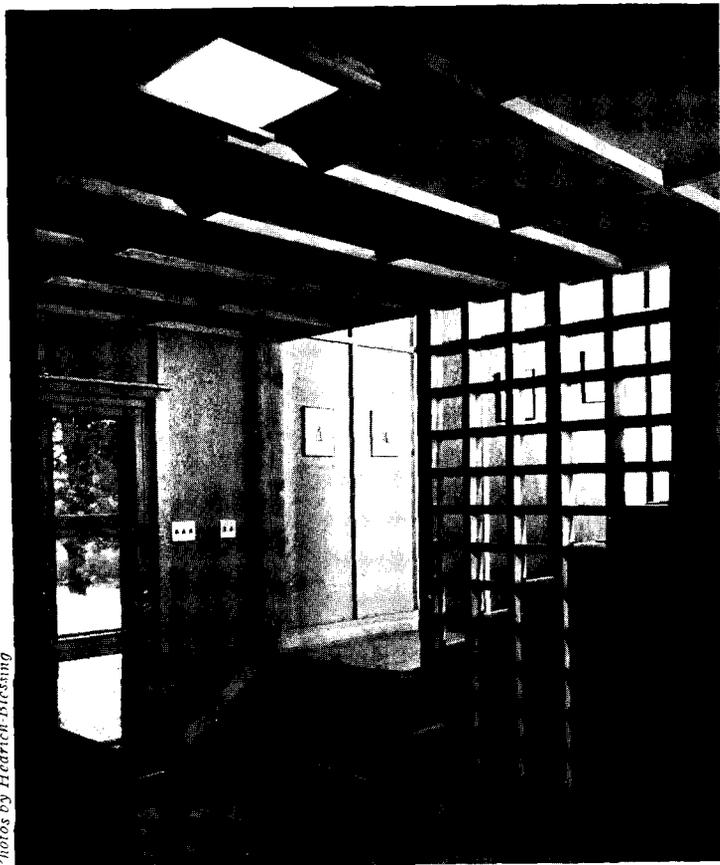
THE TRUSSES were retained with little change except in the living room. The structure was re-roofed and insulated and new siding placed over the old. The exterior terraces and steps were added after jacking the building into alignment and repairing the foundation wall. A new concrete floor was installed in the ground story; this has apparently disposed of unpleasant odors. The living room carries through three full stories and has a balcony at one end.

The architects report that use of the original barn structure made possible a distinct saving over a wholly new building. (Schedule of materials and equipment is available on written request.)



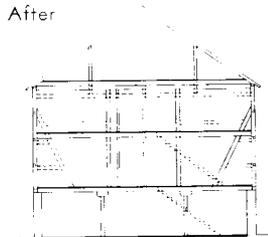
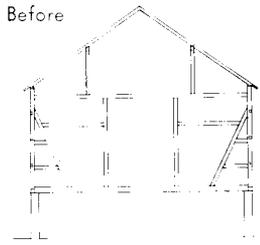
Sections are shown on page 101.



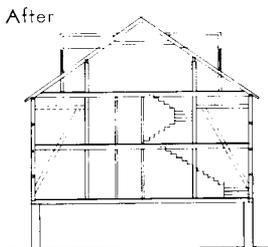
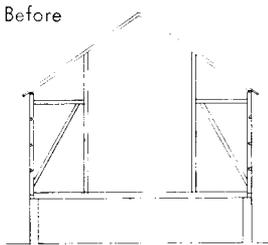


Photos by Hedrich-Blessing

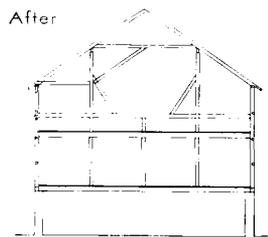
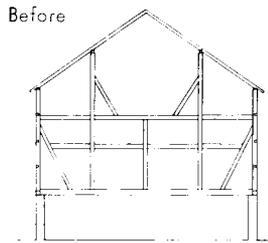
Above: Dining room looking through entrance to living room. Walls are No. 2 white pine selected for firm knots. Left: Entrance on first floor and stairway to upper stories; there is a powder room just out of picture at left.



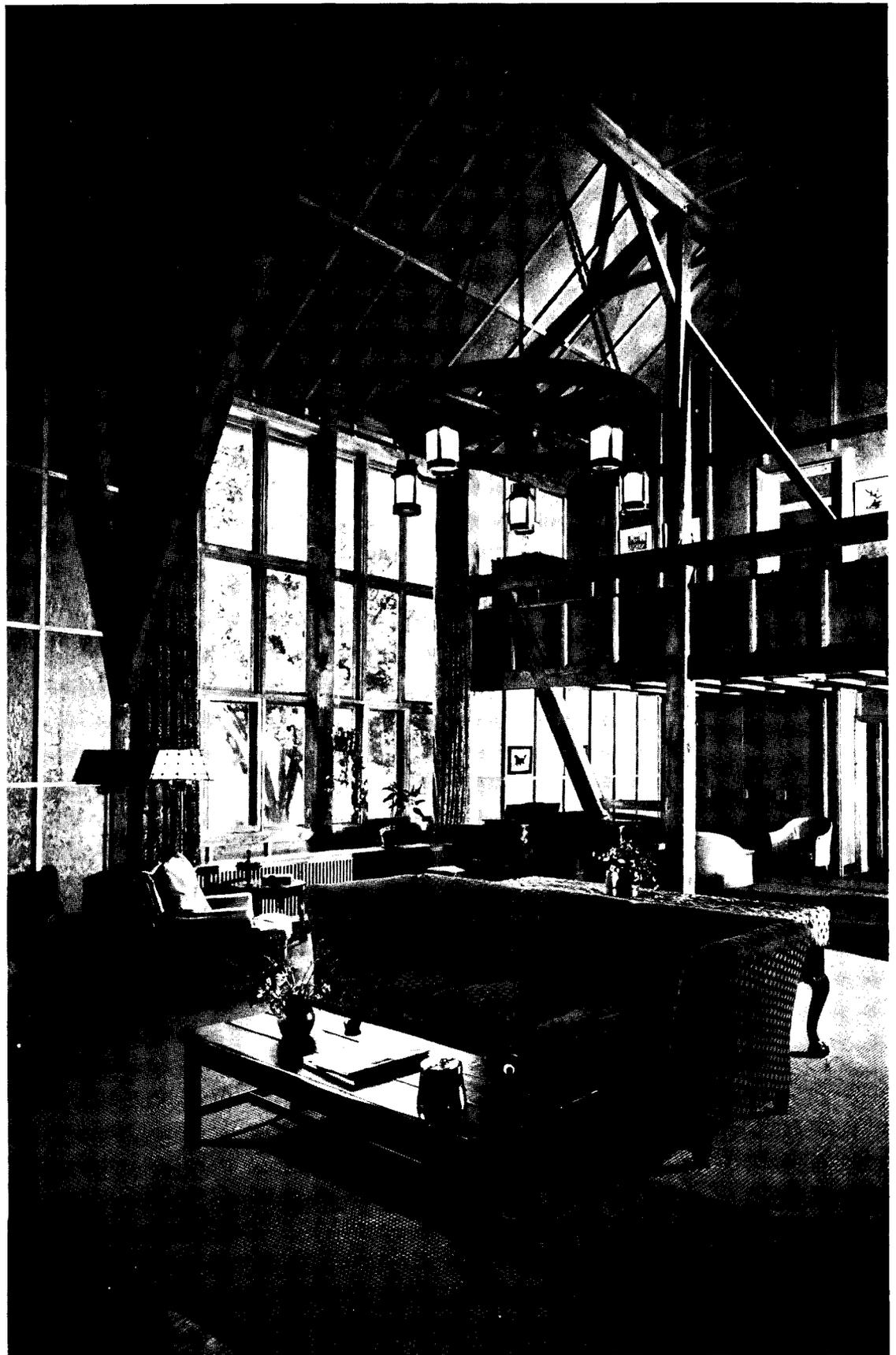
Section A-A, through kitchen



Section B-B, through dining room



Section C-C, through living room; see page 99 for plans.

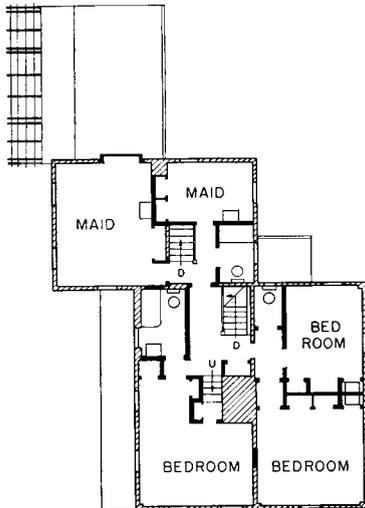


View of living room, facing north. This room is three stories high, with a balcony over one end of it. Beyond, on the balcony level, are six bedrooms and a sitting room. The walls of the living room are fir plywood; finish is natural stain. Sash are stock, cut to required size.

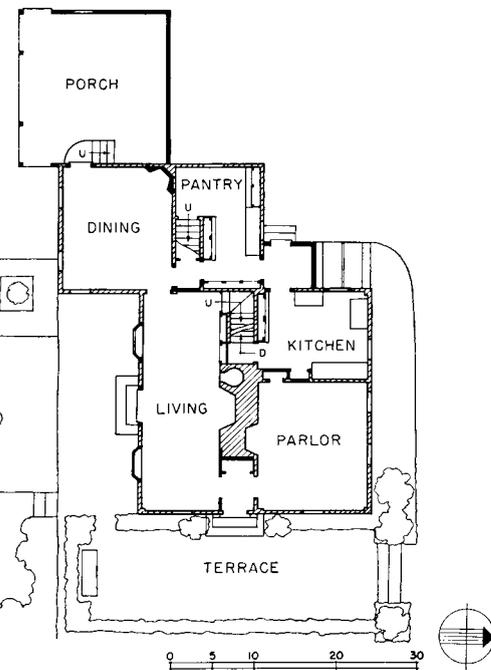


NEW ENGLAND FARMHOUSE BROUGHT UP TO DATE

In revamping this house to suit their own needs, CAMERON CLARK, Architect, and AGNES SELKIRK CLARK, Landscape Architect, started with a typical Connecticut farmhouse, unoccupied, and with only the most primitive equipment. The result shows not a great change in exterior appearance, but rather a more livable plan.



Second floor

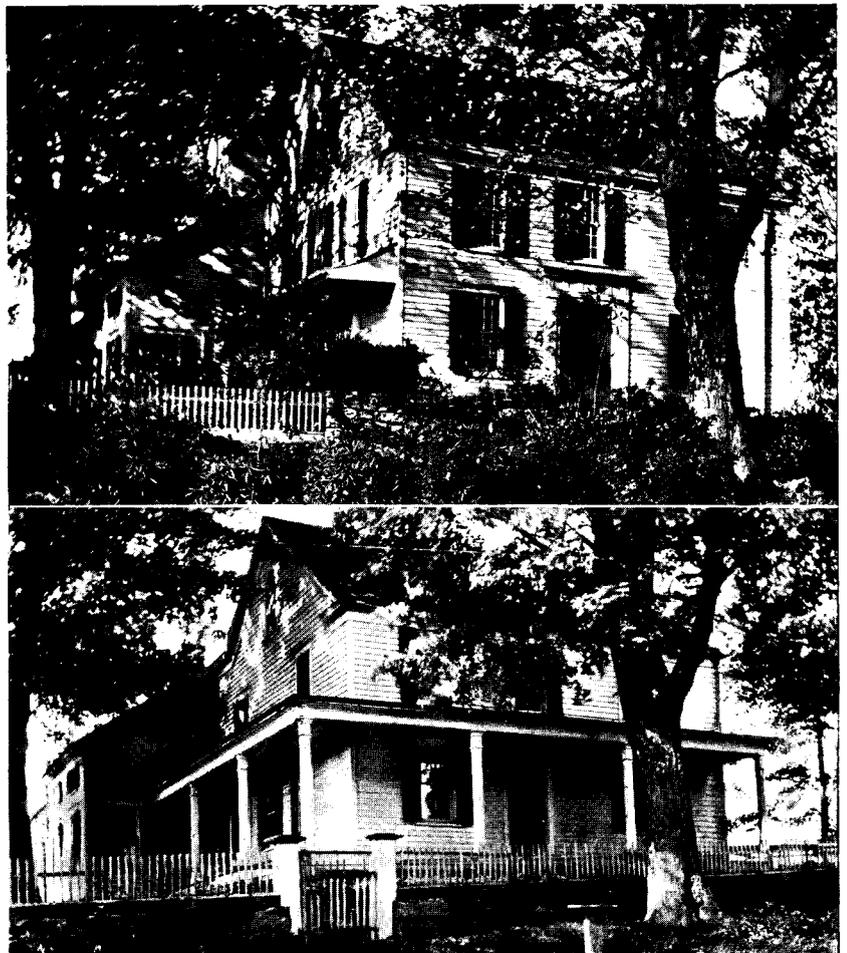


Ground floor

BESIDES Mr. and Mrs. Clark, the remodeled house had to provide accommodations for a boy and girl, two servants, and an occasional guest. On the plans shown at left, new work is solid black; old work which remains in place is cross-hatched.

The old kitchen became the dining room; an old first-floor bedroom became the kitchen, with a service entrance to an altered pantry. On the first floor, two south rooms were thrown together to make a living room opening out on the terrace and garden. An outdoor living room and porch are glassed-in during the winter and used as a greenhouse. A guest bedroom, a dressing room, and bath are on the third floor.

One fireplace was closed up and its flue used for the new boiler which was installed. (Schedule of equipment and materials used in construction is available on written request.)



"After" view (upper) and "before" (lower) are shown at right. On facing page is shown the outdoor living room. Vertical slots in sides of the shallow bays can be opened for ventilation.

HOUSE IN INTERIOR OF BLOCK

Like many others in New York City, this house has an interior site and is completely surrounded by single- and multifamily dwellings and shops. FRANK STRAUB was the architect.

“After” photos by St. Thomas



AFTER: Notice large living-room window which overlooks private garden.



BEFORE: A ramshackle structure which brought the owners little profit

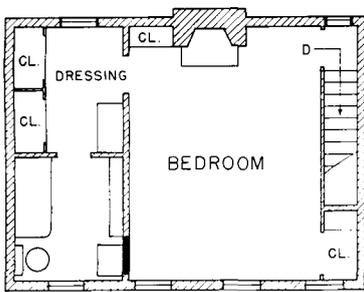
THIS 100-YEAR-OLD frame house had been vacant for some 15 years and had no provisions for heating, water, light, or power. As a single-family house, it did not come under the City's Multiple Dwelling Law. Major interior changes included replacing old enclosed staircase with new open one, removing all first-floor partitions to form large living room, adding three windows at the rear for cross ventilation, and installing a

big living-room window. New floors were laid throughout—linoleum and brick on concrete on the ground floor, oak on the first floor, and painted pine on the second with linoleum in the bath. Entire house was replastered. Walls are principally off-white, with lemon-yellow fireplace walls in bedroom and dining room, and sage green in the living room. Risers and stringers on staircase are blue-green, treads and handrails

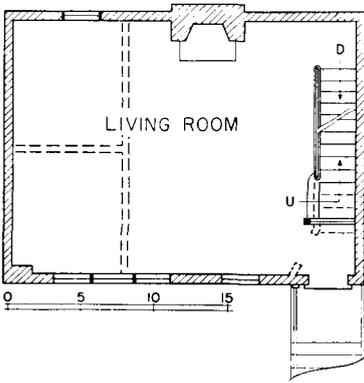
natural finish, waxed.

Garden was redesigned and has a terrace for summer dining. Planting is organized to give maximum privacy to this area.

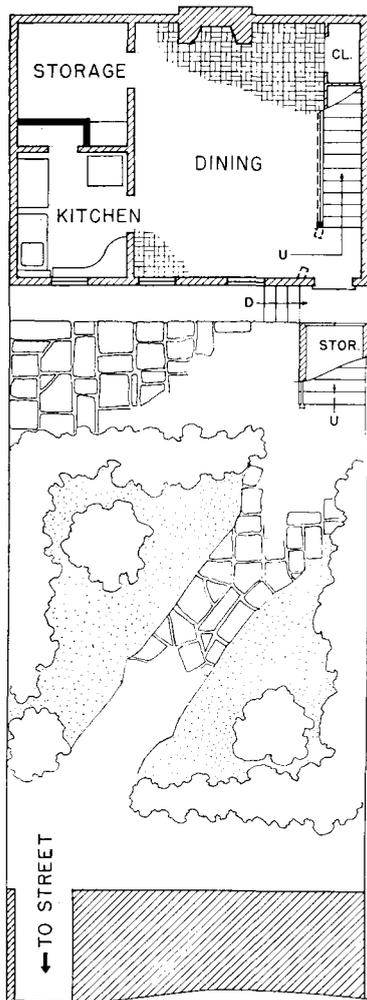
Exterior finish is stucco on metal lath, painted blue-green, with lemon-yellow trim and brown base. New fences are also blue-green. (Schedule of materials and equipment is available on written request.)



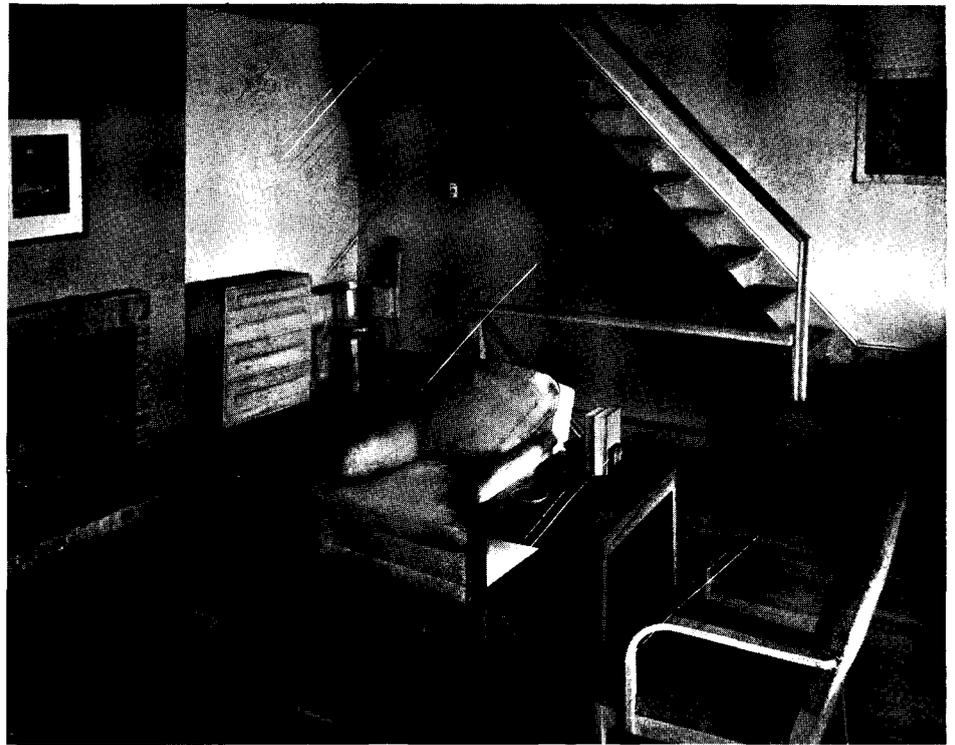
Second floor



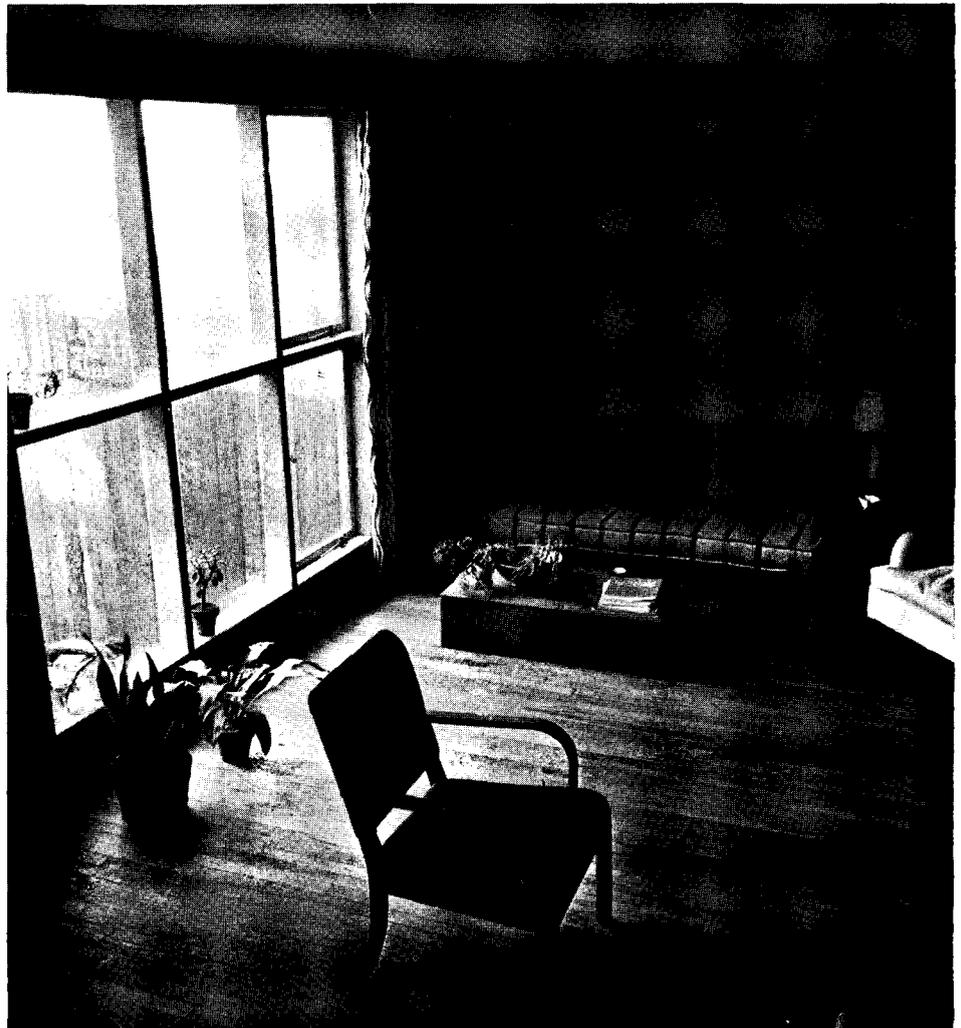
First floor



Ground floor and plot plan



Above and below are two views of the completed living room. Four of the large window's six panes are fixed; the others open for ventilation.





View from the south. The terrace and the flat roof over part of it are pitched slightly; the roof was originally the second floor of the winery and was pitched this way so that water used in washing the wine vats would run off.



View from the east. The structure is located about 150 yards from a main highway. Wood gables replace original stone.

ABANDONED WINERY TRANSFORMED

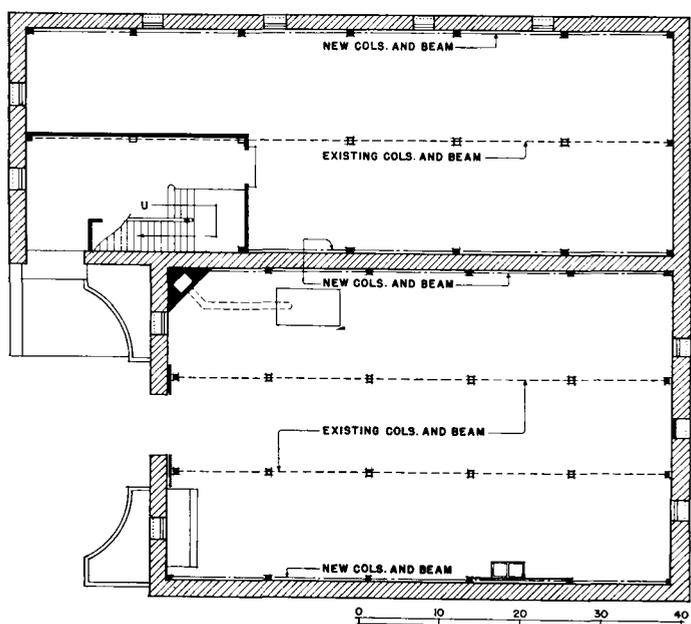
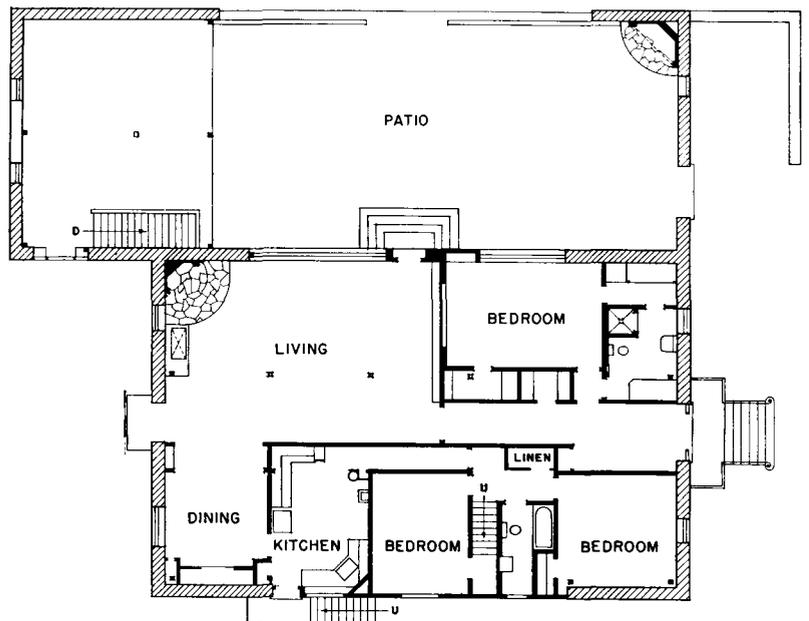
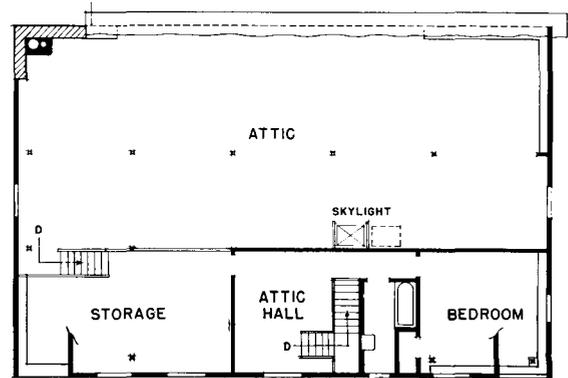
Until recently there stood, on a 25-acre plot about 60 miles north of San Francisco, an old stone winery, a two-story house (vintage of 1870), an old barn, and sheds. All had been neglected for years. Designer F. BOURN HAYNE'S clients wished at first to modernize the high-ceilinged house. This would have left the winery a dangerous ruin. By the use of models, Mr. Hayne convinced his clients that the winery offered greater possibilities than the outmoded house.

No STRUCTURAL CRACKS showed in any of the stone work. Most of the joists and the two column-supported girders in the mid-part of the building were in perfect condition, except at ends where they entered the masonry for support. Side girders, held up by new wood columns, were placed in position and the joists were cut off from the masonry. The old rotten wood was raked out of the holes and the holes filled with stone and mortar. Treated redwood blocks were wedged between the new girders and the masonry. Additional iron anchors were installed. Most of the 2-in. flooring was utilized as the subfloor. The entire roof had to be replaced. The stone gables had little lateral support; they were torn down and replaced by wood gables.

Both sides of the winery were torn out to within 12 ft. of each end and demolished to sill height; above this level, regular frame construction was used so that adequate windows could be had without too much masonry work; the 12 ft. left on each side acted as lateral support for the ends. A pitch was given to that part of the winery that was made into a terrace by installing a side girder on columns 6 in. below the joists, jacking up the central girder, and cutting the base of the central columns off 3 in.; the joists were then cut free of the masonry on the low side and allowed to fall—with the flooring in place—on top of the new girder. (Schedule of equipment and materials is available on written request.)



The winery, built in 1876, abandoned and rundown

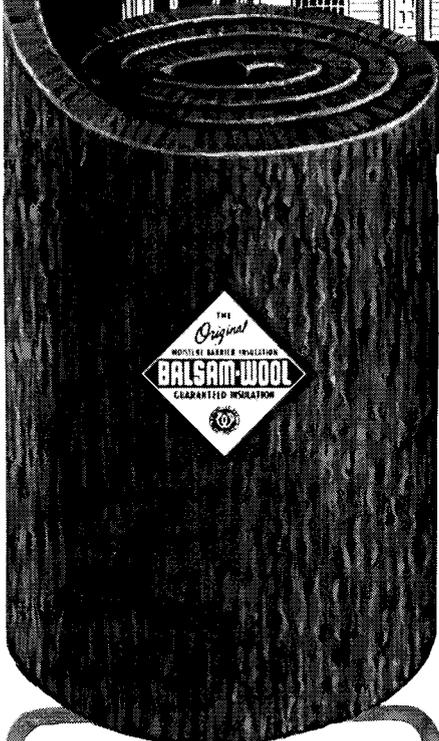




Living room looking toward patio. The trim in the living room is redwood.



Looking toward dining room from point near patio entrance. Stone is pinkish-yellow native volcanic tufa.



Right the First Time— and 250,000 Times in All ... BALSAM-WOOL INSULATION

PERFECT PERFORMANCE BASED ON

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- 2 *Non-settling . . .* firmly fastened in place . . . providing continuity of insulation.
- 3 *Wind-proof . . .* affording positive protection from wind infiltration.
- 4 *Plus—high fire resistance . . .* immunity to decay, termites, and all the attacks of time.

IT TAKES more than promises, more than theory, more than exaggerated claims to provide perfect insulation satisfaction in 250,000 houses . . . over a period of more than 18 years . . . under every condition of service!

What it takes is what Balsam-Wool insulation *has* . . . the ability to deliver perfect performance on every count, without guesswork, or uncertainty—without fear of condensation,

sagging, settling or deterioration.

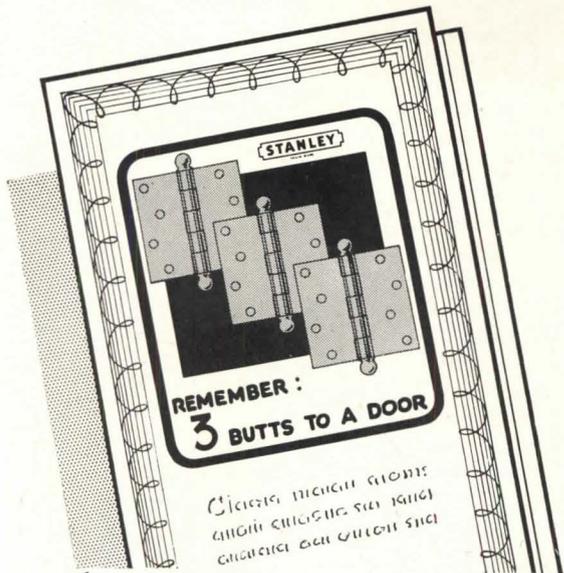
Balsam-Wool is a LEADING insulation because it has been right from the beginning . . . and because it has been constantly improved through the years. Today, with its amazing record of performance, it is *the* sure way to insulate.

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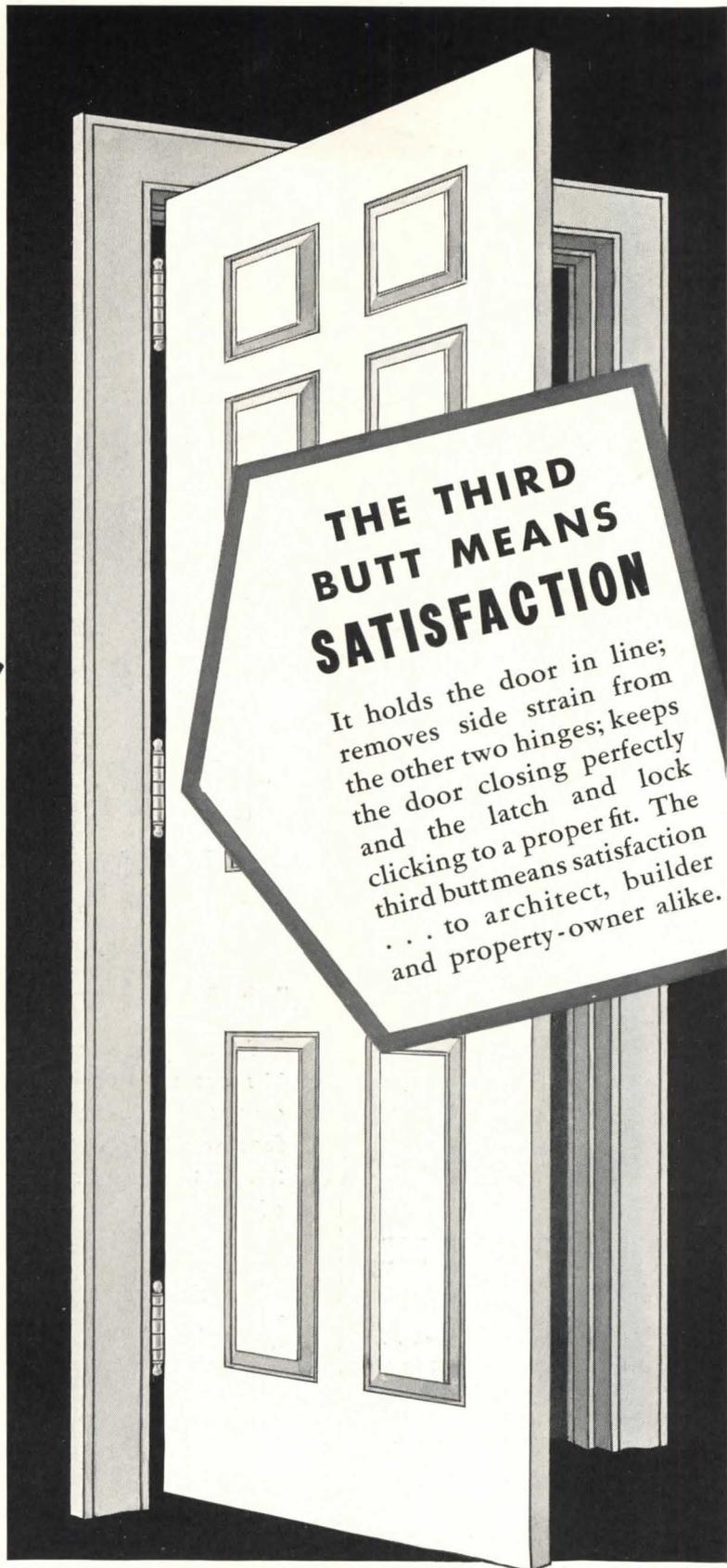




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INSURANCE

WOOD will warp . . . doors will bow out of line . . . unless you supply the vital protection of the third butt on every door! This low cost "anti-warp insurance" . . . three butts on every door in the house . . . costs less than to repair a single warped door! Always specify "Three Butts to A Door". The Stanley Works, New Britain, Connecticut.



THE THIRD BUTT MEANS SATISFACTION

It holds the door in line; removes side strain from the other two hinges; keeps the door closing perfectly and the latch and lock clicking to a proper fit. The third butt means satisfaction . . . to architect, builder and property-owner alike.

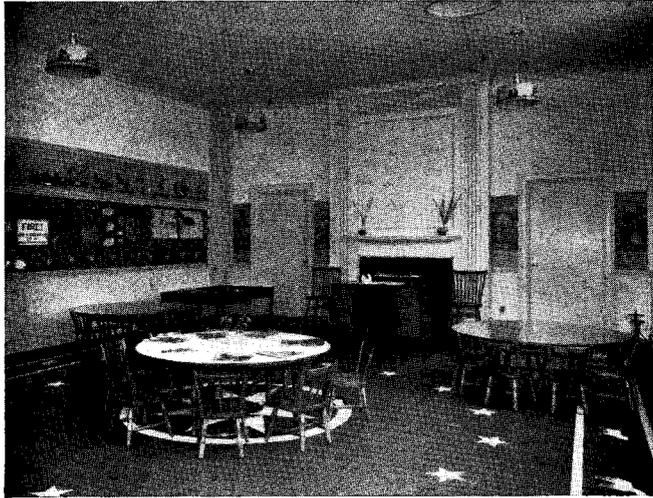
STANLEY

Trade Mark

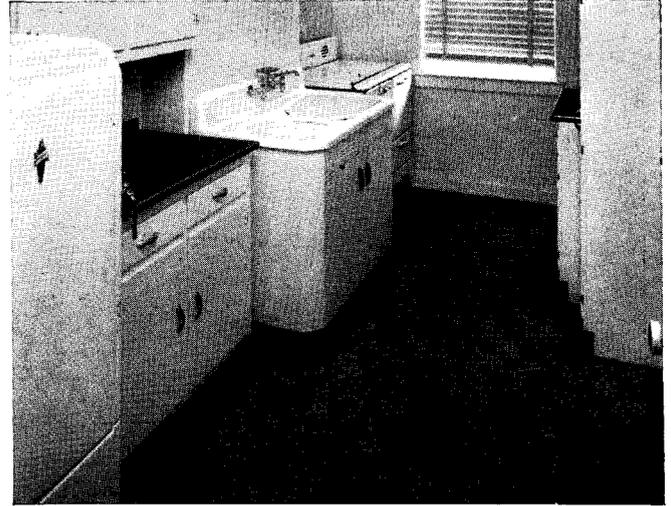
REMEMBER . . . THREE BUTTS TO A DOOR

ARCHITECTURAL RECORD

A Sloane-Blabon inoleum Whatever the Need — Wherever the Job



Kindergarten in the Pulaski Academy and Central School, Pulaski, N.Y. Clear White Insets in a Sloane-Blabon Marblitone Linoleum field.



One of the 568 kitchens in the newly completed Castle Village Apartments, New York, all equipped with Sloane-Blabon Inlaid Linoleum.

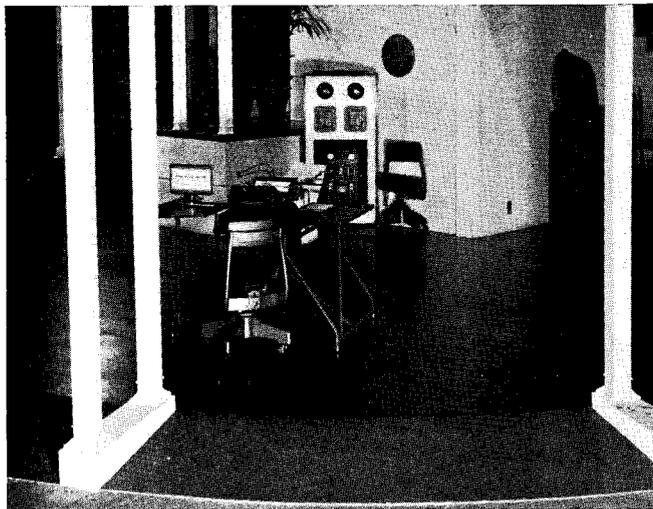


Exhibit at the San Francisco Fair. A harmonizing combination of Regal Blue Sloane-Blabon Linoleum with a wide border of Burgundy Red.



Sales floor of Klee Bros. Co., Chicago. Sloane-Blabon Marblitone Linoleum was specified, with strip borders in White and Antique Mahogany.

North, South, East and West architects are turning to Sloane-Blabon Linoleum as the floor covering that most completely fills their requirements for utility, durability, ease and economy of maintenance, as well as for the creative freedom that Linoleum offers in planning residential, institutional and commercial interiors.

Sloane-Blabon has anticipated every design and decorative trend in its 1940 line. We offer a complete color and pattern range in Battleship, Plain, Inlaid, Marblitone and Jaspé effects. And, today, complete stocks to service your particular needs are carried by Sloane-Blabon distributors everywhere.

An exclusive advantage of specifying Sloane-Blabon Linoleum is the fact that they are all mill-waxed—which means an automatic saving to the owner in installation expense.

Have you a copy of the new Sloane-Blabon pattern catalogue? If not, we will be glad to send one upon request. Architects are also invited to use our Architects Service Department for help on any special floor covering problems. If you have a job that may require custom made linoleum, or something in a special design or inset, write to us.

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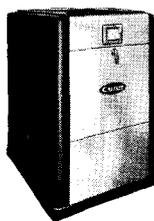
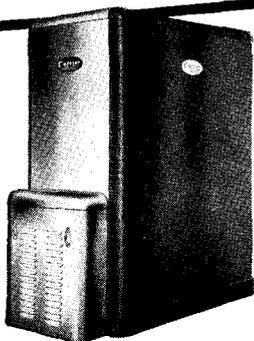
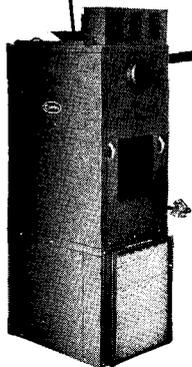


"I Want Radiator Heat!"

"Make Mine Air Conditioning!"



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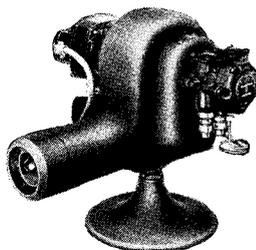
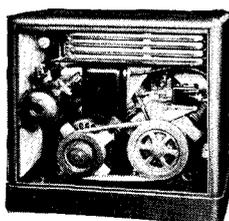
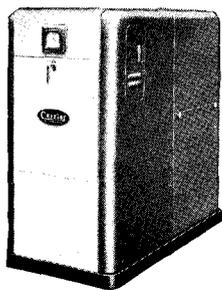
1. For the small home of modest price — The Carrier Home Weathermaker using either gas or oil. Requires only 23"x30" of floor space.

2. For the larger home this larger Carrier Home Weathermaker provides complete Winter air conditioning. Summer cooling can be added.

3. For air conditioning in living rooms and radiator heat in service rooms this Carrier dual system — Summer cooling can be added at any time.

BY specifying Carrier equipment you can meet every clients' requirements. You can satisfy the man who prefers radiator heat—even though he may change his mind later and want air conditioning. You can satisfy the man building a modest home, or remodeling an old home, whether he wants automatic heating or air conditioning. And when you come to fuels, you can meet any requirement—whether it be oil, or gas or coal.

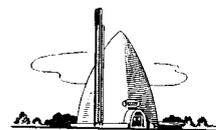
If you are not familiar with the complete line of Carrier Automatic Heating and air conditioning and the ease with which true air conditioning can be provided in a simple step-by-step plan, we urge you to send for complete details today.



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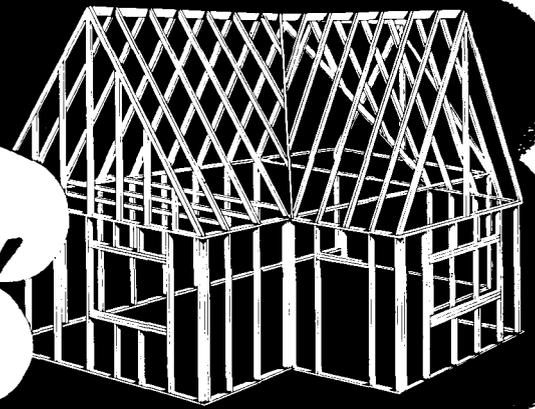
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ARCHITECTURAL RECORD

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SILENTITE IS THE "Insulated" WINDOW

WHEN you specify insulation sheathing, you aren't entirely insulating the wall. Unless the windows are "insulated" too, your wall isn't as efficient as it might be. Today architects are doing a complete job of insulation by using modern "insulated" windows.

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FIVE QUESTIONS ON PROFESSION'S FUTURE

(Continued from page 79)

FURTHER comments on a variety of topics, suggested by the questionnaire, are listed below for the light they shed on the way the profession is thinking, and ideas that may be entertained for improvement.

● "Competition is keen in all lines. If an architect wishes to do other things he had better bend his energies in that direction or he will be neither architect or tradesman. I believe in high professional standards with an extra effort on the part of all architects more nearly to achieve business methods and understanding." (California.)

● "It is my opinion the profession as a whole will not countenance nor does it believe that the changing economic conditions demand changed professional concepts." (Colorado)

● "I believe the practice of architecture is hampered by lack of public understanding as to architectural service, by the inroads made by other professions, business, and various agents which operate without ethical restraint. Perhaps this is due in part to the architect himself who may not be so shrewd in the practical business world, partly to the intrusion of various municipal, state, and federal agencies, partly to the architect's willingness or helplessness to be 'used' as a vehicle for promotional schemes which result in profits only to those in control of the same. Possible relief may be obtained by group activity within the profession, from adjusting and 'streamlining' the methods of education in the schools, from suitable legislation designed to protect the profession. Some relief may also be obtained by the initiative of the architect to expand his practice to include activities which will sell him to the public and make him important to the community. It has been my own experience that the difference between advice and information is a pay check." (Conn.)

● "I am of the opinion that every architect should avail himself of any opportunity open to him because of his special training, but always on a professional basis—using 'professional' in the broad sense of conduct fair to all possible competitors." (Connecticut)

● "I believe an architect, if properly qualified, should be able to function

RECAPITULATION OF THE ARCHITECTURAL RECORD QUESTIONNAIRE "LIBERALIZATION OF THE ARCHITECTURAL PROFESSION"

CONDUCTED BY ARTHUR B. HOLMES, A.I.A. & THE RESULTS PUBLISHED IN THE MAY 1940 ISSUE

QUESTION PRESENTED	SELECTED LIST OF 200		A.I.A. MEN IN GROUPS II & III		A.I.A. TOTAL		GROUP II		GROUP III		TOTAL	
	YES	%	YES	%	YES	%	YES	%	YES	%	YES	%
NUMBER OF REPLIES REC'D RETURNS FROM MEMBERS OF A.I.A. NON-A.I.A. ARCHITECTS ALL RETURNS												
I a	110	55.0	64	32.0	180	36.0	29	14.5	8	4.0	360	18.0
I a (b)	92	46.0	47	23.5	139	27.8	6	3.0	5	2.5	237	11.9
I c	94	47.0	47	23.5	141	28.2	3	1.5	0	0.0	152	7.6
I d	58	29.0	29	14.5	87	43.5	5	2.5	4	2.0	137	6.8
II	109	54.5	62	31.0	171	34.2	25	12.5	14	7.0	340	17.0
III	110	55.0	63	31.5	173	34.6	27	13.5	15	7.5	345	17.2
IV	98	49.0	51	25.5	149	29.8	21	10.5	11	5.5	291	14.5
V	105	52.5	58	29.0	163	32.6	22	11.0	12	6.0	317	15.8

CLASSIFICATION OF COMMENTS ON RETURNED QUESTIONNAIRES

CLASSIFICATION	NO.	%	A.I.A.	%	NON-A.I.A.	%	TOTAL	%
A FAVOR ETHICAL STATUS QUO	13	11.4	5	7.7	18	10.0	23	11.4
B FAVOR SOME LIBERALIZATION	28	24.6	10	15.4	38	21.2	66	32.2
C FAVOR GROUP EFFORT	24	21.0	13	20.0	37	20.6	54	26.4
D CRITICAL OF PRESENT ORGANIZATION	8	7.0	5	7.7	13	7.3	18	8.8
E FAVOR GREATER PUBLICITY	19	16.7	14	21.5	33	18.5	53	25.9
F DEPLORE GOVERNMENT ENCROACHMENT	13	11.4	4	6.2	17	9.5	21	10.3
G DEPLORE OTHER GOV'T ACTIVITIES	7	6.1	1	1.5	8	4.5	9	4.4
H DEPLORE FEE CUTTING & FREE SKETCHES	1	.9	2	3.1	3	1.7	5	2.4
I DEPLORE STOCK PLAN SERVICES	1	.9	3	4.6	4	2.2	7	3.4
J DEPLORE ENCROACHMENT OF REALTOR, BLDG., ETC.	12	10.5	6	9.2	18	10.0	24	11.7
K DEPLORE PRESENT ARCH'L EDUCATION	3	4.4	1	1.5	6	3.3	7	3.4
L DEPLORE QUALIFICATIONS OF SOME ARCHITECTS	9	7.9	4	6.2	13	7.3	17	8.2
M DEPLORE ETHICAL PRACTICES OF SOME ARCHITECTS	3	2.6	1	1.5	4	2.2	5	2.4
N ADVOCATE PROTECTIVE LEGISLATION	7	6.1	5	7.7	12	6.8	17	8.2
O INDICT PRESENT ECON. & SOCIAL ORDER	3	2.6	-	-	3	1.7	3	1.4
P ADVOCATE BETTER SERVICE BY PROFESSION	14	12.3	7	10.7	21	11.7	28	13.6
Q OTHER MISCELLANEOUS COMMENTS	23	20.2	11	16.9	34	19.2	45	21.8
R NO COMMENTS	23	20.2	19	29.2	42	23.4	61	29.6
S ANONYMOUS RETURN	3	2.6	4	6.2	7	3.9	11	5.3

GROUP I - 200 QUESTIONNAIRES WERE SENT TO A.I.A. NATIONAL & CHAPTER LEADERS. 116 REPLIES - 58% OF TOTAL
 GROUP II - 200 WERE SENT TO ARCHTS IN GOVERNMENT OR PRIVATE EMPLOYMENT. 29 REPLIES - 14.5% OF TOTAL
 GROUP III - 600 TO RANDOM LIST OF PRACTICING ARCHTS, BOTH A.I.A. & NON-A.I.A. 215 REPLIES - 36% OF TOTAL

NOTE: THE TABULATION OF QUESTION I.B IS OMITTED AS THE RECORDS WERE OBVIOUSLY INACCURATE & INCONCLUSIVE

CROSS-TABULATION

OF RESPONDENTS WHO CHECKED "YES" TO I.G (a) 1940, 66% ALSO CHECKED "YES" TO II & AVERAGED 28.4% IN THEIR APPROVAL OF LIBERALIZATION SUGGESTED IN III, WHILE OF THOSE WHO CHECKED "NO", 47% CHECKED "YES" TO II & AVERAGED 44% IN FAVOR OF LIBERALIZATION. OF THOSE WHO CHECKED "YES" TO QUESTION II, 27.8% ALSO VOTED "YES" TO QUESTION III, WHILE OF THOSE WHO CHECKED "NO" TO II, 44% APPROVED AVERAGE OF LIBERALIZATION SUGGESTIONS CONTAINED IN QUESTION III

Facsimile reproduction of statistical summary of questionnaire, showing a breakdown of the answers in the various groups and a classification of comments.

under the general definition 'Master Builder,' provided the same ethics prescribed by the AIA are followed as would be applicable to meet new conditions, and that limitation by registration to cover new duties should be employed." (Delaware)

● "Group effort, agreement and action, is the only hope if it includes the education of the architect as to his pro-

fessional obligations." (Florida)

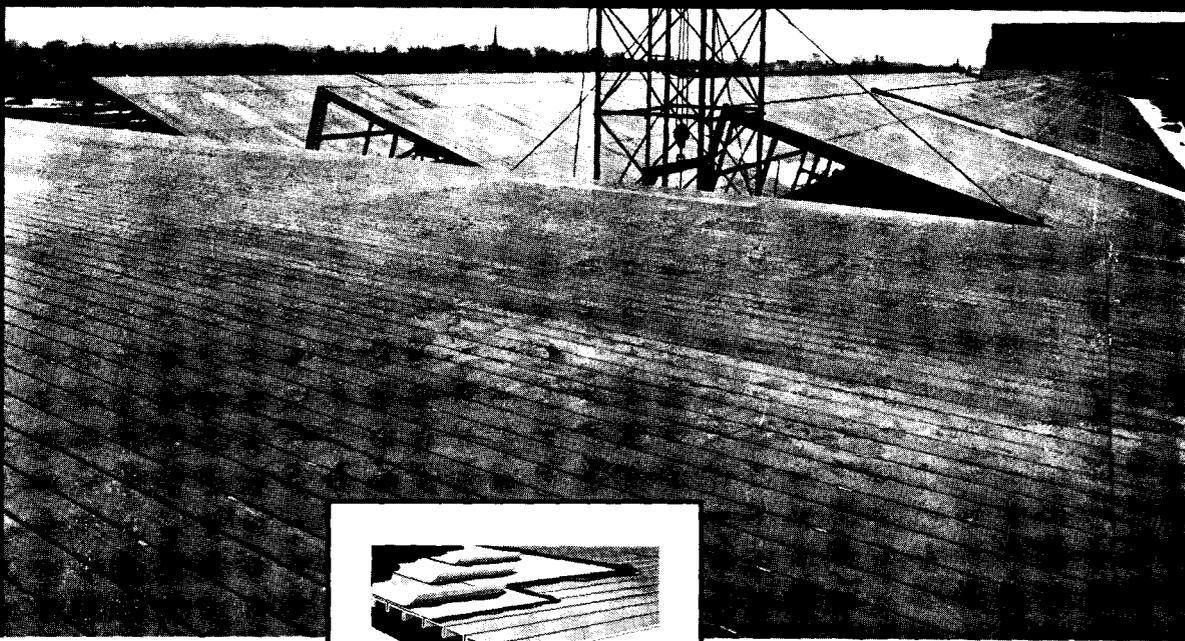
● "I feel that the architect of tomorrow must be a responsible business man, must advertise his business, must be interested and the best-versed personage in the economics of building." (Florida)

● "I believe that an architect's economic status and the demands made

(Continued on page 116)

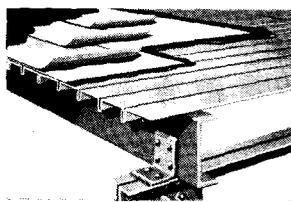
STEEL DECK

... for MODERN, PERMANENT
FIRESAFE CONSTRUCTION

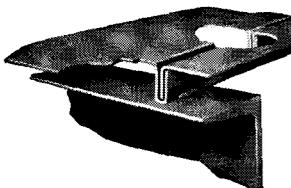


Steel Roof Deck today offers greater economy and flexibility in adaptation than any other type of modern roof construction, yet it embodies all the permanent, firesafe characteristics of more costly, heavier and less flexible materials. That is why Mahon Steel Roof Deck, which offers definite advantages in design and adaptability, shows a steadily increasing popularity with architects and builders alike in every section of the country.

In the past fourteen years, millions of square feet of Mahon Steel Roof Deck have been installed on industrial and commercial buildings of every type . . . it is structurally correct in



Cross section of Mahon Steel Roof Deck showing application of insulation and roofing material.



Section showing interlocking ribs of Mahon Steel Roof Deck and method of locking Deck Plates together and to supporting Purlins in welded construction.

design—stiffening ribs have vertical surfaces which preclude the possibility of dust accumulation. Mahon Galvanized Steel Roof Deck requires no painting or maintenance whatsoever—its galvanized finish provides a bright pleasing appearance which aids materially in daylighting interiors. For complete details write for catalog or see Sweets.

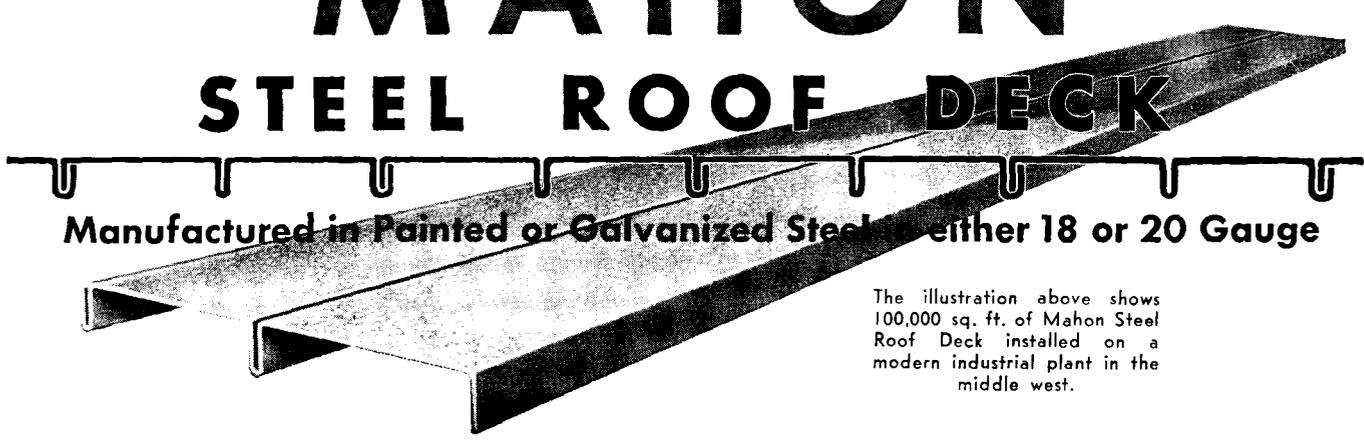
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MAHON STEEL ROOF DECK

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The illustration above shows 100,000 sq. ft. of Mahon Steel Roof Deck installed on a modern industrial plant in the middle west.

QUESTIONNAIRE COMMENTS

(Continued from page 114)

upon him to keep and educate his family affect his attitude toward the strict interpretation of the ethical principles of his profession. His conscience must be his guide as to whether he is or is not conducting himself in an ethical manner. I see no reason why an architect should not be employed by the government, a contractor, a realtor, a manufacturer, if that is necessary for his livelihood, nor should he be criticized by those more fortunate for doing this to preserve his own livelihood and the protection of his home and family. Too bad—yes, and unfortunate that this condition must

exist. In my opinion a professional architect can conduct himself in an ethical manner even though circumstances require him to work for a salary. As I stated before, I see no virtue in starvation. To me the ethical standard of our profession is nothing more than the application of the Golden Rule." (Illinois)

● "We find strict adherence to AIA Principles of Practice has made local architects friends, obtained a fuller measure of respect from the citizens, and been generally beneficial; we oppose

changing the professional status into a business." (Georgia)

● "The greatest inroad into the architectural-profession pocket book is the trend toward government, state, and local bureaus doing architectural work. I believe strong and efficient administration of registration laws and elimination of the government practice of interference will materially help the economic status of the architect. . . . The architects are, themselves, their own worst enemies." (Indiana)

● "Any association of financial character with builders or manufacturers is detrimental to professional status, except as consultant on matters of design or construction, in my opinion." (Iowa)

● "The architect has been contaminated with the spirit of commercialism. As yet the architect is not much different from what he was thirty years ago, but the flood is sweeping him from his moorings also. It is a great pity, yet there is not much we can do except stop once in a while and try to think what the basic values in life are, preach the high ideals expressed in the statement of purpose of the AIA and try to live up to them. Unfortunately, many of us talk much about ethics with our tongues in our cheek." (Kentucky)

● "I favor paid advertising. Local newspapers consider architectural stories, renderings, etc., as advertising, hence should not be carried free. They go so far as to delete the architect's name from published renderings of his work. Result—very little and very poor publicity." (Louisiana)

● "I feel that the architectural profession should try to educate the general public by means of national advertising, so that the public would develop a truer concept of the services that an architect is supposed to perform. From my experience I am generally astonished that the average small client is willing to pay so much for a 'set of drawings' which, to him, should not take more than two or three days to prepare." (Maryland)

● "I believe the architect should stay out of all business except his own. The way to stimulate our own income is to stimulate the industry and that will be done by eliminating all the evils in it,

(Continued on page 118)



... **TOO LATE** for the door opener again. A simple thing to correct, but it happens every day, over and over again, to the embarrassment and annoyance of apartment dwellers and their callers.

Connecticut engineers found the answer—a suite telephone with a pilot light that shows the tenant instantly when the vestibule door has been opened. . . . another example of alert, progressive engineering.

To assist owners, contractors, architects and engineers in planning communications and signaling systems, Connecticut engineers offer you, at no cost, a complete service from preliminary consultation to detailed installation and wiring diagrams.

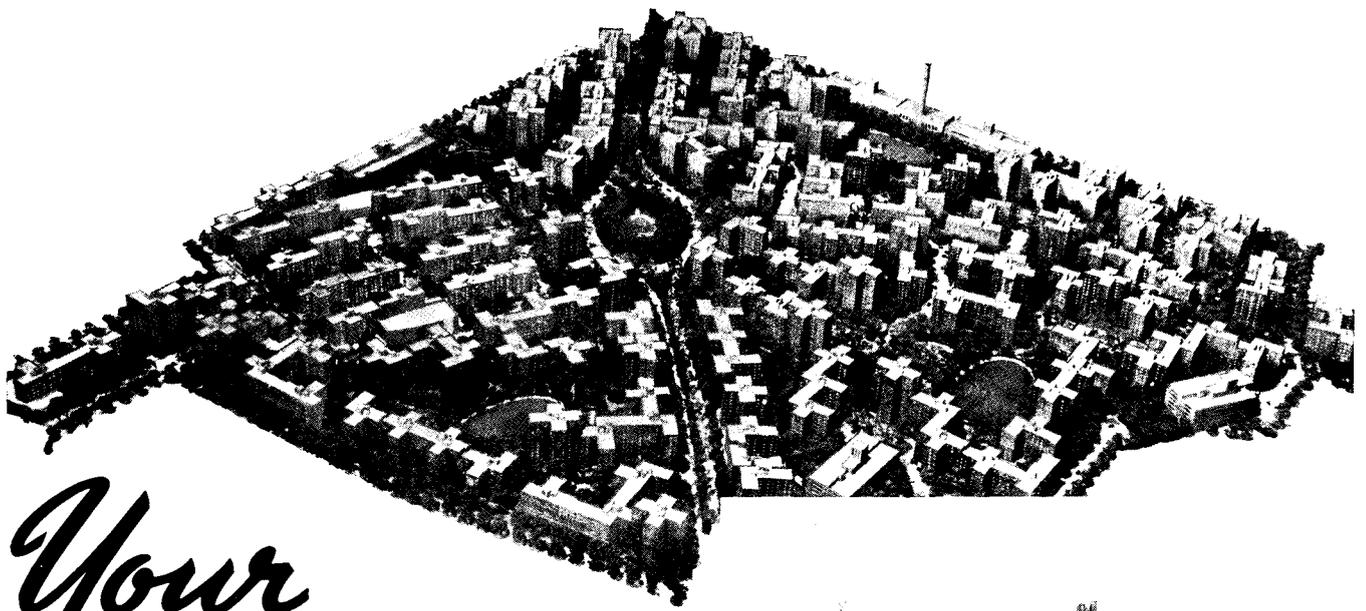
*For advanced engineering,
put it up to "Connecticut"*

**CONNECTICUT
Telephone and Electric
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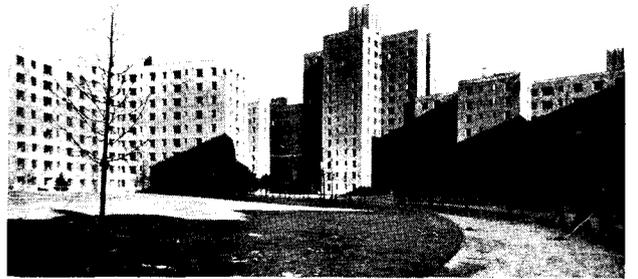
→
Connectaphone with pilot light shows apartment dweller when caller opens vestibule door.





Your DECISION

on what flush valves to specify can also be based on the points considered by the Board of Design of the Metropolitan Life Insurance Co. in approving



12,275 WATROUS FLUSH VALVES for Parkchester—the world's largest housing project

WHEN you write flush valve specifications for your jobs we believe it might be helpful to consider the same factors that were weighed when Watrous Flush Valves were selected for Parkchester.

In presenting the merits of Watrous Flush Valves for Parkchester, we based our case on the assumption that:

1. They wanted the maximum value in tenant satisfaction.
2. They wanted equipment that would last as long as the amortization period of the building.
3. They wanted equipment that would cut operating costs wherever possible.

4. They wanted to eliminate maintenance troubles.
5. They wanted to keep the cost of the project down.

We consider it one of the finest tributes that Watrous Flush Valves have ever received that the Board of Design approved the selection of Watrous for this huge project. It represented, so far as we know, the largest order ever placed for flush valves—over 12,275 units.

Write for complete information on Watrous Flush Valves, including a copy of "A Scientific Method of Silencing Flush Valves." For specification details, see Catalog 54—Section 27 of Sweet's Catalog File.

THE IMPERIAL BRASS MFG. CO., 1240 W. Harrison St., Chicago, Ill.

•The Board of Design for the amazing development which the Metropolitan Life Insurance Co. is now constructing on a site covering 46 city blocks in the Bronx consists of: R. H. Shreve, Chairman, Shreve, Lamb and Harmon—Architects; Andrew J. Eken, President, Starrett Brothers and Eken, Inc., Contractors; Gilmore D. Clarke, City Planning and Landscape Engineer; Irwin Clavan, Architect; Robert W. Dowling, Vice-President, Starrett Brothers and Eken, Inc., Contractors; George Gove, Manager of Housing Projects, Metropolitan Life Insurance Co.; Henry C. Meyer, Jr., Meyer, Strong & Jones, Inc., Consulting Engineers.

Plumbing Contractor is J. L. Murphy, Inc., New York City.

When completed there will be 51 apartment buildings totaling 42,000 rooms, separated into 12,275 apartments of from 2 to 5 rooms. There are also stores, theatre, garages, parks with playgrounds, wading pools, roller skating paths, hand ball and softball courts.



Watrous Flush Valves

DIAPHRAGM AND PISTON TYPES
—also furnished with
SILENT ACTION equipment

QUESTIONNAIRE COMMENTS

(Continued from page 116)

and that leadership should be taken by the AIA. Such a program is possible and is *the only way out*. The architect will never prosper by taking work away from other groups." (Massachusetts)

● "Why should one wish to return to the highly artificial conditions of the 1930 status? Would it not be living in a fool's paradise, which, even if desirable, could hardly endure? Even under the deplorable (in many cases) present conditions, architecture is in a

healthier state than it was ten years ago. I think the profession realizes that in spite of some 'curiosities' here and there architectural thought is saner and more forceful nowadays." (Mass.)

● "Everyone promoting building these days is trying to drive too hard a bargain. No one, apparently, connected with the operation makes more than bare wages. Too many have been injected into the building field that do not belong there, others are forcing

themselves in. The result is that old methods are being re-evolved by trial and error as if they were new. The government bureaus have assumed the whip hand in the industry. The architect on a salary has defeated the private practitioner in many cases. The super-architect seems to hold his own." (Michigan)

● "The respect of the public for the architectural profession will be greatly increased when the architect becomes economically successful. . . . There need be no lowering of ethical standards in broadening the scope of service." (New Jersey)

● "Changing conditions demand a change in our practice if we are to survive as architects. Branching into other fields is now common practice. Employment by large corporations on a salary basis certainly cannot be construed as unprofessional and many of the members and officers of the Institute are so employed to-day. . . . I think we all feel that there is something wrong with the present set-up but seem to be afraid to tackle it. We stick our heads in the sand like the ostrich and get what he invites when in that position." (New Jersey)

● "This proposition gets down to this as I see it. If an architect has enough work in regular practice the chances are that he would hesitate to branch out. If work is slack he will get other work in line with his ability and talent to cope with." (New York)

● "Architectural organizations waste too much time discussing 'ethics' and those unethical with no thought for the salvation of the ethical architect." (New York)

● "I believe that the profession would benefit from the employment and advice of a Public Relations' advisor—if that advice were carried out." (New York)

● "I expect to hold to the old, established method. I still believe that it is not *criminal for good* architecture and modern architecture to strive for beauty. The new high-power know-all talk of the barnacles of architecture, taboo the word 'beauty', and class us as mere coordinators. This is a dangerous doctrine." (Ohio)

(Continued on page 120)

It's easy to score . . .



. . . with AZROCK

The man who spends the money is the man who must be pleased. For example, consider floor coverings. In the high school gymnasium pictured above, the 1/4" AZROCK Industrial Tile which was used had to meet exacting requirements . . . not only of architects and engineers but also of school authorities.

AZROCK is durable; its use guarantees many years of satisfying service. It is easily cleaned, inexpensively maintained. Add the fact that the initial cost of this modern asphalt floor covering is not expensive and you have economy . . . long-range economy.

As for beauty and adaptability . . . AZROCK's several thicknesses and sizes, its many beautiful all-the-way-thru colors lend themselves to every type of floor, encourage individuality and distinction in design. AZROCK is micro-cut, lays up so close that no dirt can collect. It is moisture-proof and fire-resistant, insulates against

heat and cold. And AZROCK's resilience means quiet and comfort underfoot.

In specifying AZROCK Floor Tile, the architect recommends a product proven in installations throughout the United States and in several foreign countries. Whatever your problem . . . school, home, office factory or store . . . there is an AZROCK Tile to serve you.



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(TRADE MARK REG U.S. PAT OFF.)

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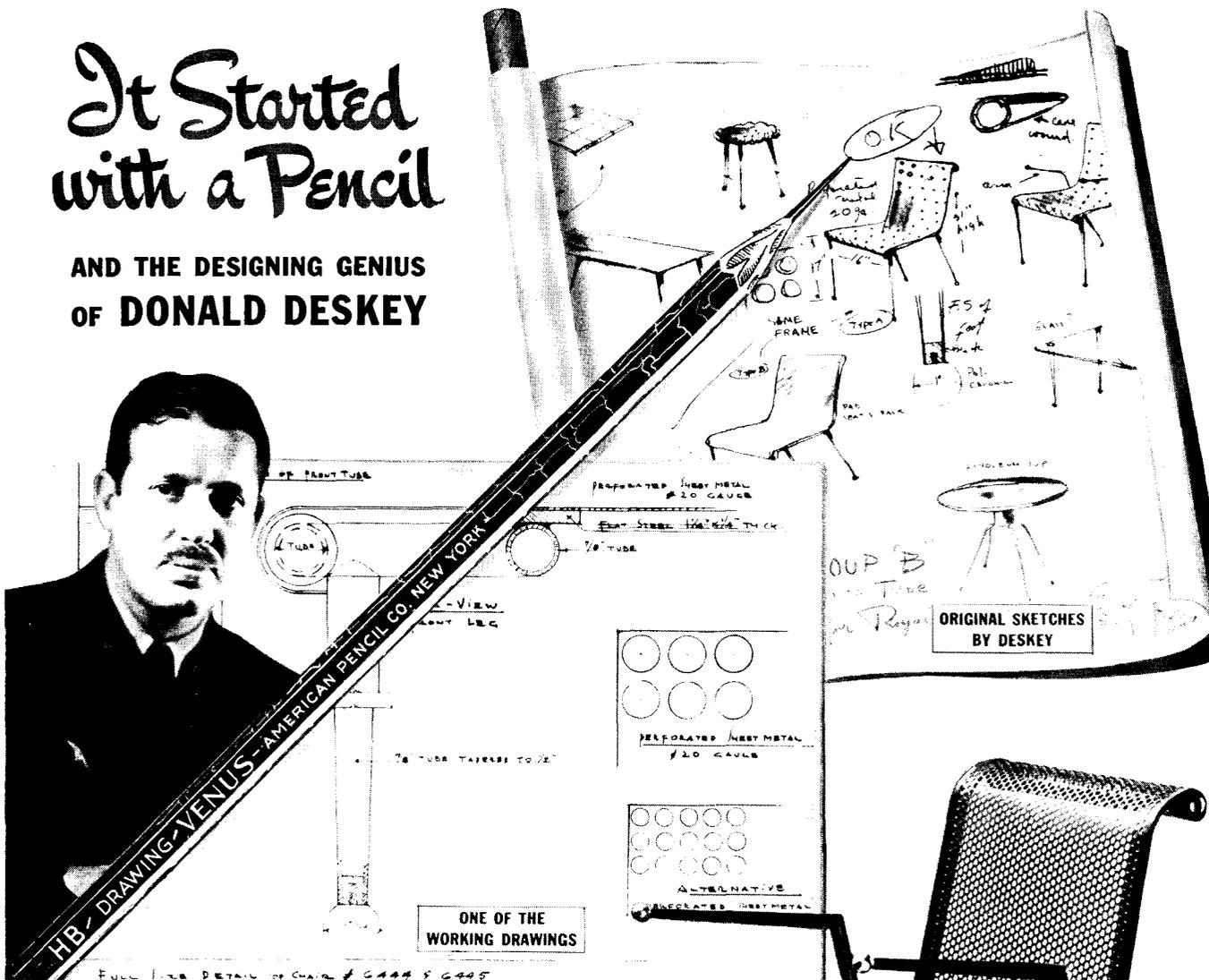
UVALDE ROCK ASPHALT CO.

(In Business Since 1912)

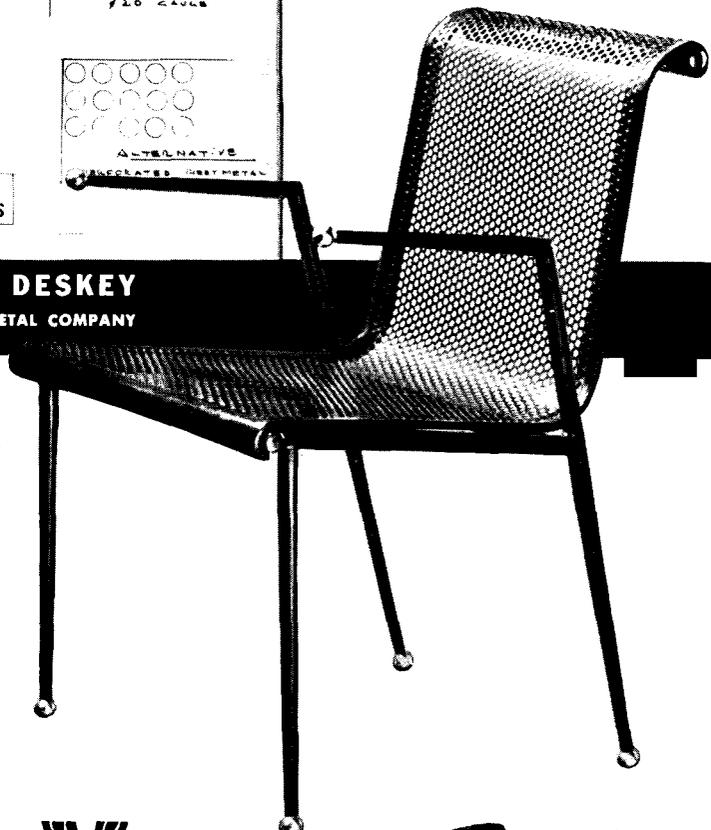
Gen. Offices: San Antonio, Texas; Mines: Blewett, Texas;
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It Started with a Pencil

AND THE DESIGNING GENIUS OF DONALD DESKEY



THE NEW CHAIR BY DONALD DESKEY
 FEATURED IN A LINE CREATED FOR THE ROYAL METAL COMPANY



... and here's a message to every designer, artist, architect, engineer—every man who uses a pencil as an instrument for creation.

Your pencil is your genii—good genii if it serves you well—interpreting your thoughts, ideas, plans—effortlessly, smoothly; bad genii if false tone, grit, breakage, harshness, interrupt your creative flow.

That is why Venus has become the pencil of the draughting room and studio. More than a pencil, Venus is a professional drawing instrument. 17 tones of colloidal* lead run the entire gamut of blacks, and every gradation is uniform today, tomorrow, next year.

*Colloidal lead, U. S. Patent No. 1,738,888, is exclusive with Venus—it is a process which permits the reduction of graphite and clay to particles so tiny that even the finest filter cannot hold them. Electrochemically united, and held by rare waxes, the result is Venus' smooth, uniform, velvety lead.

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\$1 PER DOZEN

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QUESTIONNAIRE COMMENTS

(Continued from page 118)

- "Deliver a completed package—seems better merchandising—relieving owners of irks, unnecessary consternation, etc., and calls for more ability than average among the profession. This is something to shoot for." (Ohio)
- "We need group advertising and a Dr. Fishbein of architecture. Architecture is a modern business, we cannot hope to compete with modern methods unless we, too, adopt modern accepted

ethical business methods. Let us stand on our own feet and pay our own way." (Oklahoma)

- "I believe that architects can improve their economic position by (a) constantly endeavoring to improve the quality of service to their clients, (b) giving as careful attention to supervision and business relations as to design, and (c) taking a more active part in civic affairs, thereby becoming better known

in their communities." (Pennsylvania)

- "If you ask me, I say To Hell with all Ethical Restraint!" (Pennsylvania)

- "I believe that the public must be educated to the need of the architect, which in turn requires publicity and considerable financial support from members of the profession. How to awaken consciousness of this in the average architect is something which has stumped me for fifteen years." (Pennsylvania)

- "We are an established firm, practicing for several years. If we were younger, just getting established, our answers might be different. At present, and in this territory, we see no need for alarm because of changing conditions and trends." (Tennessee)

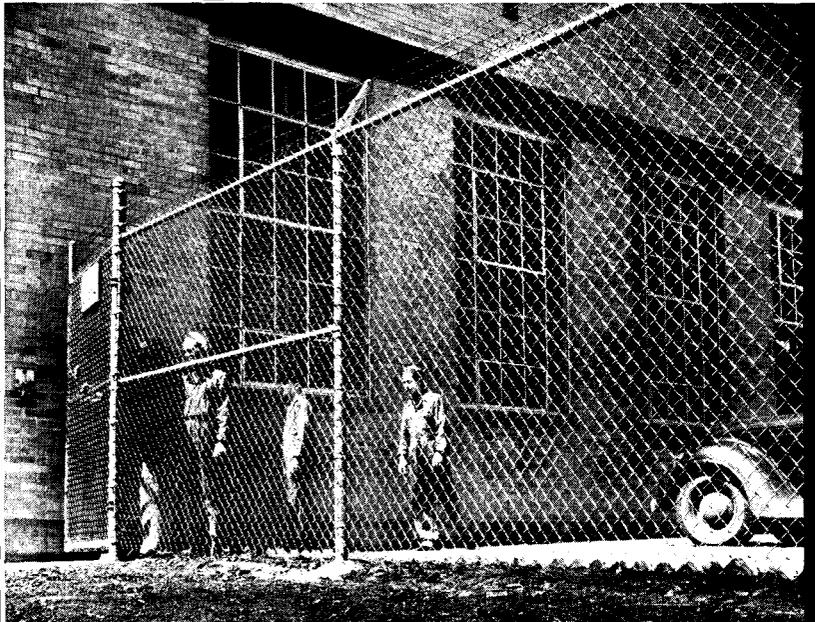
- "I am thoroughly convinced that the practicing architect today has given very little consideration to his field. He does not seem to realize that changing economic conditions demand changed professional policies. I believe the spirit of the Institute should prevail rather than the letter when it is obvious that the practitioner can give greater service to his community and to his client by varying his office organization to fit the occasion." (Tennessee)

- "We need strength in numbers and to sell ourselves more to the public. We have a very weak license law and can not expect too much in that direction in correcting conditions now existing in this locality. It took us over twelve years to get this law passed as it is. Ethics seem to be a minor item in practice on the part of some of the practitioners. 'Get a living out of it regardless of how,' seems to be the idea of many here." (Texas)

- "While I have answered 'No' to a great many questions under 3, it is primarily because you have asked me whether I would find any benefits in the proposed changes. I have no objections to other architects being given the privileges mentioned." (Washington, D. C.)

- "I believe in group action through state professional association similar to the medical and law professions." (West Virginia)

PAGE FENCE



FENCING — A PROTECTION ESSENTIAL

● In today's manufacturing operations, the security and potential savings in Page Fence are important. That these factors are recognized by architects is evidenced by the increasing number of plans which include it as a safeguard against undesirable trespassers and malicious intruders and protection against property damage, material losses and possible liability suits.

Page—originator of woven wire fence—provides a choice of these superior metals: heavily-galvanized copper-bearing steel, Armco ingot iron, Allegheny stainless steel and Alcoa aluminum. Each possesses qualities which make it most suitable to meet certain climatic and service conditions.

Also exclusive with Page is the only line post specially developed for use with chain link fence—the "winged channel" post. And Page created the engineering and erection service which assures expertness and responsibility—an association of 97 factory-trained, local business men in 97 cities. One is located near you.

See Sweet's Catalog for detailed information, and write to PAGE FENCE ASSOCIATION, Bridgeport, Conn., Atlanta, Chicago, New York or San Francisco for informative books and data.



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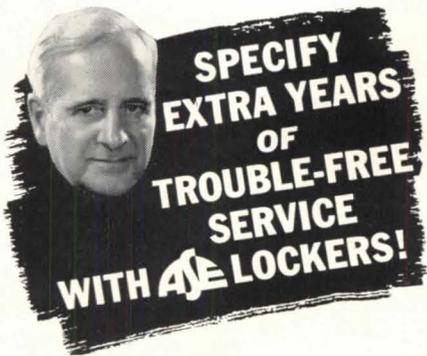
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*Assembly of UNI-FLO Grille Core
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on Specially Designed Assembly Table*

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★ When you specify A-S-E Lockers, your clients are assured of extra years of trouble-free service. They provide this long life because they are built to withstand hard use. At every point or section where persistent wear or damage might occur, extra strength is built-in. Thus, the maintenance costs so often confronted with less sturdily constructed equipment are avoided.

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965 A-1

BOOK REVIEWS

(Continued from page 88)

strong side walls and a protective roof capped by a specially designed detonating slab, the whole structure sunk into the ground. This, in brief, is the type of shelter designed by Mr. O. N. Arup, in conjunction with the authors, for the Borough of Finsbury.

Though they have designed smaller shelters, in their Finsbury plan the authors recommend shelters accommodating from 7,600 up to as many as 12,600 people in each. These are so designed as to be adaptable to peacetime use, either as warehouses or as parking buildings for automobiles.

The authors not only present the plans of their shelters but describe the method of construction and indicate the approximate costs. Their researches in Finsbury also included such factors governing the placing of shelters as the density and movements of population, the distribution of open spaces, underground conditions, physical characteristics overground, street traffic, warning time, and other factors which must be taken into account in any comprehensive plan for air-raid protection.

Numerous diagrams, illustrations, and maps contribute to the interest of the text. As it was intended by the authors, the work is readable to the layman. It should, moreover, be provocative of thought far beyond the factual nature of its pages.

PUBLIC BUILDINGS: Architecture Under the Public Works Administration, 1933 to 1939. By C. W. Short and R. Stanley-Brown. U. S. Government Printing Office, Washington, 1939. 697 pages. Illustrated. Price, \$2.50.

IT IS APPROPRIATE that information concerning the vast projects of construction sponsored by the PWA should be brought together in one volume and that it should be accessible to the general public. This need is now fulfilled by the present work, which constitutes a comprehensive survey of all projects completed by the PWA up to January 1, 1939.

Public Buildings is largely a pictorial survey, for all of the structures described are represented by at least one photograph, including floor plans in most cases. It is consequently possible to review in brief time the architecture of a tremendous number of public buildings constructed in all parts of the country during the past six years. A great variety of design in style and planning

can readily be examined, while the many developments which have been made in construction can all be studied. In this manner, the work performs a twofold purpose: that of accounting to the general public for the money spent, and of serving as a useful reference book for architects, engineers, students, and others.

The volume covers not only buildings, in the specific sense, but such types of construction as highways, bridges, and dams (the Miami-Key West Overseas Highway, the Triborough Bridge, the Boulder Canyon Project)—all works of magnitude and splendor, useful alike to living men and to the people of future ages.

While looking at these illustrations of schools, libraries, hospitals, courthouses, auditoriums, and other types of buildings, it will be observed that many different styles of design have been followed—Classic, Colonial, Spanish Mission, Italian Renaissance, Modern, etc. These designs have not always been wisely selected, and it may be suggested, for example, that Italian Renaissance in the Charleston, S. C., of our time is incongruous. Moreover, many of these public buildings are not only unsuccessfully designed but are in bad taste—a fact which the authors admit in the introductory chapters of this survey.

However, in the larger sense in which the accomplishments of the PWA may be viewed—the fact that over 34,000 projects have been completed and are in use today—the sociological benefits of so vast a program of construction become apparent at once. These benefits are far reaching in our national life.

WROUGHT IRON FOR RADIANT HEATING INSTALLATIONS. Prepared by the Engineering Service Department of A. M. Byers Company, Pittsburgh, Pa. 1940. 24 pages. Illustrations and diagrams.

Radiant or "panel" heating, in which the floor, walls, and/or ceiling of the room are warmed with embedded heating coils or hot-air ducts, has been used commercially for a number of years abroad. In this country, where it is more of a novelty, among its best-known applications are those in the British Embassy at Washington and in the Johnson Wax building in Racine, Wis.

(Continued on page 124)



ARCHITECT: Well, not exactly—but he certainly helps me *sell* houses. His name's Certain-teed.

MR. NEWHOUSE: Did you say *Certain-steed*? With that name he can't lose.

ARCHITECT: The fact is Certain-teed never lost a single housing handicap in which I specified him. Actually this little horse is just an amusing souvenir of a big building company, Certain-teed Products Corporation. I keep him on my desk as a reminder of the fine public service his company is rendering.

MRS. NEWHOUSE: Public service? To whom?

ARCHITECT: To the nation—and to the building industry. You see, the Certain-teed Company has an idea that home owners are the very soul of our democracy. They believe America can build its way back to prosperity — so they've unselfishly set out to sell my industry and my services—even ahead of promoting their own products.

MR. NEWHOUSE: Certain-teed—s-a-y! Why that's the outfit who published that message by an American Father. Remember "Look Homeward, America" Helen?

MRS. NEWHOUSE: I'll say I do! I even sent in to Certain-teed for that lovely painting. And you wouldn't

even discuss the house with me until you read that ad, Homer. It made you look homeward, all right.

ARCHITECT: Well, Mrs. Newhouse, that means we can both thank Certain-teed for convincing the man of the house. It also illustrates exactly what I mean about Certain-teed serving the building industry and America.

MR. NEWHOUSE: But how about Certain-teed products? Are they any good?

ARCHITECT: They're already certified by ten million home owners. And I'm recommending Certain-teed to you, Mr. Newhouse, because I know you want to make every dollar count.

MR. NEWHOUSE: So it pays to be Certain-teed, eh?

MRS. NEWHOUSE: I'm so glad. I just knew that cute horse stood for something important.



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Sound building construction demands that air and moisture infiltration be checked in outside walls. Such positive protection can not be realized if the building paper tears in application or disintegrates within the walls after the building is completed.

Only Sisalkraft completely fulfills these purposes for which building paper is used. It is tough . . . a sisal reenforced, windproof sheet with a double layer of special quality asphalt which moisture cannot penetrate — It is highly resistant to shrinkage and dry rot.

Since Sisalkraft can be put over side-walls of an average \$5,000 home for as little as \$15 — the cost is insignificant.

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New York San Francisco



BOOK REVIEWS

(Continued from page 122)

Now the engineering service department of A. M. Byers Company, whose main interest lies in the piping problems connected with this type of system, has compiled and published a non-technical discussion of the theory and principles of radiant heating. Its practical applications are dealt with in a series of detailed reports on several recent installations in this country. Though it is too early to set up final standards for radiant heating, this booklet is required reading for those interested in present-day methods and procedures of construction and installation. It appears to be the first attempt to place all current data pertaining to this interesting development between two covers.

The subject has been touched upon from time to time in various technical publications, and much of the material included in the booklet is an abstract and report derived from these sources. The discussion is divided into three main sections: "The Theory of Radiant Heating;" "Calculation Principles for the Design of Radiant Heating Installations;" and "Measurements of Radiant Heating."

In distinction to other types of heating, a radiant heating system heats by radiation exclusively, with the exception of the slight convection effect caused by the heating of room air in contact with the warmed surfaces. The travel of radiant heat is independent of air, and has little heating effect on the atmosphere through which it passes.

This explains one of the chief advantages claimed for the system—that comfort can be maintained in a room with the air cool enough to be healthful and invigorating. In a room in which walls, ceiling, and floor were all warmed to normal skin temperature of 85°, for example, comfortable conditions would exist at an air temperature of less than 50°. Other advantages indicated for the system are a saving in fuel, due to the low temperatures of the heating media, and the saving of planning space, due to the elimination of heating units from the rooms.

A copy of "Wrought Iron for Radiant Heating Installations" may be obtained free from A. M. Byers Co., Pittsburgh.

OLD VERMONT HOUSES: The Architecture of A Resourceful People. By Herbert Wheaton Congdon. Stephen Daye Press, Brattleboro, Vt., 1940. 190 pages. Illustrated. Price, \$3.00.

THIS STUDY owes its origin to a general survey of Vermont's old buildings, undertaken by the Robert Hull Fleming Museum of the University of Vermont, a project in which the author participated as an architectural photographer.

Mr. Congdon follows the development of the State's architecture from its earliest houses up to 1850, his subject matter also including court houses, taverns, meeting houses, and churches of the period. While these are described objectively, the author has also contrived to place the old buildings of Vermont in their historical setting—a viewpoint from which it can readily be observed that the plain and substantial character of this architecture is the work of pioneer folk in a newly settled frontier.

The volume is copiously illustrated with the author's own photographs, clearly reproduced. A thorough index and a glossary of architectural terms used in the book add to its value as a work of reference for individuals and libraries.

NEW EQUIPMENT

(Continued from page 56)

ly designed for low-cost houses. It is delivered to the building job equipped with glass, cased with California redwood, fitted with hardware, and with the interior wood trim-cut, fitted, and ready to be nailed into place. The unit is simply placed in the rough opening, plumbed, wedged, and nailed to the sheathing and studs through the jambs and head of the redwood casing. The interior trim is similarly attached, using hammer and nails only. Detroit Steel Products Co., 2250 East Grand Blvd., Detroit, Mich.

Three New Room Coolers

CLAIMING ADVANCED styling and a 36% reduction in required installation space over previous units of comparable rating are three new room-cooling units. They consist of one window type and two console models with Btu-per-hour ratings of 5,000 (for use in bedrooms, small waiting rooms, etc.), 6,000 (for private offices, living rooms), and 8,000 (for larger rooms), respectively. The two consoles have ventilation control which supply the room either with 100% fresh air, or with 10% fresh air and 90% recirculated air. General Electric Co., 570 Lexington Ave., New York, N. Y.

(Continued on page 126)

**A COMFORTABLE HOME
ON A BALANCED BUDGET,
WHEN YOU SPECIFY**

HALF PRICE HEATING

**L·O·F WINDOW CONDITIONING
PLUS A GOOD CEILING OR
ATTIC INSULATION ASSURES
HEATING ECONOMY AND CLIENT
SATISFACTION ALL YEAR 'ROUND**

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**HOW THIS 2-POINT
INSULATION SAVES**



1. Window Conditioning
(storm sash) has proved in thousands of homes that it alone will cut fuel costs as much as 25%—in some places even more.

2. Attic (or Ceiling) Insulation, when installed in homes already Window Conditioned, will bring additional savings. These two simple insulations together can save up to 50% of the annual fuel bill. Specify them in the houses you design.



● With the tremendous impetus behind the F.H.A. drive to house America, any feature which contributes to both the comfort and economy of these new homes is extremely important.

Half Price Heating is just that. This 2-Point Insulation—Window Conditioning and Ceiling Insulation—saves as much as 50% in fuel bills and adds immeasurably to home comfort the year 'round.

And the best part of it all, Half Price Heating generally adds nothing to original costs. You can often include it in your specifications because your heating engineer can, in many cases, install a smaller, less costly heating unit as a result.

From the standpoint of a Balanced Budget, the savings that accrue year after year will help pay for the home. On a 20-year F.H.A. mortgage, they amount to from 18 to 24 average monthly payments. Or, looked at another way, they provide monies for painting, repairs, improvements.

Join with us in this crusade for Better Building. Specify Window Conditioning and Ceiling Insulation and assure your clients greater comfort, health and economy for their building dollar... Libbey·Owens·Ford Glass Company, Toledo, Ohio.

The Government, through the Federal Housing Administration is making it easier than ever before for America to build—and build better—an effort in which Libbey·Owens·Ford is glad to cooperate.

**LIBBEY·OWENS·FORD
QUALITY GLASS**

LOOK FOR THE LABEL



Sound Control

WITH A CEILING OF CORK



Central High School, Highland, N. Y., has a single room for its auditorium and gymnasium. Sound is kept under control by means of an Armstrong's Corkoustic ceiling.

Read how a Corkoustic ceiling provides acoustical correction and noise control in this auditorium-gymnasium

HERE'S a room that has a dual sound-control problem. As an auditorium, it must be acoustically correct . . . without echo or dead spots. As a gymnasium, it must be reasonably quiet. Both these important problems are solved with a ceiling of cork—Armstrong's Corkoustic. This modern acoustical material has sound absorption coefficients up to 82% at 512 cycles. In addition to its sound controlling properties and low-cost maintenance, Corkoustic is particularly valuable in this area—or other intermittently heated rooms—because

it provides excellent insulation. This permits faster, more economical heating. Furthermore, the attractive factory-applied pastel colors help cut lighting costs because they have high light-reflection value.

Corkoustic can be vacuumed, washed, and repainted. It does not absorb dust or dirt. Let us send you all the facts about Corkoustic. See *Sweet's* or write today for our free file-sized booklet, "Tune Out Noise." Armstrong Cork Company, Building Materials Division, 1245 State Street, Lancaster, Pennsylvania.

Armstrong's ACOUSTICAL MATERIALS

CORKOUSTIC



TEMCOUSTIC

NEW EQUIPMENT

(Continued from page 124)

Cold-Storage Rooms

FACTORY-BUILT cold-storage rooms for exterior and interior commercial requirements are marked and delivered to the building site ready for assembling. They consist of interlocking wall and ceiling panels, and floor sections which, it is claimed, can be erected without skilled labor. Partition walls can be installed to provide as many separate compartments as are required, so that various temperatures can be maintained within the unit. Any type of refrigeration system may be used in them, and each unit is custom-built to suit the specific needs of the buyer. Commercial uses for the "Low-Temp" include refrigerated-locker storage, quick-freezing rooms, aging and cooling rooms, and storage rooms for a diversified list of products. Low Temperature Equipment Co., Kansas City, Mo.

Duct-Less Air-Conditioning Unit

THE NEWPORT air-conditioning unit, for either two-pipe steam or forced hot-water systems, cleans, humidifies, warms, and distributes air. Installed in the house like a convector or radiator, by any heating or piping contractor, the unit is fully recessed, with intake and supply grilles, flush with the floor and wall respectively. Cold air is drawn by blower-type fans through the floor grille, passed through the filter, humidified by an evaporator-type humidifier, warmed by passing over a finned heating element, and distributed throughout the room. Maximum heating capacity is 18,000 Btu per hour. Though designed for winter air conditioning, the unit can also be used in summer for filtering and circulating air. Crane Co., 836 So. Michigan Ave., Chicago, Ill.

Low-Cost Room Coolers

SPECIALLY DESIGNED for cooling private offices or rooms in homes, are three new Mobilair room coolers with Btu-per-hour capacities of 4,000 (for nighttime use in bedrooms), 6,000 (daytime use in private offices), and 8,500 (for larger rooms.) Quickly installed directly into the window frame and attached to a convenient outlet plug, the units project but a few inches into the room. When cooling is not needed, the units act as window ventilators. They are backed by a five-year protection plan. Air-conditioning Department, Westinghouse Electric & Manufacturing Co., East Springfield, Mass.