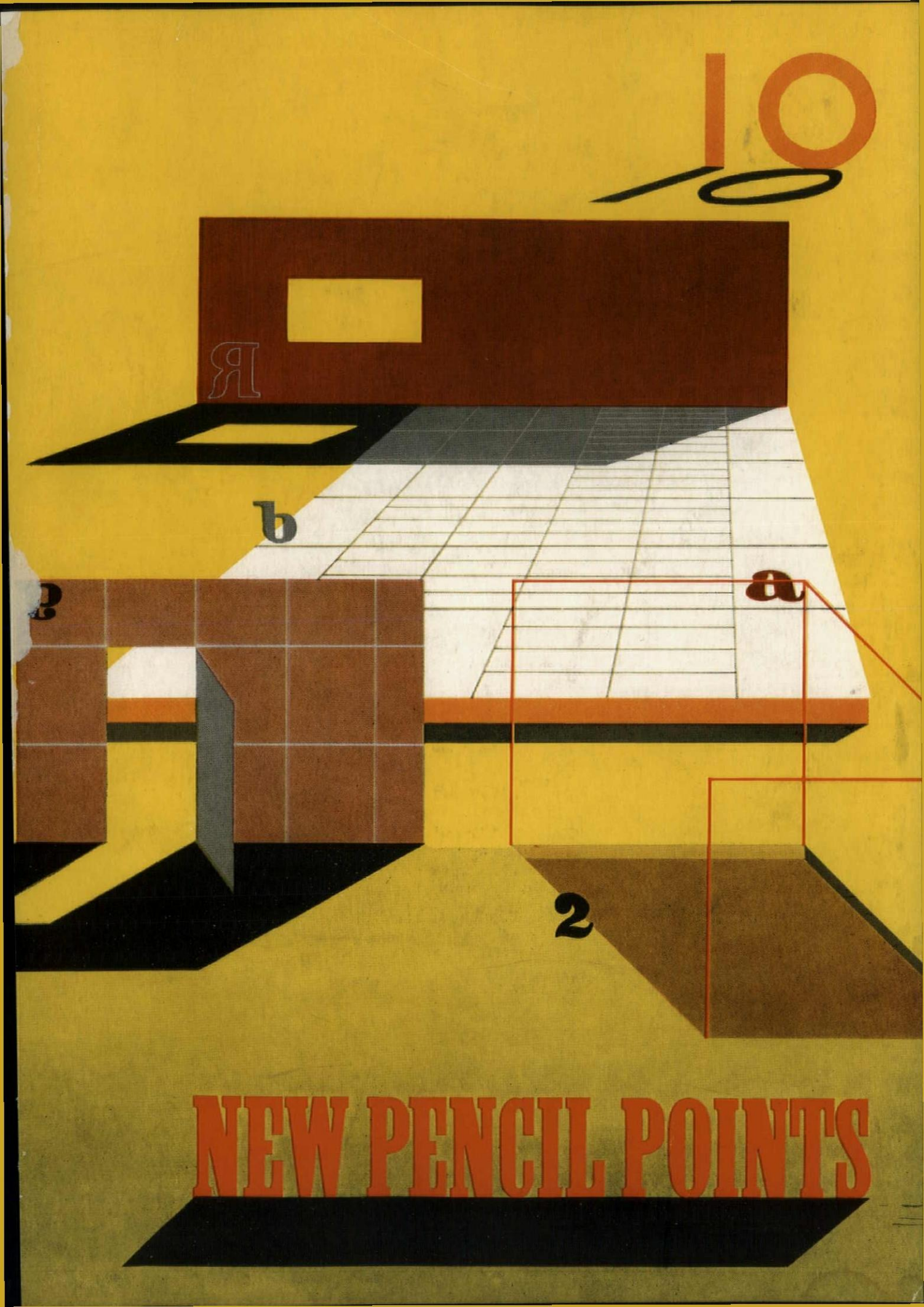
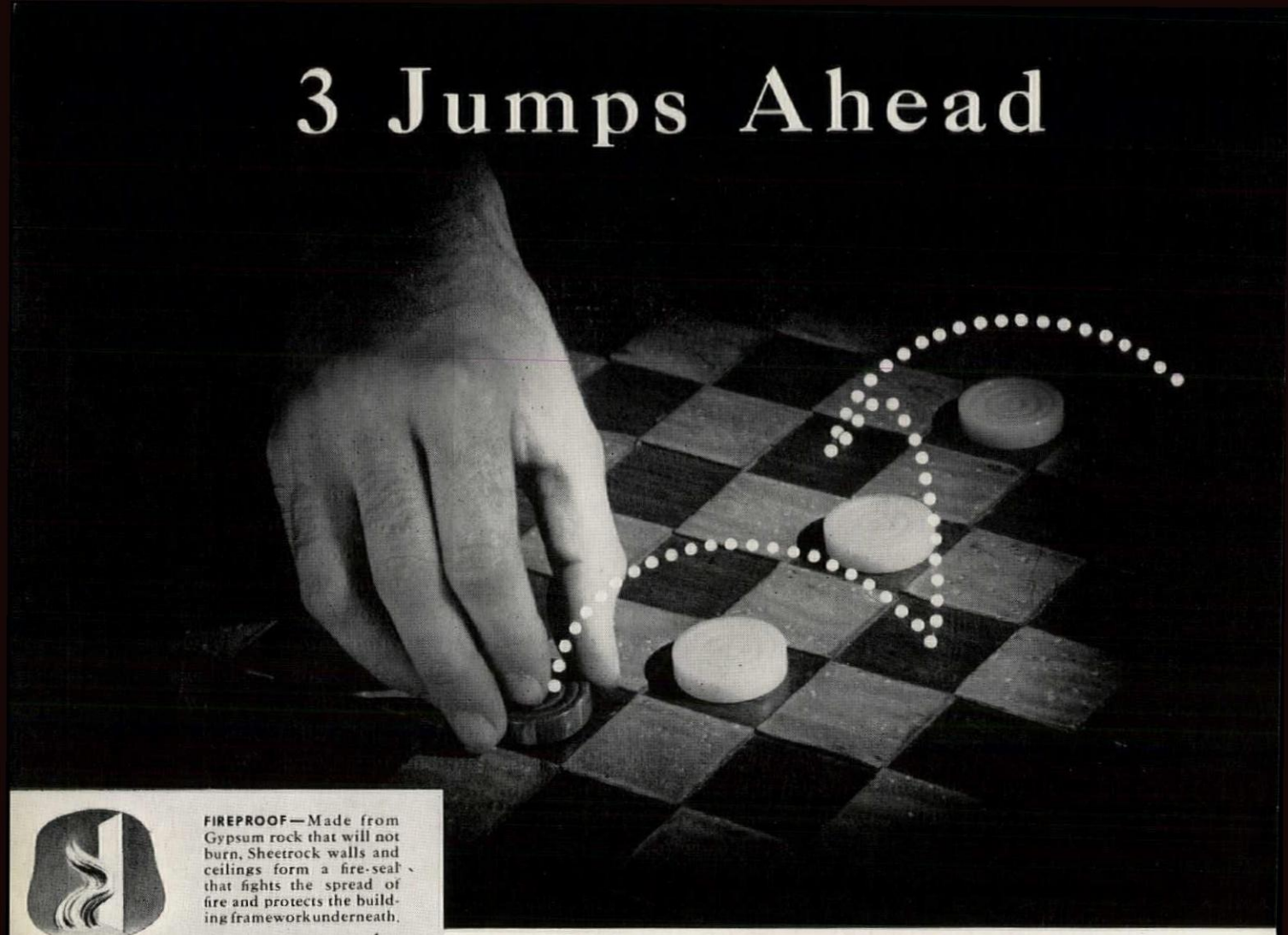

10
b
a
2
NEW PENCIL POINTS

3 Jumps Ahead



FIREPROOF—Made from Gypsum rock that will not burn, Sheetrock walls and ceilings form a fire-seal that fights the spread of fire and protects the building framework underneath.

TAKES ANY FORM OF DECORATION—Any finish that is sprayed, brushed or pasted on may be successfully applied on Sheetrock; or it may be purchased already decorated—ready to apply.

WELDED WALLS—Panel joints concealed and welded together by Perf-A-Tape ... stronger than the panels of Sheetrock themselves.

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SHEETROCK

"Fire-Sealed" WALLS AND CEILINGS

ONE . . . Walls and ceilings of Sheetrock*, the fireproof wallboard, form a "fire-seal" that fights the spread of fire and protects the building framework.

TWO . . . The Pre-cast panels go up fast . . . save time and money—trim and decoration can go on immediately.

THREE . . . Broadest choice of color, texture and treatment is possible—Sweeping, unbroken surfaces may be had—joints concealed and "welded" with Perf-A-Tape* "joint system" or made a part of the decoration with "Panel-wall" method. The ivory surface takes any form of decoration or the panels may be purchased alrea finished in color or woodgrain effe

Established through twenty-f years of use, improved with an eye the future . . . research and devel ment have made Sheetrock ligh stronger, and provided many ed treatments, thicknesses, sizes and ty adaptable to every modern use.

Always stepping ahead . . . living to the finest building traditions, p viding fire protection, adaptability enduring beauty—Sheetrock sta alone today as the best known most widely used gypsum wallbo in the world.

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The American House

A lot of twaddle has been written and printed recently about the postwar house. In any newspaper or magazine today we are likely to find it pictured by some over-imaginative reporter as a miracle of mechanical, electrical, and chemical ingenuity that will afford completely effortless living at a cost within easy reach of the low-income family. In another place we may read where a solid citizen, both feet firmly planted on his real estate, thumbs in the armholes of his vested interest, solemnly predicts a complete return to the "normalcy" of the Cape Cod Cottage.

Of course, the postwar house will be both of these things—and neither. It will be as various as the tastes and understanding of our people are varied. Many an architect will be called upon to "design" reproductions or popular approximations of Colonial or English or French or other types of houses built long ago in distant places to meet entirely different conditions. At the same time, there will be plenty of opportunities for creative spirits to reach out with daring experiments in space arrangement, freshly invented constructional systems, and the free use of newly available materials. Somewhere between these extremes will lie the average. Whether the average moves up or down in the course of the coming years will depend on the amount of life that pulses through the profession of architecture. We are betting it will move upward.

To help raise the average it is our duty as a professional magazine to throw our weight toward the side of progressive design. Thus we devote most of our space to houses and other buildings that show advanced thinking rather than the reverse.

We, too, have our sentimental side. We can admire and thrill as much as any man at the magnificent specimens of architectural art dating back through the centuries. We have felt the charm of the Cotswold cottages, the provincial homes of France and Spain and Sweden, the small houses and mansions of our own Early American and Georgian era. All these things are known and loved for what they are—expressions of the life and times that produced them. We see, however, no valid reason why American architects of today should be content to continue indefinitely to reproduce or adapt their forms into the new buildings they design for our own times. We believe they can do better than that.

We are glad that our young men, and some not so young, were developing—before the war and even during it—a direct, honest, and unpretentious residential architecture, expressive of today's modes of living in the United States, free from the affectations of stylistic thinking, built economically of the best available materials both natural and synthetic, equipped with the products of American invention and manufacturing skill. What they are producing is not a "style"—it is Architecture, and it is American.

Architecture is a universal art, practiced with varying degrees of skill by all mankind throughout history. Its processes of analysis and synthesis are common to all who build or have built purposefully in all lands and at all times. It has a international basis for its thinking. Yet its end-products, buildings, are and should properly be as different as the regions of the world and the needs of their inhabitants are different.

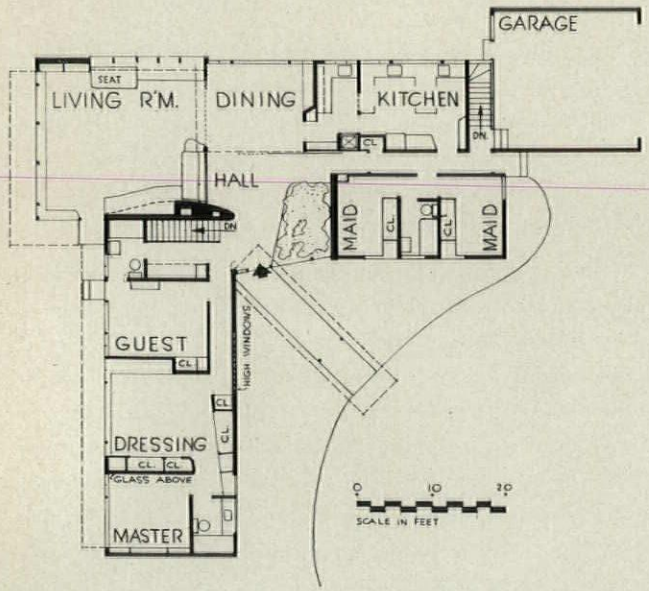
What we should seek, therefore, is neither an International nor an American "Style" with earmarks and details to be copied by the unthinking in all corners of our country. What we must look for is a true Architecture, expressive of the needs and conditions of the localities that call it forth. And insofar as each locality within our borders is in its own way American, the architecture will be inexorably American. Its qualities of greatness or mediocrity will be a measure of our culture.

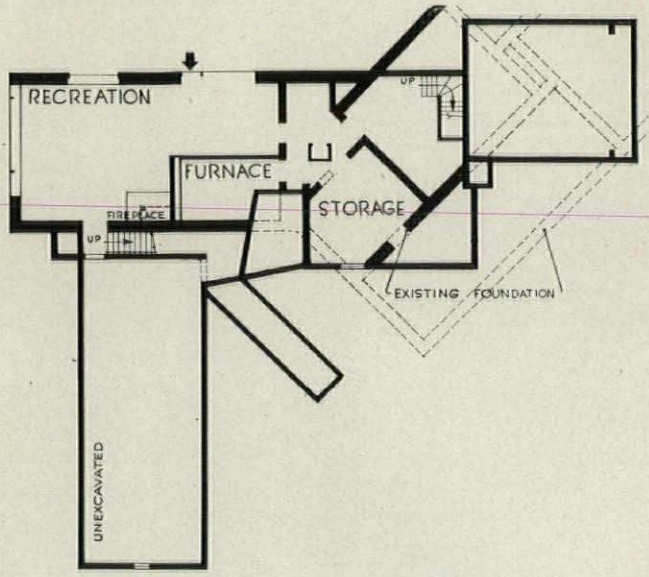
We are not afraid to leave the future of the American house in the hands of the rising spirit of American youth.

Kenneth Reid

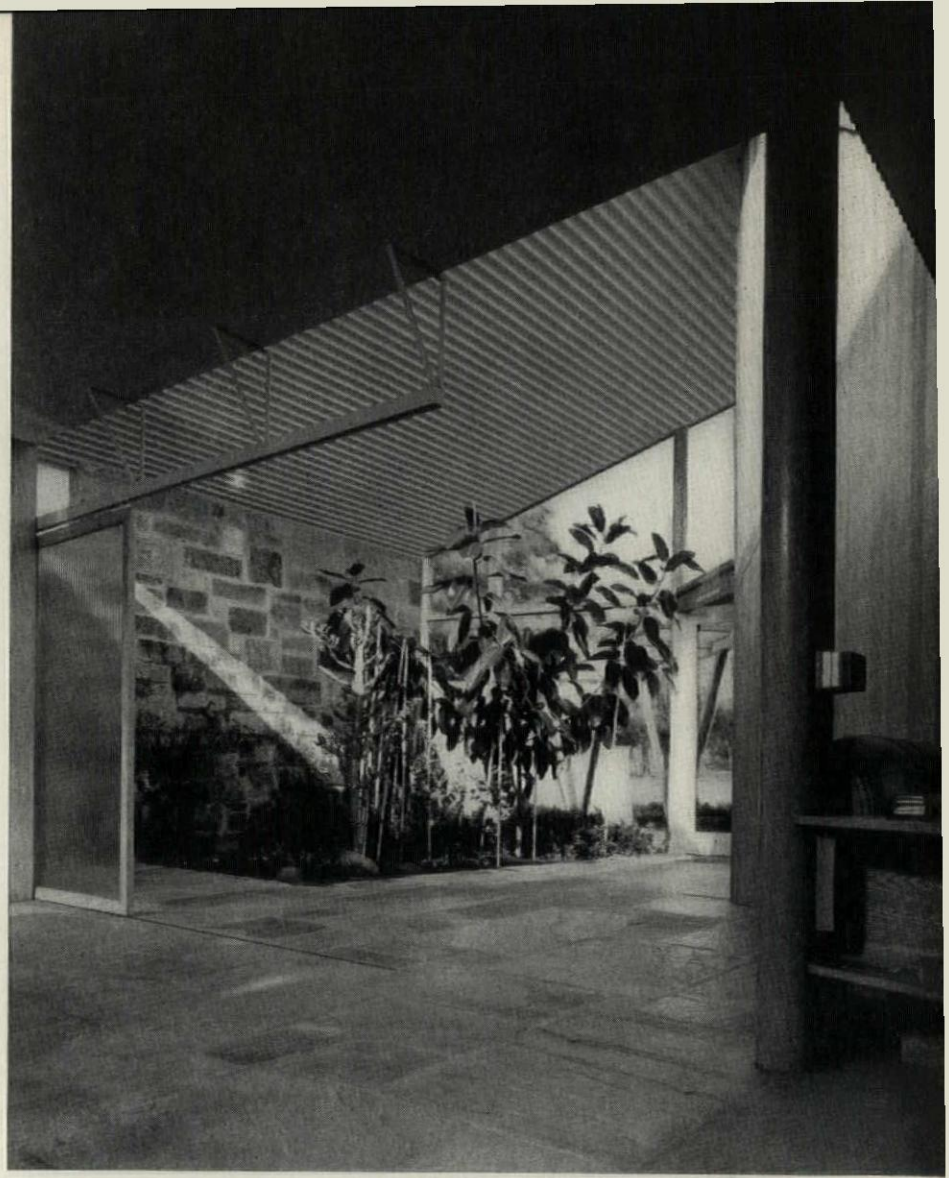
Contemporary Home Replaces Expensive Victorian Mansion

Carl Koch, Architect

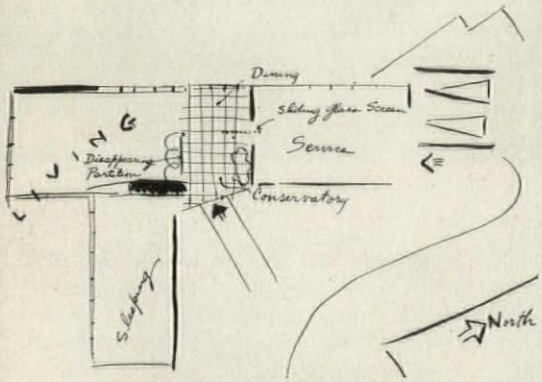




All photos by Ezra Stoller



Conservatory hall has exterior wall of glass, skylight above. Stone floor extends into dining area. Conservatory planting was designed by Christopher Tunnard, who also devised landscaping which has not yet been fully realized.



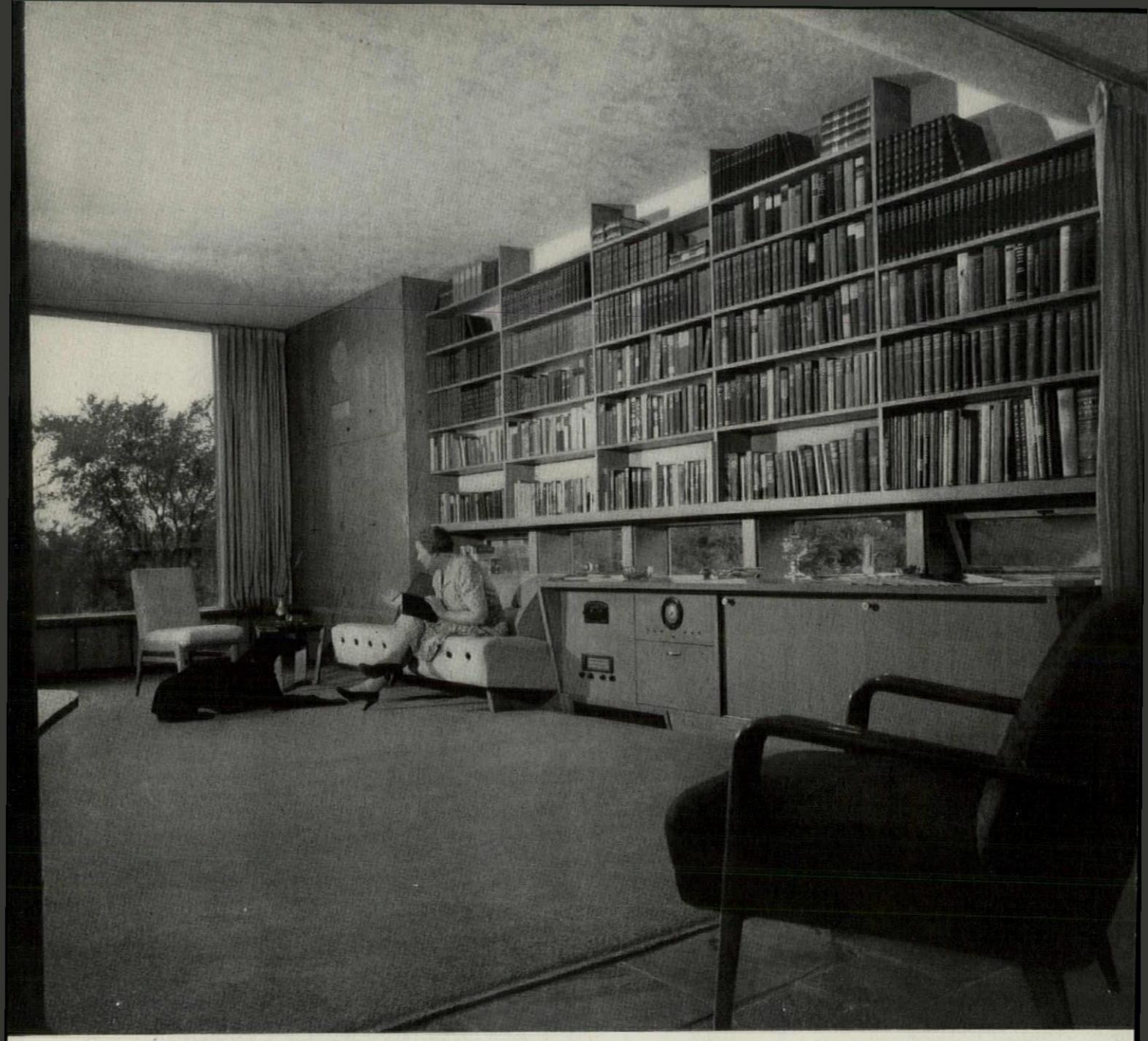
Living room, dining space, and conservatory-hall can be thrown together into a single living area or subdivided by a curtain, a glass screen which slides horizontally, and a wood partition which drops down to the cellar. Fluorescent tubes in cove at darker end of living room provide low-intensity general lighting; other special fixtures are used in dining space. All fixed sash are glazed with special heat-resisting glass.

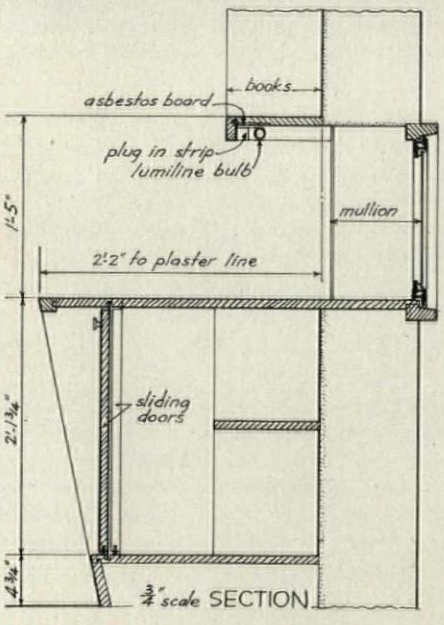
Mr. and Mrs. George Wallace, of Fitchburg, Massachusetts, wanted a home which would be comfortable to live in, easy to maintain, and would, as the saying goes, "work" in every respect. They were not interested in pretension; they had raised a family in one of those large Victorian houses that provide plenty of space without convenience. They had a good-sized plot of ground, on which stood the many-roomed monument to the house builder's art plus a large garage.

They were typically American in their desires, and were financially able to satisfy them. Their house reflects them: it is as open as they are open-minded; hospitable, sure of itself, un-selfconscious; equipped with everything modern technology can offer in the way of soundly developed labor saving devices, yet never blatant.

That is why this description starts with personalities, and with the inside of the house first. In looking at pictures and plans of it one cannot help but become acquainted with Mr. and Mrs. Wallace. When one realizes how well everything in it is coordinated—plan relationships, use of flowing space or segregated area as needs dictate, structure, lighting, heating, plumbing and all the array of modern gadgetry which serves without obtruding—one understands how close this house comes to being the ideal solution for this particular case. It neither strains for effect nor rubbernecks wistfully at a past architectural style. It will be a hard house for the unimaginative to copy, but it may be in some measure inspiring.

The Victorian mansion and the garage were razed. The plot, too large for the Wallaces, was subdivided into four sections. On one of these, on the foundation of the garage, the new house was built. The owners wanted everything on one floor, with no changes of level. Mr. Koch tells us they likewise "had the usual desire for simple maintenance, etc. Other main considerations were provisions for a fancy radio with hookups in several parts of the house, and a combined study-dressing room." He modestly neglected to point out the extreme simplicity of the result.

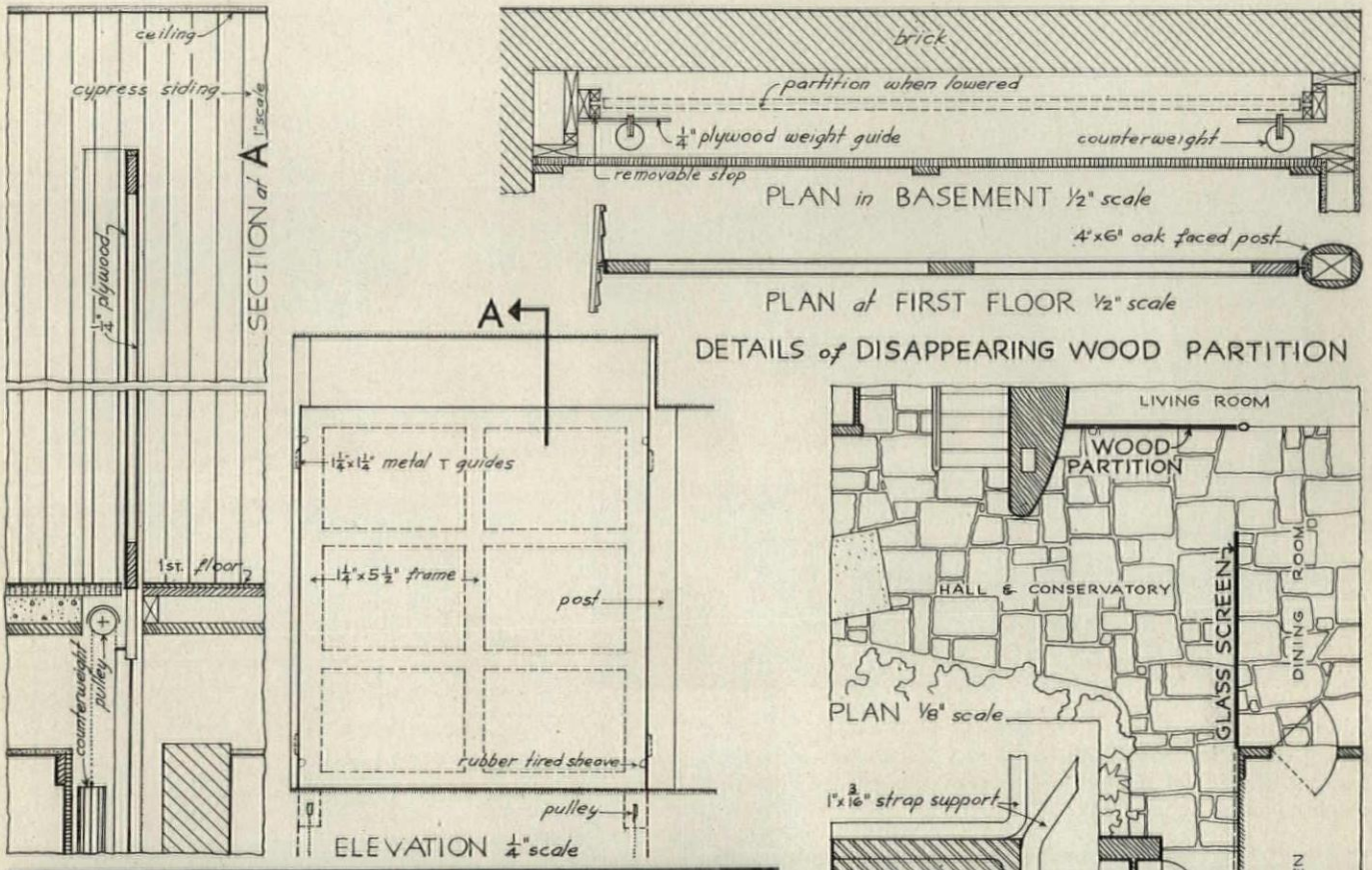


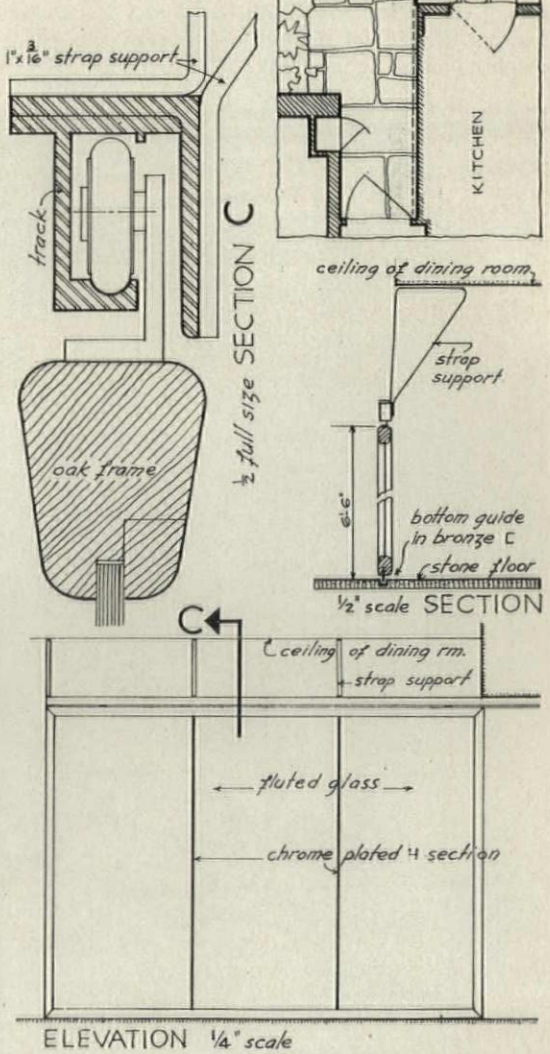


Record cabinets, built-in radio, phonograph, and couches were designed by the architect, who also designed the beds, dressing cabinets, and similar furniture. Dan Cooper did many of the remaining pieces, and L. L. Rado is responsible for some. Some sash between bookshelves and radio cabinets are fixed, some openable. Fixed units consist of double thicknesses of heat resisting glass. Sash are steel. The picture window at the end of the room extends across its entire end, and can be covered by drawing the simply hung curtain.

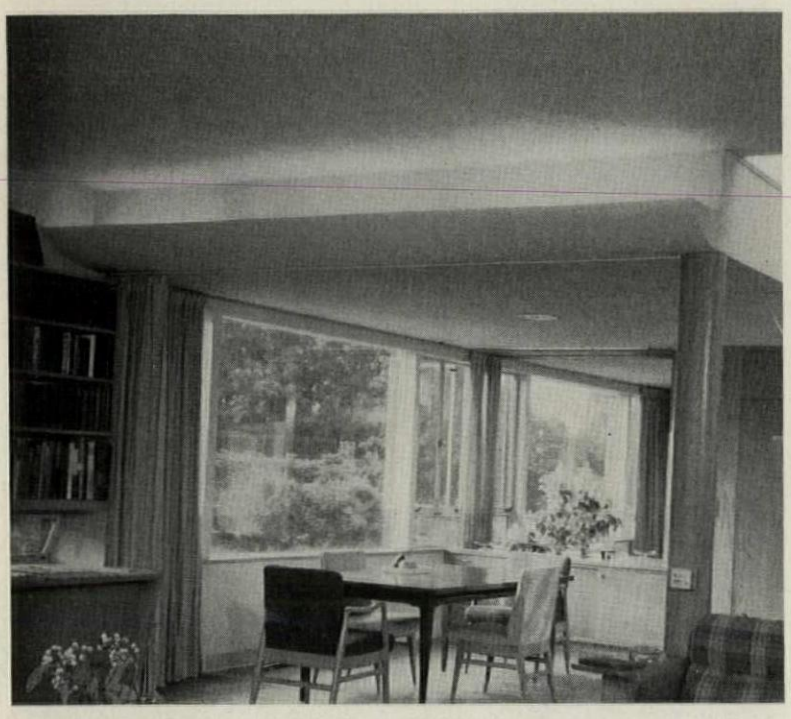
Notice, in the drawing at the left, that the bottom bookshelf houses a continuous outlet strip and tubular incandescent lights.

Selected Details: Curtain and screens permit a single large living area to be subdivided into living room, dining room, and conservatory-hall; Wallace House, Fitchburg, Mass. Carl Koch, architect.

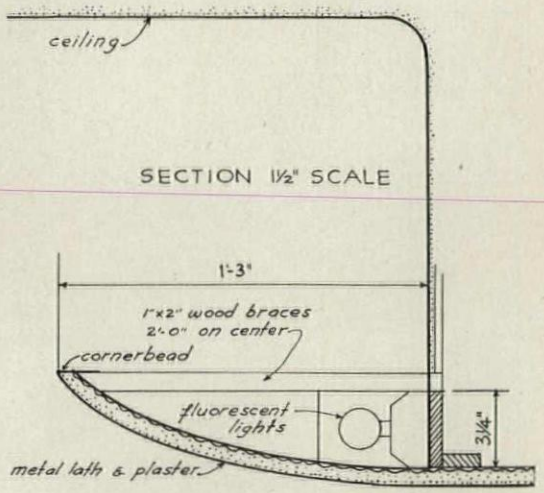




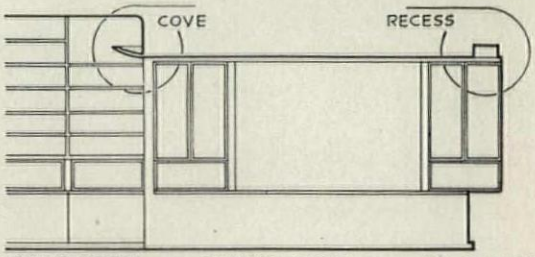
Selected Details: Special lighting fixtures replace portable lamps; Wallace House, Fitchburg, Mass. Carl Koch, archt.



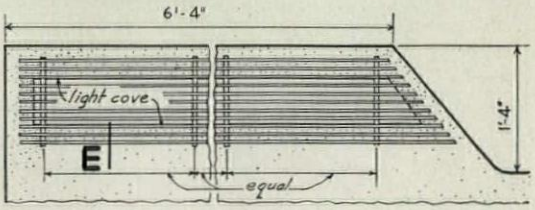
Above, cove light at end of living room, with dining area beyond. A flush ceiling fixture is centered over the dining table. Built-in buffet with mirror back, at far side of dining area, is also shown below. Over the buffet is another built-in lighting unit.



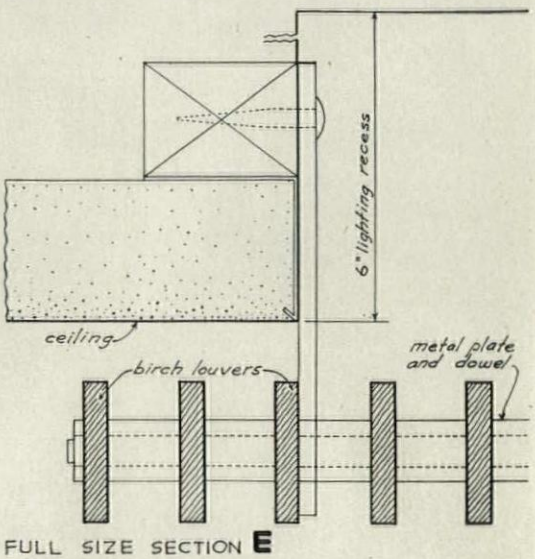
COVE LIGHT IN LIVING ROOM



SECTION



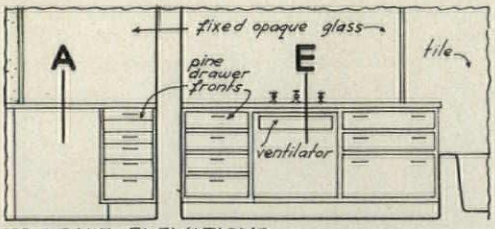
REFLECTED PLAN ½" SCALE



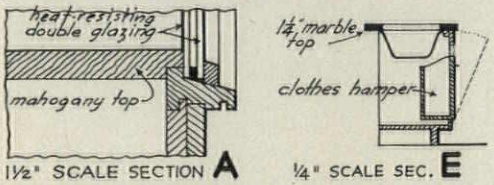
FULL SIZE SECTION **E**

RECESSED LIGHT IN DINING ROOM

Selected Details: **Built-in Furniture, Dressing Room and Study, Wallace House, Fitchburg, Mass. Carl Koch, architect.**

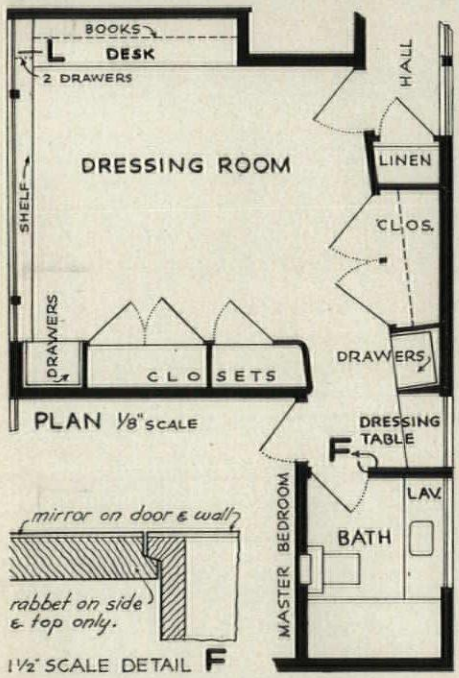


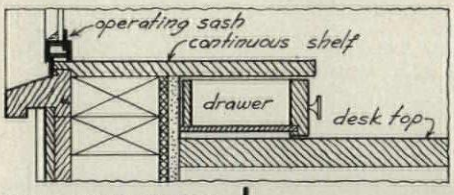
½" SCALE ELEVATIONS



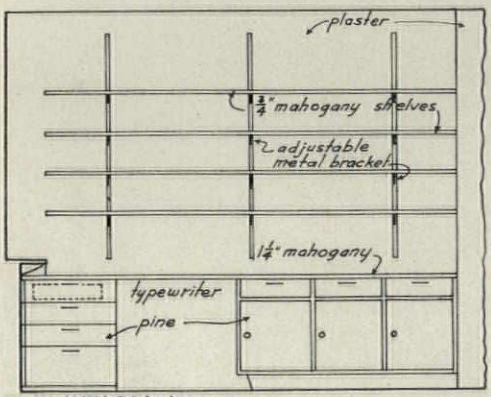
1½" SCALE SECTION A ¼" SCALE SEC. E

DRESSING TABLE & LAVATORY





1½" SCALE DETAIL L.



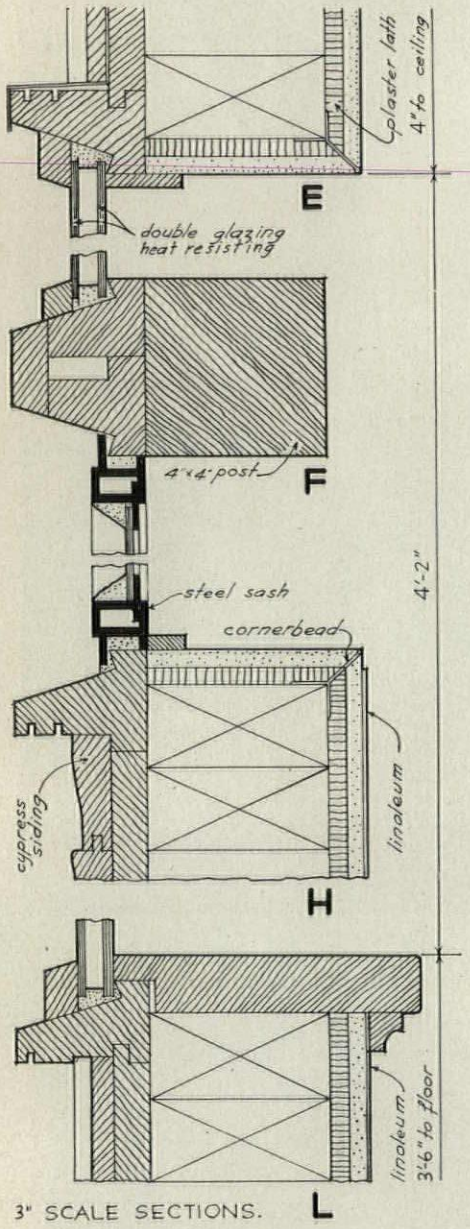
ELEVATION ¼" SCALE

DETAILS OF DESK

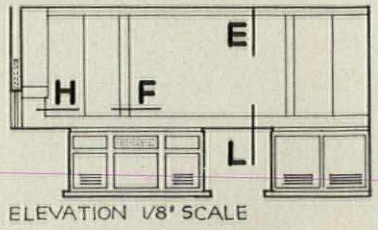
This dual-purpose room is between two bedrooms, quiet and secluded. Dressing table window is translucent, provides excellent natural light.

Selected Details: Kitchen and laundry, House for Mr. and Mrs. George Wallace, Fitchburg, Mass. Carl Koch, Arch.

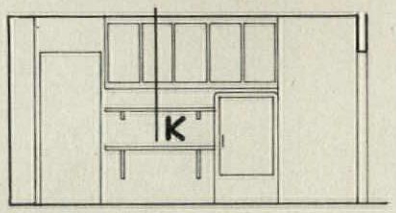
Standard units were organized into the unusual kitchen-laundry shown on this page. Omitting the partition between the two rooms not only makes them seem more spacious, it also makes counter space usable for both cooking and laundering. Note kitchen vent fan directly over range.



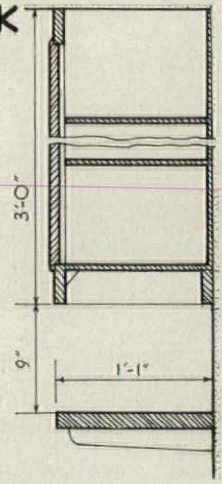
3" SCALE SECTIONS.



ELEVATION 1/8" SCALE

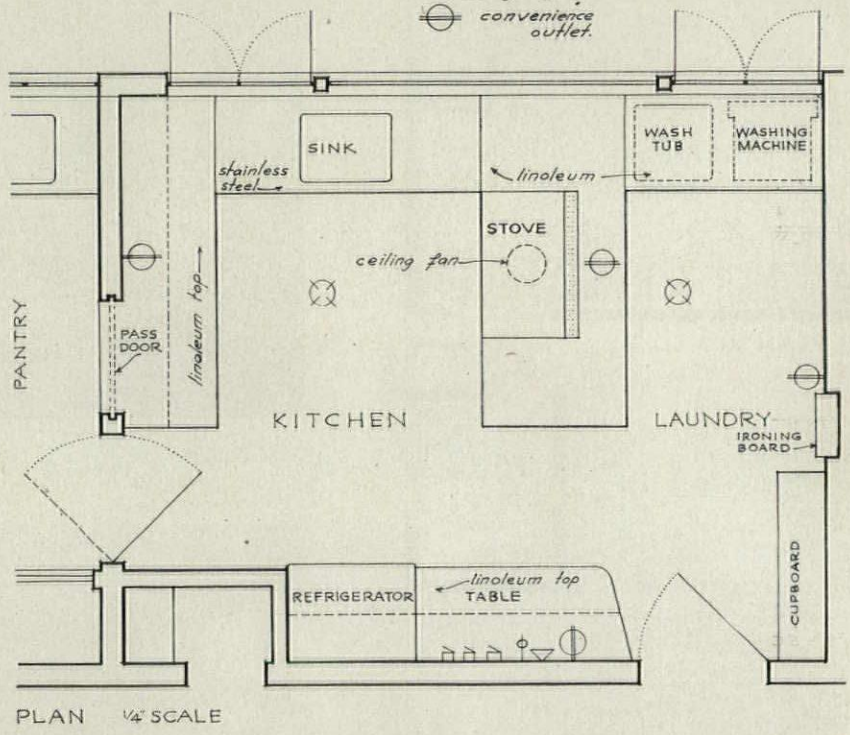


ELEVATION 1/8" SCALE

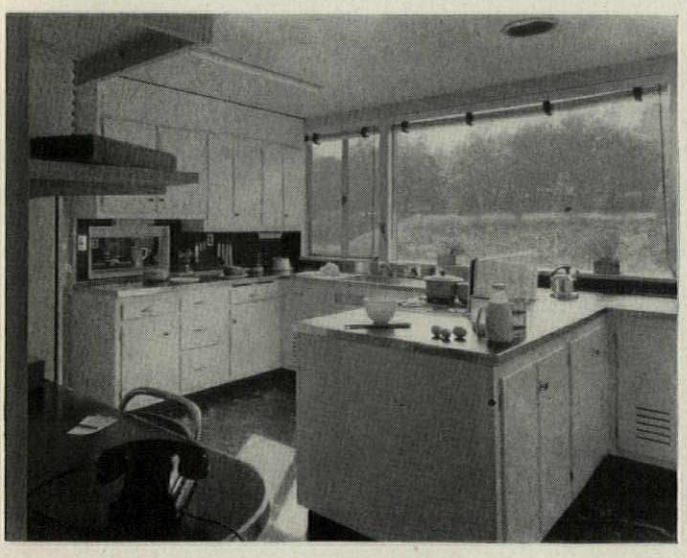


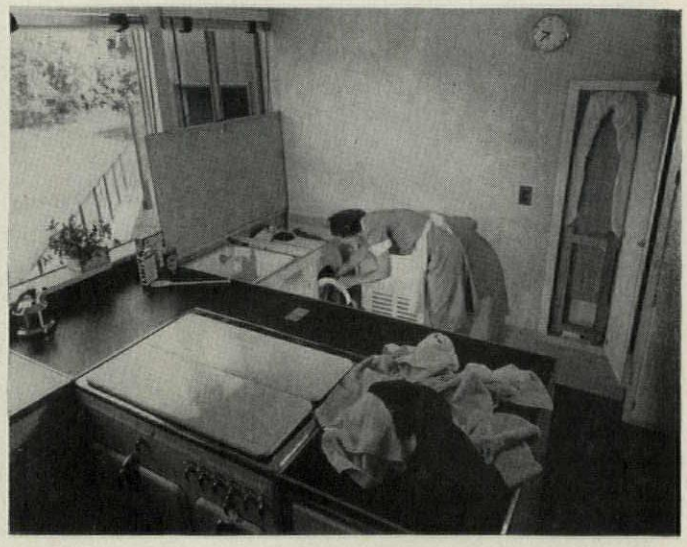
ELECTRIC SYMBOLS

- push button.
- buzzer bell.
- telephone.
- fluorescent ceiling lights.
- convenience outlet.

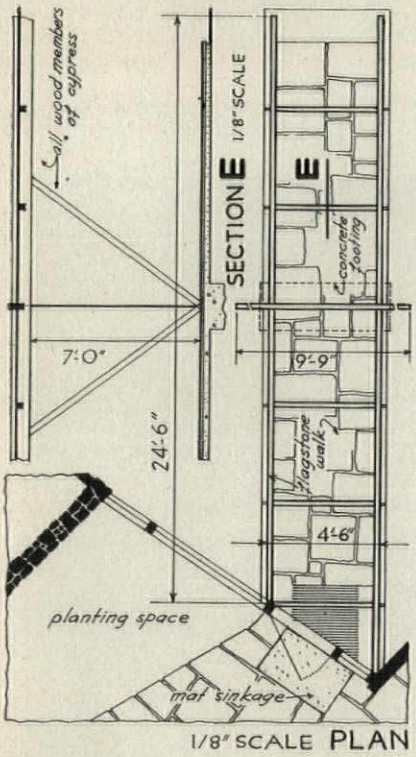


PLAN 1/4" SCALE



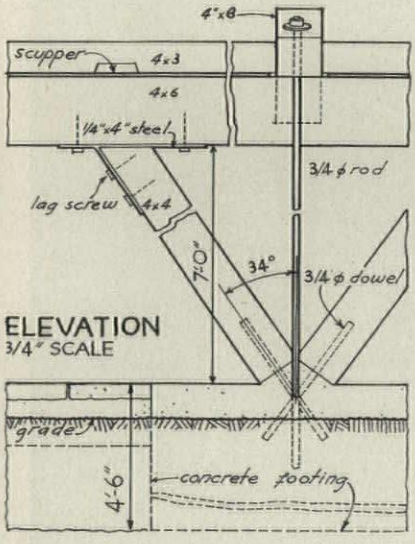


The owners wanted a porte-cochere to extend from the driveway to the front door. This door is glass, set in a wall glazed with heat-resisting glass, all of which admits sun to the conservatory-hall. In order to obstruct as little light as possible, the porte-cochere has a wire-glass roof which is supported on a wood frame.

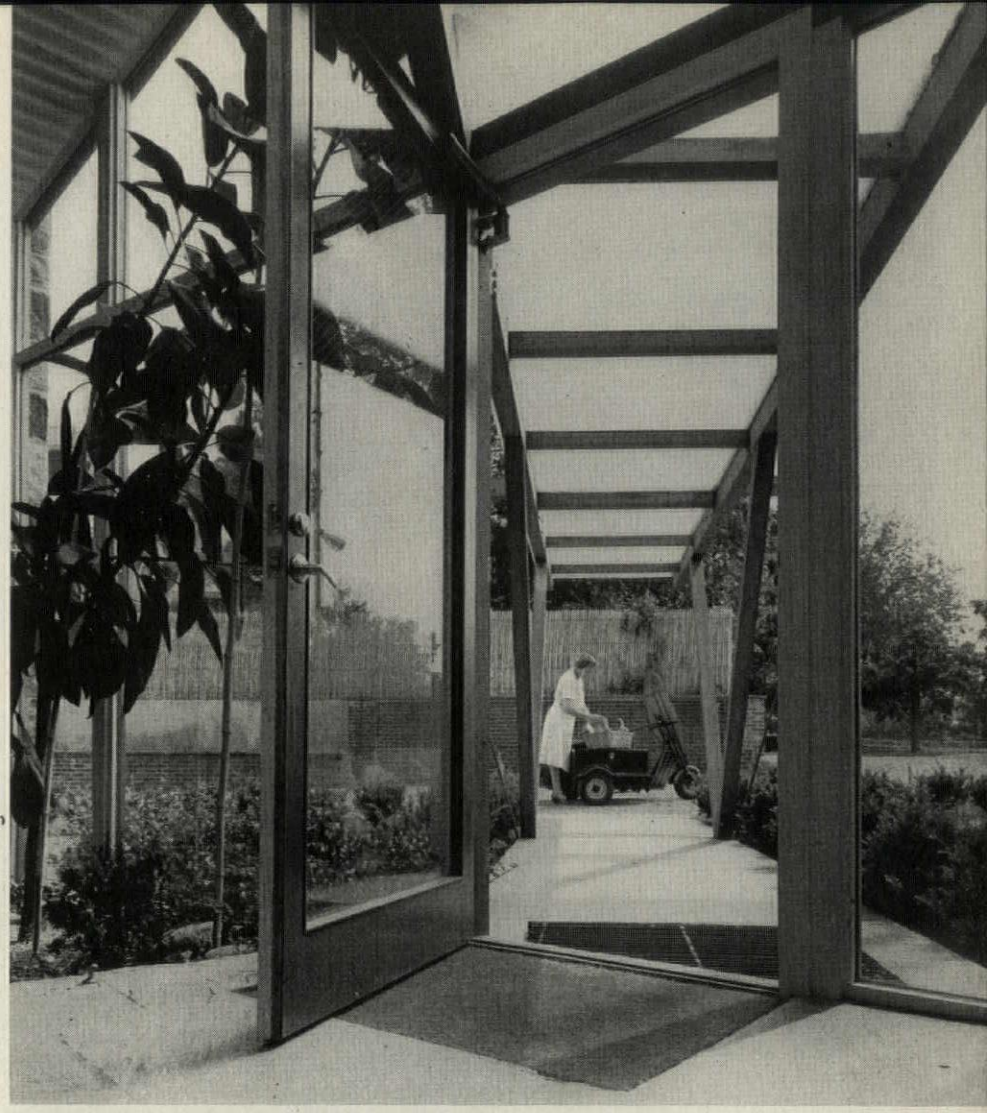


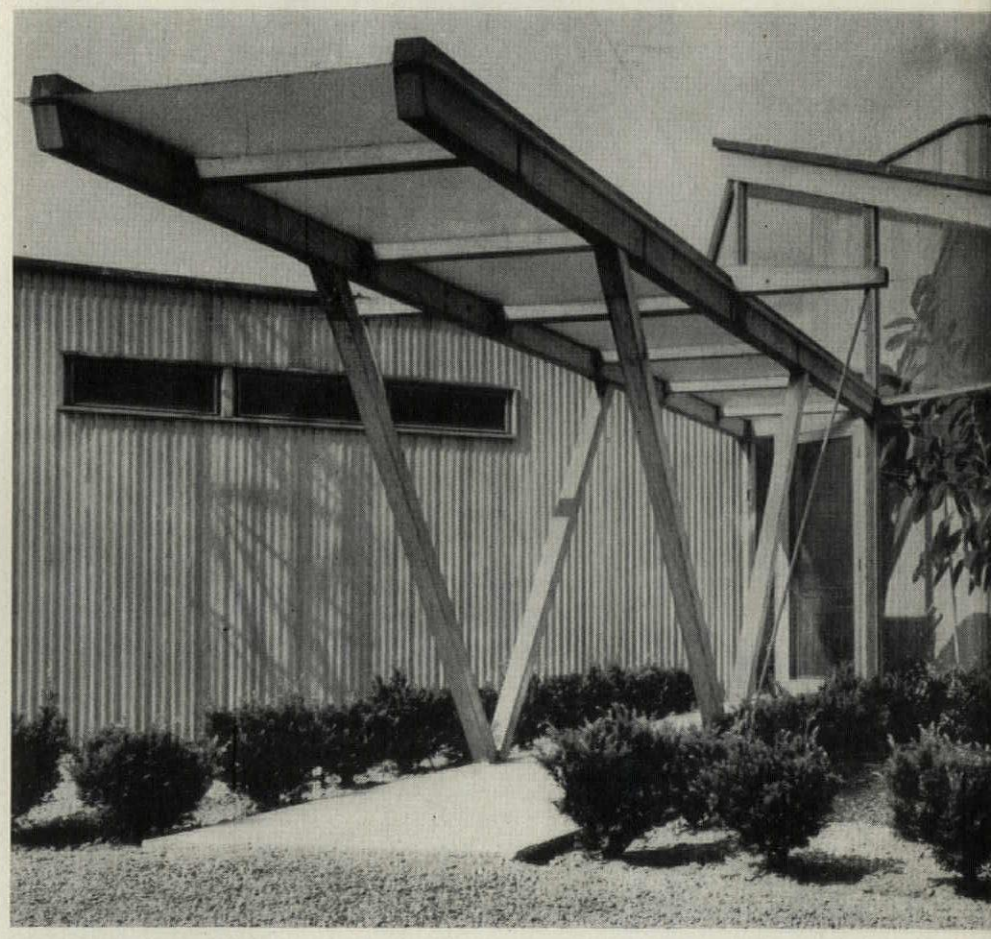
1/8" SCALE PLAN

SECTION E
3/4" SCALE

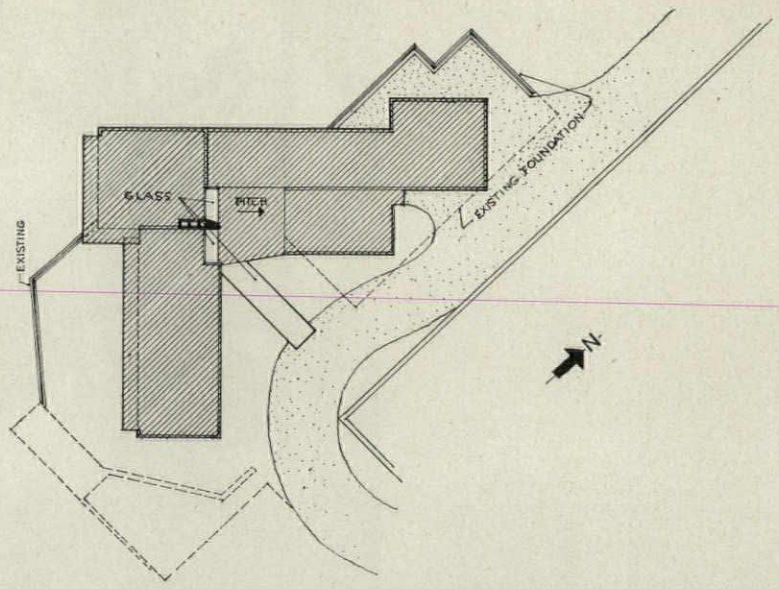


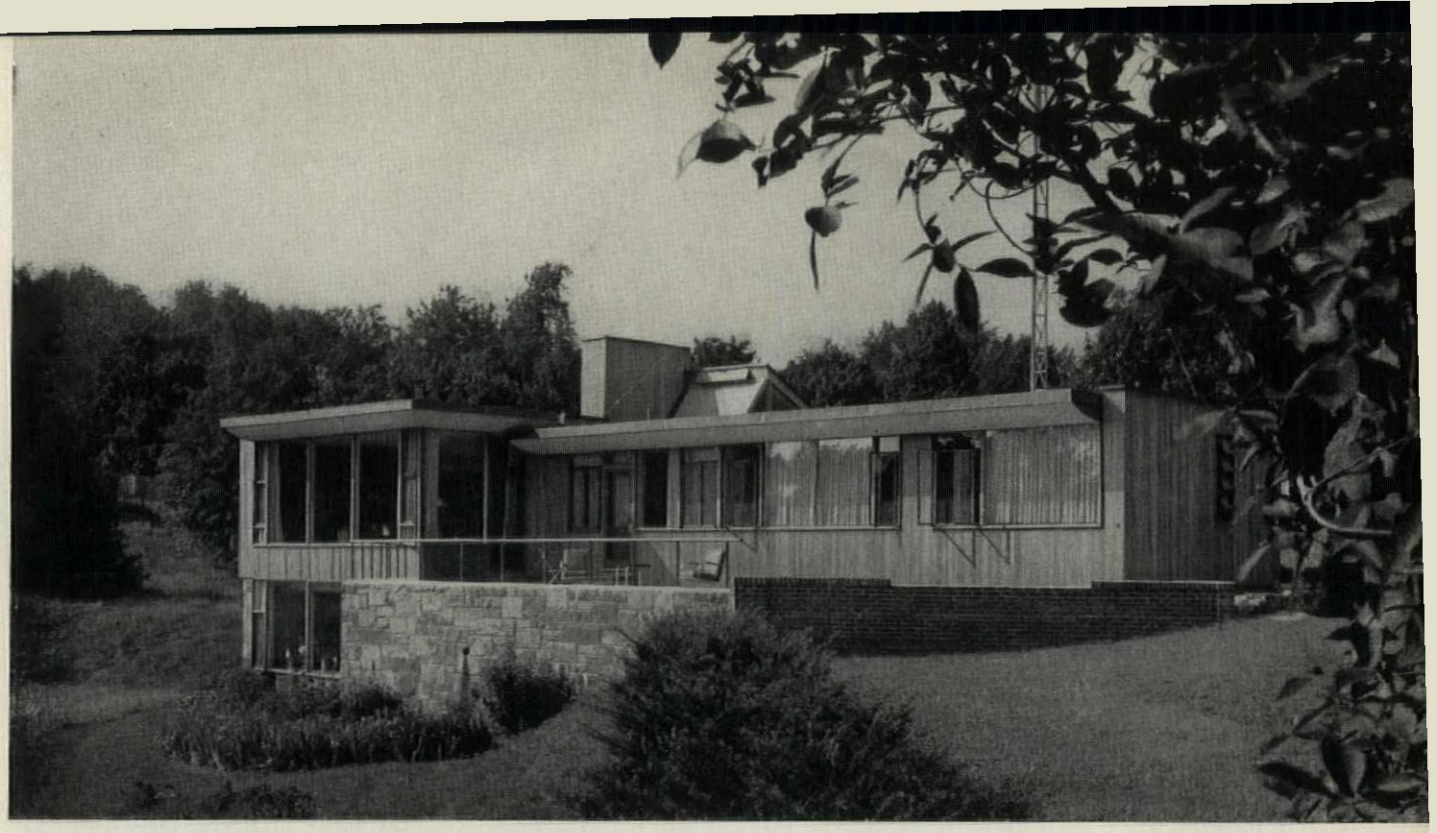
ELEVATION
3/4" SCALE





The site, as the photographs show, has several changes of level. Windows and door at lower floor, shown in the photograph below, indicate the position of the recreation room—the only part of the living area which is not at first floor level. The existing driveway was used for the new house. A special antenna was provided for the built-in radio. Note the clerestory, or skylight, which was necessary for the conservatory-hall.

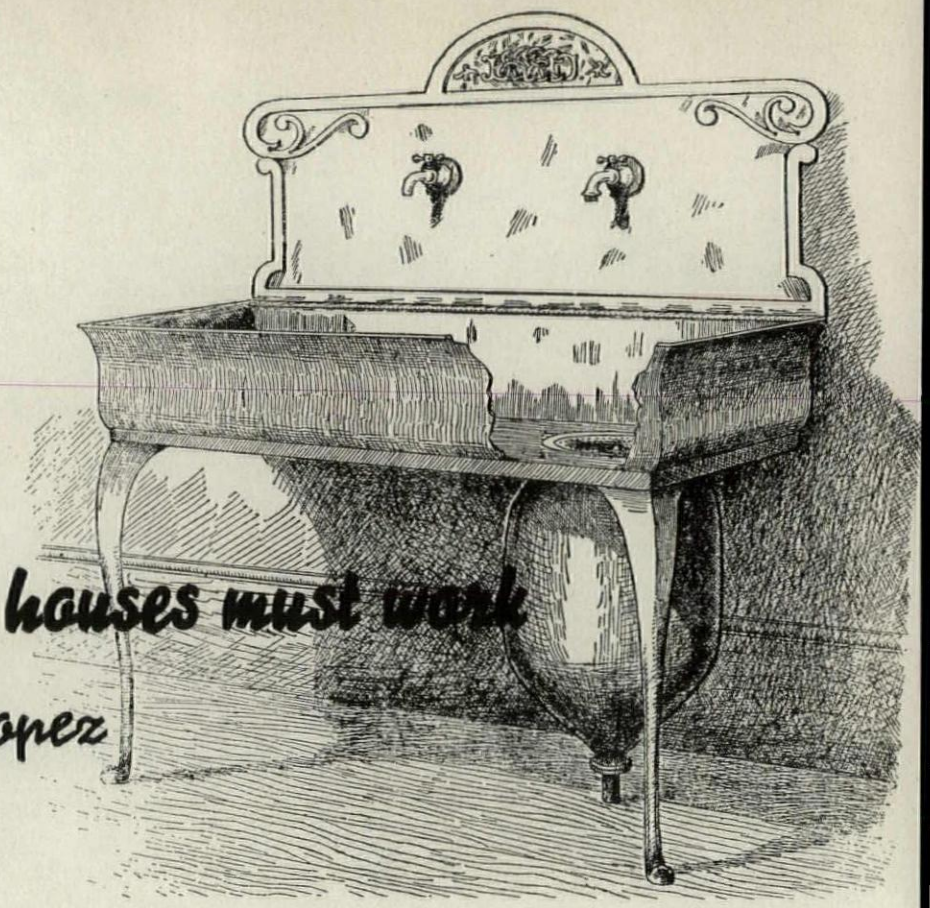




Terraces were made of the existing garage structure; above is the terrace adjoining the bedroom wing. Outside as well as in, the house is extremely simple. It is faced with vertical-grain tidewater cypress boarding, on the exterior, over stud framing. The boarding is specially molded, and is also used to face the chimney and fireplace breast in the living room. It is slightly tinted with a special finish. The roof is built-up, with a 15-year guarantee.

Walls and roof are insulated with mineral wool, 4 inches thick at the roof, 2 inches at walls. Interior wall and ceiling surfaces are finished with insulating plaster containing expanded mica. The stone floor in hall and dining area is Tennessee Crab Orchard. Openable sash are steel easements; all fixed sash have two thickness of heat-resisting glass, set in wood frames. In bath and kitchen, the floor is surfaced with linoleum; there is wall-to-wall carpeting in the living room.

The kitchen-laundry is equipped with stock cabinets, laundry machine, built-in ironing board, garbage disposal unit, and mechanical refrigerator. In addition to the specially designed lighting fixtures, there are some stock units, including one near the fireplace, in the living room, another over the dressing table, and several others. The garage doors are operated by a radio remote-control unit.



post-Victory houses must work

by Frank G. Lopez

Where Can We Go from Here?

We have gone a long way, here in America, in producing the materials and equipment which can help to make houses comfortable to live in and easy to maintain. Now we are being told that the postwar house is going to be entirely different. We also hear that it's to be much the same. Who's right? Why all this sudden pressure to think of new gadgets for the home—if they are gadgets? Technically, what is our present status and where can we go from here?

To answer the last question first, it should be obvious, to anyone deeply enough concerned to think the problem through, that we *can* go anywhere. The ingenuity fostered by this war, the development of new products to replace those which war denies us, the desire for equipment to do all kinds of things undreamt of in peacetime, and the great increase of manufacturing space—plus accelerated development of machines and trained workers—all make it not only possible but imperative for one of our greatest basic industries, the production of shelter, to advance scientifically.

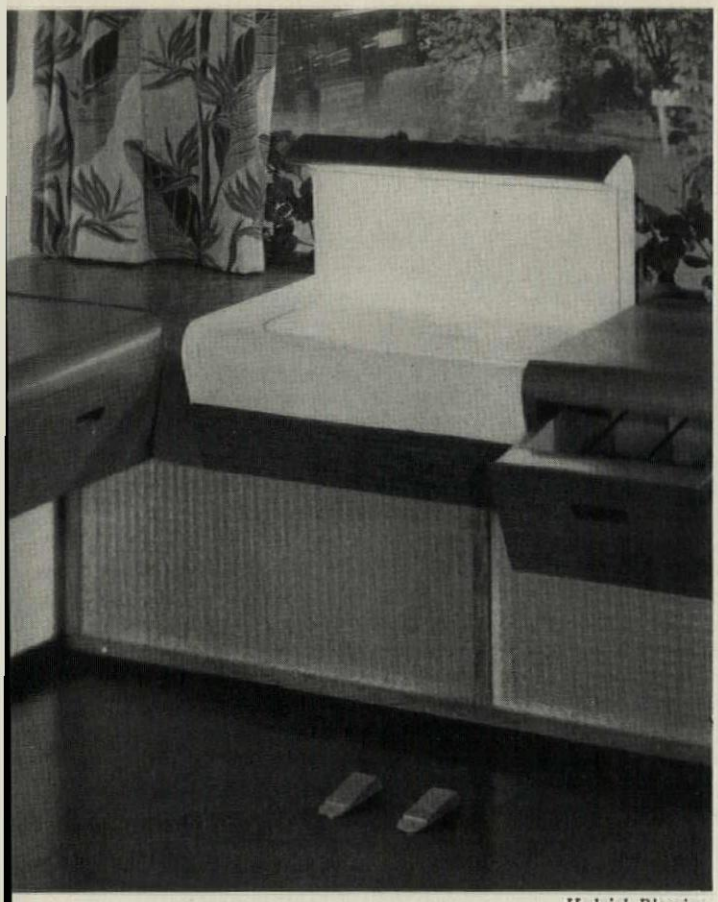
There are other factors, rooted in prewar conditions. Even before 1939 our great mechanical productive capacity outran the absorptive capacity of our homes, as they were ordinarily conceived and built. We tried continually to put into a house whose shell was conceived in Colonial days the comforts made available by 20th century technology and productivity. Also, by putting into reasonably successful practice the democratic principle of equal opportunity for all citizens, we increased the general social desire to possess the luxury items at first available only to the wealthy.

One result was that America provided more mechanically comfortable homes in proportion to its total number of families than almost any other country in the world. You have only to compare figures for sales of heating, plumbing, and electrical equipment, of gas and electric current, of washing machines, refrigerators, and the like, in relation to population, to believe such a statement. For a while we worried less than others about citizens who could not afford a high degree of comfort. We may have had fewer of them, relatively; but eventually the contrast between those who could and those who couldn't became so great that we dared not ignore it. Now we must worry about them, even in wartime, because we are awakening to the fact that low standards for the "have nots" can seriously affect the high standards of the "haves." Maybe it can even cost the "haves" some cold, hard cash!

This has a great influence on what we choose to call technical advance in house design, and on the development of products and mechanisms which can aid the architect. Consider the pattern of our development of machine production. We gain by making a small individual profit per item produced, if production is in great quantity. The opening of a vast new market, composed of all those whose homes have for so long been poorly designed, equipped, and built, offers a tremendous opportunity for quantity production. There are many who say that our present system of subsidy to provide adequate low-rent housing is bound to reach a limit sooner or later. There are some who are seriously studying ways for private capital to take over the job. (That there are also enterpreneurs who ride along with housing as the most expedient vehicle to a quick profit is a little beside the point here.)

The point still is that we *can* go anywhere. We face these definite demand factors after the war: *First,* an obsolescent kind of private house in great quantity, some of which must be remodeled to avoid losing a substntial investment; *Second,* an unheard-of number of new private dwellings, to build which there will be both need and funds; *Third,* a certain quantity of new multifamily housing to be provided for the financially able; *Fourth,* a great amount of housing for those we now call under-privileged, in the form of detached houses, multifamily dwellings, dormitories, etc.

Such is, we have every reason to believe, the postwar market. Is it going to be satisfied with types and kinds of equipment and products we have been used to in the past?



Hedrich-Blessing

The latest things in kitchen sinks: On facing page, in 1885; on this page, 1943. The 1885 sink had a huge flushpot beneath it, in which several gallons of waste water was accumulated and then released by a pull on a plunger extending up through the sink strainer. Object was to flush out grease. The 1943 sink was designed for a glass manufacturer, for a kitchen in which glass was put to work in a modern way. This sink has foot pedals instead of faucets, and, like other counter-height units in the kitchen, a lift-up top which houses a concealed light.

What's New?

We have been bombarded with pictures of the shape of things to come until we're a little bewildered. Of materials, we are told we will be able to use many brand-new to house-building, such as "plastics," and many more which have changed their form, such as wood, metals, or glass. Of equipment, we hear most about refinements on existing products, plus an occasional new way of satisfying the old need: a free-standing refrigerator; a gas-fired air-conditioner and cooler; a less costly electrical system; or a more efficient range.

Of one subject we have heard less, although a few manufacturers and magazines have paid it public attention: *The relationship between these "new" developments and good house design.* This is regrettable, because a house design which does not take full advantage of the best materials and equipment available restricts the desire for the best our technology can produce, hence limits sales, which limits production, which limits the possibility of wide distribution at low cost, which, ultimately, affects adversely our national standard of living.

We cannot consider the new products by themselves. We must consider them in use, *full* use. We must have homes designed to take advantage of the products of our ingenuity.

What's new? is a question which, in the long run, will be answered by the people who will do the buying. What they ask for will be what's new; and it is within the power of the building industry to make them ask for whatever the industry chooses. However, the buying individual can ask only for the products and equipment with which he is familiar. Education, to enable him to understand what is available, comes to him both from the building industry—manufacturer, builder, financier, and architect —and from his experience in other fields.

Savings of war-swollen incomes; use of increasing numbers of women in industry; experience of both men and women with new industrial environments (air conditioned plants, better light, for example); and the broader experiences of many men and women in our armed forces, who are learning to live according to foreign, unfamiliar standards—these are some of the influences which may stimulate appetites for home environments better than those generally available in the past.

The manufacturer—through his readiness to accommodate the buyer, through research into ways of using in times of peace the products-for-war, and through further stimulating the public to expect something brand-new, come peace—is contributing to the buyers' education even now. A few builders appreciate the prospects, and are adding their contribution. Many architects are doing so. Of those who finance home building, apparently not so much can be said; it is hard for men trained to evaluate a home in terms of the familiar to appraise new developments and the buyer's satisfaction with them. Building codes likewise are in general arbitrarily prohibitive of untried equipment and techniques of building. Those who formulate codes, control financing, and, to a greater or lesser degree, those who build, would seem to be in need of some of the "education" which has to be directed at the home-buying public.

The team to do this consists of the architect, who should be able to coordinate all these up-to-date materials and equipment into designs which will satisfy our way of living; and the manufacturer, who is bound by the nature of our economy to develop markets for his productive capacity. The architect's principal educational tool is the example of his work—project, completed house, or housing development of one kind or another. The manufacturer's tools are many: example, not only in demonstration houses but also in wide distribution of his products; advertising, that force which is often poorly applied, occasionally well used; and the mere fact of production which increases wealth and so generates a public capacity to absorb the product.

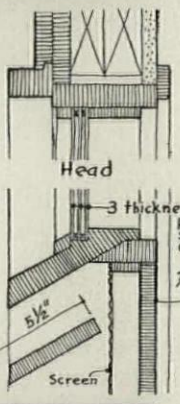
Well Then, What Kind of House?

We laugh at the first automobile, but we revere the Colonial house. We have a superior sort of affection for Bell's first telephone and we passionately defend Tudor, bastard Spanish, French, and Real-Estaters'-Shoebox styles of domestic architecture. Something's unbalanced when in one walk of life we perfect Radar and domestically revert, like St. Simeon Stylites, to the column or its equivalent.

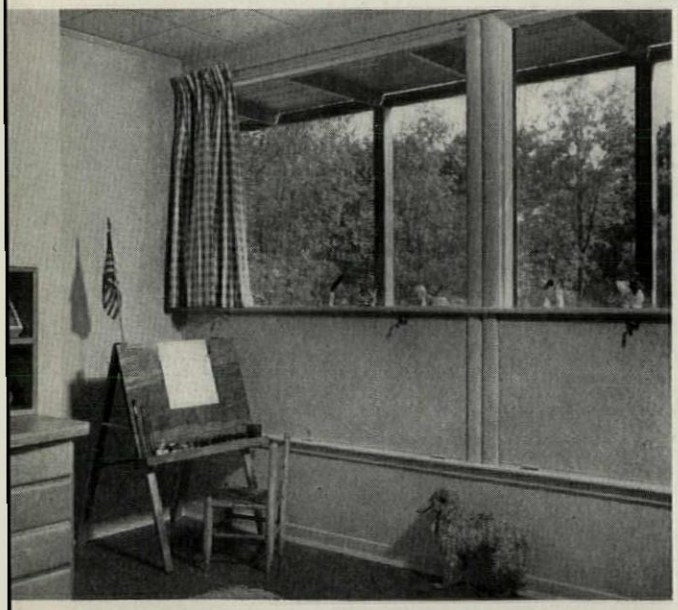
Instead of probing for the reasons for this situation, suppose we examine the kind of house which can truly be considered up-to-date. Take the question of heating and its effect on house design as a starter.

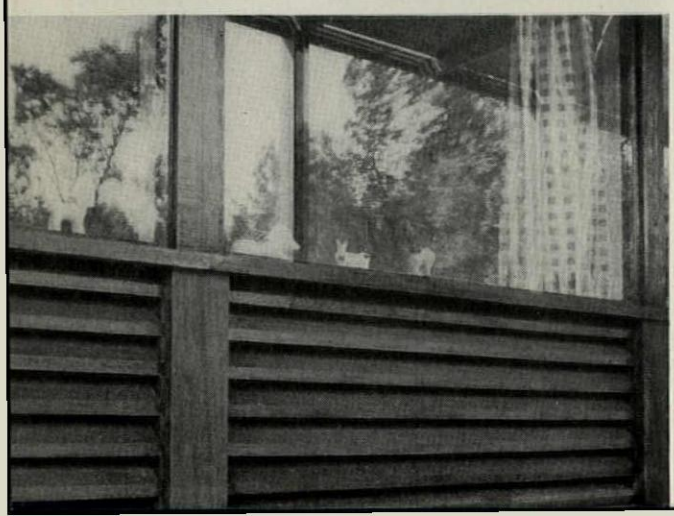
Heating

The word heating is used only because it is well understood; actually the subject, as any architect or heating engineer knows, involves questions of air-flow, air-cleanliness, radiation, convection, insolation, thermal insulation, condensation—and many others. This is true in the house that is *not* air-conditioned as well as the



Fixed windows, of three thicknesses of heat-resisting glass with air spaces between, make it possible to use great expanses of glass even in northern latitudes. For ventilation, George Fred Keck, Chicago architect, provides louvers below with inside, bottom-hinged doors. Above, interior with ventilator open; below, ventilator closed, and view from outside.





house that is; else we would not make it a practice to locate radiators near windows, where advantage is taken of induced convection currents, nor would department stores sell water-containers to hook over radiators.

In a recent decade many a realtor sold a house partly because it had a sun parlor, so called. Carry the idea to the extreme and you have a house with a south wall of glass—and the glass-manufacturer goes into the heating business willy nilly. The sun, whose uncounted ergs of energy have been little used indoors, becomes an ally of the fuel-distributor (ally rather than competitor because the more efficiently fuel burns the more people will make full use of it, and so broaden the market). But in summer the sun may penetrate this glass wall with uncomfortably hot results, and in spring or fall sun penetration may be desirable to varying degrees. Perhaps an extension of the eaves, or some sort of movable louver, to admit just the desired amount of sun, is the answer. The roofing material manufacturer and he who makes the louvers get into this "heating" picture.

No matter to what degree insolation is employed, heating systems are going to be necessary in houses in most parts of the United States. They will have to be more efficient than those we know now. Our tradition of mechanical progress demands this. Shortly before the war, heating engineers were beginning to discover curious, stimulating things. Given certain conditions as to dryness of atmosphere, rate of air-motion, and type of heating medium (radiation, convection, or actual heating of the air) the then "normal" indoor temperature of 70-72° could be considerably lowered and yet comfort could be maintained. Perhaps the ideal heating system, to which the postwar house can aspire, is not solely air-conditioning, not just radiant heating; perhaps eventually it may be a single plant which supplies dried air to kitchens and bathrooms (where normally there exists much vapor from combustion, cooking, laundering, and bathing), humidified cool air to the conservatory and food storage closet, and air of proper temperature, rate of motion, and humidity—plus a certain amount of heat by radiation—to parts of the house designed for eating, sleeping, recreation, and the like. Perhaps there should be a switch to flick in each room, to control each factor according to the use being made of the room. A large lively party in the living room generates heat and the room gets stuffy. Open the windows and somebody gets a chill. But flick a switch or turn a dial and the quality of heat and air in the room changes magically. The controls to do just this can be produced with no more knowledge than we now possess; but the market for them has to be stimulated before it will come practicable to produce them.

Many developments were available, some at too high a price for average use, shortly before the war. Others have only recently been announced. These include a refinement of the familiar "hot air" heating system, with blowers and efficient heating units, ducts, and registers; announcement of the application of electronic developments to heating controls; publicity on a carefully tested gas-fired winter air-conditioning and summer cooling system; design of a system, intended for multi-story buildings, which carries clean, humidified air from a central plant through cast iron pipes to individual rooms where local units temper it to local needs. Steam and hot water systems have been refined, the latter with the addition of circulating pumps which help to overcome the heating lag which was once an objection to it. There have been numerous trials of radiant panel heating; and proposals for using electricity, steam, water, and air for heating the actual structure—floors, walls, ceilings, or all or part of them in combination.

Much heat may be lost through glazed areas. Use of heat-resisting glass, whose efficiency is sufficient to reduce losses yet not so great that it inhibits insolation, may be the answer. Losses of this type have been cut tremendously by using two or three layers of such glass with dead air spaces between. Heat is also dissipated through the structure itself, and use of thermal insulation is so common it need not be more than commented upon here. After this war and our nearly universal experience with fuel shortages,

it is doubtful if any of us is going to buy an uninsulated home. Some of us realize how similarly important orientation can be to our home heating problems.

All these factors, ranging from heating or cooling method to mechanical means of insuring that heat—or coolness—is not wasted, can be negated by poor house design. A house cut up into too many small cubicles, or spread out without organization, is going to be too costly to heat under any conditions. If an open contemporary plan is desirable for a family living in a region where there are severe winters, perhaps removable partitions can be used to simplify the heating problem.

Lighting

Since Americans stopped going to bed when the birds do—which is to say, approximately since modern improvements in artificial lighting have come into use—we have increasingly tried to make the interiors of our homes as bright as the rare day in June. Lighting engineers have advocated, consistently, higher levels of artificial illumination than are in common use. They have also advocated precautions against glare, which exists when a brilliant light source is visible against dark surroundings. We have been cautioned against inadequate wiring which prevents placement of portable lamps where they are needed. We have been sold bulbous lamps and tubular lamps; fluorescent lamps and zeon tubing.

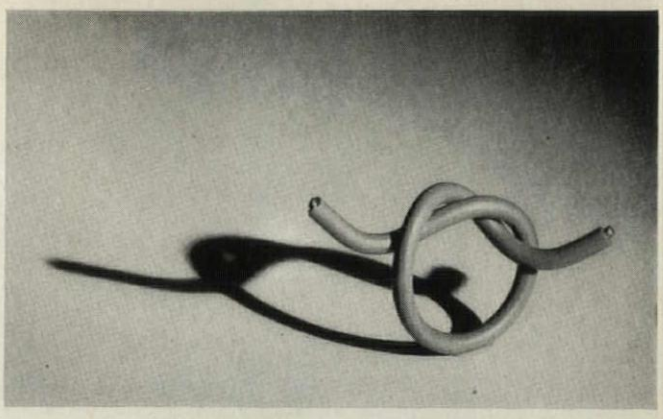
We still buy many pendant chandeliers, or their modern equivalents.

To begin with the current distribution system, we have accepted wire as the conveyor. Maybe it is not the most efficient conductor; perhaps a small diameter metal tube would be better. Certainly a friction joint between lengths of tubing, with one end smaller so it would slide inside the other, would be simpler to construct than our present soldered joint. Imagine a pair of such tubes, properly insulated, around the circumference of a room, with openings at intervals similar to the accepted convenience receptacle. The advantages for portable light placing are obvious. Such a system has been field-tested, and has proved highly satisfactory from the engineering point of view. Voltage drop is said to be greatly reduced; less current is used; fewer expensive connections need be made.

Consider insulation for the conductors. In use on battleships today is a plastic wire covering said to be better in every way than the "rubber" with which we are familiar. Its high dielectric strength makes possible thinner insulation, which means more wire can be pulled through a given size of conduit. It does not lose efficiency as quickly under extremes of temperature or atmospheric conditions. It can be flexed almost continually without cracking.

More directly a matter of concern because they are less efficient are the publicly accepted types of lighting fixtures. It is not so long since each room had its pendant ceiling fixtures; wall brackets gradually "came in," and interfered successfully with furniture placement; when the war became imminent they were in the process of being eliminated in favor of an increased number of convenience outlets—the electrician, in other words, stopped trying to outguess the housewife in regard to furniture arrangement. The householder, often uneducated in matters of lighting, is likely to use too few or too many lamps for his physical well-being, to buy lamps that glare, give him eyestrain, and force him and his children to wear glasses. Surely the specialist (architect and lighting engineer) should not leave the solution of the problem to sporadic educational advertising.

Might not a better answer be to incorporate into certain portions of the house, as most architects do in kitchens or baths and as some do in living areas, sources for relatively low-intensity general illumination, to be supplemented by the portable lamps which would normally be added anyway? In this issue are examples of such "built-in" lighting in living and dining rooms. Fixtures in the accepted sense might also be so used, provided types could



Plastic insulation for electric wiring, because it has high dielectric strength, reduces the over-all diameter; this allows more wires to be run in a given size of conduit. Insulation is non-inflammable, very flexible; has high resistance to abrasion; is not attacked by most acids or alkalies, alcohol, gasoline, solvents, or oils. It strips easily, may be color-coded, and absorbs little moisture. These properties are maintained even in hot, humid climates.

be selected which did not waste an inordinate amount of materials—metal, wood, plastics, glass—*and light*, and which were constructed in accordance with reasonable principles of lighting fixture design. If the praiseworthy efforts of the lighting industry to better portable lamp design were applied to the field of domestic lighting fixtures, a tremendous gain could result.

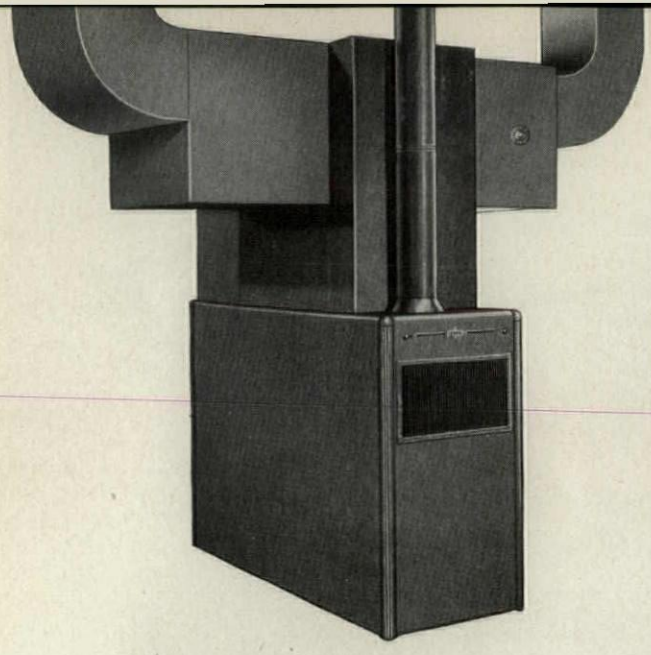
Artificial lighting can no more be considered independently of natural light than heating can be discussed apart from insulation. There is not only a necessity for turning on artificial light as daylight fails. It can, with equipment now at hand, be increased in quantity as twilight deepens, and the great expanses of window in the contemporary home are believed, in one case at least, to reduce eyestrain indoors, *in daytime*.

Suppose, to accomplish the first, we could snap a switch at four o'clock of a winter afternoon. Nothing might happen at first, if sufficient daylight remained. But at four-fifteen one light might come on; at four-thirty, another; and so on. We would have artificial light geared to daylight. Regarding the second question, that of adequate natural light alone, a realtor from the Chicago area tells us that a great selling point with his "modern" houses is consistently the light, bright, cheerful interior. He believes, when light meter tests on his houses are completed, that he is going to have another selling argument. We may yet have agents telling us to avoid eyestrain by buying the house with the wall of glass rather than the one with the barred Colonial excuse for a window.

Sanitation and Food Preparation

It was the advertising fashion in the thirties to stress kitchen and bathroom plans. Corporations spent a great deal of money on time-motion studies and the like, to prove that these business-like parts of the house had to be designed in certain ways or they weren't any good. Today, along comes an architect who puts the range in the center of the kitchen floor. Another designer puts the refrigerator there. Maybe the earlier studies weren't so conclusive!

Perhaps what we need is not a refrigerator in the currently popular shape—"style" would be a better word—but one differently conceived. So efficient is mechanical refrigeration design today that it makes little difference whether the refrigeration unit is below or above the storage box. It is just a step farther to a moderately priced unit located in a closet, pantry, utility room, or under the sink, with refrigerated drawers and bins built into standard kitchen cabinets. (This can be bought now, but its cost is prohibitive). Why *should* a refrigerator, in a modern kitchen, be a bulky, space-wasting object, which must stand free of other



New gas-fired air conditioner, with heating and cooling accomplished by the same flame simply by diverting the heat from one process to another, was recently announced. Turning a switch changes the process from heating to cooling and vice-versa, or provides independent air circulation. Setting a dial controls the room temperature. In addition to temperature and air-flow control, filtering and regulation of humidity are provided.

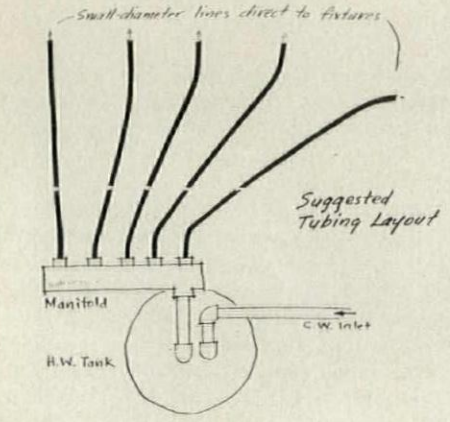
objects, with dirt-catching crannies surrounding it? Can refrigerated spaces be successfully insulated with silica aerogel (puffed-up sand) or some other material which would reduce the thickness of their shells?

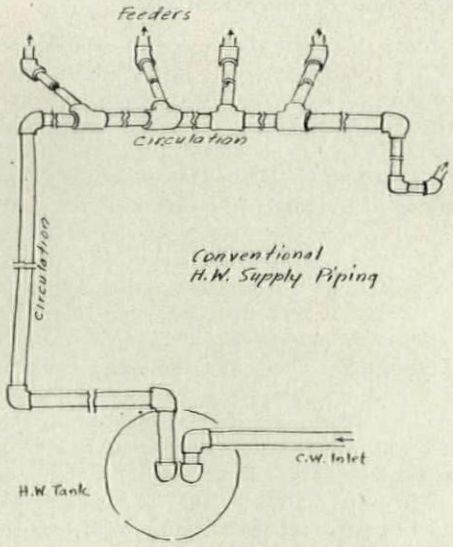
Similar queries might be posed concerning the kitchen range, the sink, laundry equipment. Suppose we were to have an "all-gas" kitchen, really efficiently designed (the fuel might perfectly well be electricity or atomic energy). The refrigerated drawer for meat might be close to the meat board, on one side of the oven; the refrigerated vegetable container in another convenient location; the milk cooler might be handy to both the baking department and the breakfast table. The range might also be separated into its component parts, each located for efficient use, waffle iron near breakfast table, oven and broiler at a non-back-breaking height, cooking top with burners spaced so that large as well as small utensils could be used at the same time, and so on. Perhaps the same fuel could at once heat domestic hot water and supply energy for refrigeration. Perhaps the house heating and cooling system could take on these jobs, and, in addition, rid the kitchen of some of its steam and odors.

Coming to bathrooms, we find one of the most hazardous pieces of equipment: the tub. (Oh, yes; it probably will be needed in the postwar house!) The cast iron tub, heavy, slippery, neither large enough for true comfort nor small enough to be truly an efficient user of space—can we develop a non-slippery yet cleanable surface for it? Can we have a lighter one, so we won't have to reinforce the structure unduly to support it? Vague reports have come in of waterproof plywood tubs; we've seen stamped and corrugated metal ones; are these the best answers?

In this portion of the house is embodied one of the clearest examples of changing customs and their effect on house design: the shower bath. At this date it would be difficult to determine whether the need for a space-saving device (say, in institutions such as gymnasiums or clubs), or mass advertising by its producers, or just a universal urge for something "better" than a tub, caused its initial acceptance. It does not matter in the long run; what is important is the fact that while a few decades ago it was to be found in very few houses, today the shower is an almost universally accepted part of each new house. Perhaps when the boy returns from the Army and the woman from war industry, to a home on the farm or in a slum, he and she will insist on having the showers which they learned to like in barracks or factory. About the time this portion of the remodeling market begins to be sated, some new idea will be gaining popularity. Perhaps we *will* bathe, not in streams of water, but in a mist which is expelled from numerous jets with automatically controlled force and temperature. Some of us, meanwhile, will certainly still be scorning the shower as an invention of the Devil.

Immediately below is a sketch of a tubing-and-manifold type of hot water distribution layout. Compare with the common piping layout sketched at bottom. The manifold system has been suggested for use in small-to-average sized homes, not for large homes. Its economies (outlined in the text) cannot be achieved in the large house.





The problem of water supply is one in which the interests of the designer and owner of the individual house, and the interests of the community (and often the region), are joined. The problem is not one of using water; H_2O is, unlike oil, a self-renewing natural resource. The difficulty arises in distributing the supply, and in finding it in sufficient accumulation. If the cores of our cities are decaying, if people are moving to suburbs, the distribution system must be extended—a most expensive process. Also, there still exist great areas in our metropolitan and small-city developments which are without a truly adequate water system. We have accepted the thesis that, for houses grouped together, a communal water supply is safer and more dependable—as well as more economical—than individual provisions. In the great metropolitan areas of Los Angeles and New York, to name only two of many, reservoirs, aqueducts, tunnels, and piping, miles of them, are being added to water systems that probably will be too small when they're complete.

It's not just cost of water—that's low enough, and probably, even with charges for such vast developments properly distributed, will remain so for many years. It's the aggregate of the costs involved in the economic waste of water and materials contained in the distribution system, in the contribution which inadequate water supplies make to the spread of substandard residential areas, and so on, that can hurt our standard of living and our national pocketbook.

To relate this to individual houses: A typical piping system for hot water distribution in the average residence wastes piping materials, water, and the energy to heat the water. Some years ago one of the utilties associations devised a more economical scheme. This consisted, primarily, of a manifold of large diameter directly above the hot water source, from which a line of quite small diameter ran by the shortest route to each hot water outlet. Piping could be used for the hot water lines, but with tubing greater economies could be achieved. Because it eliminated the standard plumber's practice of running a comparatively large diameter pipe, complete with elbows, a right-angled layout, and branches to fixtures, these substantial savings could be achieved: First, weight and cost of the distribution system could be reduced; second, because so little water remained in each supply line, it was not necesary to turn on a faucet and wait long for the water to "run hot"—hence water could be saved; third, fuel could be saved because so little hot water was wasted.

No great portion of the house-building public—or of the architectural profession—has embraced this innovation, perhaps because the potential savings, though substantial in proportion to their part of building costs, did not bulk very large in relation to the total cost of a house. However, to the man who is designing a great number of houses for erection at once, or one who is financing or building them, the aggregate of savings per unit should be most important. It should be said parenthetically that some of the greatest advances of this nature have come from recent research, both private and Federal, into the possibilities for grouping, condensing, reorganizing, even omitting, in some cases, plumbing equipment units and similar mechanisms for the home. Admittedly, war needs have driven us to some extremes of economy in war housing. But if we retain, in the postwar house or housing project, only that degree of economical compaction which is consistent with the standard of living of the occupant for whom it is designed, we will have gained tremendously. (We speak here of equipment, not of space standards.)

Economic pressure may likewise lead us to using for waste disposal piping a series of precast soil line units with inlets from various fixtures united in one piece rather than laboriously built up in the field from miscellaneous parts. This has already been designed; it may have been used in some war emergency developments, but its general use in time of peace depends upon the attitude of labor. Even if this type of development should not achieve full acceptance, the publication of Federal plumbing standards for emergency housing has cleared away much of the mumbojumbo with which, in the course of development, an honorable profession and trade have surrounded themselves.

Garbage disposal is one house design problem which has been scarcely touched. True, we have seen advertised a gadget which literally chews up kitchen waste and sends it down the sewer. But we're still suspicious of it; we have "sales resistance" to it, as the manufacturer puts it. Maybe the gadget *does* need perfecting, possibly with chemical action added to mechanical grinding. But when we arrive at the time when our garbage is automatically disposed of, rather than being manually taken from our homes through our streets to noisome dumps, we will have rid ourselves of a dangerous, malodorous concomitant of living—and an expensive one.

There Is No End in Sight

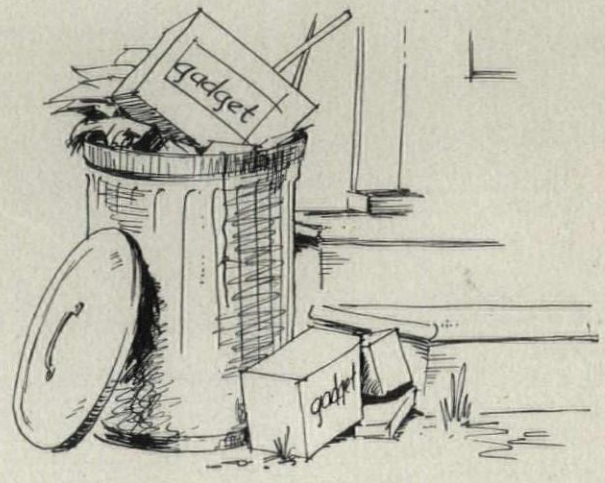
The list of new kinds of equipment for the home, which either *will* be available after the war or *can* be made available if the home builder wants them vocally enough, is without end. We have not commented, for instance, upon communication devices: telephone, intercommunicating 'phone, bell, buzzer, photoelectric cell, or the possibilities due to electronic developments. It is impossible in such a short space as this to speculate on each small item. To detail what, by now, most of us accept as obvious, would be pointless.

Gadgets—Or Ways of Increasing Comfort and Convenience?

It is very much to the point, however, to emphasize repeatedly the necessity for planning space, designing its enclosure, and building, so that the many existing and potential improvements in equipment can function fully. A poorly laid out kitchen, though it be equipped with all the up-to-date labor-saving devices, remains a poor kitchen. A badly planned or jerry-built house can successfully defy the best efforts of the heating engineer.

The problem comes right back to the building industry for solving: back to the architect, who will very likely have to try out a lot of unfamiliar methods of house design, not content himself with copying the successes of others; back to those who build and finance homes, who will probably have to learn to take reasonable risks in the name of progress; back to manufacturers, who are learning, some of them, that their shiny, eye-catching gadgets can become sources of dissatisfaction if the design of the house won't permit them to work.

We must work out the problem. Otherwise the shiny gadgets, after their novelty wears off, will find their way to a literal or figurative ashcan.



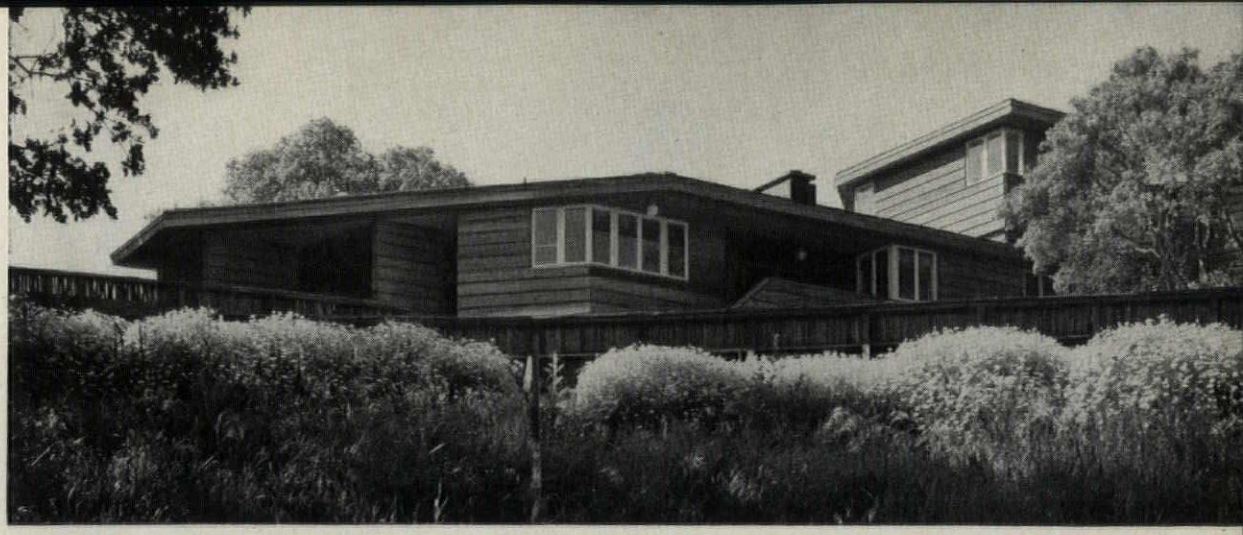
Comfort Produced by Coordinated Plan and Equipment

Anshen and Allen, Architects

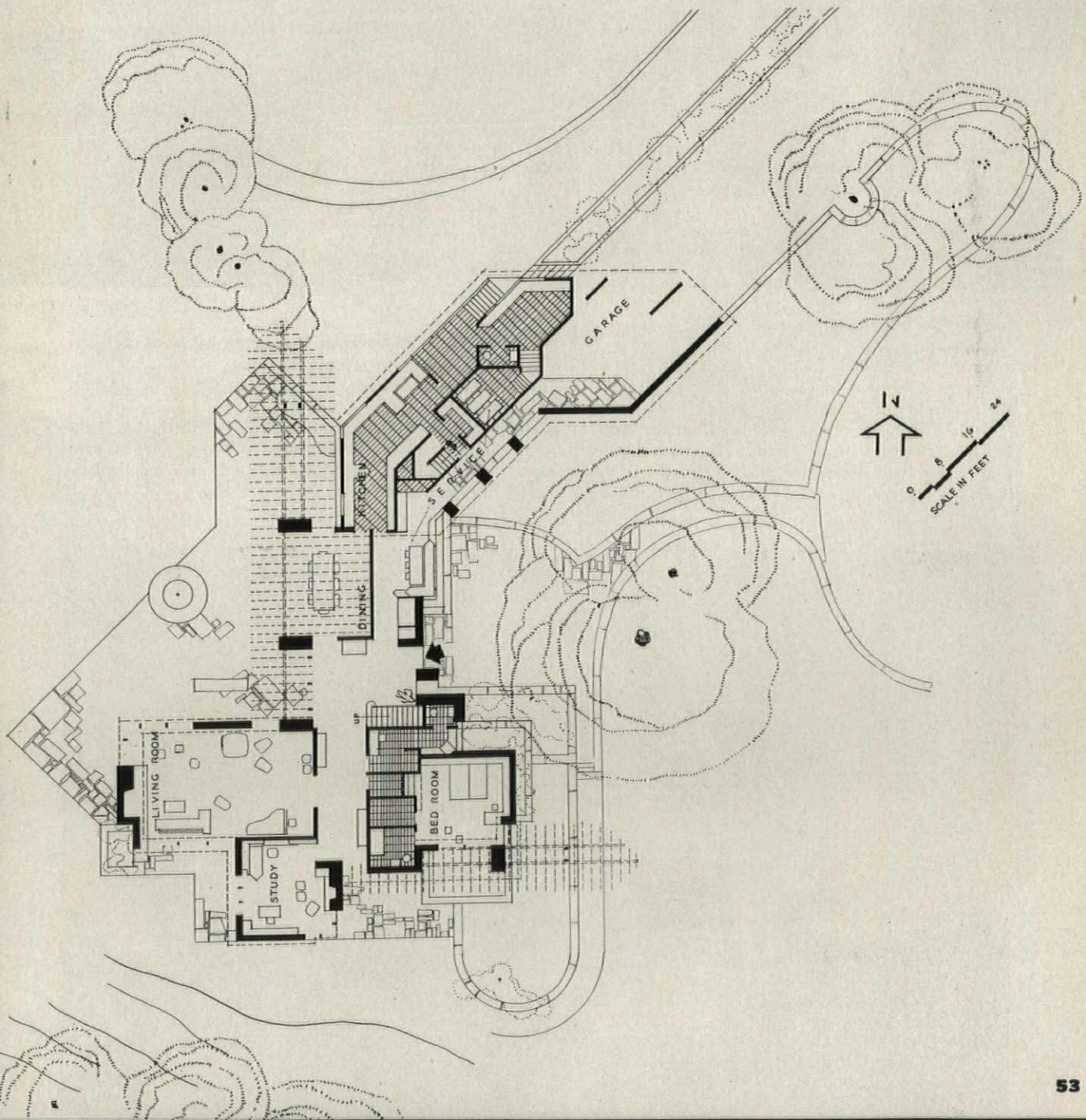
This house, built in Woodside, Calif., for Mr. and Mrs. Ralph K. Davies, is large, and so is not necessarily indicative of the typical post-victory home in America. But in it are contained many ideas for the house of the future, many of them specially designed because nothing pre-finished existed in the American market of exactly the kind which the owners and the architects believed to be best for the particular situation. The architects state that . . . "existing material conditions are now such that it would be possible for everyone to enjoy spreading roof-shelter without being hemmed in by immovable, opaque wall-shelter, to be pleased by the sense of free-flowing space contrasted with confined spaces, to be made comfortable by the conveniences for daily existing, to have their daily existence livened into joyous living.

" . . . industrial and research facilities, which make it technically possible to fabricate beautiful houses for everyone, have not yet been used to actuate this possibility. But knowledge (of it) has so affected our ideals . . . that the best houses of today are those which prognosticate the future . . . "

All photos by Dean Stone

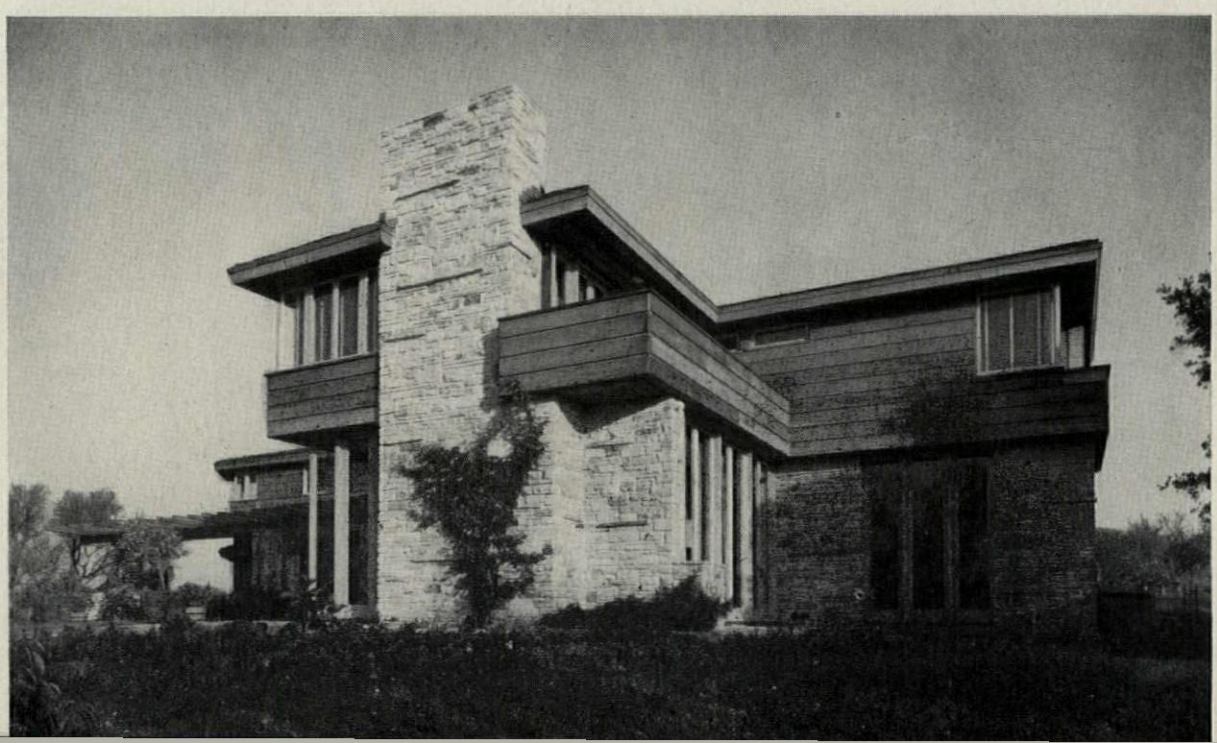


On facing page, entrance front; above, service side of the house. Plan below is of first floor. Second floor plan appears on page 60.

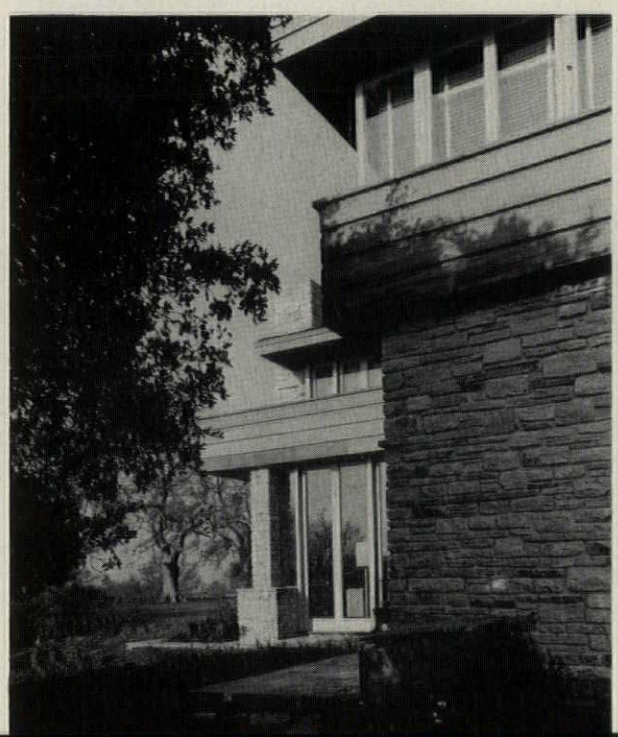


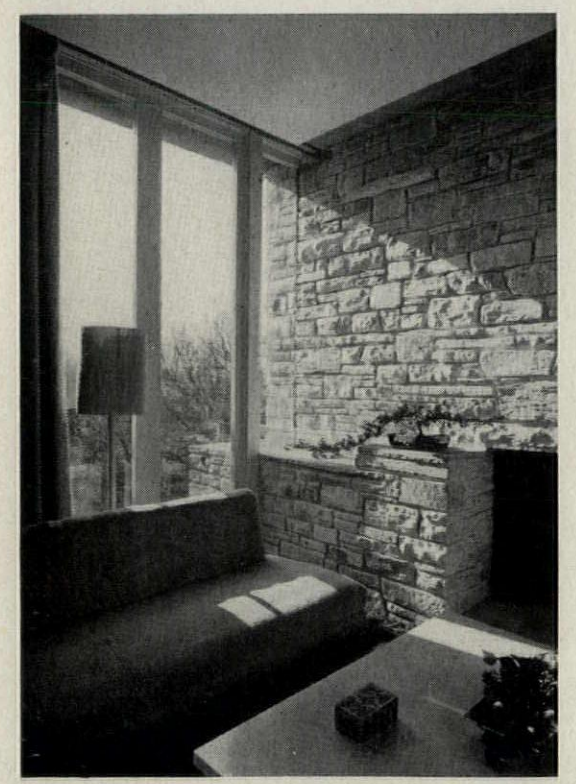
"Outdoor living—part of good living—is important to the design of this house. Wide overhangs, balconies, and pergolas form a gradual transition from inside to outside, and from outside to inside. The materials which formed complete shelter within the house are extended to form the semi-shelter of shade, thus carrying the house out into the foliage of the surrounding trees.

"Outdoor living has been precluded from the everyday living of most people because of our 'efficient' method of packing houses together like sardines to form what we dignify by calling 'cities.' But even in suburbs and small towns, we find hundreds of houses arranged so that the occupants cannot enjoy the scrap of land allotted to them by subdividers. They are either shut in their boxes or shut out of them." (From the architect's description.)



The principal terrace likewise has a pergola, which runs the full length of the main block. The rhythmic repetition of the pergola unit suggests one portion which might well be prefabricated.





In the living room above, furniture was specially designed. To quote the architects: "Sofa is made of aerated rubber covered with hand-woven fabric. Soft tones of mauve, yellow, and turquoise are used without monotony in all upholstery by reversing warp and weft. Hangings of machine-made fabric are dyed to harmonize with upholstery. Sofa is supported on three walnut beams and maple plywood legs, cut in oval shape and bent at 'knee.'

"Hand-woven fabric was used for upholstery, not because it is more beautiful than machine-made fabric, but because machine-made fabrics are not yet designed in enough color-and-texture sequences to make harmony throughout possible. The only advantage of made-to-order fabrics, furniture, houses, gardens, is the possibility of getting all four to go together to form a unified whole. The coordination of all parts of the building industry, either through separate prefabricating companies ordering their materials and equipment from the manufacturers, or through combinations of existing manufacturers, will bring planned variety into our houses instead of chaotic differences."

At left is the opposite end of the living room fireplace breast. In describing this detail, the architects say: "Glass, carefully fitted into deeply rabbeted stone, allows chimney to extend outside without interruption of heavy frame generally used to join glass to solid material. A similar detail was not used for doors because there is as yet no way of making operable doors weathertight without a certain jamb area. The problem of joining transparent and opaque materials may soon be solved by changing the physical characteristics of the same sheet of material. A slight variation of ingredients will produce either a transparent or an opaque plastic. Since plastics change both quality and form in one process, it may no longer be necessary to fit windows into pre-formed walls; wall and window may be one."

Above is the fireplace in the study; below, a corner of the first-floor guest room. From the architects' description: "Tradition of having fireplace in darkest corner of room is hangover from the time when it was impossible to do otherwise. Usually when there is most need for a fire, there is also most need for light—on dark, wintry days. But even when there is sun in the winter, it is not warm enough to preclude a fire, and the visual luxury of both sun and firelight cannot be surpassed.

"Integral venetian blinds, sliding screens, glass doors, pergola beams over terrace, afford gradations of light and air according to weather and personal desire of guest.

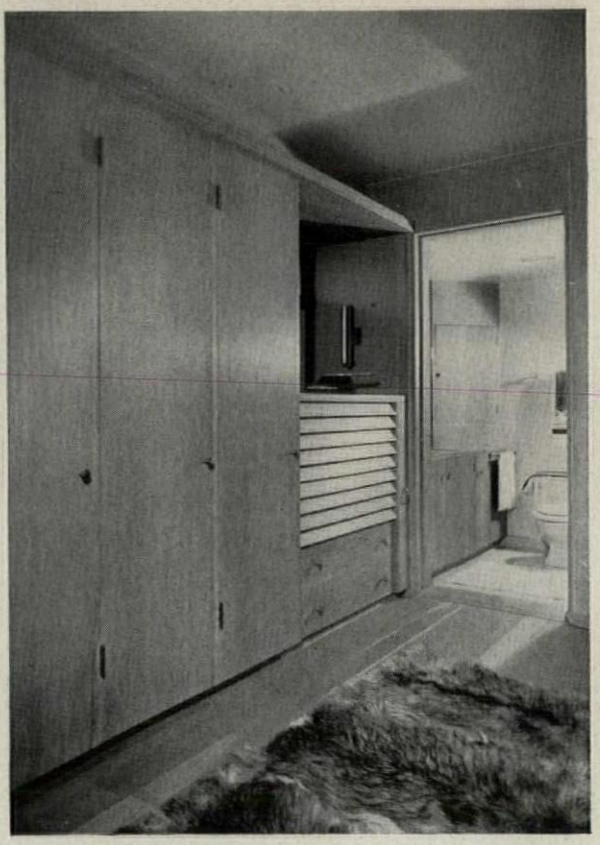
"Windows which could slide away on principle of automobile windows would completely remove obstruction to outside when so desired, without the physical effort and clumsy wall-width required to push back sliding framed doors into wall (here done only with screens). The sliding away of glass walls at will can be attained by complicated mechanisms, which are very costly when produced in small quantities, but what else is civilization if it is not the using of mechanisms which make human repose and activity more effective? The possibility of using a tough but pliable transparent material (developed through much more complicated mechanisms than those used in making glass) may make it possible to use a roll-away device."

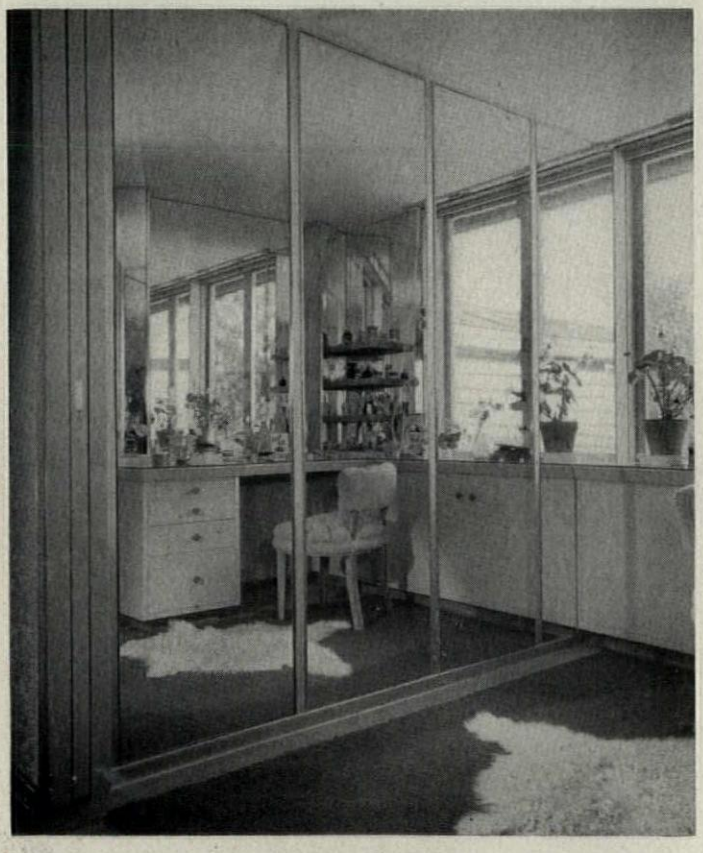
At right is a bedroom wall, lined with built-in clothing cabinets, and with bathroom beyond. Below is a wall of the master dressing room, also lined with cases, which have mirror doors. In describing this portion of the house, the architects find occasion to make many suggestions toward developing suitable equipment. They say: "Shirt drawers become integral decoration. Oak cases in bathroom continue the design and finish of bedroom into bathroom. Structual glass top of case in bathroom forms countertop around washbasin—a costly way of providing convenience and beauty which, if factory-fabricated, would be as cheap as the glistening white wall attachments with plumbing pipes hanging in loops underneath them.

"Although the design of bathroom equipment has improved tremendously since it was first moved indoors, it has not improved relative to its possibilities in the last decade because of the obsolete material used and the limitations of producing separate pieces of equipment.

"Vitreous china and enameled cast iron necessitate abrupt joints with metal faucets and practically limit color to white because of expense of achieving other colors. Other materials impervious to water have now been developed which can be stamped or molded (with faucets, pipes, handles, as integral part of the whole), and which can be made in any number of shades and tones of various integral colors. Light metal equipment used in airplanes and trains is of much smoother design (due to its stampability) and reduces transportation costs (due to its extreme lightness). But metal is as unpleasant to touch as vitreous china, and very probably plastic materials, softer to the eye and warmer to the touch, will come to be used.

"Design of bathroom equipment cannot be improved to any significant degree until the whole bathroom is made in one unit. Washbasins have not been made integral with counter and case because size and shape of bathroom vary. When structure and equipment of houses are designed simultaneously, bathroom will be made in one unit, with plumbing pipes integral with wall and floor, thus eliminating intricate connections which require hand-fitting and cause complicated inter-work of several trades."

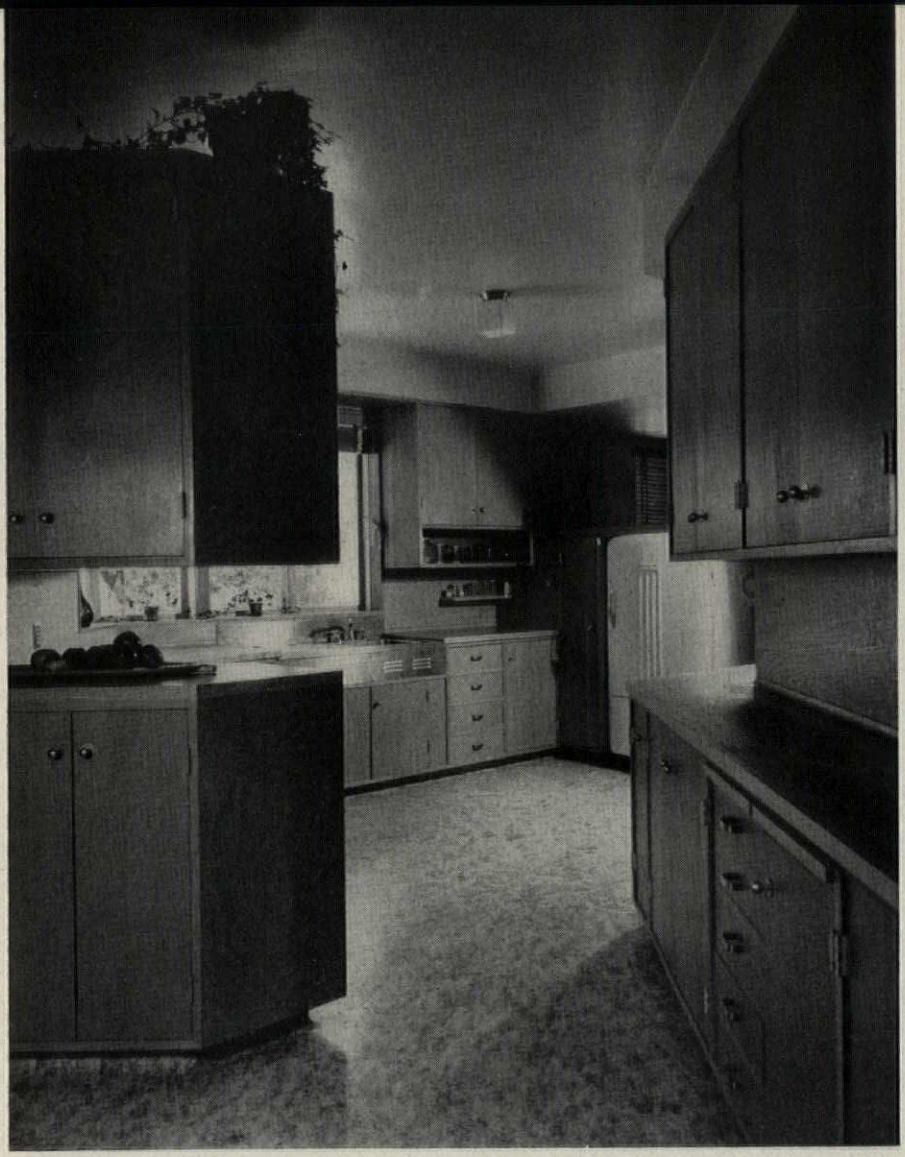


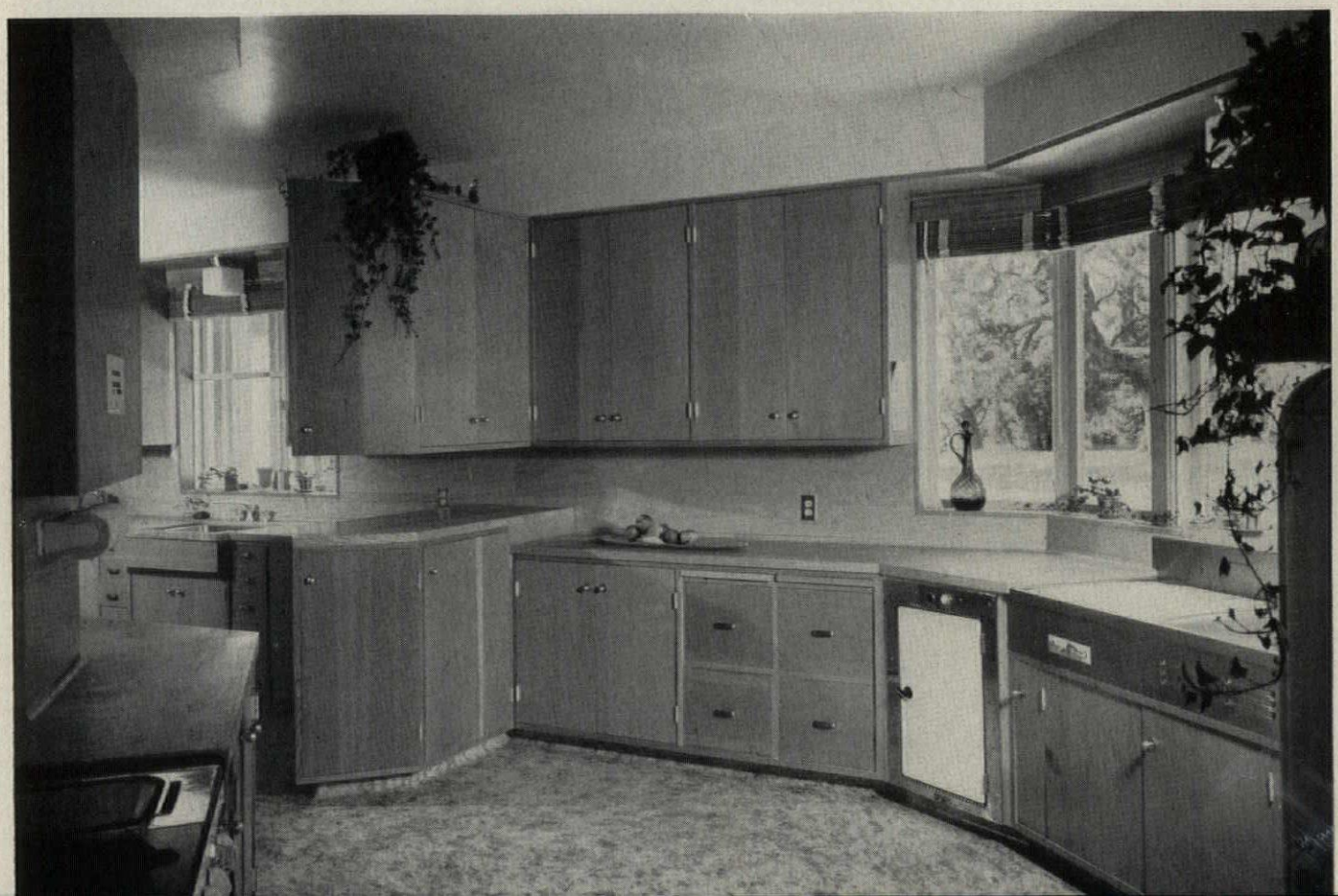


The two views of the kitchen, on the facing page, lead the architects into a further discussion of house equipment. "White refrigerator designed to look as large and slick as possible for sales-appeal, stands out like a sore fist. Even wealthy individuals cannot afford to have complicated household equipment especially designed for their houses. The capital investment required to manufacture mechanical equipment can only be paid for by millions of people buying that equipment. As a larger and larger proportion of our houses consists of household equipment, the extent to which an individual house can be made to order becomes smaller and smaller.

"Cases are of vertical-grain white pine, counter tops and splashes of white ash (coved), finished with water-white lacquer to preserve natural warmth of wood and provide more durable finish than paint. Eventually, everything in the kitchen, not just the lacquer finish of counter-tops and cases, will probably be made out of different kinds of plastics—which have the tactile warmth and visual coolness of wood.

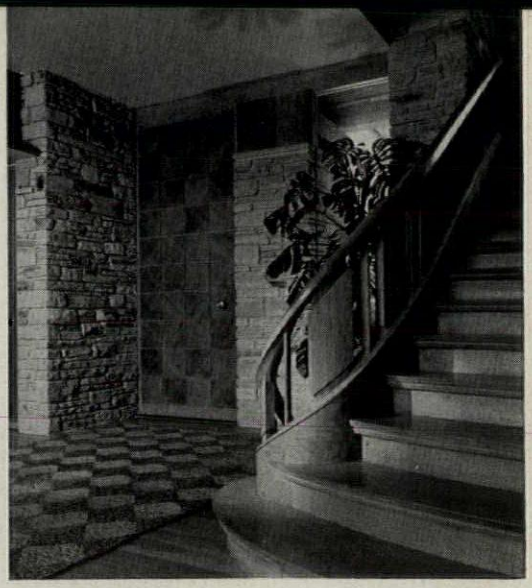
"In the meantime, sink had to be specially fitted with monel metal to form continuous counter with dishwasher and towel dryer. Combination units of sink, stove, refrigerator which have so far been manufactured have been designed with apartment-house compactness and hospital sterility. Glistening white metal door of towel-dryer stands out in glaring contrast to wood. It is impossible to have a softly harmonious kitchen if one starts with white as the basic color, because the only colors which can be used with white are other harsh, brilliant colors. Therefore all one can do, until materials and equipment are designed at the source to make a pleasantly livable house, is to ignore the glaring white sanitation complex of the plumbing industry."

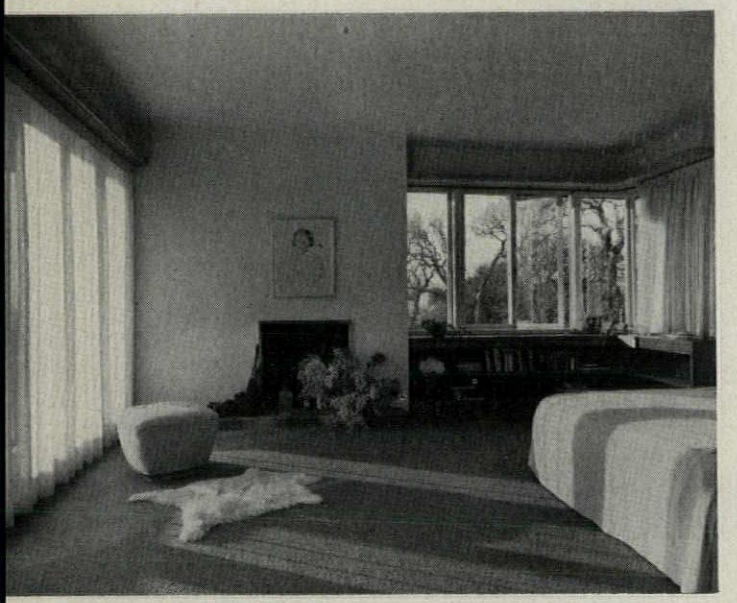




At right is the stair hall; center below, master bedroom; bottom, children's room. Quotations are from the architects' discussion of the house.

"Unlike the stone wall, the redwood door was delivered to the site ready-made from the factory. The same construction methods were used to make this door as those used to make stock doors, but it had to be made to order because stock doors did not come in the size, finish, and design required in relation to the rest of the house. When doors, wall, furniture, equipment, are designed to go together, doors will be kept in stock which form an integral part of the design of the whole house. When doors, wall, furniture, equipment, are designed to be manufactured together, then whole houses will be kept in stock. Prefabricators have so far only regularized the putting together of existing materials and equipment. Prefabrication has carried traditional building methods to their ultimate conclusion—the efficient assembly of *pre*-fabricated materials. There will be no significant progress in attaining high-quality houses at low cost until our houses are truly fabricated—all parts designed and fabricated to form a whole."

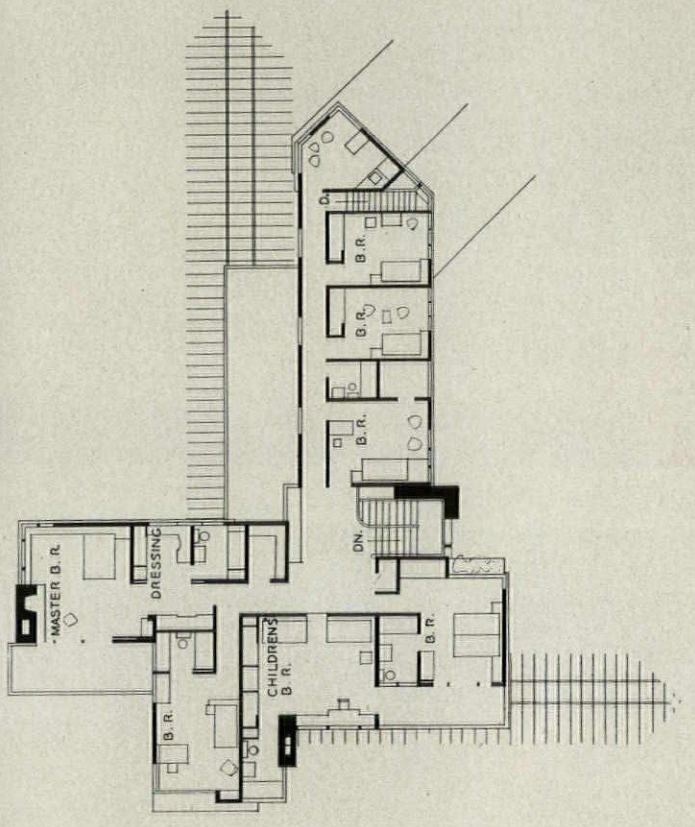


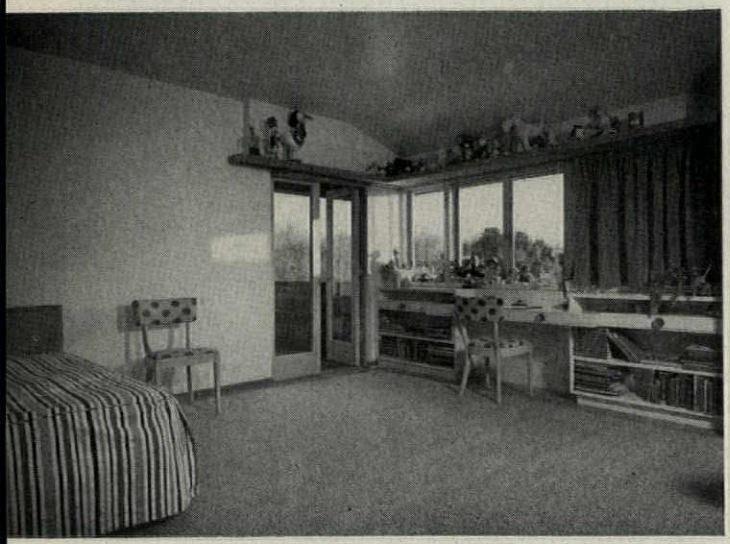


"Smoothly flowing surfaces are left free of lighting fixtures by placing lighting in redwood shelves above windows.

"Glass doors on left open to deck for private outdoor living. Bedrooms should allow space and convenience for private living —not just room for sleeping and dressing."

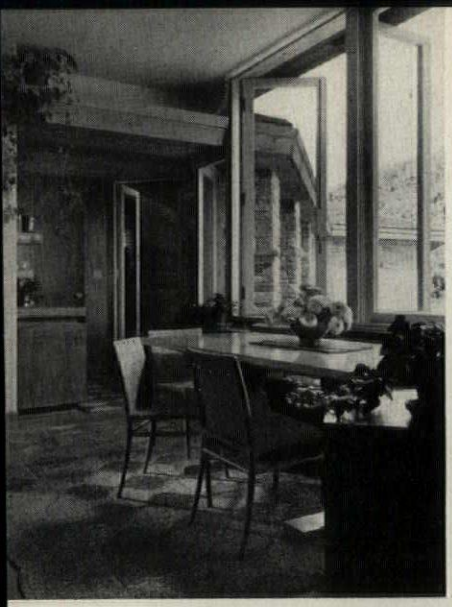
Second Floor Plan





"Children must have room for play and study, for noise and quiet, apart from the grown-ups—whose periods of quiet and noise do not coincide with those of the children.

"The plaster which is used in finishing most of the bedrooms is used because it is the cheapest method of providing a finish at present. The high cost of building a really pleasant house to be living in today prevents even those people whose income should be enough to cover even 'luxury' of living from enjoying all the pleasantnesses and conveniences they would be able to afford if houses were designed at the source of fabrication. The visually unpleasant monotony of plaster and the high cost of its upkeep will be avoided when good-looking, washable, integrally finished materials become as cheap as plaster."

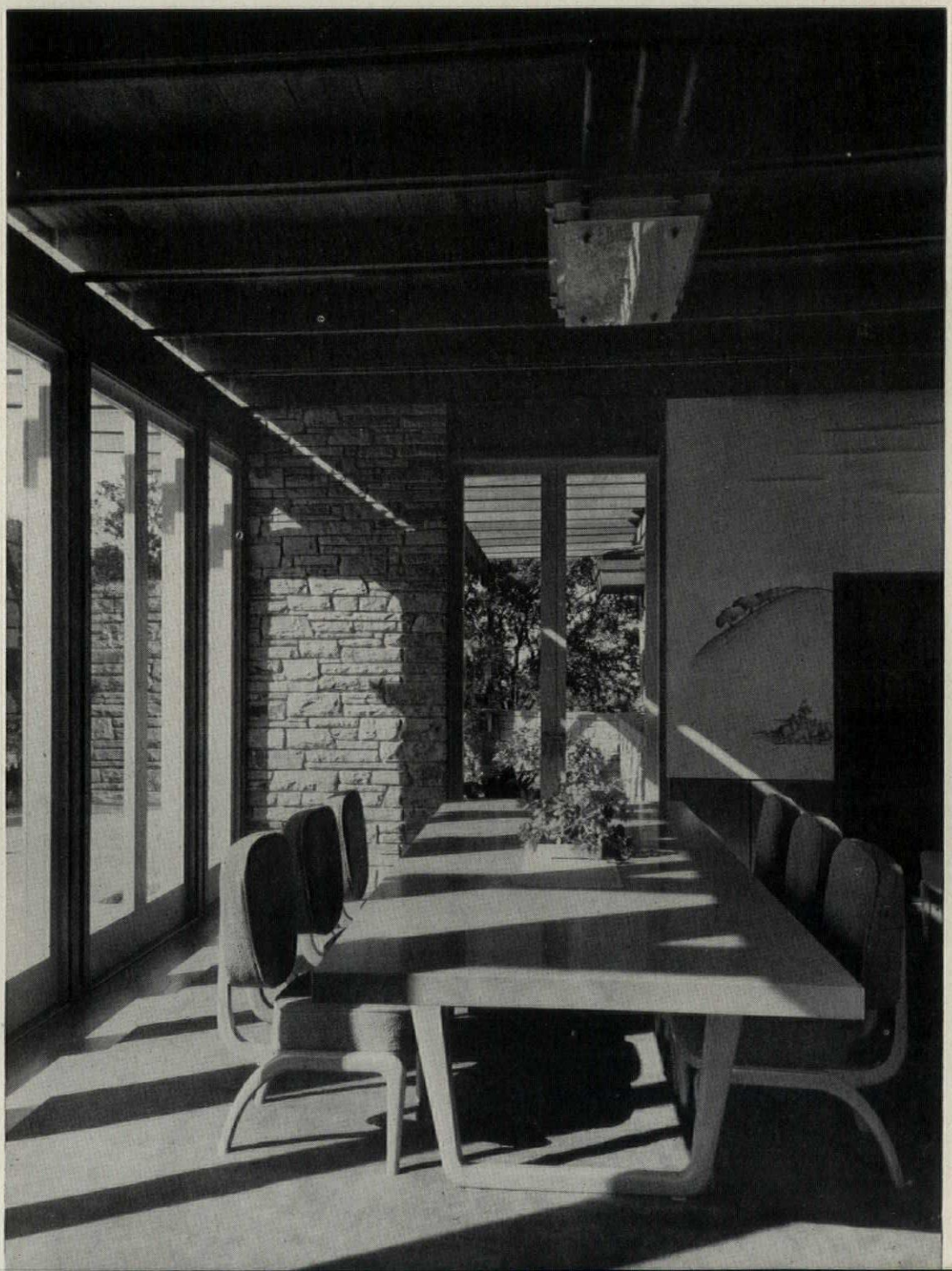


At left, the breakfast room; below, dining room. The architects, in describing this room, take occasion to discuss further the fundamentals of house design: "Backs of chairs, or people seated in them, become the decoration of the dining room. Streak of sunlight extends exterior to interior while redwood beams extend interior to exterior. Fitting of small pieces of plate glass between beams to achieve this effect took much time and labor—which could be reduced through proper coordination at factory. Nevertheless, this type of construction is not amenable to the most efficient fabrication, and is not necessary with moldable materials.

"Maple plywood legs, maple table top, foamed rubber seats and backs of chairs covered with hand-woven fabric, recall living room furniture in material, color, and design. Furnishings throughout are unified by planned repetition and variation. The subdivision of a house into rooms should be lessened, not heightened, by the furnishings. Design and color of furnishings should blend from room to room, just as the rooms blend the one into another.

"The separation of a house into rooms has been the result of a desire for privacy. Only a few people, however, have been able to afford both space and privacy. The furnishings of many existing houses—both large and small—repeat this kingly ideal by decorating each room disparately—one in Louis XVI, one in Italian Renaissance, etc.

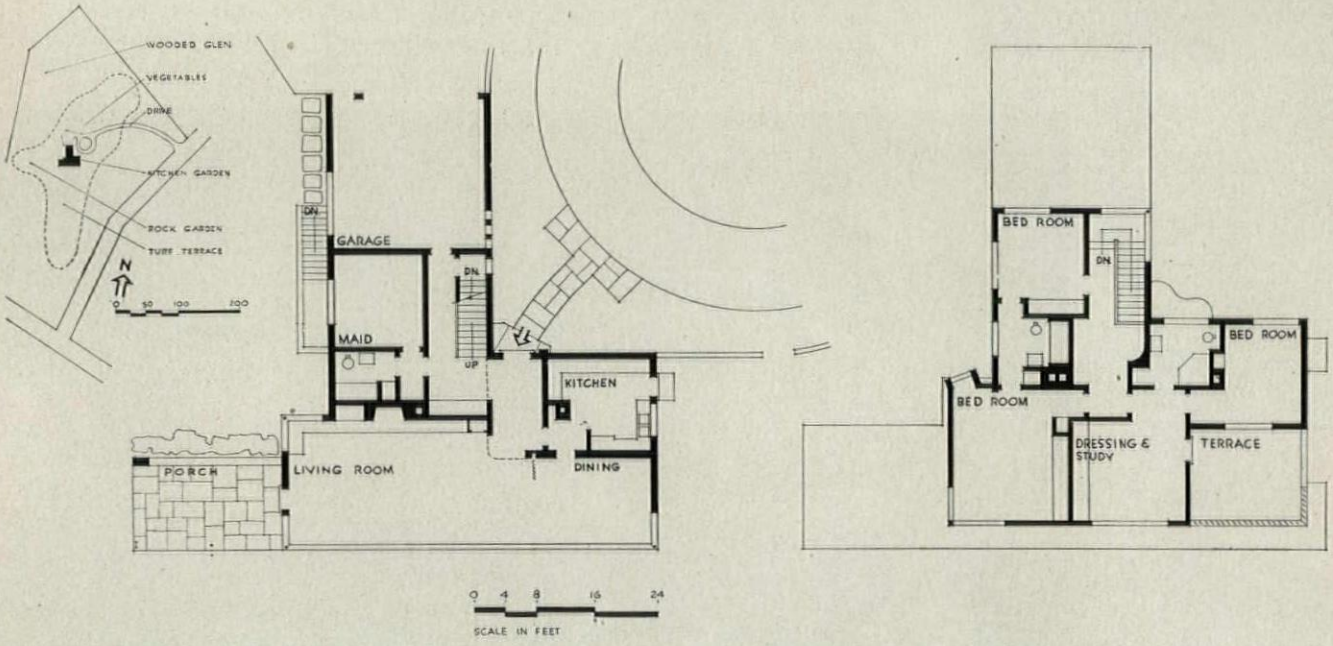
"The possibility of having movable partitions will solve our need for both space and privacy by making space flexible. The structural unity of the house which permits such internal flexibility will be emphasized by the harmonious unity of the furnishings which movable partitions necessitate."

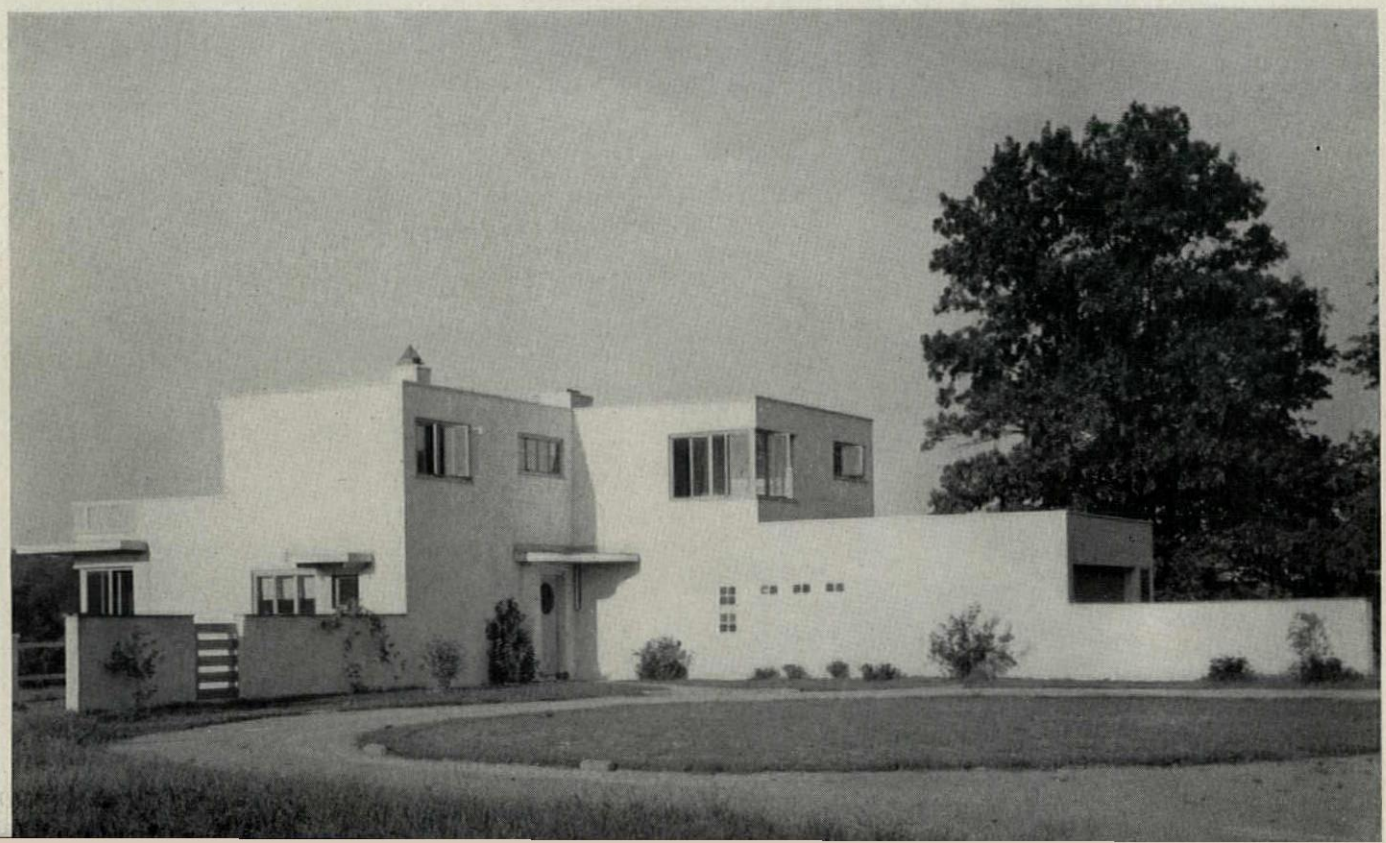


Professional Man's Home in Ohio

Garriott and Becker, Architects

John W. Becker (of the firm which was formerly Garriott and Becker and is now Garriott, Becker and Bettman) designed this house for himself. He says, "The house, which exhibits a certain lack of sympathy with what a friend of mine calls 'the prevailing modern rustic' is, I can testify, a continuous joy to live in." It is situated in the center of an eight acre tract outside Cincinnati, and looks off southward to unspoiled views. The principal rooms are arranged to take advantage of the views and prevailing breezes. On the northeast, where the prospect is uninspiring, the house presents relatively solid exposures. The family consists of husband, wife, two children (boy and girl) and the entire design of the house is intended to reduce housekeeping chores to an absolute minimum. Each bedroom contains sufficient built-in storage facilities to take care of the occupants' belongings at all seasons.





The canopy over the long row of windows on the south side of the living-dining room and porch is designed to exclude summer sun but to admit winter sunlight generously.

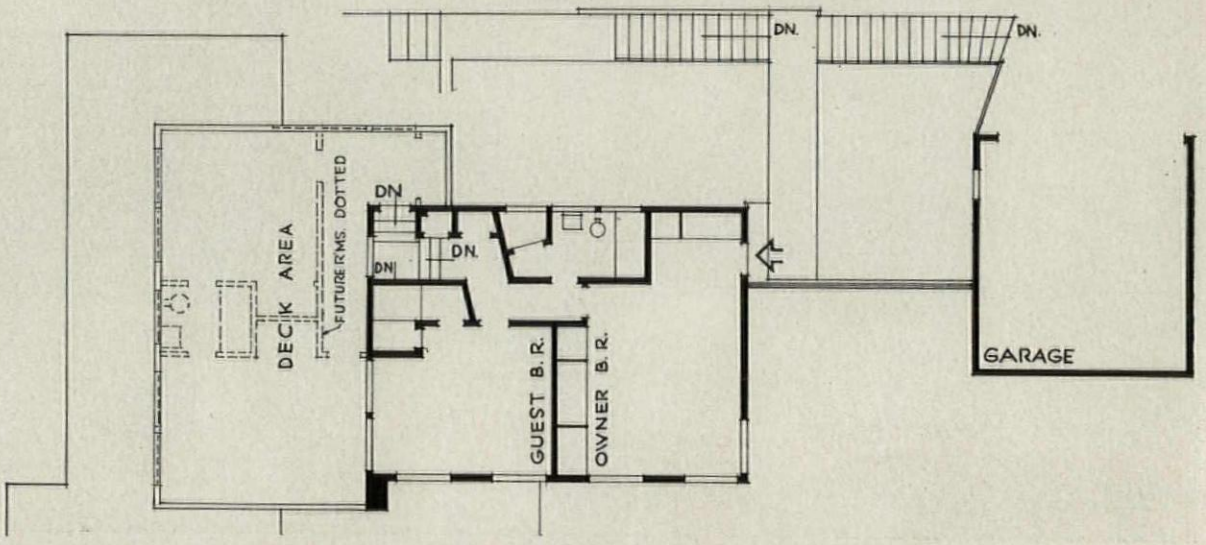
Construction is of cinder concrete block and wood siding with tar and gravel roofing. Interior of the living-dining room is painted, with the walls and ceiling a pearl gray. The floor is of gray rock elm. Upholstery is gray and pale plum color. Rugs are plum colored; hangings, medium gray. There are strong accents of yellow and turquoise in the color scheme. It is particularly noteworthy that such items of equipment as closets, bookshelves, etc., are entirely built-in and that the closets have sliding fronts which make the interiors completely accessible.

Outdoor Living Space on a Steep Site

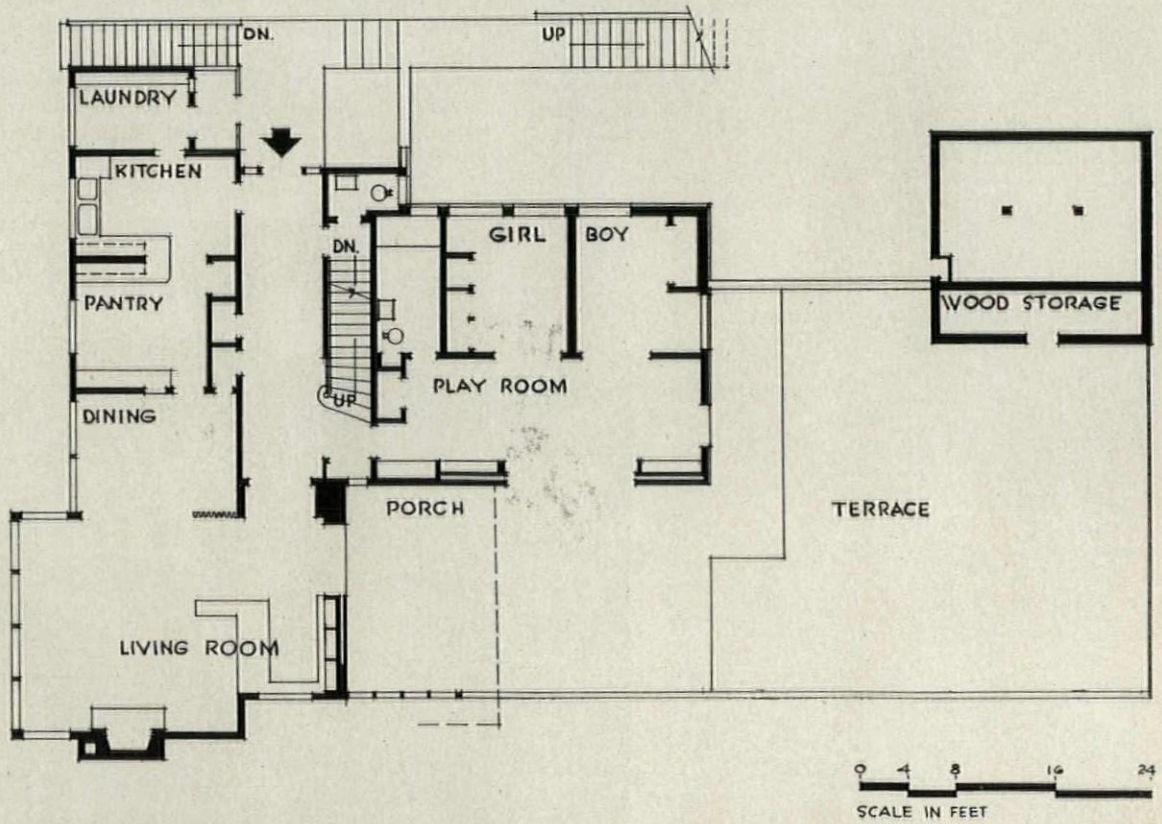
William Wilson Wurster, Architect

As the photographs show, the site of this house (built for Dr. and Mrs. Lloyd Eaton) is so steep that it is impossible to walk around the building. The entrance is at the upper corner and the view is best at the outermost corner, which means that the living room has to be out as far as the lot permits. The view is dramatic—to the east the hills, to the south a deep California canyon filled with live oaks and in the distance the city of Oakland, to the west San Francisco and the Golden Gate bridge, to the northwest Mt. Tamalpais in Marin County, with the great Kaiser shipyards at Richmond, which at night are a white blaze, in the foreground.

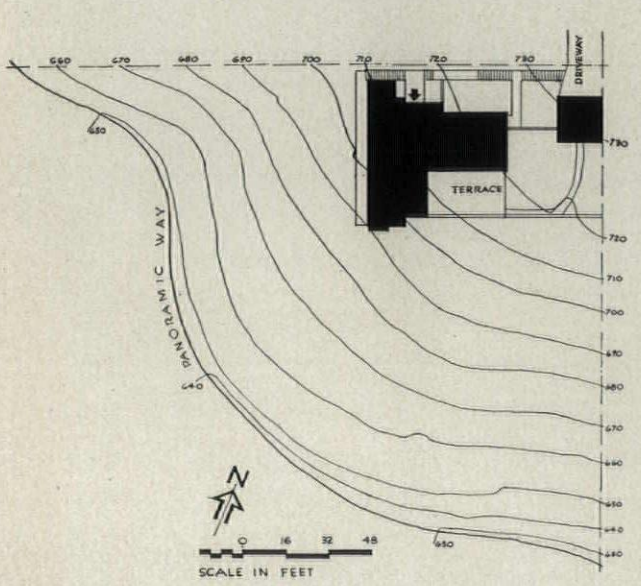
For such a site the client wanted easy access to protected outdoor areas. She had seen the Bauer house designed by Harwell Hamilton Harris and wanted two children's rooms and playroom as in that plan. In this neighborhood there is a great demand for small apartments, as it is near the University of California, so to help pay the building cost it was decided to place an apartment in the lower part of the building but with no sacrifice of privacy for the owners. This was so arranged that it could be taken over by the owners as a study later on if they desired (Plan on page 71.)



The two bedrooms on the top floor are at present used as an owner's bedroom and a study. The latter can easily be converted into a guest room. The deck is arranged to permit building two or more additional bedrooms and bath if it should become desirable. The children's rooms on the main floor have "electric nurse" connections to the owners' room and the servant's room below. The playroom opens onto the deck and the garden, which is protected from the north and west winds and has sun all day long. The living room opens to the same terrace. The sketch on page 69 shows how this arrangement is really the core of the house.



Photos by Roger Sturtevant



Photographs of the southeast side of the house show the deck and garden built into the hillside. The projecting bay is at the end of the living room.

The interior of the house is arranged in an open manner. The architect has consciously avoided dividing it into compartments. Except where privacy requires, doors have been omitted in an attempt to make the spaces flow into one another. Thus the separation between living and dining spaces is an accordion-fold fabric screen. The doctor needs a desk for some of his work; this has been built into one end of the living room and has a cover to pull over it so that papers need not be eternally cleaned up.

Under the main floor deck is an outdoor drying space, convenient to the laundry and drying room in the lower front. A description of the lower floor is given on page 71.

The hillside was turned to advantage in another respect. Dr. Eaton, like other doctors, has to make night calls. The site made it possible to enter the top floor directly through the main bedroom. This is most convenient for the owner or for use of the family when returning from a trip with suitcases. Front and back doors are easily reached from any part of the house as they are quite close together.

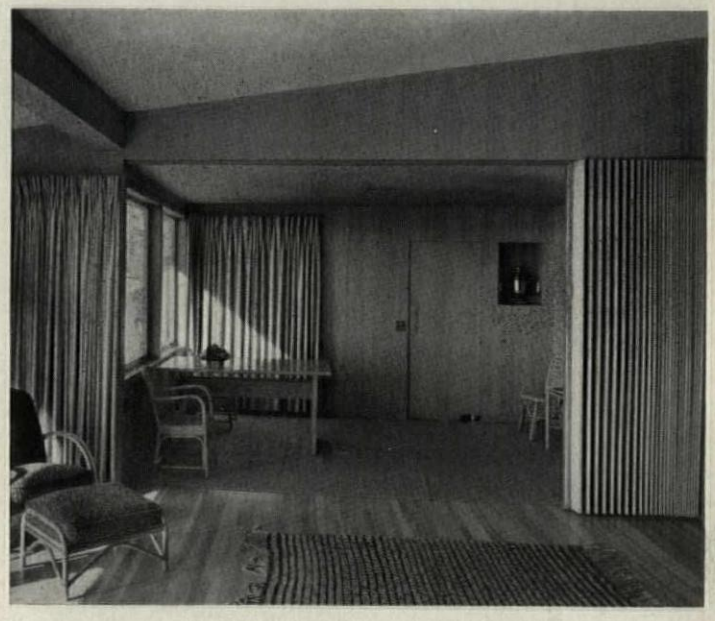
The Eaton house is equipped with many labor saving devices. These include the usual range and electric refrigerator; there are also an electric dishwasher, mangle, clothes dryer, washing machine, automatic gas water heater, etc. In addition to the built-in equipment (such as cabinets, desk, etc.) there are special recessed ceiling lights, and the entire ceiling over the lower floor apartment (as well as the wall between the children's bedrooms) is sound-insulated with 1 inch of mineral wool. Over the lower bedroom this insulation is increased to 2 inches in thickness.

Construction is of wood frame, with redwood surfacing on most of the exterior. Flashings, gutters, and leaders are of galvanized iron, except that waterproof building paper is used at windows and doors. Galvanized iron is also used for the ceiling lighting boxes, light trough in dining room, and for the gutter. Roofing is built-up, with a mineral-surfaced cap sheet.

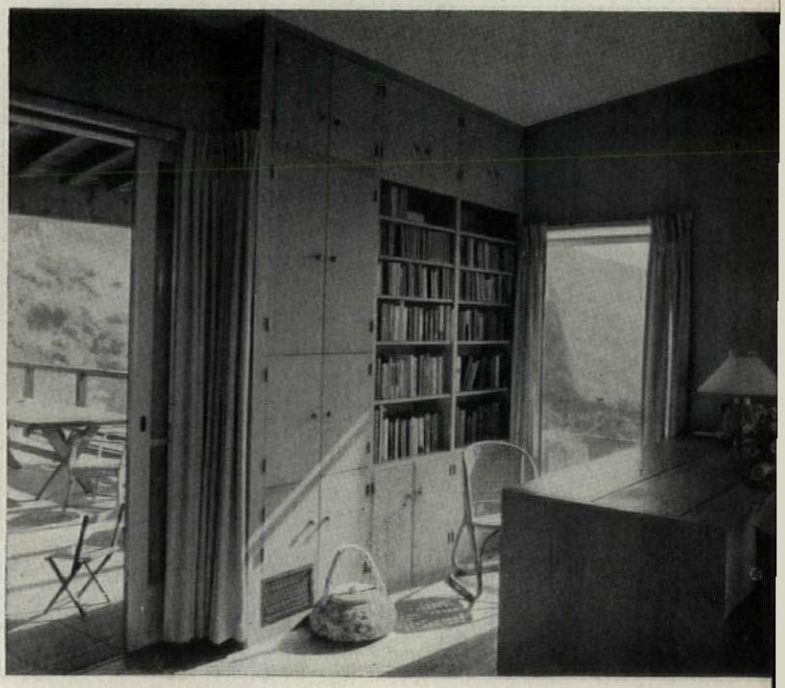
Interior walls are plastered in kitchens, pantry, service room, baths, lower bedrooms, lower hall, and stair well. All ceilings are plastered. Sand finish plaster with integral color is used in some areas, gypsum in others. Floors are linoleum in kitchen, dressing closet, and baths on lower floor; in service room, kitchen, pantry, bath, playroom, and children's bedrooms on main floor; and in owners' bath on upper floor. Other floors are oak generally; concrete in some portions.

Exterior trim is redwood; interior trim Philippine Mahogany for special cabinet work, gum or white pine in other areas. Plywood, ¼-inch thick and surfaced with gumwood, is the wall finish in the lower living room, playroom, and children's bedrooms. Philippine Mahogany plywood is used for the main living room walls, and in the dining room and entrance hall. Living room ceiling beams are sheathed with mahogany plywood.

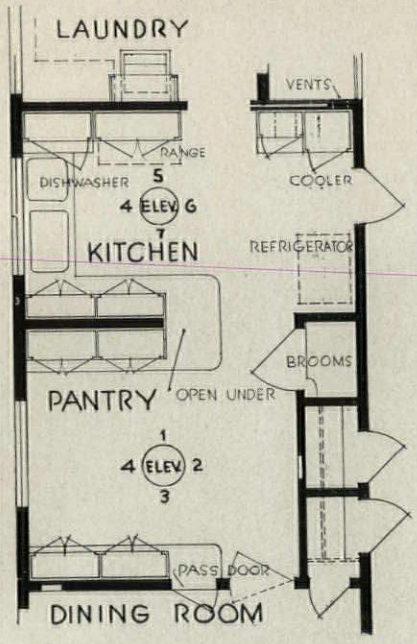
All hot water piping is copper tubing with sweated joints; cold water piping is galvanized steel.

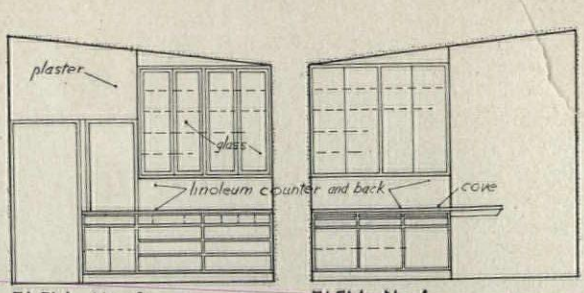


A folding curtain can be drawn to separate the dining area from the living room. Below is the built-in desk at the other end of the living room, with cases and bookshelves behind it. The sliding door leads to the roofed terrace adjoining the children's suite.



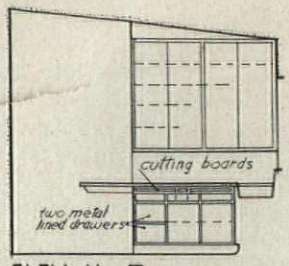
Selected Details: **Kitchen layout, House for Dr. and Mrs. Lloyd Eaton, Berkeley, Calif. William Wilson Wurster, Archt.**





ELEV. No. 3

ELEV. No. 1



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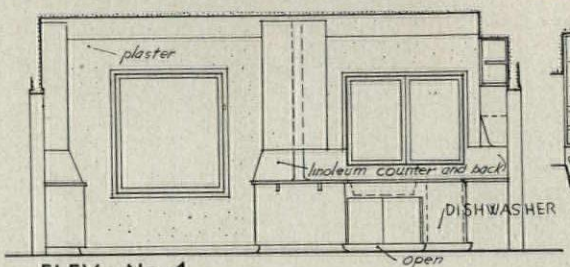
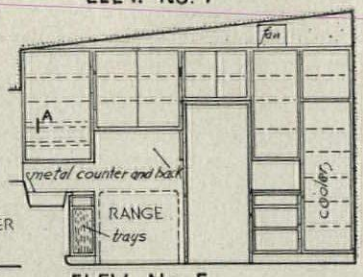
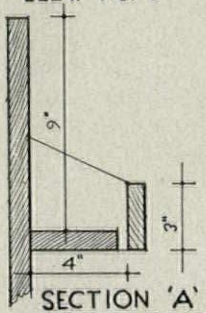


ELEV. No. 4

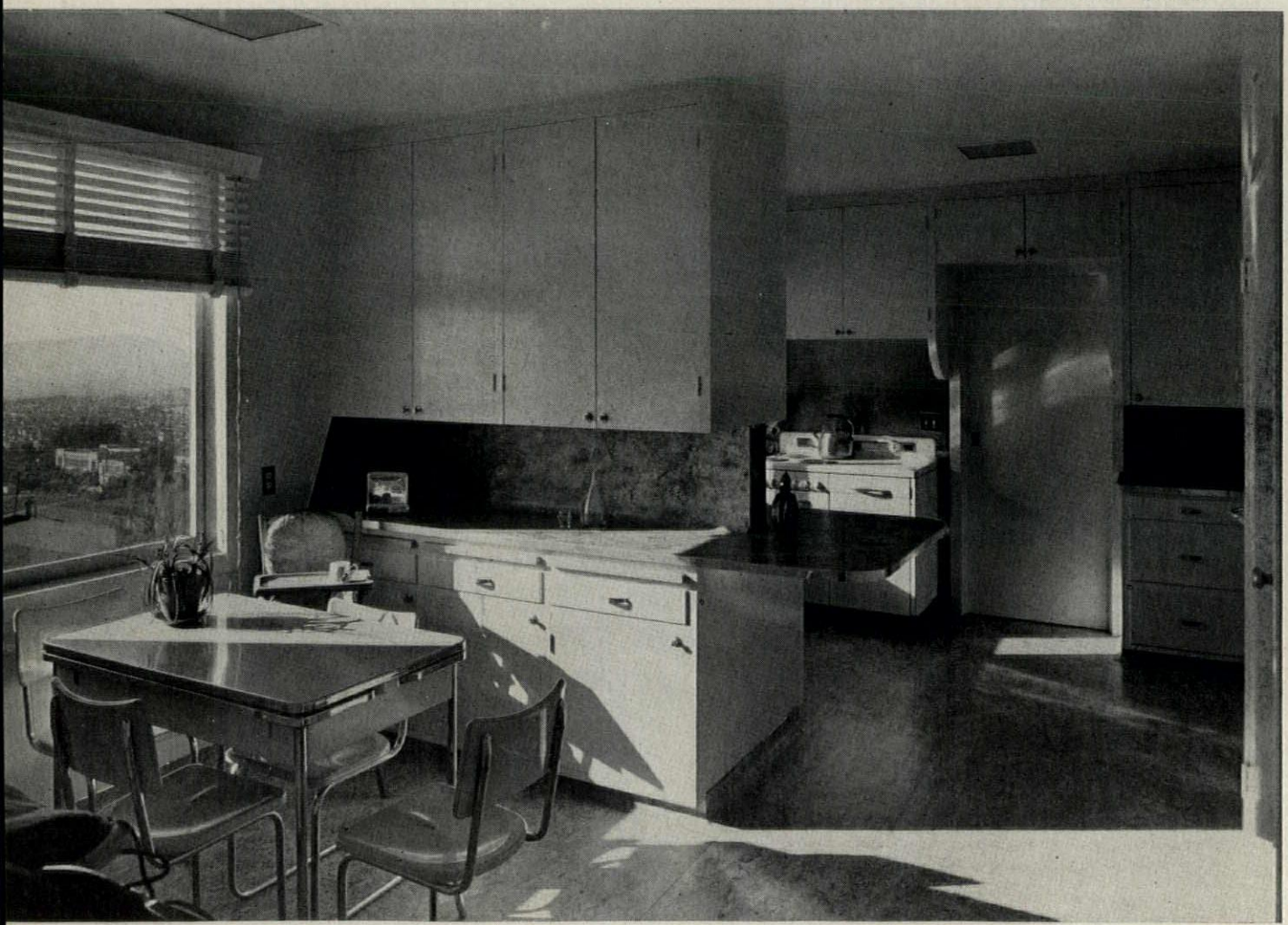
scale 1/8"

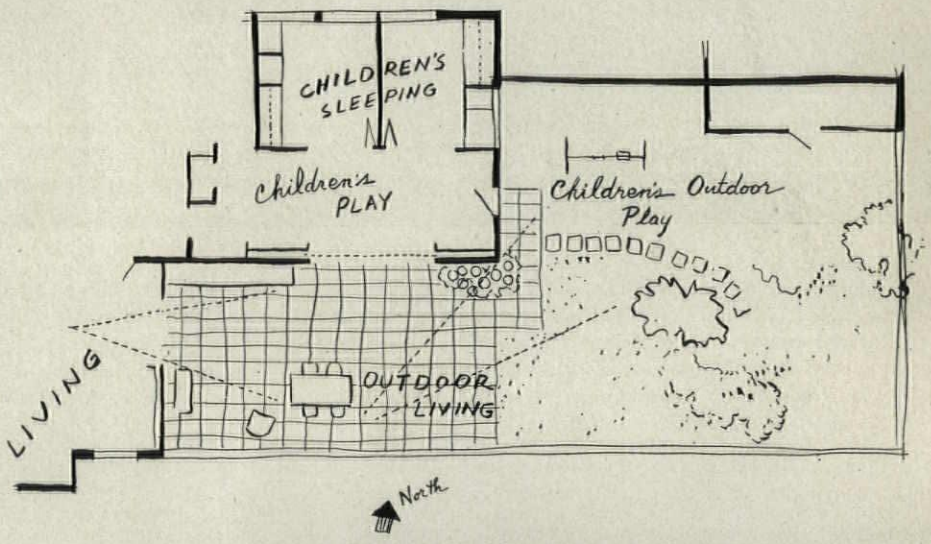


ELEV. No. 5



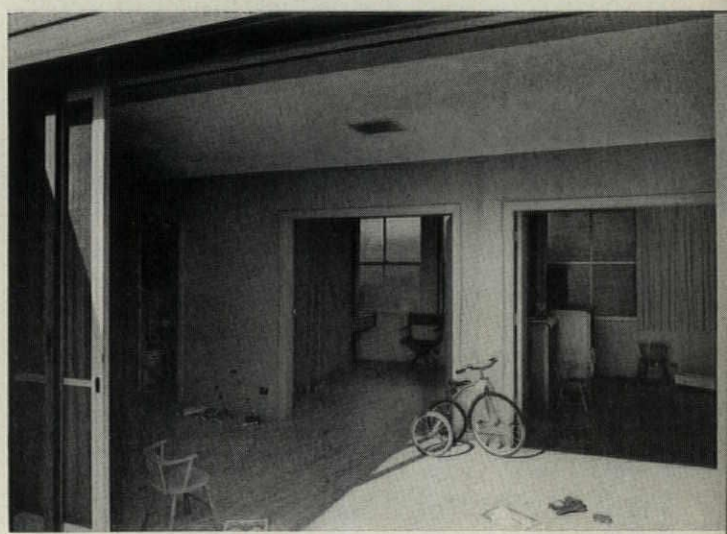
SECTION 'A' THRU SPICE SHELF





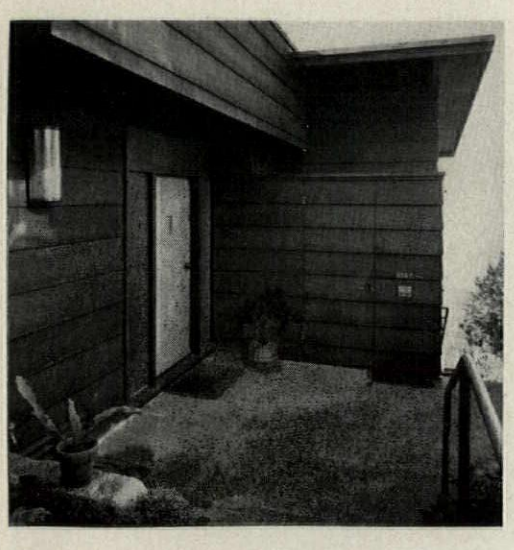
The sketch above shows how the layout of garden, terrace, children's rooms, and living room was really the core of the house. With this rather difficult question settled the remainder of the house follows quite naturally.

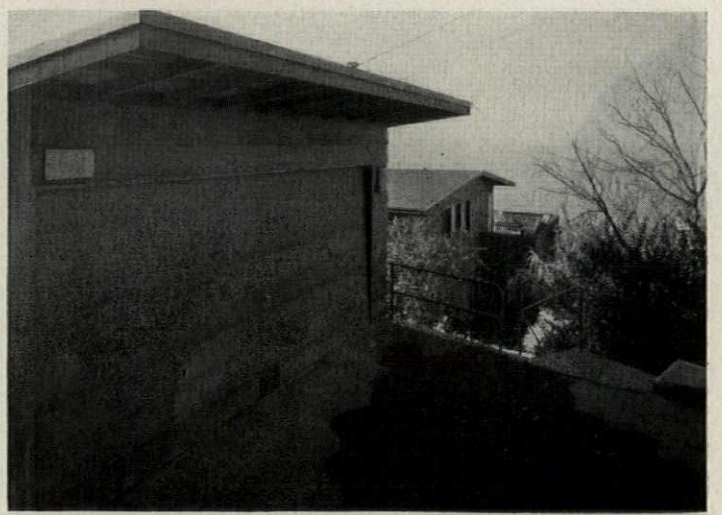
Use of sliding doors, so that the children's playroom can be opened almost completely to the terrace, is a noteworthy feature. Supervision over the children while they are at play is comparatively easy, although there is not as direct access as there might be from the far corner of the house to the garden. The kitchen, shown in some detail on the facing page, is designed primarily as a working space and the layout makes it possible to serve meals either in the pantry alcove or in the dining alcove off the living room. As is true of other parts of the house, there is a wonderful view from the kitchen.



The exterior of the house is of redwood, treated to keep its color so that it will not bleach gray or turn black as untreated redwood does. The sash are painted dark green. The roof is of black mineral coated roll roofing. Interior finishes are as follows: in the children's rooms the walls are of plywood, living room walls are of plywood with Philippine mahogany surfacing, and the two bedrooms and hall on the upper floor are covered with grass cloth. The architect informs us that the house was built by S. J. Bertelson and adds that Mr. Bertelson is a wonderful craftsman.

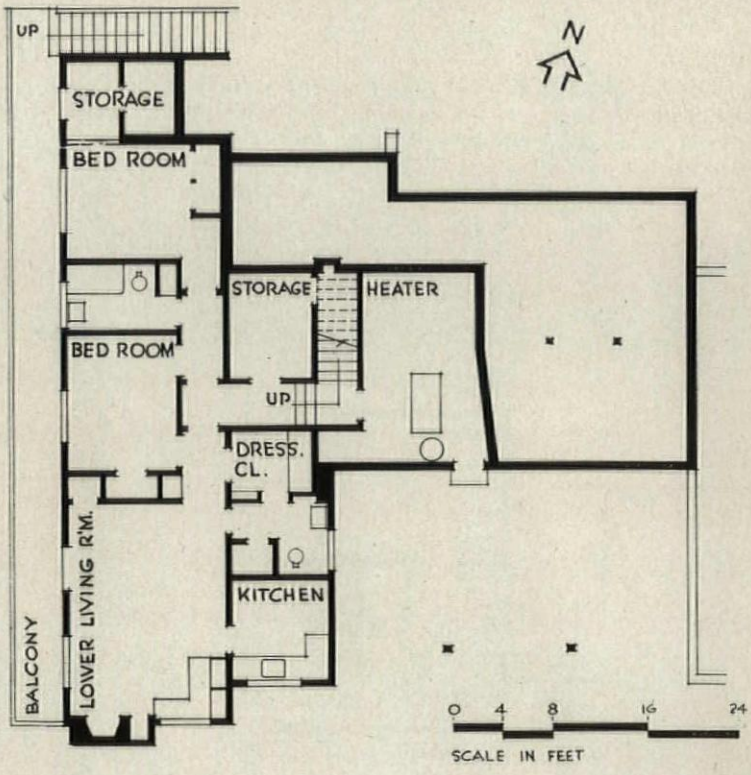
Photographs below show the entrance doors (both front and kitchen) and the garage entrance, which is at a much higher level than the remainder of the house.

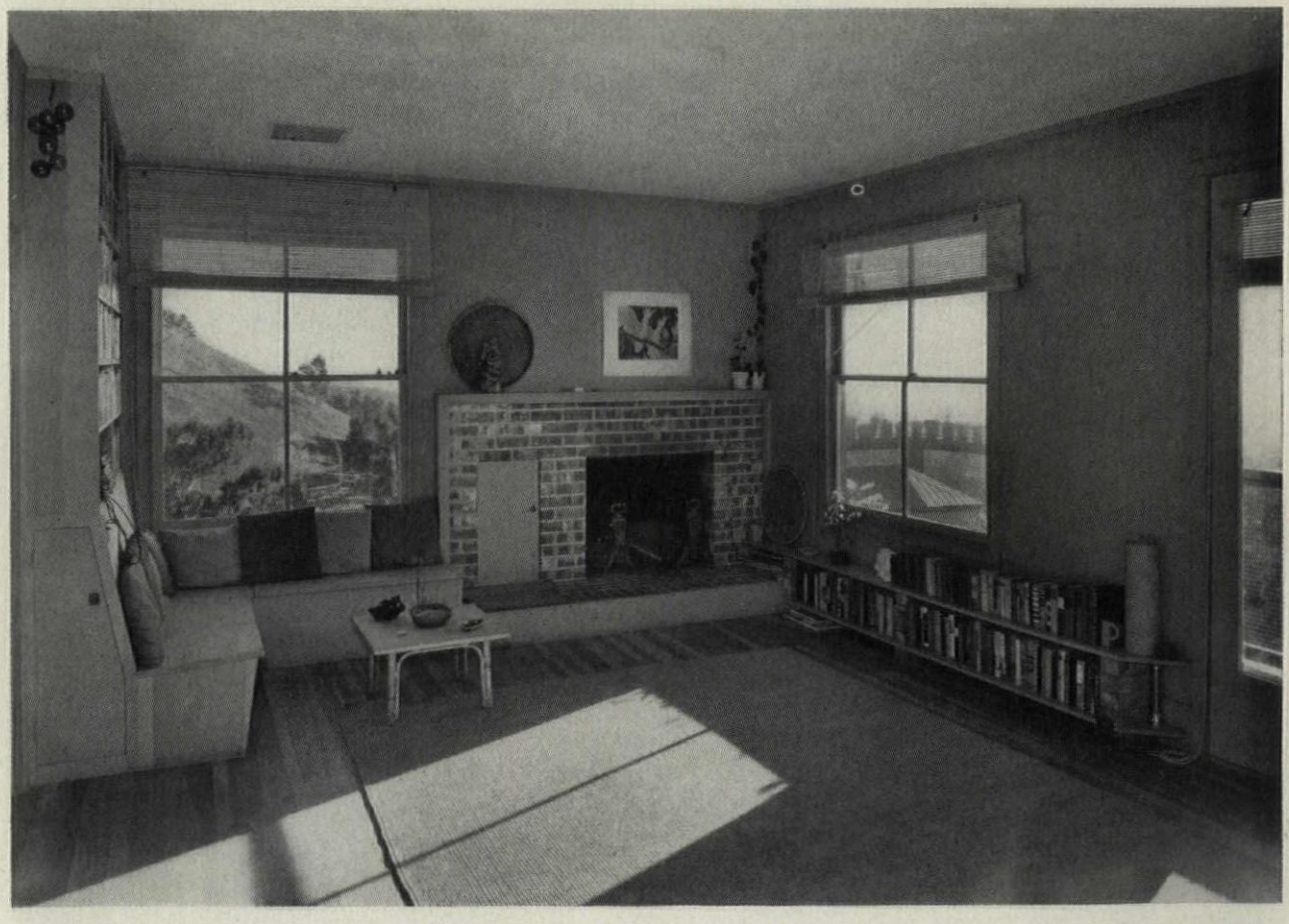




The plan at right shows the rentable apartment, laundry, drying room, and furnace room of the Eaton house. The apartment has its own outside entrance, dressing room, bath, and kitchenette. Of the two bedrooms shown, one is at present allocated to the apartment and one for the family servant. An outside door to this latter room makes it unnecessary for the servant to go through the house in order to reach the room.

Architect Wurster states that this house embodied one of the most difficult problems his office had encountered. It was necessary to make some changes as the job progressed and these were carefully followed through. He adds that the final result gives great satisfaction to both the client and the architect. Only one minor fault remains: the lower muntin of the living room windows on the main floor is at such a height that it interferes with the view of persons sitting on the built-in couch. The muntin was put at this height deliberately, to provide a feeling of security which seems necessary because the living room is so far above grade. Perhaps after the war, when such alterations can once more be made, the windows can be remodeled in some more satisfactory way.

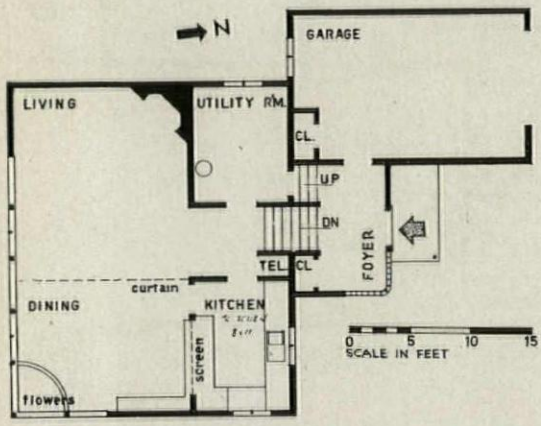


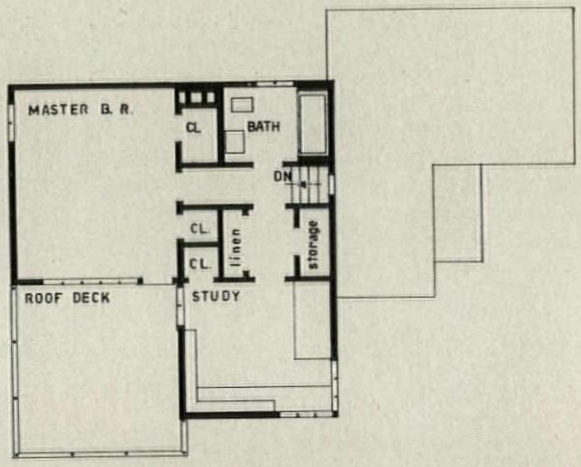


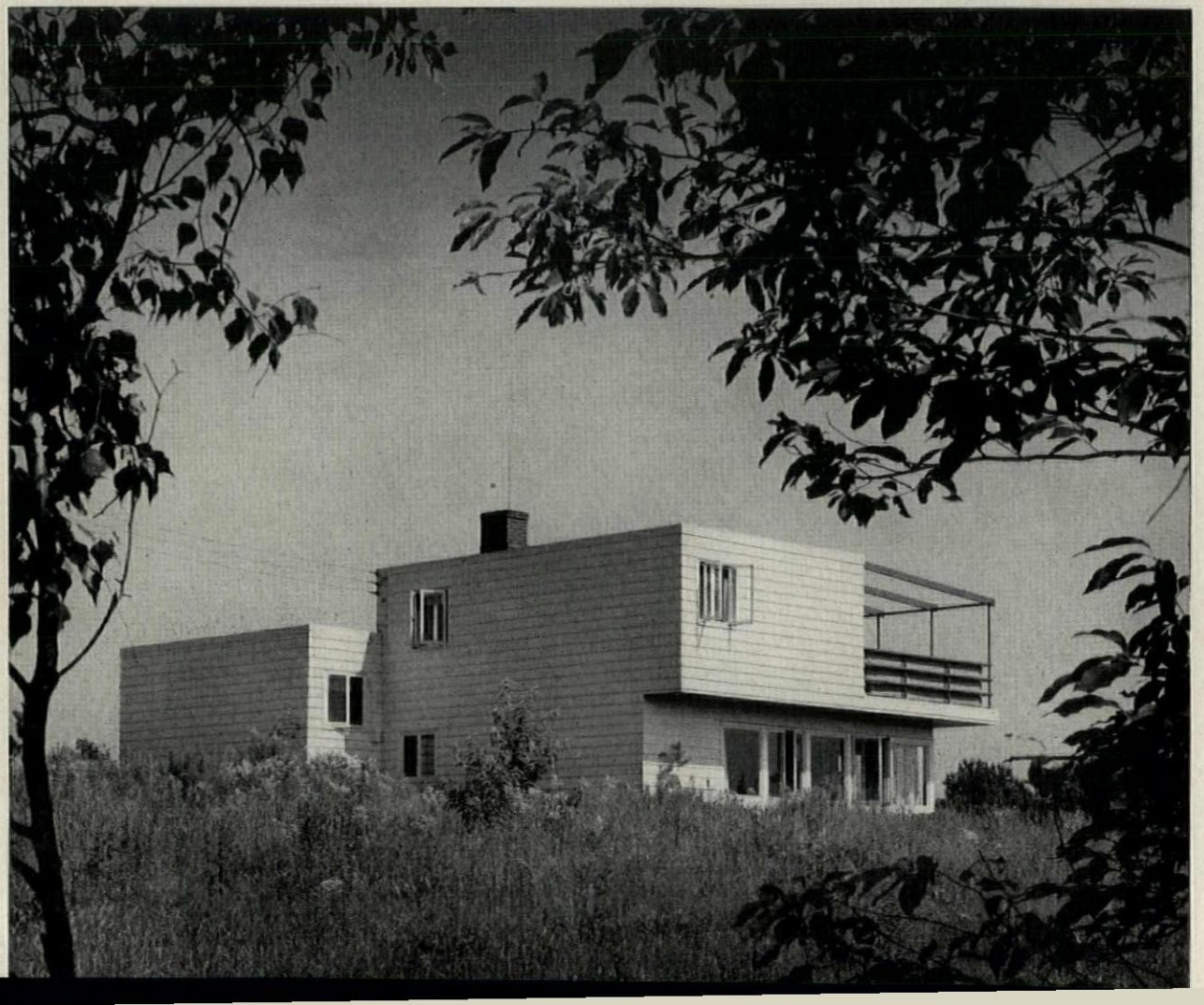
Unconventional Residence in Maine

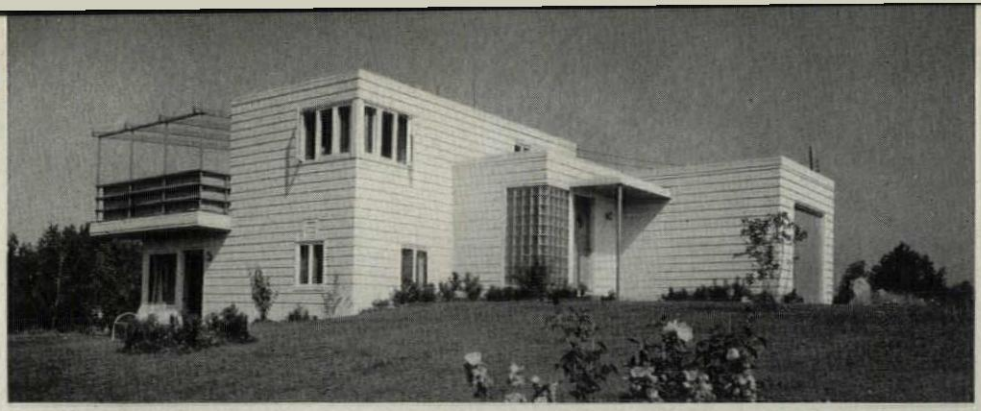
Alonzo J. Harriman, Architect and Engineer

Mr. and Mrs. Whitney, has been carefully studied in an contemporary solution into a traditional environment. and white paint is in the best Colonial tradition, but t been afraid to omit the usual roof or to provide a nctly utilitarian as well as extremely comfortable.

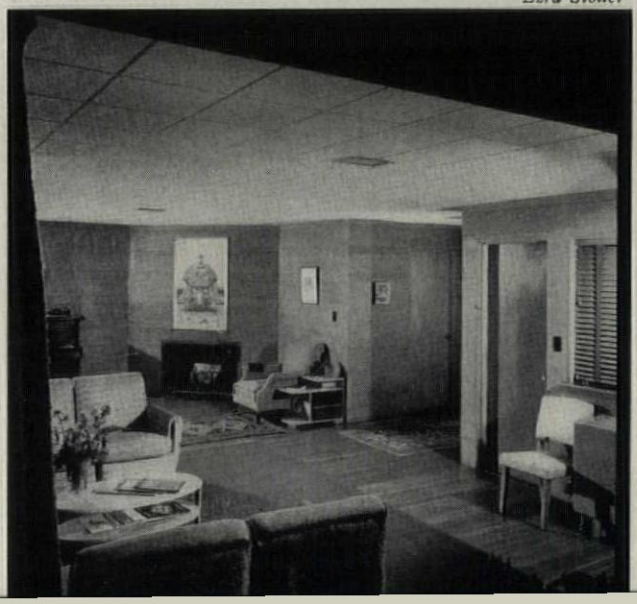








Ezra Stoller

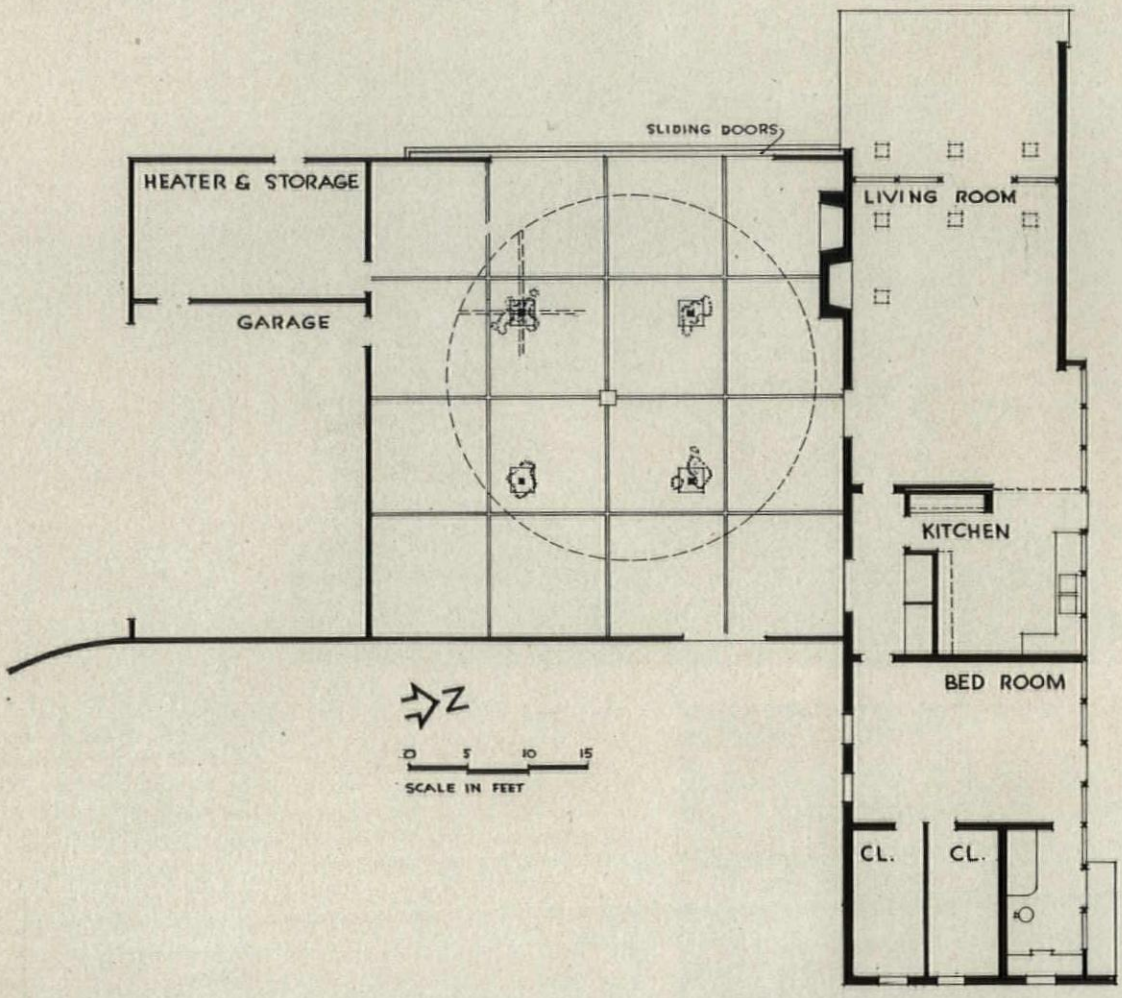


The increasingly common practice of making it possible to combine living and dining spaces is followed in this house. Also worthy of note are the compact kitchen and the serving counter opening into the dining end of the living room. The house can easily be run without servants. The opening from kitchen to dining space is equipped with a venetian blind—a simple and direct method of separation. Floors are surfaced with linoleum in some portions, wood in others. The heating boiler is oil burning and the radiators are of midget type. The house is insulated with mineral wool and the flat roof is of built-up composition. Interior walls are painted with a textured paint except that the living room has clear Maine pine walls, which are treated with a penetrating finish.

New Pencil Points, October, 1943

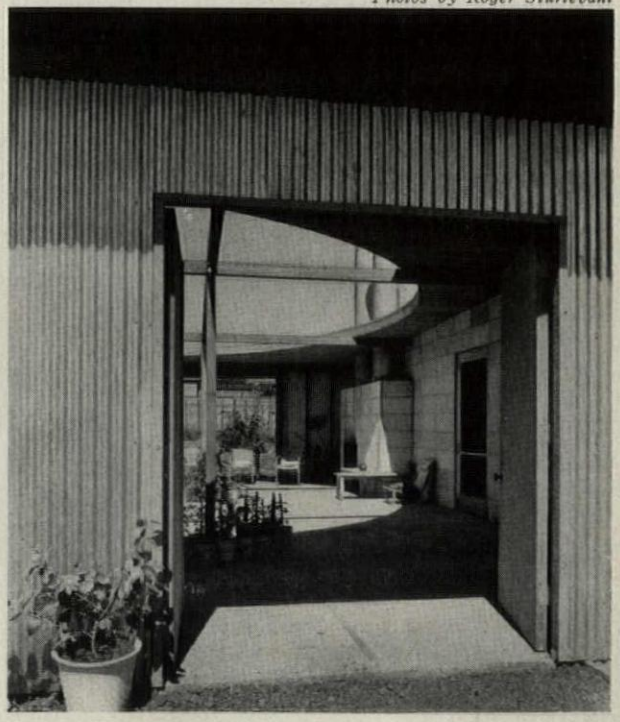
Designed for Easy Upkeep and Minimum Housework

William Wilson Wurster, Architect



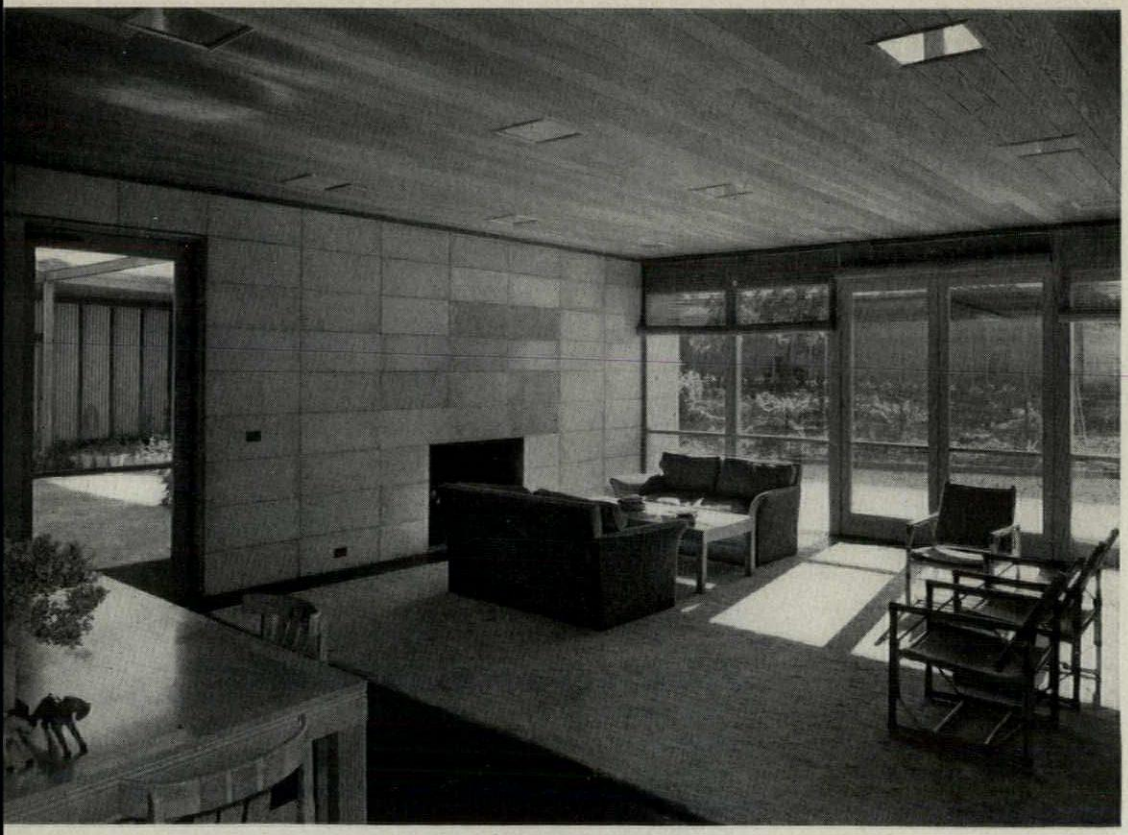
Solid lines in atrium show floor divisions, dotted lines indicate roof framing and circular opening. Outside the bathroom door is a shower for use of anyone who has been gardening and does not want to bring dirt into the house.

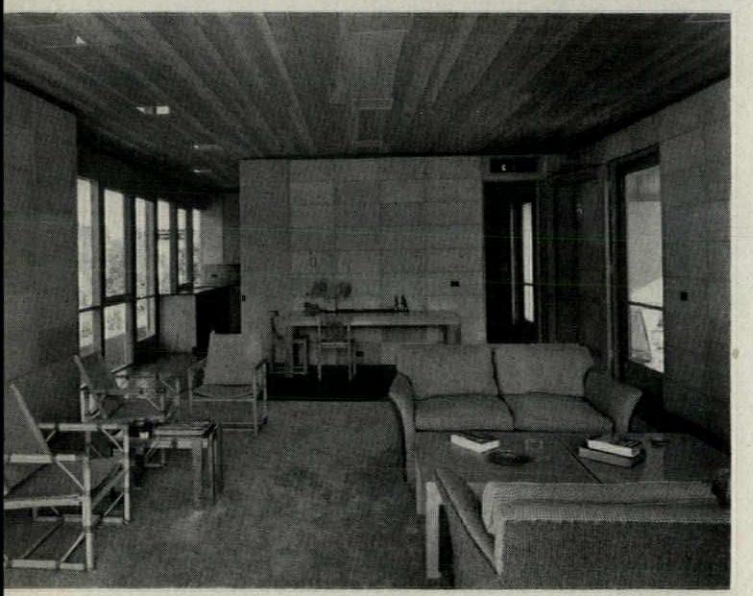
Photos by Roger Sturtevant

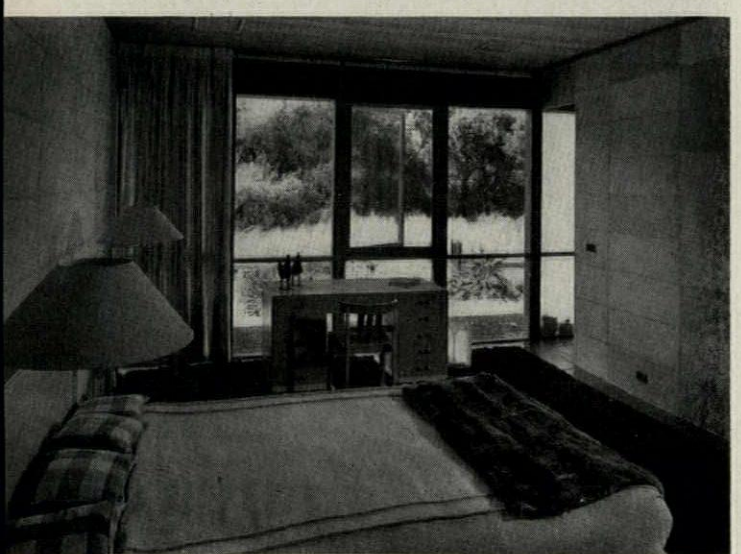


Dr. and Mrs. Saxton Pope, owners of this house near Orinda, Calif., at first wanted a redwood and plywood house for temporary use. This was to be moved later to another location, for a gardener or caretaker.

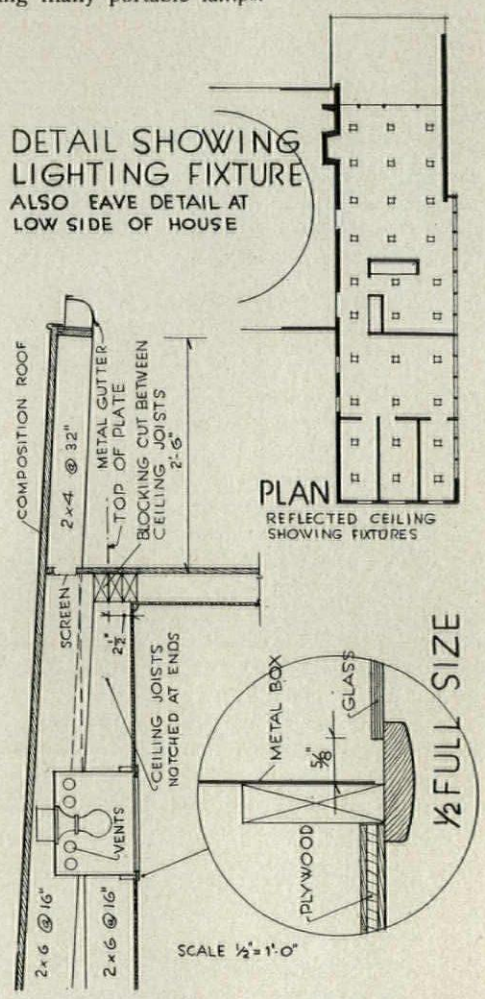
But the cost was greater than had been expected, and it was decided to design and build a permanent house. The final house has a main portion of concrete block, and an atrium and garage of corrugated galvanized iron supported by wood framing. In contrast to an earlier house (also designed for them by Wurster), which had floors at many levels and was quite dramatic, the owners now wanted a house all on one level, simple to keep up, where they could do their own work. Both are enthusiastic and successful gardeners, and Mrs. Pope has weaving as a hobby; she wove all the furniture coverings shown here.

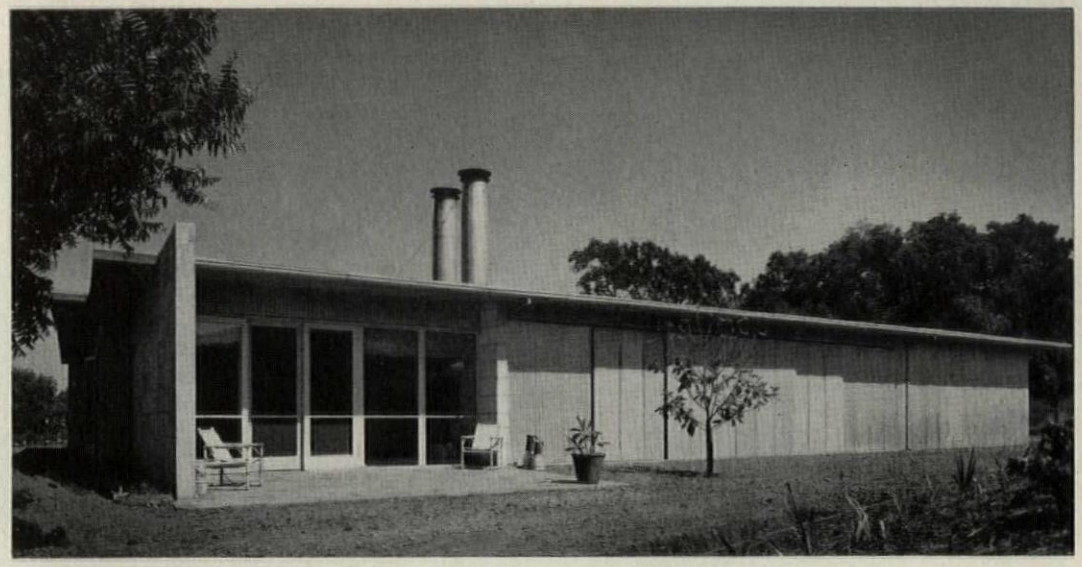




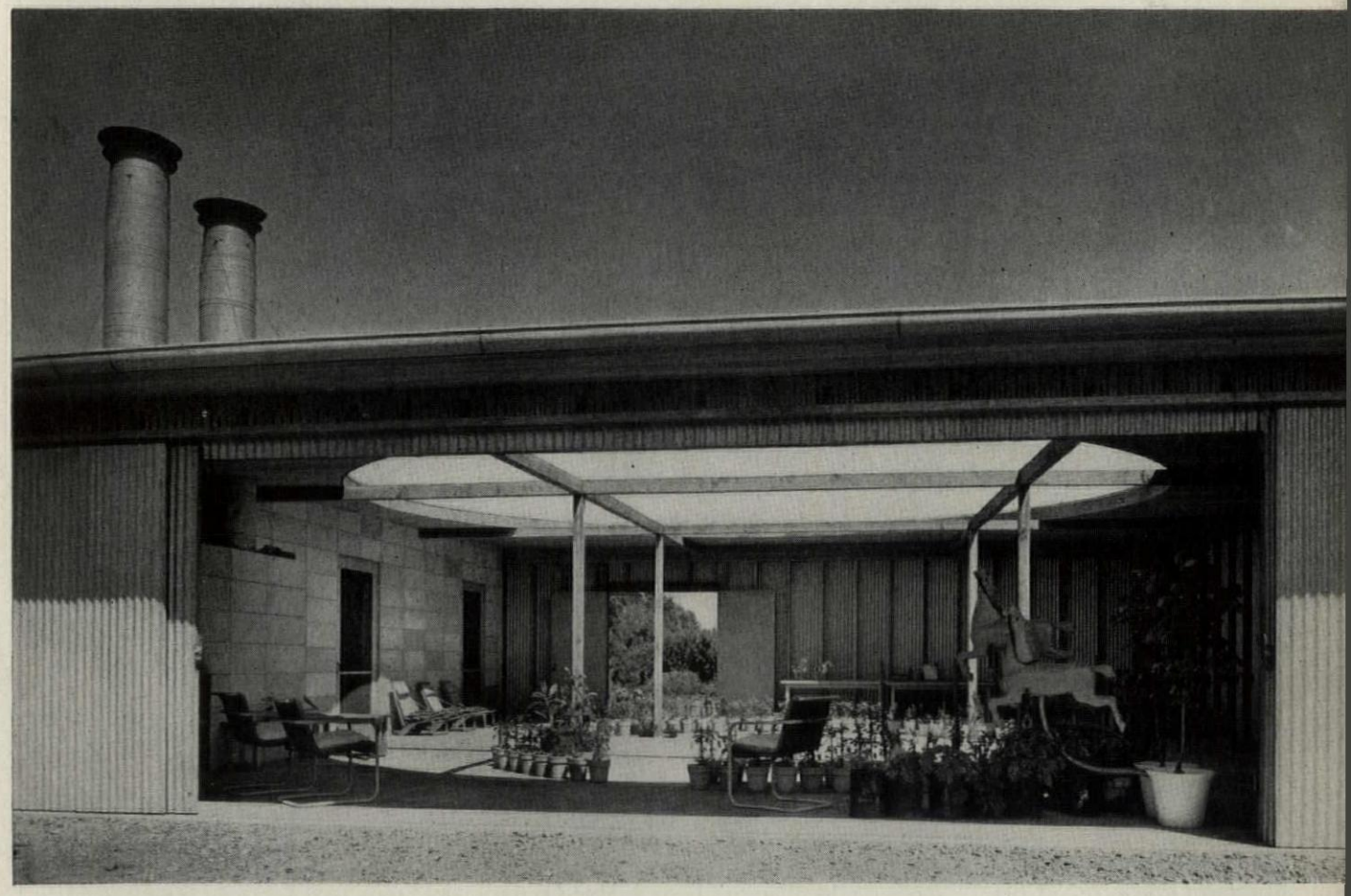


Above and at left, living room; left, below, bedroom. Concrete block walls are untreated inside or out, require almost no maintenance. Reinforcing is placed at each vertical joint and concrete is poured into hollows at ends of blocks, forming columns. Wall is completed as it is laid up, fireproof, and not overly expensive. Diagram shows grid of flush ceiling lights which illuminate the rooms, eliminating many portable lamps.





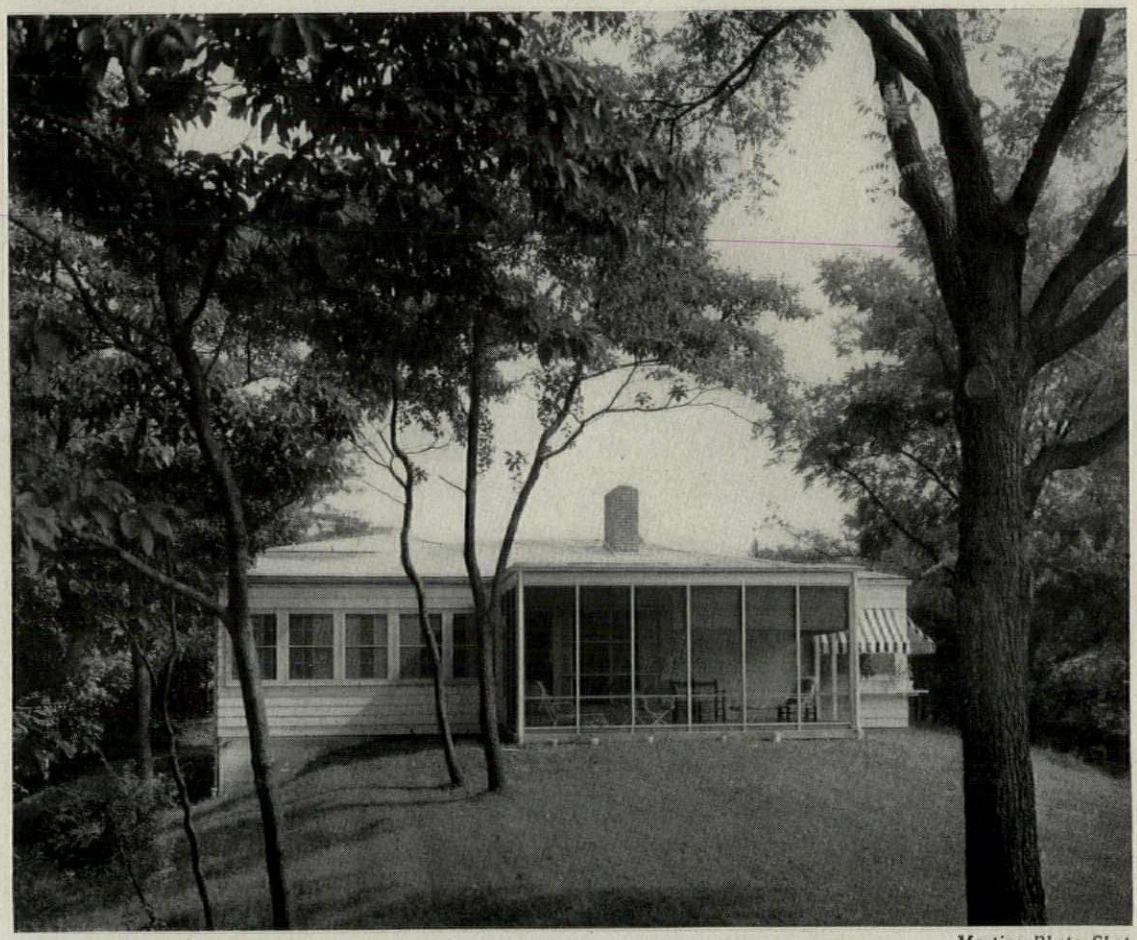
Winter sun penetrates the glass wall, but the overhang reduces insolation in summer. Ceilings inside are of pine, floors of red tile laid over membrane-waterproofed concrete—both means of assuring easy maintenance. House is heated by a forced-air, gas-fired furnace placed in a hall closet. There is no basement, nor any attic.



Clue to the whole project is the 40-by-40-foot atrium, with its opening to the sky (placed off center for casual effect and to afford undercover access to garage) and sliding doors to the west. Floor is of washed concrete (which shows the aggregate) divided by wooden strips.

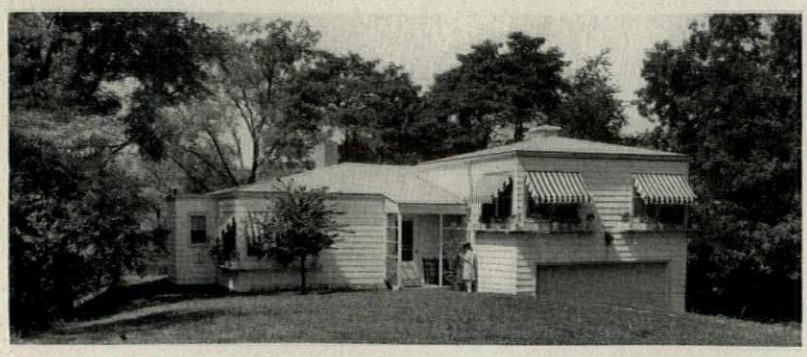
Indiana Dwelling Has Carefully Organized Plan

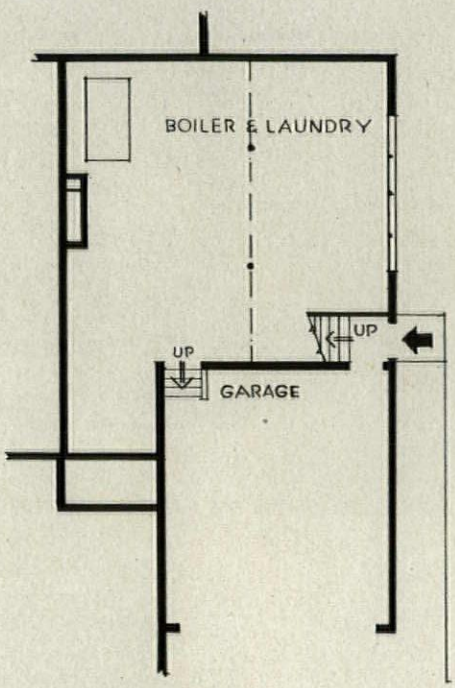
Miller and Yeager, Architects

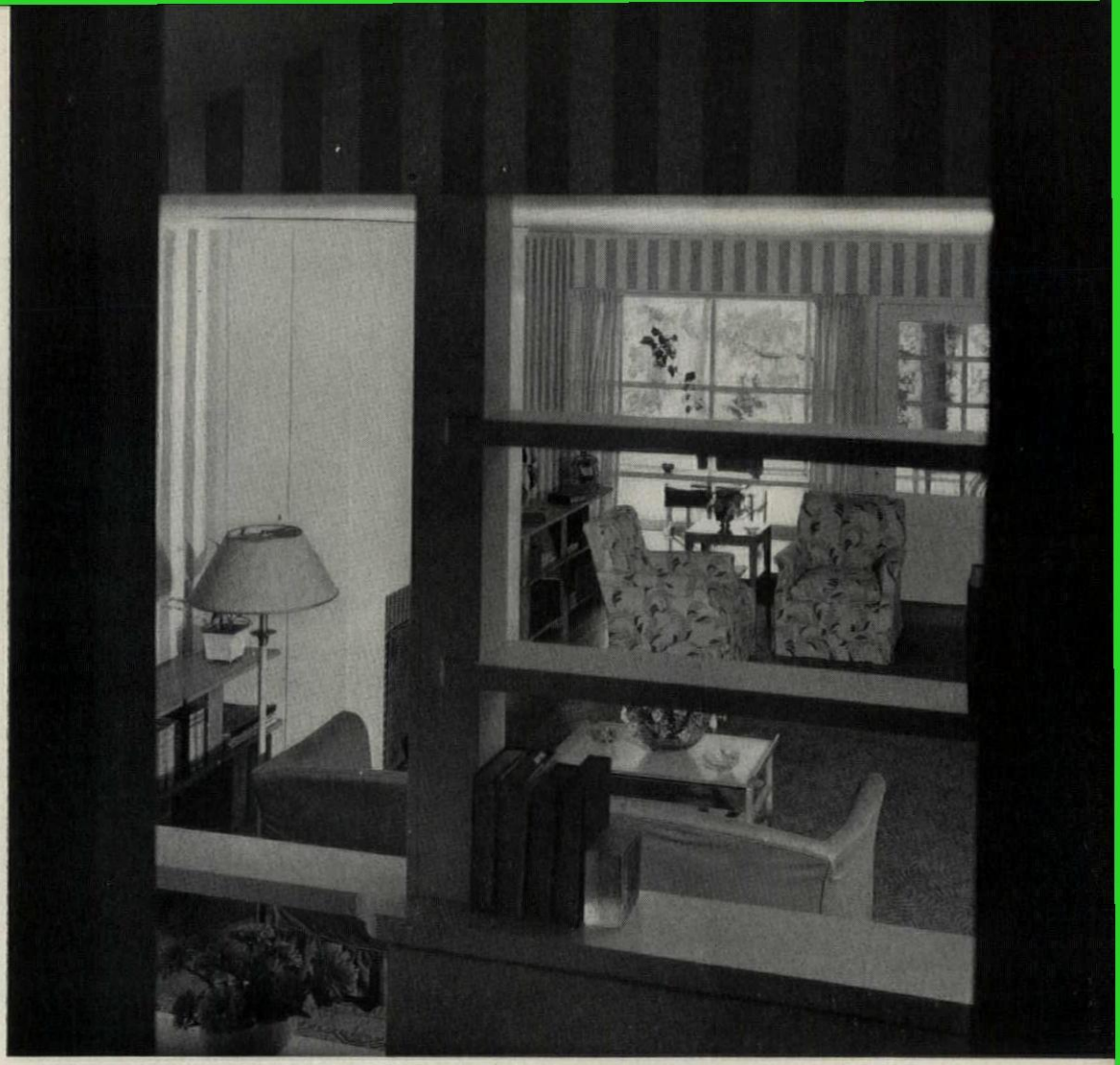


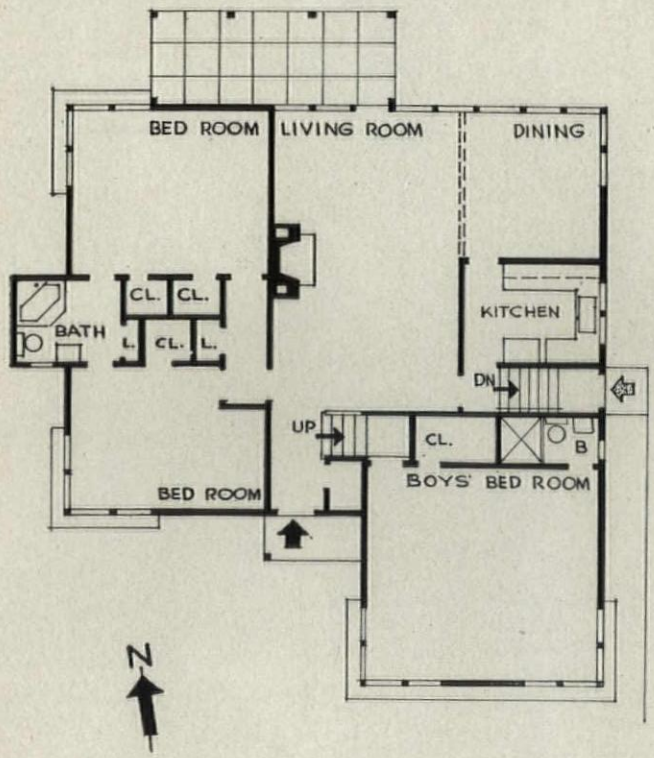
Martins Photo Shop

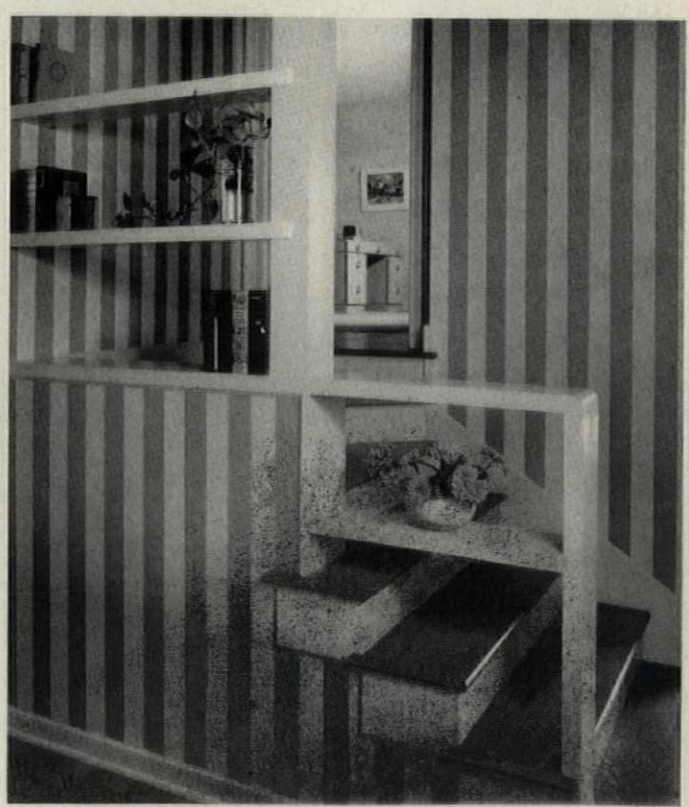
This house, like another in this issue, is the architect's own. It was designed for Ralph O. Yeager and cost, including normal fees, approximately $14,500. In the plan of the main floor, note that the two principal bedrooms are separated by a closet and bathroom and that the boys' bedroom is separated from living areas by closet and bath. The heating system is an oil-fired, forced-warm-air type, with warm and cold air registers in each room. Water is electrically heated. Foundation walls are of concrete block, waterproofed, and construction is of frame with wood sheathing and pre-dipped gray-white shingle siding. The roofing is asbestos shingle. The entire ceiling is insulated with 4″ of mineral wool. Basement ceiling, and garage walls and ceiling, are lined with plywood, and the basement has an asphalt tile floor. On the main floor, walls are plastered and papered and the floors are of factory-finished oak. The interior trim is Ponderosa Pine, and the doors are a flush type, of gum wood. The boys' bedroom has walls of redwood planks 12″ wide, and the fireplace breast is of the same material.








BED ROOM
LIVING ROOM
DINING
CL.
CL.
BATH
L.
CL.
L.
KITCHEN
DN
UP
CL.
B
BED ROOM
BOYS' BED ROOM
N



Minimum House Antedates War Housing

Wade Pipes, Architect

Although it was built before Pearl Harbor, this house, for John Endres, is quite close to government standards for one-bedroom war houses. For all that it is not a "minimum" house, nor has it the poverty-stricken architectural treatment which characterizes much war housing. It is heated by an automatic gas furnace and a warm air system in which return ducts from living room, bedroom, and hall run under the concrete subfloor to the heater closet. There is also a fresh air inlet under the floor. All these ducts are of drain tile. Warm air supplies are near the ceiling. Exterior walls are of clear red cedar boarding applied vertically and given a natural finish. The roof is of cedar shingles. Floors are asphalt tile in various colors. Trim and base were applied before interior walls were plastered and formed grounds. Windows are of the awning type, with the lower halves fixed. Flush doors are used throughout. The house is in Oregon, near Portland.

Leonard Delano