THE ARCHITECTURAL FORUM
INCLUDING “BUILDING MONEY”
OCTOBER, 1935
SMALL HOUSE REFERENCE NUMBER
Based on past performance

TONCAN IRON
is again specified for Air Washer

Five years ago, a large drug manufacturer installed an ammonia evaporator in an air washer. The material selected for both pipe and sheets was Toncan Iron. Recently, a similar installation was needed in the same plant. The performance of Toncan Iron during the last five years caused it to be specified for the new unit.

Service conditions such as are encountered in an installation of this sort are severe—air and moisture combine forces to tear down the ferrous structure. But Toncan Iron is not an ordinary metal. Refined open hearth iron, copper and molybdenum are here combined to form an alloy that possesses the highest rust-resistance of any ferrous metal in its price class. It often takes years for users to find out how superior Toncan Iron really is—how much more economical it is in service.

You'll find the story of Toncan Iron in "The Path to Permanence," if you're interested in sheets, and in "Pipe for Permanence," if pipe troubles worry you. Either, or both books, sent on request.

Republic Steel Corporation
GENERAL OFFICES • YOUNGSTOWN, OHIO

TONCAN COPPER
MOLYBDENUM
IRON
PROGRESS MAY BE REPORTED

The depression provides impetus for wide gains straight across the housing front—what those gains are and how they affect the American home.

THE SMALL HOUSE: 1935

Why sustained home building can be forecast for the remaining Thirties, what the houses will be like, how they will be better than their predecessors, why they will cost less. A comparison of new financing practices and a chart showing how much it costs to finance homes from $5,000 to $20,000 over periods of ten, fifteen, and twenty years.

101 HOUSES—202 PAGES

A panoramic view of contemporary U. S. homes . . . All sections . . . All styles . . . All within the price range eligible for FHA insured mortgages . . . All complete with interior-exterior photographs, floor plans, critical comment, cost data, and specifications . . . And all designed by architects.

BUILDING MONEY

The month's progress made by Federal building agencies (436) . . . An analyzed and detailed interpretation of all the influences stimulating residential building with a forecast of 1936 activity (438) . . . How five U. S. agencies are collaborating to produce a new mortgage system (441) . . . An astonishingly simple formula for figuring room rentals in housing projects of all types (443) . . . Building permits and building stocks hit a new 1935 high (448) . . . Michigan's Senator Cuzens fosters a large subsistence homestead project (446) . . . Complete details of the Sears-Roebuck contract to merchandise General Houses' prefabricated product (452) . . . Wall Street marketing for FHA insured mortgages (453) . . . Brooklyn's savings banks enforce minimum standards for small house construction and equipment (454).

DEPARTMENTS (in front advertising section)

THE MONTH IN BUILDING

A quick summary of front-page building news with significant facts and figures on building's volume, the trend in rents, flow of mortgage money and wages.

LETTERS


FORUM OF EVENTS

Le Corbusier comes to lecture in the U. S . . . Columbia's School of Architecture opens under a new administrative committee . . . Manhattan's Architects Samples Corp. launches a continuous exhibition of current architecture.

PRODUCTS AND PRACTICE

A new line of surface wiring to facilitate additional outlets with a maximum of convenience . . . Gas-fired boiler unit designed for steam, hot water and vapor heating . . . Standardized, low priced, double hung steel windows and a new casement window for residences.

ARCHITECTURAL FORUM is published monthly by cousins and Manson Corporation. Howard Myers, President; Hoy K. Larsen, C. D. Jackson, Vice Presidents; W. W. Cameron, Secretary; Charles E. Stewart, Treasurer. Publication office, 144 Maple Street, Jersey City, N. J. Advertising Office, 125 East 42nd Street, Chicago, Illinois. Address all editorial correspondence to 125 East 42nd Street, New York, New York. Yearly Subscription, $5.00. Canadian duty $0.60. Single issues, including Reference Numbers, $1.00. All Copies Mailed Flat. Trade Supplies by American News Company and its Branches. Copyright 1935, Cousins and Manson Corporation.

VOLUME LXIII NUMBER FOUR
WHERE silence is golden... in hospitals, libraries, banks, and private homes... you can insure quiet with floors of sound-absorbing cork tile. Armstrong's Cork Tile is made of pure resilient cork containing millions of dead-air cells to hush footsteps and muffle reverberation.

Yet for all its resilience, Armstrong's Cork Tile is exceptionally durable. Right now, it is demonstrating its wear-resistance in hundreds of busy public buildings. Simple washing and waxing keep it clean and beautiful for years.

Finally, Armstrong's Cork Floor lends itself to all manner delightful designs. Its three warm tones of "cork brown" offer you a wide range of decorative possibilities. See Section 15, Catalog 35, page 21—and write now for "Armstrong's Cork Tile Floors" Armstrong Cork Products Company, Building Materials Division, 1204 State Street, Lancaster, Penna.
MORTGAGE MARKET. The same brokerage house in Wall Street (see p. 455) was responsible last month for two encouraging reports, one a fact, the other a well-founded rumor. The fact was that it made the first offering of FHA mortgages with good results, and the rumor was that it had just about completed arrangements for the formation of a National Mortgage Association, with funds supplied by several important building manufacturers.

The steady increase of available mortgage money continued. In Philadelphia, a timid inquiry by an architect to the FHA as to whether money might be forthcoming for an apartment house he had on the board brought representatives of three banks to his office the next day. In New York, the Bowery Savings Bank, along with other less potent but none the less eager institutions, continued to advertise its willingness to lend.

As yet, however, no national banks were taking the active part in mortgage lending that is expected of them once they digest the real estate provisions of the new Banking Act. Most of the larger New York banks had tentatively decided to try a few local loans, but few were thinking seriously of doing a nationwide business, such as is permitted in the Act.

HYPODERMIC. Just as true as one picture is worth a thousand words, so one house is worth a thousand pictures. Belief in this principle inspires hundreds of model dwellings each year; and next year it will inspire an ambitious series of home shows jointly sponsored by the Government and private industry.

The plan grew out of the wreckage of the Housing Caravan, a promotion stunt conceived last winter, which was to have consisted of a half dozen elaborately equipped motor floats, moving from town to town selling better housing. Next year, if the sponsors carry out a suggestion of Secretary Morgenthau, the traveling shows will ride in streamlined trains. And besides, six permanent shows will be set up in major cities.

To work out the details, a committee of manufacturers, headed by Russell Crevison of the Crane Company, and Marshall Adams of the American Radiator Company, are collaborating with the National Association of Real Estate Boards, father of the plan. Funds to promote it will be private funds, the Government's contribution being simply its blessing.

RENTS AND OCCUPANCY. Most brokers and managing agents were well satisfied as they looked over their rental charts just as the October 1 rental season was ending. Scattered reports from all sections of the country indicated a further reduction of vacancies and a lifting of rental prices.

As it must be, improvement was far from uniform. The Southwest and West reported the most progress, New England the least. The Middle Atlantic States showed slight but encouraging advances, with the Midwest somewhat stronger.

Estimated increase of rents for the past year reported by the Federal Home Loan Bank:

<table>
<thead>
<tr>
<th>State</th>
<th>Occupancy</th>
<th>Increase</th>
<th>State</th>
<th>Occupancy</th>
<th>Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Me</td>
<td>87.5%</td>
<td>None</td>
<td>Tenn.</td>
<td>94%</td>
<td>9%</td>
</tr>
<tr>
<td>Mass.</td>
<td>92%</td>
<td>2%</td>
<td>Ill.</td>
<td>95%</td>
<td>7.4%</td>
</tr>
<tr>
<td>R. I.</td>
<td>90%</td>
<td>1.7%</td>
<td>Wis.</td>
<td>97.5%</td>
<td>13%</td>
</tr>
<tr>
<td>N. H.</td>
<td>95%</td>
<td>None</td>
<td>Mich.</td>
<td>95%</td>
<td>13.2%</td>
</tr>
<tr>
<td>Va.</td>
<td>98%</td>
<td>None</td>
<td>Ind.</td>
<td>95.7%</td>
<td>8.8%</td>
</tr>
<tr>
<td>Conn.</td>
<td>92%</td>
<td>None</td>
<td>Kan.</td>
<td>96.5%</td>
<td>10.4%</td>
</tr>
<tr>
<td>N. Y.</td>
<td>92.5%</td>
<td>5.6%</td>
<td>Colo.</td>
<td>97%</td>
<td>13.7%</td>
</tr>
<tr>
<td>N. J.</td>
<td>91.2%</td>
<td>5%</td>
<td>Minn.</td>
<td>97%</td>
<td>7%</td>
</tr>
<tr>
<td>Md.</td>
<td>96.6%</td>
<td>6.2%</td>
<td>N. D.</td>
<td>98.7%</td>
<td>13.7%</td>
</tr>
<tr>
<td>Del.</td>
<td>98.8%</td>
<td>3%</td>
<td>S. D.</td>
<td>98%</td>
<td>7%</td>
</tr>
<tr>
<td>Va.</td>
<td>92.8%</td>
<td>6.8%</td>
<td>Neb.</td>
<td>96.4%</td>
<td>11%</td>
</tr>
<tr>
<td>Penn.</td>
<td>94.8%</td>
<td>5%</td>
<td>La.</td>
<td>95%</td>
<td>9%</td>
</tr>
<tr>
<td>W.Va.</td>
<td>97.5%</td>
<td>9%</td>
<td>Tex.</td>
<td>96%</td>
<td>8.7%</td>
</tr>
<tr>
<td>Ohio</td>
<td>94%</td>
<td>9.2%</td>
<td>Okla.</td>
<td>97%</td>
<td>11.4%</td>
</tr>
<tr>
<td>Ala.</td>
<td>95%</td>
<td>8.6%</td>
<td>N. Mex.</td>
<td>88%</td>
<td>4%</td>
</tr>
<tr>
<td>N. C.</td>
<td>92.8%</td>
<td>8.5%</td>
<td>Cal.</td>
<td>94%</td>
<td>8.3%</td>
</tr>
<tr>
<td>S. C.</td>
<td>93.4%</td>
<td>6%</td>
<td>Wash.</td>
<td>92.2%</td>
<td>12%</td>
</tr>
<tr>
<td>Fla.</td>
<td>92%</td>
<td>15%</td>
<td>Ore.</td>
<td>94.2%</td>
<td>12.8%</td>
</tr>
<tr>
<td>Ga.</td>
<td>97%</td>
<td>7.6%</td>
<td>Mont.</td>
<td>94.2%</td>
<td>7%</td>
</tr>
<tr>
<td>Mo.</td>
<td>94%</td>
<td>5.87%</td>
<td>Nev.</td>
<td>94%</td>
<td>10%</td>
</tr>
<tr>
<td>La.</td>
<td>95%</td>
<td>5.5%</td>
<td>Utah</td>
<td>97%</td>
<td>7%</td>
</tr>
<tr>
<td>Ark.</td>
<td>92.5%</td>
<td>11%</td>
<td>Idaho</td>
<td>98.6%</td>
<td>14.4%</td>
</tr>
<tr>
<td>Miss.</td>
<td>98%</td>
<td>14.2%</td>
<td>Wyo.</td>
<td>97%</td>
<td>20%</td>
</tr>
<tr>
<td>Ky.</td>
<td>94%</td>
<td>4.6%</td>
<td>Ariz.</td>
<td>92%</td>
<td>5%</td>
</tr>
</tbody>
</table>

COME TO THE FAIR. With a theme far less inspirational than the "Century of Progress," New York announced its intention last month of outdoing Chicago with a fair of its own in 1939. The purpose: to do honor to the memory of George Washington whose inauguration as President will have been a 150-year-old event by that time. The site: a broad swampland in the borough of Queens, which to fill in and build upon will cost about $40,000,000. When the fair ends, the site will be converted into a permanent park and playground.
ARCADE
UNIT PANELS

FOR ANY STYLE OF DECORATION

FOR ANY HOME: OLD OR NEW
AKE THE MODERN BATHROOM

Erect the panels to suit your plan.

Finish the rest of the room in any wall covering—washable or otherwise.

The many advantages of Arcode Unit Panels are making them the choice of architects and builders in present construction and modernization work. Each panel is a completely engineered waterproof wall section. It fastens directly to the studding or over the old wall. Every joint is permanently leakproof. The entire installation is forever free from the hazards of settling or leakage.

The design of Arcode Panels is in the best tradition of modern beauty... the beauty of compactness, of clean lines and surfaces. With their rich colors, they fit into any scheme of decoration; allow you wide choice of other wall coverings, washable or otherwise, to make each bathroom an individual triumph.

The development of Arcode Panels is the result of four years of research by the Bureau of Design Development of the American Radiator Company. They are backed by the world's largest manufacturer of domestic engineering equipment. To today's bathroom, as well as tomorrow's, the Arcode System brings the first real engineered advance in construction methods and materials. A group of practical rooms has been arranged in our showroom. See them. Or write for literature.

A Few Recent ARCODE Installations

- Stoneleigh Court Apartments, Washington, D. C.
- Hotel Astor, New York City
- Huntington Residence, Princeton, N. J.
- American Houses Inc., New York City
- Model House, New Rochelle, N. Y.
- Betty Lewis Apartments, Fredericksburg, Va.
- Chas. Morrison Curtis Residence, Summit, N. J.
- America's Little House, New York City
- Model Home, Short Hills, N. J.
- Margaret E. Bowen, Modern Steel Homes, Wichita Falls, Texas
- Dormitory, Swarthmore College

THE ACCESSORIES CO., INC.
Division of AMERICAN RADIATOR COMPANY
40 WEST 40th STREET • NEW YORK, N. Y.

SYSTEM OF FABRICATED BATHROOM PANELS
And again at San Diego...


GENUINE MASONITE TEMPERED PRESWDWOOD POINTS THE WAY TO THE FUTURE

Millions of feet of Genuine Masonite Tempered PRESWDWOOD went to A Century of Progress... and wrote new pages in building-history. Now this modern material is at The California-Pacific International Exposition, giving additional proof of its ability to produce beautiful, lasting interior and exterior surfaces... inexpensively.

Among the many interesting uses of Genuine Masonite Tempered PRESWDWOOD at San Diego, perhaps the most dramatic is in Casa de Tempo, a delightful adaptation of the California Monterey dwelling. In entrance hall, library and bedroom its natural warm-brown finish blends with the most modern decorative schemes and devices to provide floors, walls and ceilings of unusual charm. The kitchen is attractively walled with Genuine Masonite Tempered PRESWDWOOD—enameled to produce realistic tile effects.

The entire home is insulated with Masonite. Masonite Structural Insulation is used for sheathing and floor-deadening, and Masonite Insulating Lath is used as a plaster base throughout.

Casa de Tempo illustrates the reason architects, homeowners and industries are specifying Genuine Masonite Tempered PRESWDWOOD for new-building and remodeling. It's grainless... moisture-resisting. Uniform in quality. Won't warp, chip, split or crack. Can be installed by regular carpenter—decorated with any standard application by regular painter. Obtainable from leading lumber dealers everywhere in 1/8", 3/16" and 1/4" thicknesses.

Genuine Masonite Tempered PRESWDWOOD is performing hundreds of jobs for individuals and industries today... and saving money. Perhaps it can help you solve your construction problems and reduce your costs. Write us for a free sample, and any technical information you may wish. Address: Masonite Corporation, 111 West Washington Street, Chicago, Illinois.

Genuine

MASONITE TEMPERED PRESWDWOOD AND INSULATION

QUARTERBOARD · TEMPTILE · CUSHIONED FLOORING · STRUCTURAL INSULATION
Hundred of “New American” homes springing up the country over—showing the importance of the architect in better small-house design.

are two unusual things about G-E nationwide architectural

held this year: First, it

the idea of the “New Ameri-

fact, and hundreds of “New

homes have actually been over the country for exhibition.

the idea of the “New Ameri-

possible leisure and the least possible

This “New American” movement rep-

boosts that building has had since the

The homes are built and financed by local builders, and supervised by local architects. Both the architect and the building industry are benefited. And whatever helps them helps us, because we make all the electrical appliances necessary to equip an up-to-date home.

But the really vital thing about these homes from an architect’s standpoint is the way they emphasize the importance of the architect in planning a house. The magazines and newspapers think so, as you will see by the following pages.

Some cities where “New American” homes are being built

Birmingham, Ala.
Phoenix, Ariz.
Tucson, Ariz.
Sacramento, Cal.
San Jose, Calif.
Los Angeles, Calif.
Yuba City, Calif.
Denver, Colo.
Hamden, Conn.
Waterbury, Conn.
New Haven, Conn.
Washington, D. C.
Tampa, Fla.
St. Petersburg, Fla.
Jacksonville, Fla.
Miami, Fla.
Orlando, Fla.
Lakeland, Fla.
Atlanta, Ga.
Athens, Ga.
Macon, Ga.
Savannah, Ga.
Augusta, Ga.
Whitewater, Ill.
Chicago, Ill.
Aurora, Ill.
Pontiac, Ill.
Springfield, Ill.
Jacksonville, Ill.

Fr. WV f'on, Ind.
South Bend, Ind.
Davenport, Iowa
Des Moines, Iowa
Dubuque, Iowa
Louisville, Ky.
Hays, Kansas
Topeka, Kansas
New Orleans, La.
Baton Rouge, La.
Shreveport, La.
Lake Charles, La.
Covington, La.
Birmingham, Md.
Gardiner, Mass.
Boston, Mass.
Marblehead, Mass.
Lynn, Mass.
Lowell, Mass.
Poniatos, Mich.
Kalamazoo, Mich.
Detroit, Mich.
Grand Rapids, Mich.
Flint, Mich.
St. Paul, Minn.
Jackson, Miss.
Gulfport, Miss.

Meridian, Miss.
Columbia, Miss.
Columbus, Miss.
Kalamazoo, Mich.
Detroit, Mich.
Grand Rapids, Mich.


Nassau Co., N. Y.
Queens Co., N. Y.
Richmond Co., N. Y.
Rockland Co., N. Y.
Westchester Co., N. Y.
Westfield, N. Y.
Newark, N. Y.
Paterson, N. J.
Elizabeth, N. J.
Allentown, N. J.
Eagleswood, N. J.
Chatham, N. J.
Clifton, N. J.
Asbury, N. Y.
Saratoga Lake, N. Y.
Plattsburg, N. Y.
Pittsford, N. Y.
Rochester, N. Y.
Syracuse, N. Y.
Utica, N. Y.
Binghamton, N. Y.
Brockport, N. Y.
Niagara Falls, N. Y.
Albany, N. Y.
Troy, N. Y.
Gloversville, N. Y.
Kings Co., N. Y.

Reading, Pa.
Pittsburgh, Pa.
Washington, D. C.
Bradford, Pa.
Williamsport, Pa.
Schenectady, N. Y.
Providence, R. I.

Columbia, S. C.
Charleston, S. C.
Greenville, S. C.
Spartanburg, S. C.
Dayton, Ohio
Memphis, Tenn.
Nashville, Tenn.
Houston, Texas
El Paso, Texas
San Antonio, Texas
Fort Worth, Texas
Dallas, Texas
Austin, Texas
Corpus Christi, Texas
Salt Lake City, Utah

Denver, Colo.
Burlington, Vt.
Richmond, Va.
Spokane, Wash.
Pullman, Wash.
Clarksville, Va.
Parkerburg, W. Va.
Milwaukee, Wis.
"New American" Plan
a Help to Architects

It is a great advantage to architects to be able to deal with one reputable manufacturer for all the electrical equipment in a home—as has been the case in the "New American" homes.

List of Basic G-E Equipment used in the "New American" Home

- G-E Air Conditioning
- G-E Automatic Heat
- G-E Electric Kitchen
- G-E Electric Laundry
- G-E Lighting
- G-E Wiring

General Electric
So magazines and newspapers all over the country are featuring it editorially

One of the surest tests of public interest in anything is the editor's "nose for news." It is significant to note that ten different national magazines are devoting from two to six pages each to the "New American" home in their October and November issues—that newspapers all over the country have picked it up and featured it—even to the extent of special pages and sections.

As far back as its May issue, House & Garden built and reproduced two models of prize-winning houses. They will again feature these houses in October, and are planning an educational program with leading department stores. McCall's Magazine is featuring one of the prize-winning designs on its Home Making Section cover and in three pages of its October issue, and will feature another of the houses in November. This magazine also built a reproduction of the living and dining rooms of one house, shipped them to the Furniture Mart in Chicago for the Summer Furniture Exposition. It is displaying models of the houses—giant illustrations of the rooms in the lobbies of 60 Chicago motion picture theatres. The American Home is featuring one of the houses on the cover and inside of its October issue, and also erected several rooms of this house at the Furniture Mart.

Ladies' Home Journal began in its July issue a campaign to promote the idea of designing houses "from the inside out." They are cooperating also in the construction of a "New American" home in Larchmont, N. Y., which will be illustrated in the November issue.

These are only a few of the things that are being done by the magazines and newspapers, but they illustrate the interest, and the definite action, that the "New American" home idea has aroused all over the United States. But that isn't all, either. Turn this page for more information.
SPECIAL NATIONAL ADVERTISING
ON "NEW AMERICAN" HOME

reaches 13,000,000 people

G-E uses 16 magazines to tell
the public the "New American"
story... local newspapers
will also be used

NEVER before has General Electric con­
centrated so much advertising in any single
month on one campaign.
This advertising goes into details on the
"New American" home story, adds to the other
work being done to arouse the curiosity and
interest of the public in these homes, and in
addition, encourages home construction in gen­
eral. The advertising invites the public to visit
the nearest "New American" home. May we
invite you to do the same, and to communicate
with us for any further information you may
desire? Address General Electric Company,
Demonstration Home Department, 570 Lex­
ington Avenue, New York, N. Y.
How one Designer Planned a Basement WITH

General Electric Air Conditioning

The man who designed this basement game room for a "New American" home tells us he had a lot of pleasure in doing it. Inspired by the compactness and utility of the G-E Oil Furnace and the straight, clean lines of the G-E Air Conditioning unit, he formed a fitted-paneled alcove by an ingenious closet arrangement. One closet is housed the household water tank. In another the condensing unit for cooling.

The flexibility, long life and lower operating costs of G-E Air Conditioning equipment appeal to every architect. It is adaptable to new homes or old. One room, or an entire house may be adequately conditioned.

There may be a split system which permits of radiators where wanted and conditioned air through grilles in the other rooms. You have wide latitude in planning.

Your local G-E dealer with trained air conditioning specialists will supply you with all the engineering aid required, take full responsibility for installation, performance and service.

For quick specification data see your Sweet's Catalog. For surveys, estimates or more detailed information call either on the G-E dealer or write direct to General Electric Company, Air Conditioning Department, Division 32015, Bloomfield, New Jersey.
THE G-E RADIAL WIRING SYSTEM

Satisfy The Electrical Requirements of Your Modern Homes

Drawing boards of architects the country over, modern homes are being designed. Whether their architecture is modern or traditional, they have one thing in common—they are all-electric homes. Your clients demand electric stoves, laundries, air-conditioning, and other labor-saving devices. Perhaps they cannot install them all now, but want all-electric homes as soon as possible. To do economically and efficiently, the architect must care-plan the wiring system, through which the electricity must be conveyed. Consider the electrical requirements for present needs and future needs.

Help you meet such broad specifications, General Electric Engineers have developed a revolutionary new wiring system. It is being built into all the General Electric sponsored "New American" Homes now under construction throughout the country.

The New G-E Radial Wiring System

G-E Radial Wiring System offers many advantages to home owners. It is simple in design and construction. It reduces voltage losses to the minimum, making the current paid for do useful work without waste. It provides a better type, efficient circuit breakers at convenient points throughout the house. These circuit breakers act also as switches and are so compact as to actually fit in standard 3x6 boxes. And when additions or changes are necessary in the future, they can be made easily and inexpensively.

Radial Wiring System is based on the principle of circulating branch circuits arranged in radial runs from circuit breakers. This decentralized distribution system eliminates the obviously poor practice of placing a great number of outlets on a branch circuit. It substitutes 1 feeder to convenient points throughout the house where it places controls for the radial circuits. It is adequate in copper, using wire sizes suited to modern loads, details, of course, conform to National Electrical Code requirements.

The schematic drawing, you can see exactly how the G-E Radial Wiring System functions. The specifications for an all-electric home with major fixed appliances is a complete outlet and lighting system with modern fixtures. The wires marked A designate the serviceance cables going through the meter to the Totalizing Unit. These sub-feeder circuits C of No. 10 wires lead from Totalizing Unit A to the Air-conditioning Panel from which the air-conditioning equipment is run.

The risers, labeled D consist of No. 10 conductors. They lead direct from the Totalizing Unit A to all Flush Branch Circuit Breakers. These Circuit Breakers or control units must be of suitable capacity to properly protect the wires which fan out into the devious circuits throughout the house. You thus see that we have 4 points of sub-control conveniently located around the house. These breakers are no more obtrusive than is the standard switch in the circuits of today. The home owner does not object to them because in their operation of protecting the circuit there is no fuse blowing—they are operated the same as a switch. The Circuit Breaker locations are centered to minimize all circuit lengths.

These sub-circuits of No. 12 conductors, labeled E are fanned out from the Circuit Breakers to the lighting or convenience outlets. Wherever possible, convenience outlets are circuited separately from lighting outlets.

The kitchen circuiting is particularly noteworthy. Appliance outlets are protected by a 20-amp. Circuit Breaker served by one of risers D. From it, sub-circuits are fanned out to individual appliance outlets. Thus each of the No. 12 wires are subjected to the load of only one outlet. Such is the basic design of the G-E Radial Wiring System. Additions and modifications can be made to meet all conditions encountered in specific designs.

The Advantages

The sub-circulating of branch circuits and radial runs, which are characteristic of the G-E Radial Wiring System, is adequate from every standpoint. There are full provisions for fixed electrical appliances for lighting and convenience outlets. There is copper adequacy which prevents voltage losses in the system. Electricity is carried efficiently to appliances and outlets with minimum loss of current. Another important advantage is the ease of re-modeling and extending the system in the future. The problem of breaking into a limited sub-circuit and its re-routing is simpler than where a long circuitous, concealed run must be revamped to suit changes.

This G-E Radial Wiring System utilizes only General Electric Wiring Materials. A booklet has been prepared giving detailed specifications of the new G-E Radial Wiring System as applied to one of the smaller "New American" Homes. Send for a copy of this manual at once. Write Section CDW-2210, Merchandise Department, General Electric Company, Bridgeport, Connecticut.

© 1935, General Electric Company, Bridgeport, Conn.

GENERAL ELECTRIC

WIRING MATERIALS

GENERAL ELECTRIC COMPANY, MERCHANDISE DEPARTMENT, BRIDGEPORT, CONNECTICUT
THE great "New American" Home movement, sponsored by General Electric, emphasizes the importance and advantages of planning homes from the inside out. Every thought is given to making the home livable and no room is more important than the kitchen, where the average American housewife spends most of her waking hours.

The General Electric Kitchen is the heart of the "New American" Home. It is a beautiful, efficiently planned room where modern electric servants perform in minutes the kitchen tasks that formerly required hours of time and labor. Each kitchen is individually planned for the type of home it is to occupy and includes a G-E refrigerator, G-E range and G-E dishwasher. We invite you to inspect the General Electric Kitchen when you visit the "New American" Home near you. Bring the women-folk of your household along and get their opinion of this modern electrical "workshop." You will better understand why we call it the HEART of the "New American" Home. General Electric Co., Specialty Appliance Dept., Sec. CG10, Nela Park, Cleveland, Ohio.
The G-E Kitchen Institute Offers Full Cooperation

To Architects on Modern Kitchen Planning

Sensing the ever increasing demand of modern housewives for kitchens completely equipped with electrical servants, General Electric has established the G-E Kitchen Institute as an aid to kitchen modernization. We invite architects to make full use of its services, which include detailed information and specifications on all G-E Kitchen appliances. Whether you are planning a modern apartment house efficiency kitchen or a deluxe kitchen in the most palatial home, you will find the services of the G-E Kitchen Institute very helpful. For further information on this service see the General Electric Distributor in your locality.
THE DOOR

Focal point of design...typifying the very spirit of the building ★ Aluminum lends itself perfectly to the execution of architectural details and confers that supreme benefit: light weight ★ A lavish variety of finishes, all luxurious and lasting, is at the command of the designer ★ Many methods of construction is dictated only by preference, for versatile alloys in every needed form are available to fabricators ★ Aluminum Company of America, 1866 Gulf Building, Pittsburgh, Pa.
Here’s a

BLOCK DESIGN FLOORING

Effectually Stabilized!

Bradley’s “Corner-Lock” block sets a new standard of stability in block design flooring and, at the same time, creates a new distinction in the design itself. Positive stability is accomplished by two exclusive factors: the “Corner-Lock” for which this flooring is named... and “End-Sealing” of block members against moisture absorption. Side expansion, swelling and buckling are out. | Manufactured in Oak and Beech, under Bradley’s exclusive specifications, “Corner-Lock” Block Design flooring adapts the long established preference for these woods as flooring material, to the current trend towards new concepts in architectural treatment. | A copy of our illustrated Architect’s Reference Bulletin A-3, including specifications, and conforming to AIA filing requirements, will be mailed on request. See also, Sweets Catalog, 1935, Section 13.
A NEW IDEA for BATH ROOMS:
DECORATIVE FORMICA INLAYS

NEW interest and attractiveness is possible for bathroom walls if the architect uses Formica with inlays in metal in contrasting colors of Formica itself. Nymphs, fish, boats—simple silhouette designs of all kinds—can be pressed permanently into this handsome wall sheet when it is made. The picture shows a bath room designed for Don Gardner, Cincinnati, by Ward Franklin. The house also has kitchen walls covered with Formica, Formica inlaid faces on built-in electric clocks in several rooms, and Formica shelves and window stools. Let us send you all the facts.

THE FORMICA INSULATION COMPANY
4620 Spring Grove Ave.,
Cincinnati, Ohio

FORMICA FOR BUILDING PURPOSE

THE ARCHITECTURAL FORUM
WHAT IS HAPPENING IN THE ROOFING BUSINESS?

The state should use coal tar pitch on all flat roofs. These photos will show you why.

A call on the state architect.

You don’t have to show me any photos. I’ve just inspected a lot of our school roofs. Pitch and tarred felt built-up roofs have stood up best.

His own experience.

The condition was general... our conclusion is logical.

Amply corroborated.

We are drawing up specifications making coal tar pitch mandatory on flat roofs.

3 months later.

KOPPERS PRODUCTS COMPANY
KOPPERS BUILDING, PITTSBURGH, PA.

Boston Chicago New York Providence, R.I. St. Louis

Products: Membrane Waterproofing, Dampproofing, Tar Tars, Tarmac Road Tar for Streets, Pavements, Drives, Highways

Reasons, models and settings were used in these pictures, an actual case.

KOPPERS COAL TAR PITCH
KOPPERS TAR-SATURATED FELT
KOPPERS TAR-SATURATED FABRIC

Please send literature which describes the superiority of Koppers built-up roofs.

Name.

Firm.

Address.

KOPPERS PRODUCTS CO., Pittsburgh, Pa.
The EXTRA SPACE
Everyone's Been Looking For

It was right there all the time—just below the sink and lavatory. Crane Co. discovered it by putting a cabinet around it. And that is how the Crane SUNNYSIDE Sink and TUCAWAY Lavatory came into being.

In new buildings these cabinet units reduce or eliminate the necessity for special closets. In old buildings they provide storage space where none existed before. They even eliminate the necessity for towel bars on the walls, or add to already existing capacity.

There's plenty of space for towels, soaps, cleaning powders and the overflow from the medicine cabinet. Towel bars may be had in two styles—heavy cast brass brackets and square chromium plated bars, or steel brackets and round brass rods, chromium plated or painted white. Heavy-gauge steel walls, bottom and shelf. Baked enamel finish. Perforated openings for ventilation in back. Steel sub-base with recessed toe space. Chromium plated hardware.

In apartments, stores, offices, homes—these cabinet lavatories equipped with regular Crane CORWITH bowl and fixtures, will immediately appeal to tenants and owners because of their great utility, their fine appearance. On display in all Crane showrooms.

CRANE PLUMBING AND HEATING MATERIALS
CRANE CO., GENERAL OFFICES: 838 S. MICHIGAN AVE., CHICAGO, ILLINOIS • NEW YORK: 23 W. 44TH ST.
Branches and Sales Offices in One Hundred and Sixty Cities
We breathe, on an average, 66,000 billion dust particles a year. That probably is not much greater today than it has been, but there certainly is a greater consciousness of dust laden air. Dust, bringing with it extra work for the housewife, extra drapery and furniture wear and disease germs, is truly a menace. The warm air furnace system is one remedy—for now it is the cleanest heating system. When you specify clean warm air—recommend Dustop replacement-type air filters for their efficiency and low cost. Distributors, carrying complete stocks of DUSTOP filters, located in all principal cities. (Dustop is assembled and installed in Canada by General Steel Wares, Ltd., Toronto.) Owens-Illinois Glass Company, Industrial Materials Division, Newark, Ohio.
It is not a matter to be taken lightly, the confining of children in artificial surroundings during the most active time of their lives.

HERMAN NELSON System of Air Conditioning for Schools

© The Herman Nelson Corporation, Moline, Illinois
INSULATION must STAY on the JOB

Once applied, insulation is usually hidden away from sight. Will it stay on the job—year after year? Will it retain its original form unaltered? Will it continue to give the protection expected of it? These are important questions that must be answered, if the owner is to get full value.

BALSAM-WOOL Blanket Insulation retains its high efficiency permanently. It does not settle, because it is firmly fastened in place. It will not change its form. Because it is flexible, it tucks into every little space, leaving no crack or crevice for heat or cold to get through. With BALSAM-WOOL, you can maintain continuity of effective insulation, because BALSAM-WOOL covers all of the area to be insulated with the same thickness of insulation.

BALSAM-WOOL is waterproof, windproof, fire-resisting and verminproof. Three thicknesses—½-inch, 1-inch and Wall-Thick enable you to choose the right thickness for every requirement. Let us tell you more about BALSAM-WOOL. Complete information is yours for the asking.
Merchants everywhere are modernizing lighting with Magnalux. Magnalux provides illumination of the quality and quantity required. Merchandise and showrooms show to advantage.

Magnalux illumination is glareless and shadowless. It gives store or shop an atmosphere of inviting comfort and cheer. Customers are attracted and pleased. Clerks are cordial. Displays compel attention and sales are increased.

Modern Magnalux lighting pays big dividends in offices and banks. Under its light, eyes keep sharp and keen. Costly errors are reduced. Business is attracted.

With Magnalux luminaires, the entire ceiling reflects a flood of softly diffused illumination that provides modern lighting perfection. It assures eye comfort and eye conservation. Magnalux is the popular choice of building owners, executives and workers.

Restaurant owners find Magnalux lighting serves their every illumination need. It provides pleasant eye comfort for patrons. It lends added beauty to any type of decoration. It enhances the sparkling cleanliness of equipment.

Every detail in the design of modern lighting is covered in a new, free handbook. Or you can refer to the Westinghouse lighting section in Sweet's Architectural Catalog.

**SPECIFY MAGNALUX**

**WHEN YOU THINK OF LIGHTING THINK OF Westinghouse**

WESTINGHOUSE ELECTRIC & MANUFACTURING COMPANY • LIGHTING DIVISION • EDGEWATER PARK • CLEVELAND • OH
The Public Market Building at Portland, Oregon, illustrates the distinction lent to commercial structures by architectural concrete. Lawrence, Holford, Allyn & Bean, architects.

... IT BRINGS NEW FREEDOM TO DESIGN, NEW ECONOMY TO BUILDING

The technique of using concrete as a decorative material is advancing more rapidly today than ever before.

It is noteworthy that during the depression, with building in general at its lowest ebb, concrete has established itself as a foremost combined architectural and structural material.

Whatever the function of the building contemplated, concrete lends freedom in design. Recent concrete exteriors of note run the gamut of architectural types.

Concrete is a practical material—consistently economical in first cost—durable and low in maintenance under the widest range of service and climatic conditions.

To help you design your next building in architectural concrete, let us send monographs covering specifications, construction and design details, and textures. Write us or mail the coupon.

PORTLAND CEMENT ASSOCIATION
Room 2710, 33 W. Grand Ave., Chicago, Ill.
Please send monographs on architectural concrete. Also booklet, "Beauty in Walls of Architectural Concrete."

Name: ..................................................
P. O. Box or St. No.: ..................................
City: ................................. State: .........
OLD KITCHEN GOES ON

MONEL METAL STANDARD

... for only

$391.00

installed!

Above: Old-fashioned kitchen in a residence at St. Albans, Long Island. At right: Same kitchen modernized with Monel Metal equipment.

YES, just $391.00 for this gleaming line-up of Monel Metal equipment. That one price includes a lot—the Monel Metal sink, faucet, cabinets, Monel Metal-topped range and all installation charges. No vast sum of money—but a vast improvement in appearance.

Pass the good news on to your clients. Tell them that they can afford to own a Monel Metal kitchen—that present low price levels have brought the de luxe equipment within reach of the home owner of average income. There is no surer way to make a hit with a feminine client than to help her realize her cherished ambition to own a beautiful modern kitchen.

Monel Metal cabinet-type sinks may be specified in any fraction of an inch from 48" to 144". Apron-type sinks from 41" to 82". Once installed they are "in for life.”

Monel Metal is rust-proof, chip-proof, crack-proof, accident-proof.

For complete information and prices, get in touch with the distributors, Whitehead Metal Products Co. of York, Inc., 304 Hudson St., New York, N. Y., or branches in principal cities.

THE INTERNATIONAL NICKEL COMPANY,

67 WALL STREET

MONEL METAL

Monel Metal is a registered trade-mark applied to an alloy containing approximately two-thirds Nickel and one-third copper. Monel Metal is mined, refined, rolled and marketed solely by International Nickel.
BETTER OIL BURNER BACKED BY A GOOD NAME

There is no doubt that the pressure type oil burner is most practical for domestic use. Norge offers this burner in its most advanced form.

The Norge oil burner has a number of distinct advantages. It is compact—small in relation to its heating capacity. Mechanically it is simple, easy to install, and service. It is adaptable to any type of heating plant. It burns low grade oil with a high degree of efficiency.

Norge has built up an enviable reputation for fine appliances. The Whirlator Oil Burner has the look of built-in quality that the public has learned to expect of any product bearing the Norge name. That is an important consideration in selecting oil heating equipment.

Norge Whirlator Oil Burners are available in capacities from 800 to 8800 square feet of steam radiation or the equivalent in hot water, vapor or warm air. Norge-Ideal Boiler-Burner Units are available in five models with capacities from 500 to 1350 square feet of radiation.

Home builders today are interested in air conditioning. A Norge-Ideal Boiler-Burner Unit is the first step toward complete air conditioning. It is a comparatively simple matter to install conditioning equipment at any time after the Norge heating plant is in use.

Write for complete and specific information about Norge oil heat.

NORGE DIVISION Borg-Warner Corporation
606-670 East Woodbridge Street, Detroit, Michigan

WARREN NORGE COMPANY, INC.
331 Madison Avenue New York City

NORGE OIL BURNER

The Whirlator PRINCIPLE... exclusive method of giving the oil and air a whirling motion as it enters the combustion chamber. The result is smoother, cleaner, more thorough combustion—better performance at lower fuel consumption.

NORGE

Whirlator

OIL BURNER

NORGE REFRIGERATION (DOMESTIC AND COMMERCIAL) • ELECTRIC WASHERS AND IRONERS
OILATOR STOVES • AEROLATOR AIR CONDITIONERS • GAS AND ELECTRIC RANGES

TOBER • 1935
Particularly Adapted to the Building Construction Field

AMERICAN Products are well made and up to highest quality standards — the kind that pleases architect, builder, sheet metal worker and property owner. Demand these sheets for all forms of sheet metal work, heating, ventilating and air-conditioning systems. Supplied in Black and Galvanized Sheets, Special Sheets, Tin and Terne Plates for all purposes. KEYSTONE Copper Steel offers maximum rust-resistance — and U S S Stainless Steel Sheets and Light Plates are specially suited to construction fields. AMERICAN products are sold by leading metal merchants. Write for our latest literature.

AMERICAN SHEET AND TIN PLATE COMPANY, Pittsburgh, Pa.

Steel Sheets are also manufactured in the South by Tennessee Coal, Iron & Railroad Co., Birmingham, Ala.

Sheets and Tin Plates produced on the Pacific Coast by the Columbia Steel Company, San Francisco, Calif.

United States Steel Corporation Subsidiary
PHILADELPHIA'S $5,000,000 MEMORIAL TO BENJAMIN FRANKLIN

The Benjamin Franklin Memorial, constructed at a cost of $5,000,000, the money raised by popular subscription, houses the Felsanetarium and the Library, Lecture Hall and Museum of Franklin Institute, the latter dating back to Colonial days. Office of John T. Windrum, Philadelphia, Architects ... United Engineers, Constructors ... Strawbridge & Clothier, Interiors.

"In the Franklin Memorial," states Mr. Morton Keast of the office of John T. Windrum, architects, "we had to solve the problem of wear and general harmony with surroundings in our selection of a flooring, and our use of Sloane-Blabon Linoleum has proven entirely satisfactory. Practical use was an important consideration and some idea of the wear to which the floors have been subjected is evident in the fact that about 900,000 people have visited the museum since it opened in December, 1933. We are well pleased with the results of Sloane-Blabon Linoleum."

Above: Museum of the Franklin Institute. In foreground is the Periodic Table of the Chemical elements. Floor is Sloane-Blabon Jaspe Linoleum.

Left: Hall of Aviation, floor also of Sloane-Blabon Jaspe Linoleum. 14,000 square yards of Sloane-Blabon Linoleum, half Jaspe and half Battleship, are used in the building.

The Franklin Memorial is but one of many recent outstanding Sloane-Blabon installations. We shall be glad to send you a list of others, together with linoleum samples, and any information which may help you solve your linoleum problems. Write W. & J. Sloane Selling Agents, Inc., 577 Fifth Ave., New York.

SLOANE-BLABON LINOLEUM
Today as always, the prudent buyer of a home is concerned first of all with the soundness of his investment, which usually represents the savings of years.

He wants a home that will not burden him with costly repairs nor be subject to swift obsolescence. A home that is fire-safe, and secure against attacks of the dreaded termite.

The use of Kalman Steel Joists goes far to help the architect provide him with just such a home. At very little, if any, increase in the building cost, these joists, with concrete floor slab and ceiling of plaster on metal lath, provide greater security against fire, immunity to termite attack, a non-shrinking floor structure that never causes cracks where walls and floor meet. In addition, the owner has the deep satisfaction of knowing that the house into which he has put his money is substantially built, and will endure.

Kalman furnishes two types of joists—Kalman Joists, one-piece steel trusses; and MacMar Joists, steel trusses assembled by pressure welding. Either type of joist can be conveniently and economically applied to a dwelling of any size and any style of architecture.
THICKNESS?...PERFECT! Out of the drawing machine on the cut-off floor rise sheets of Pennvernon. Then this Pennvernon Craftsman calibrates them carefully to make sure they are of proper thickness. His skilful measurement is characteristic of the precautions taken throughout Pennvernon’s making to insure high quality.

Photograph by Johnston & Johnston

PHOTOGRAPH BY JOHNSTON & JOHNSTON

THICKNESS?...PERFECT! Out of the drawing machine on the cut-off floor rise sheets of Pennvernon. Then this Pennvernon Craftsman calibrates them carefully to make sure they are of proper thickness. His skilful measurement is characteristic of the precautions taken throughout Pennvernon’s making to insure high quality.

Our new booklet, called “The Making of a Leader”, describes in dramatic pictures the manufacture of Pennvernon Window Glass. To get your free copy of this interesting book, sign and mail this coupon to

PITTSBURGH
PLATE GLASS COMPANY
2148 Grant Building, Pittsburgh, Pa.

Name.
Address.
City State.

OCTOBER 1935
ANNOUNCEMENT

of winners

"Modernize Main Street"

Competition

On August 26, there met at Lake Champlain a Jury of Award composed of the following seven men representative of leading contemporary thought in architecture, design and merchandising: Professor Melvin Thomas Copeland, Harvard University; J. Andre Fouihoux, New York City; Albert Kahn, Detroit; William Lescaze, New York City; John W. Root, Chicago; F. R. Walker, Cleveland and Kenneth C. Welch, Grand Rapids, Michigan.

After a two day session in which were considered hundreds of designs submitted by the more than 3,000 entrants in the Competition, the following awards were made:

FIRST PRIZES

To M. Righton Swicegood, New York City, $1,000 for the best design for modernizing a drug store.

To Suren Pilaian and Maurice Lubin, New York City, $1,000 for the best design for modernizing an apparel shop.

To G. Foster Harrell, Junior, New York City, $1,000 for the best design for modernizing a food store.

To Alfred Claus, Knoxville, Tennessee, $1,000 for the best design for modernizing an automotive sales and service station.

SECOND AND THIRD PRIZES

To G. Foster Harrell, Junior, New York City, $750 and to Nicholas B. Vassiliev, New York City, $500, for the second and third best designs, respectively, for modernizing a drug store.

To Lester Cohn, Chicago, $750, and to Raoul L. Dubrul and Harry J. Trivisonne, New York City, $500, for the same awards for modernizing an apparel shop.

To A. Waldorf and S. T. Katz, Brooklyn, $750, and to J. R. Sproule, Seattle, Washington, $500, for the same awards for modernizing a food store.

To Suren Pilaian and Maurice Lubin, New York City, $750, and to Isadore Shank, St. Louis, Missouri, $500, for the same awards for modernizing an automotive sales and service station.

HONORABLE MENTIONS

each award including a cash prize of $50

For Drug Store designs: Harry Los Ross, Philadelphia, Pennsylvania; Michael Auer, New York City; Isadore Shank, St. Louis, Missouri; Morrison Brunn, New York City; Montgomery Perar, Detroit, Michigan; Melvin L. Weems, Oak Park, Illinois; Verner Walter Johnson, New York City; and Phil Birnbaum, Fair Rockaway, New York; Rob McClelland and Victor N. Jones, Seattle, Washin; and William Tunkel, Hollywood, California.


For Food Store designs: Sigmund J. Von Rosen, New York City; Nowland Van Powell, St. Louis, Missouri; Maurice E. and Suren Pilaian, New York City; Royal Barry Wills, Hugh A. Stubbs, Boston, Massachusetts; Charles DuBois, New York City; Maitland C. Harper, Woodside Island, New York; J. Gordon Carr, Brooklyn, New York; H. K. Brig, Chicago, Illinois; Edward Heidelberg, Homewood, Illinois; Carl Maas, New York City; Theo. B. Voyne and J. J. Pankuch, New York City.


The uniformly high quality of the designs submitted was gratifying to the sponsors, to the jury, and to the Architectural Record, which conducted the competition with Kenneth Stowell, A.I.A., as professional advisor. The widespread interest shown was considered particularly significant, for it presaged new and profitable architectural activity in the several representative fields covered by the competition program. We extend our sincere congratulations to the winners and equally sincere appreciation of the effort expended by all competitors. The winning designs are reproduced in the October Architectural Record and will be released for general publication shortly thereafter.

Checks have been mailed to all winners.
J. beautify and Modernize for Permanence with VITROLITE

A damp cloth is the only facial treatment Vitrolite ever requires.

Vitrolite pays its own way by immediately increasing property value, by increasing ready salability or rentability of property, by attracting and increasing flow of traffic in retail establishments, by its no-upkeep cost, and by its ease and economy of installation. (Applied directly over present walls, without fuss, muss, or cost of tearing out plaster.)

Your Vitrolite Distributor has a special display easel on which he will gladly set up actual arrangements in Vitrolite to illustrate designs and color possibilities.

Send the coupon for this Vitrolite literature NOW
ARCHITECTS AND NAVAL ARCHITECTS

Britain last month was still celebrating the commissioning for its maiden voyage of its newest ship, the Orion Line's trim, clean Orion, largest (680 feet, 28,400 tons) in the Australian service. Her one funnel prompted "Astragal," the Architect's Journal's witty, learned columnist, to write a squib titled "Funnel Worship" which pointed to the well-known fact that most modern passenger ships have dummy stacks, gave credit to the Orient line "which has had the courage to give the Orion one funnel where only one was needed. In the words of the official booklet 'the only sop to purely esthetic considerations is the raking of the mast and funnel. This is supposed to give an appearance of speed, though its practical effect is to introduce a slight complication in design' (Astragal's italics)."

Of more practical interest to architects was the Architect's Journal's lead editorial on the Orion which facilitated Architect Brian O'Rorke for executing the Orion's entire decorative scheme, went on to philosophize: "The most superficial study of recent developments in the planning and construction of ships and of buildings makes plain the increasing similarity between the problems which architects and naval architects are now required to solve. Materials, equipment and methods of workmanship proved successful by their use in the one form of design have often been adopted and become standard practice in the other. Until, at the present time, it may be truly said that there is not a single building material which does not also find a place in the construction or decoration of some vessel now afloat. And the same is the case, to an almost equal extent, with service equipment . . . . "Many problems which have only become of importance to the architect in the years since the war have been of vital moment to the designers of ships during a whole century. To pass over smaller matters (such as steel construction, sound and vibration insulation, centralized heating and mechanical ventilation) there are large problems of building practice . . . it is significant that two of the chief contributions to this faster pace of building—the progress chart and prefabrication—were long ago anticipated by naval architecture. . . . Again, in the next, compact and arched stowage of complicated equipment, ship designers had already had long experience when the first few bulbous service pipes were still winding their way along skirtings and up walls . . . . "Each ship is in a sense a building—a warehouse or hotel, or both. . . . In every ship the full utilization of each small space, and often the achievement of an effect of greater space, is of the first importance; as population densities increase and site values become greater in our large cities, the chief problem of the architect becomes one exactly the same."

COLUMBIA'S NEW HEAD

"Who will be Columbia's new Dean of the School of Architecture?" was the question everybody asked following Dean Joseph Hudnut's appointment to Harvard in July. Last month President Nicholas Murray Butler gave a triple answer. The new head will be a committee headed by Professor Leopold Arnaud and assisted by Professor Cecil C. Briggs and Jan Ruthenberg, associate in architecture. Continued will be Columbia's reorganized teaching plan which eliminates group competition in favor of the individual problem method and embraces a three-year program of personal tutoring of each student (the College of Architecture of the University of Michigan is retaining its four-year program partly as a base for its five-year plan announced in 1933). Innovations at Columbia will be a course in city planning and a collaborative program with the Juillard School of Music whereby sets for Juillard productions were still winding their way along skirtings and up walls. . . . The exhibit will be Columbia's reorganized teaching plan which eliminates group competition in favor of the individual problem method and embraces a three-year program of personal tutoring of each student (the College of Architecture of the University of Michigan is retaining its four-year program partly as a base for its five-year plan announced in 1933). Innovations at Columbia will be a course in city planning and a collaborative program with the Juillard School of Music whereby sets for Juillard operas will be designed by Columbia students.

CONTINUOUS SHOW

Known to every architect who lives in or visits Manhattan are the showrooms of the Architect's Samples Corp. in the Architects' Building, 101 Park Avenue. Here last month was opened a continuous exhibition of current architecture under the direction of R. W. Sexton. The exhibit will be changed every two weeks. It will consist of sketches, plans and photographs of proposed buildings and buildings recently completed or in construction. The exhibit appearing, as it does, in conjunction with samples of the latest materials and equipment should provide a valuable cross section of architecture.

COMING OF CORBUSIER

Due in the U.S. October 21 is C. Edouard Jeanneret, painter and architect who in 1921 took his grandfather's last name for his painting. The prize architect exhibit of Manhattan's alert Museum Modern Art, Le Corbusier will be (in French, interpreted and translated).
ARCHITECTS CAN DESIGN LUXURY TYPE BATHROOMS FOR MODEST HOMES

This revolutionary new type plumbing ware offers five major advantages that cannot be duplicated in any other fixtures on the market. They are (1) An unlimited range of colors that can be combined on the same fixture; (2) An acid-resisting high luster, vitreous porcelain finish at no extra cost; (3) A two-thirds reduction in weight plus strength that is substantially greater; (4) Ultra modern designs with finer lines and more pleasing contours, made possible by the greater adaptability of formed metal; and (5) Basic materials thoroughly proved by more than 20 years successful use in quality ranges, refrigerators and other household appliances, yet entirely new to the plumbing industry.

Brigsteel Beautyware gives you an opportunity you have never had before to create truly striking effects in the bathrooms, kitchens and basements you design. Its low price permits you to specify it for even the most modest residence or building.

The history, reputation and general resources of the Briggs Manufacturing Company are your guarantee of the finest materials and workmanship.

PLUMBING WARE DIVISION, BRIGGS MANUFACTURING COMPANY, DETROIT
A Husky “Heart of Steel”... Complete encased in an attractive jacket.

Kewane ROUND "R" BOILER

For Heating Homes with

The good looking jacket, completely enclosing the Kewane Round “R” and the burner selected, is only the crowning touch of a heating unit that’s Good All the Way Through.

For performance it’s what’s under the jacket that counts: And, each Kewanee jacket houses a healthy heart of steel whose rugged strength plus many economy features insures extra years of service and smaller costs... Steel Plate construction, Tubes, with Spinner Blade Fireboxes; a Hot Water Coil included; Kewanee Draft Refractory Lining; Ground Doors; Heavier Castings... a few of the Kewanee features which have made possible new reliable, dependable, durability and efficiency.

Catalog RG-92 has the Details. Ask Kewanee Boiler Corp., Kewanee, Illinois. (Branches in Sixty-one Principal Locations.)

IN Round SQUARE OR Regal JACKETS
With every stroke, on goes a coat of metal—enduring Aluminum—and this long-lived coating covers your home completely when it’s primed with Aluminum Paint.

What actually happens is this: Millions of tiny flakes overlap each other and form a continuous, opaque coat of Aluminum which seals the surface, old or new, against rapid moisture changes and preserves the paint from the destructive action of the sun’s rays. Harmful swelling and shrinking of the wood, the cause of most paint failures, is effectively stopped.

The extra protection of Aluminum Priming costs you nothing. The best Aluminum Paint, made with genuine ALCOA ALBRON Paste or Powder as a pigment costs no more than any other good paint.

Priming is only one of many home uses for Aluminum Paint. You can protect metals against rust and brighten dark corners. Write for “Aluminum Paint, Its Uses and Application” and “Aluminum Paint Specifications, A.I.A. File No. 25-B-252.” Aluminum Company of America, 1866 Gulf Building, Pittsburgh, Pa.
Fake Wills

Forum:
It has come to my attention that my 1934 bronze medal has been stolen and is being used as a means of identification in obtaining money under false pretenses.

Apparently the person who is doing this is a young man, about thirty years of age, slim, with a sandy mustache, and is wearing a black, double-breasted suit. He is intoxicated most of the time, and borrows money ostensibly to get home on. He was last heard from in Bridgeport on August 16, 1935.

ROYAL BARRY WILLS
Boston, Mass.

G. E. Plans

Forum:
... I wish to make clear the policy of the General Electric Company in this "New American" Demonstration Home Building Plan with reference to furnishing architectural plans to builders.

In the first place the General Electric Company is not building any houses. The program in which we are now is merely an effort to have built a number of demonstration houses from Coast to Coast:
1. To stimulate in so far as possible the building industry and to obtain show rooms for General Electric equipment.
2. From the winning designs in our Architectural Competition, we have picked eighteen designs mostly prize winners, which we have encouraged builders and G. E. distributors from Coast to Coast to have constructed for the purpose of demonstration during the month of October, this year.

We have been very careful in all of our negotiations to assist local architects at every stage of the game, i.e., the General Electric Company will not sell plans for these houses to builders or potential owners. We have organized about 175 committees in all of the leading cities of the country, such personnel of these committees being made up of G. E. sales managers, distributors, and dealers. These committees being familiar with the building plan approach builders. When the builder asks where he can obtain the detailed plans and specifications, we have instructed our committees to tell the builder to consult his architect and obtain them through him. If the builder says he does not have an architect on his staff, we recommend that he employ one immediately especially in view of the fact that construction of these homes must be supervised by a local architect. The architect, therefore, obtains the plans from the General Electric Company for a fee of $25, which is in reality a royalty to the original designer. We feel, therefore, that we are helping the architectural profession greatly by not distributing plans to builders direct and by encouraging employing architects for the supervision of constructing these homes.

I feel that this should be made clear to the architects as there has been considerable misunderstanding of this matter.

J. F. QUINLAN
Manager "New American" Demonstration Home Building Plan
New York City

Credit Washington Real Estate Board

Forum:
In the August issue of THE ARCHITECTURAL FORUM appeared an exceptionally interesting article on Washington, pages 136-139....

The report credited to the Department of Labor was taken from our own compilation as you will note from my enclosure. The Bureau of Labor statistics for the month of June has not yet been published. The latest release, which came to hand last week, only covers the month of May. After having spent several hours with your correspondent and giving him data which is compiled from official records, I feel that some credit is due this organization.

Notwithstanding all of that, I am pleased to enclose herewith a subscription from the Washington Real Estate Board.

CHARLES J. RUSH
Washington, D. C.

Wooden Money

Forum:
I should like to wager you one thin dime that, if an answer is found to the so-called prefabrication problem, it will be found within the ranks of the lumber industry.

T. H. MILLER
Waven Wood Laboratories
Portland, Oregon

Bang up, A-1

Forum:
To remind you (once again) that beginning with the October issue, THE ARCHITECTURAL FORUM is to be sent to my New York City address, 317 East 48 St. You’re doing a bang up, A-1 job. Congratulations.

LEE SIMONSON
New York City

Cubist? Modernist?

Forum:
... As a subscriber of ten years standing, after an absence of two years, I am disappointed owing to the fact that THE FORUM seems to consist altogether of a style which does not meet the average tastes of any except the very few.

In my poor opinion a magazine to any real use to the average practical architect should meet the more conser.

James K. Far
Paterson, N. J.

The circulation of THE ARCHITECTURAL FORUM: June, 1934, 6,580; June, 1935, 5,500.—Ed.

Actual Window

Forum:
I am submitting the enclosed picture because it is the only one I have which shows the window of the Trave Transport Building at the Century of Ress as it actually appeared to the eye.

CONRAD HEP
Oak Park, Ill.

Moki Pueblo

Forum:
Le BERNIER CHR
SEE THE BOXES GROW,
ROW ON ROW,
ALL ALONG THE STREET.
HOW SWEET!
MOKI-PUEBLO CUBES OF MUD;
WHAT A DUD!
GONE THE GOOD OLD ROOFS OF CLAY,
HAD THEIR DAY.
GONE THE LINES OF YESTER YEAR.
SEEMS SO QUIRKY.
BUT WE MONKEYS UP A TREE
WAIT TO SEE,
WHAT THE NEXT MOVE BRINGS ALONG;
DING DONG.

Daniel Kears
Clearwater, Fla.
TRUSCON
STEEL PRODUCTS
in the home
The casement window has fully come into its own. Truscon offers practical, economical and beautiful steel casements for every type of modern building. They add a high degree of charm and distinctiveness to any home. The numerous types and sizes in which steel casements are furnished assure architectural harmony and fitting individuality. Noteworthy are their fine quality, excellent design and flawless operation.

RESIDENCE STEEL CASEMENTS

Truscon "Open-Truss" Steel Joists meet the increasing demand for a fireproof floor construction that can be easily and quickly erected at a cost of but little more than wood. Comprised of steel and concrete, this construction is non-shrinkable and therefore free from floor and ceiling cracks that are so common with floors of wood. Fireproofness, rigidity and elimination of cracks, comprise the outstanding features.

OPEN-TRUSS STEEL JOISTS

Truscon has been the leader in the development of metal lath. Today Truscon offers superior types of metal lath and accessories including the original Herringbone lath. Truscon metal lath is generally preferred by architects for obvious reasons. For thirty years it has proved its quality, its economy and its ability to provide crack resistance, fire resistance and permanent beauty for all varieties of plaster and stucco construction.

METAL LATH AND ACCESSORIES

For over thirty years Truscon has been meeting the requirements of the building industry with efficient and economical steel building products. A pioneer in the development of fire-proof construction, Truscon began its work with merely a few products of steel. Today it manufactures hundreds - so many in fact that men say... "If it is made of steel Truscon makes it." How well this often-repeated phrase expresses
Artistic and distinctive window effects are always desired by a home builder. Many times, the importance of the cost-of-the-home consideration seems to preclude this possibility. Truscon Home Development Steel Casements solve this problem. Of highest quality, these attractive casements offer real individuality. Hardware and screens are simple in design but offer the utmost convenience in operation.

HOME DEVELOPMENT CASEMENTS

Few features are more conducive in creating an atmosphere of "air and distinction" for a home than Truscon residence casement steel doors. This door offers a choice of many pleasing combinations for court or solarium openings or as an interior French door. The heavy sections insure positive weathering. While the standard door is made in only one size, Truscon can produce special casement doors to meet any requirement.

RESIDENCE CASEMENT DOORS

Truscon overhead garage doors bring an advanced touch even to the most modern of properties. Truscon doors offer many advantages beside greater practicability and convenience. These include economy of space, protection from weather, neat appearance and ease of operation. The spring balances used in these doors, as well as all other operating parts, are considerably over-sized, insuring long and satisfactory service.

STEEL GARAGE DOORS

Truscon's present position in the world of building. And, as in the past, Truscon will continue to create new steel building products to fulfill the needs of changing times and new conditions. There have been certain outstanding characteristics associated with Truscon products. They have been step in advance in engineering design. They have been quality products. They have been products of character and integrity. They have always upheld the reputation of Truscon and justified the faith of those who placed their confidence in the Truscon organization. It is small wonder, therefore, that Truscon products have become the standard for comparison throughout the world.
BASEMENT WINDOWS AND COAL CHUTES

- No home built today is truly modern unless steel basement windows and pressed steel lintels are included. Truscon basement windows are manufactured of heavy, hot-rolled sections. They cannot warp, swell or stick. They operate easily under all conditions. Weather-tight, easily installed, simple to screen, they possess a wide range of usefulness. Truscon coal chutes are made of copper-bearing pressed steel and are break-proof, weather-tight and trim in appearance.

REINFORCING STEEL

- Reinforced concrete construction, because it insures fireproofness, permanence and economy, is not only in general use for building and engineering structures of all types, but is especially recommended for driveways, courtyards, garage and porch floors and basement floors of the modern residence. Truscon's complete line of reinforcing steel includes such well known products as Kahn Trussed Bars, round or square Rib Bars, Welded Steel Fabric and $\frac{3}{4}$" Hy-Rib.

FIREPROOF MATERIALS—ADVANTAGES

- America recognizes the importance of permanent, fire-safe construction - and this means the use of steel building products wherever possible. Our national fire loss is appalling, and the value depreciation on all kinds of buildings due to flimsy construction runs into billions. A building which utilizes steel products throughout is and will remain a good investment for many years to come. Truscon is doing its part to make America a country of permanent and firesafe buildings.

Truscon Steel Building Products are by no means confined to the requirements of residential construction. They run the gamut of the entire building industry. Each one is a highly specialized product for the purpose intended. For complete details and specifications on all Truscon Products, consult Sweet's Architectural Catalogs. For individual catalogs, address the manufacturer direct or nearest branch office. Offices and warehouses in all principal cities.

TRUSCON STEEL COMPANY • YOUNGSTOWN, OHIO
Preferred by Architects

The architect's opinion of paints and stains has ever been recorded more clearly than in this magazine. As you look through its pages, you will see that house after house is finished with Cabot's Collopakes or Cabot's Shingle Stains. We are proud of the quality that has made these products preferred by leading architects from coast to coast.

Cabot's Shingle Stains and Collopakes


Send me color cards and further information on Cabot's Collopakes (☐ Gloss Colors; ☐ Exterior Whites); ☐ Cabot's Shingle Stains.

Address

TOBER 1935 43
Announcing
ADHESIVE SEALEX LINOLEUM

The factory-applied adhesive on the back reduces laying time and assures uniform and complete adhesion.

To install, simply activate the adhesive back with water, and press to the under-floor.

This revolutionary new product is of interest to architects, nance companies and home-owners because of its practical and economical advantages.

It embodies all of the desirable qualities heretofore obtainable in the well-known and popular Se Linoleum.

In addition Adhesive Sealex Lem carries a factory-applied adhesive on the back. Because of absolutely even distribution of adhesive, complete and uniform adhesion to the underfloor is assured. This results in a stronger installation of finer appearance.

This new Adhesive Sealex Lem is also installed more quickly and at lower cost than other types of Inlaid Linoleum because the use of lining felt and spreading of paste are both eliminated.

Adhesive Sealex Linoleum is available in a wide variety of attractive patterns particularly adapted to residential construction. Write for complete information and samples of this new floor-covering.

CongoLeumNAIRN INC.
KEARNY, NEW JERSEY

THE ARCHITECTURAL FORUM
With the long-awaited revival in building following strongly in residential construction, heavy industries turn to the house of moderate size as the most important market for the 1936 product parade.

Supporting the oft-repeated dictum that the house is a machine for living in, is the swiftly increasing mechanization the residence of the 1930's. The remarkable technological advances in this field displayed by manufacturers of building materials and equipment leave no doubt as to their conviction that this trend is on the up-grade. The prediction of one writer that the house of the future would be given away with the plumbing, while doubtless something of an exaggeration, nevertheless contains more than a grain of truth, and the most cursory examination of the construction outlines of the 101 houses presented in this issue will reveal the fact that whatever the style, size, cost, or geographical location of the present-day American house, it is more completely equipped for comfortable living than ever before. And the insistence of today's housewife on results obtained with half the effort of yesterday, coupled with the intense competition among the manufacturers who sell equipment, indicate future developments of an order difficult to predict on a basis of present achievements. After years of neglect in favor of large construction the house is finally coming into its own. The examples selected for brief review in this department are typical. To a complete technical study of the house, its construction and equipment, the December Forum will be devoted.

100. CONVENIENCE OUTLETS

A new line of surface wiring, known as AddHere, has been brought out by the Bryant Electric Co. Consisting of a rubber "raceway" which is cemented to the wall, and duplex outlets which may be attached at any point in the run, it is a most satisfactory departure in wiring practice. It eliminates long runs of extension cords, and allows the placing of outlets with a maximum of convenience. A new type of outlet, placed in a pendant, has also been introduced. The pendant is attached to the picture mold or the wall, and is covered with cloth which comes in various colors; it is used for wall fixtures, lamps, electric irons, etc. Because of its economy, inconspicuousness, and safety this new type of wiring recommends itself to home owners who find that their requirements have outgrown the existing wiring facilities.

1001. GAS-FIRED BOILER

The Bastian-Morley Co., Inc., announces the new Series 25 Basmor Gas-Fired Boiler, a unit designed for steam, hot water, and vapor heating, which is now available through distributing branches of the Crane Co. throughout the U. S. The boiler illustrated is Model 25-S-6, and has an American Gas Association rating of 550 square feet of steam radiation, and is capable of handling 360 feet of actual cast iron steam radiation plus starting and piping load. The new De Luxe housing is available with all Basmor Series 25 boilers in steam, hot water, and vapor types, and in all sizes from three to eleven sections, handling from 141 to 712 feet of actual cast iron steam radiation or from 112 to 1,102 feet of actual water radiation. The boilers are also supplied through all the above ratings and extending up to 5,065 feet of actual steam or 9,065 feet of actual water radiation with the standard housing. In addition tandem or multiple installations of any of these separate units are also possible. The smooth, simple housing of these new boilers is typical of the trend towards more clean and attractive casings for heating and air conditioning units for use in homes. The unit illustrated is very compact, being only four feet in height including the draft hood.

(Continued on page 82)
Consider STREAMLINE IN YOUR NEXT SPECIFICATION

During the last five years architects have specified and used STREAMLINE Copper Pipe and Fittings successfully in every type of building construction and in thousands of installations throughout the United States and Canada.

STREAMLINE Fittings and Copper Pipe are revolutionizing plumbing and heating installations—in their method of connection, which eliminates costly heavy walled pipe—in their long life—and last, but not least, in the fact that they place a non-rusting, non-clogging piping system within the reach of the ordinary investor. A STREAMLINE INSTALLATION COSTS LITTLE IF ANY MORE THAN ONE OF CORRODIBLE MATERIALS.

Under normal conditions they assure your client a non-rusting, non-clogging, trouble-free plumbing or heating system as long as the building stands. Absolute safety in concealed work, maximum efficiency in heat transference, conservation of valuable space and freedom from the harmful effects of vibration are but a few of the many advantages of this product.

May we send you a list of recent prominent STREAMLINE installations with the names of the specifying architects?

THINK OF THIS

77% of all solder type fittings installed last year in buildings of every kind throughout the United States were STREAMLINE Fittings.

STREAMLINE PIPE AND FITTINGS
PORT HURON, MICHIGAN
DIVISION OF MUELLER BRASS CO.
Illustration shows usual method of application. Note these thicknesses of shingles protect the entire roof.

CORK INSULATED SHINGLE
WINS NATION WIDE

ITS 10 YEAR RECORD JUSTIFIES ITS USE WHEREVER BUILDING BUDGETS DO NOT PROVIDE FOR SEPARATE ROOF INSULATION!

On thousands of roofs—North, South, East and West—Carey Cork Insulated Shingles have demonstrated their insulating value plus their long-lasting roof service.

Fabricated with weather surface of slate; cork surface underneath. Three thicknesses of insulating cork act as a barrier to heat and cold; make any home cooler in summer, warmer in winter. The extra thickness of the shingle, due to the cork back, introduces a distinctive note in roof beauty. Modern colors that harmonize with any color scheme or individual setting.

Carey Cork Insulated Shingles are approved by the Underwriters Laboratories—the ONLY shingle that provides both roof and roof insulation at cost of roof alone.

Write today for samples and full details.

For the complete line of Carey Asphalt and Asbestos Roofings see our Catalog in Sweets.


Architect Stevenson says: "The Carey Cork Insulated Shingles, used on my residence 8 years ago, are unfaded and not a shingle has uplifted in all this time. Proof of their insulation value: The roof will retain the snow for a longer time than surrounding homes with ordinary shingles."

Carey Cork Insulated Shingles are approved by the Underwriters Laboratories—the ONLY shingle that provides both roof and roof insulation at cost of roof alone.

Write today for samples and full details.

For the complete line of Carey Asphalt and Asbestos Roofings see our Catalog in Sweets.

THE PHILIP CAREY COMPANY - LOCKLAND - CINCINNATI, OHIO

Branches in Principal Cities Dependable Products Since 1873
Thermax is the modern insulating material, structurally strong, fire-resistant, sound-deadening and light in weight... Furnished in slabs 1", 2" and 3" thick, 20" wide and adaptable lengths...

Ideal for sheathing, stucco or plaster base and used extensively for furring and partitions as well as structural floor and roof slabs... Makes any house a more comfortable, more economical, more durable, safer, quieter home... Write for latest literature... Address Thermax, Farmers Bank Building...... Pittsburgh, Pennsylvania.
Now...a moderately priced COPPER ROOF

TO LONGER need you hesitate to recommend a roof of this durable metal—the metal and the same type of construction considered ideal through the centuries for roofed cathedrals, state buildings and palatial residences here and abroad. For the new Anaconda Economy Cottage Roofing costs no more than quality commercial slate!

This low cost has been achieved by reducing the weight of the copper from 16 to 10 ounces per foot. Yet there is no sacrifice in strength, durability and wind resistance, because sheets are lower and seams are closer together—an improvement which also makes the new roof ideally suited to residential use. And installation expense is lower because the lighter sheets are easier to install.

Anaconda Economy Cottage Roofing offers an entirely new standard of economy. Instead of deteriorating, it increases in beauty with age and vice; correctly installed, it should require no further attention. It is fire-safe, light in weight, easily applied by experienced sheet metal contractors.

Such a roof is the most durable type obtainable. Throughout the years it will add to the resale value of the home. Always it will be as fine a roof anyone could want. May we suggest that you investigate Anaconda Economy Cottage Roofing?

THE AMERICAN BRASS COMPANY
General Offices: Waterbury, Connecticut

Offices and Agencies in Principal Cities
For a nation that gets a lump in its throat every time someone starts singing "Home Sweet Home" not much has been done in the past to make that home worth singing about.

Beguiled by sentimentality and salesmanship, 129 million more or less Americans have been sheltered in 29 million more or less houses built for the most part without benefit of architect, with benefit of rational financing and without benefit of a lot of other things too numerous and too familiarly.

All of which is a broad enough indictment to reach from coast to coast. And it does. It was not fault of any one person or any five persons or any ten groups. It was the inevitable product of the totality disintegrated and disorganized mass that is called the Number One U. S. business—building.

How many more years or decades or generations that would have gone on no one knows. Nothing short of a cataclysmic depression could have cured it. Today, there are enormous reasons to believe it is being cured. More than a small start has already been made and the immediate future holds promise of progressive improvement in every direction.

The architect has discovered that skyscrapers are thrilling only when they are being built. Now is learning that the small house is the most important and the most challenging architectural problem that remains somewhat unsolved. Progress may be reported.

The speculator who built houses for sale has become an "operative builder"—a new designation more in keeping with the new standard of homes he is building today. And in greatly increasing numbers, with benefit of architect. Progress may be reported.

The lender of first mortgage money has become more intelligent and more particular about the value of his collateral. And the second mortgage man with his extortionate rates and bonuses finds himself with nothing to buy or sell. Progress may be reported.

The maker of building materials and equipment has survived four years of sleepless nights in
orary and emerges with an array of technological improvements that make possible almost unlim-

advance in the durability, convenience, safety and beauty of the new house. As yet not much change-
est, but this is an often exaggerated item as other portions of the house dollar, such as labor and

acing, play a larger part. Again progress may be reported.

Finally the buyer. He too has changed. Magazines, radio and a dozen other media have been teach-

him what to expect and what to demand in his new house. He is wiser. He wants to know what is

and the wall that looks so nice and smooth. He knows there are such beasts as termites and that you

t catch them in a mouse trap. He knows that an electric washing machine won't run without an out-

plug it into. He is commencing to learn that colored tile in the bathroom is lovely only as long as

plumbing in the bathroom works. He still wants a fetching entrance but he doesn't want it smashed

falling, rusted gutter. Etc., etc., etc. And slowly it is dawning upon him that a long term amortized

tgage may sound less alluring when he gets it but it looks mighty fine ten years later when one-half

he house really belongs to him and the other half will when he has paid it off monthly just like rent.

in progress, very great progress, may be reported.

How all of these reforms are coming about is detailed elsewhere in this issue. The important point

that unbelievable gains have been made straight across the housing front. Motivating them has been

depression, a challenging array of housing economics that could no longer be ignored, long delayed

itectural and technological advances, extremely important Government activities (particularly

eral Housing Administration) and legislation aimed at better banking facilities for home owner-

This multiplicity of changes, coupled with the unprecedented house shortage which must soon be

, should for the first time carry the U. S. to the place where its citizens can with sense as well as

timent sing "Home Sweet Home."

Progress may be reported.
THE SMALL HOUSE: 1935

... snubs the past, acquires a realistic plan and gives the home buyer a new and better shelter at terms he can afford to pay.

To all readers of the 1929 Sunday papers $4,999 was a familiar figure. Familiar, too, was the little white house on the little green plot which this little sum would buy. Too late and too often the buyer learned that the house was poorly built, poorly planned and designed and that the financing finally cost almost as much as the little house itself.

The speculators were, of course, largely at fault. They tried to save by doing without architects. Labor and materials were high. It was all the operator himself could do to make money on his lot and break even on the house. And at that, he usually had to take a second or third mortgage as his hope for profit.

To further bedevil the buyer the only type of financing he could get rocketed the cost to twice the cash price if he was able to meet his payments. Many times he was not, and he lost the house.

Poverty is a purge. And while it was washing away the slim equities of countless owners, it was doing the same thing to speculative builders. One by one, Dewbright Homes, Sun-up Estates, and Golden Glow Manor went over the dam of bankruptcy.

The six creeping years since 1929 have wrought changes. And while the same builders who operated under such luscious names are clambering back into the field, they are coming in on a different basis. The speculative builder now calls himself an operative builder, and it takes more than a down payment on a swamp to become a developer.

The same is true of the buyer. His eyes have been pried open to true value in residential building. And what he sees is far more satisfying than what he failed to see five years ago.

It is a curious truth that behind these major changes in home building are reasons, not social but economic and even political. There was no home owners' revolt, nor did conscience prod the builders into reform. Had there been no depression, there would have been no change. But there was depression. And the master minds of economics decided that the key to recovery was home building. And the master minds of politics decided that largely on recovery depended the fate of the present Administration.

Thus, for the first time, the best minds of the U.S. designed to consider the home. Once they focused their attention on the deplorable state of the industry, truths, long existent but ignored, suddenly became objects of economic and political concern. The realization that it was literally impossible for the bulk of U.S. families to buy decent homes even if they wanted to, was stunning at first. And then it brought about a national demand for better houses at lower first and final cost.

It is more than a coincidence that concurrently the building industry has been tooling up to meet such a demand. The industrial revolution, which altered the course of nearly every other business, failed to sweep building along in its tide. It was only four years ago a minority of progressive architects and builders began the staggering task of catching up. But because building volume has been only ankle high, the pro has been made principally on paper, awaiting such a as the present to make its gains actual.

Thus, with economists, business men, politicians, all concentrating on the building industrs the small home became no longer an isolated, per problem between its builder and the buyer. It transcends its own boundaries and is now the center of the econ life of the U.S.

Events which forecast a major increase in house building.

In the years when building was most boisterous, housing never sheltered more than 500,000 families a The curve is familiar: $937,332,739 in 1921, sweeping ward to $2,461,546,270 in 1925, tumbling sharply to heart-breaking low of $91,298,435 in 1933. The first e months of 1935, however, have sent the industry bac work, not in its full strength, but at as much as a per cent increase over last year would permit. It is impression rooted in something more than hope the advance will continue uninterrupted, not only the rest of 1935, but for the rest of the decade. (page 438.)

In the first place, normal increases in population, accelerated obsolescence of houses resulting from neglect, and the low volume of building, have combined to create a physical shortage of homes unprecedented in U.S. history. The number of new units needed has been variously estimated at from two to ten million for the five years. A proof that this shortage is fact and not theory is found in the steady dwindling in national vacancy Where the average vacancy in 1932 was 7 per cent, day's average is 4 per cent.

These figures of need, however, cannot arbitrarily interpreted as figures of demand, since the two are from synonymous. Nevertheless, those forces which translate a need into a demand are in motion, and conversion is on. Briefly, this is being accomplished the creation of easier money and by reinstating the migation into financial good graces.

Following the complete disorganization of the migation market, the Federal agencies created under be Hoover and Roosevelt to relieve distress and to cre new channels of finance are now successfully perform their tasks.

1. The Home Owners Loan Corporation has refinance almost a million distressed home properties. Simul neously, real estate reorganization under Section 77 of the Bankruptcy Act has permitted hundreds of other distressed properties to be reorganized and put on
of the house of the late Thirties, we have a clearer picture of the small home of tomorrow than the houses themselves present.

Inventive architecture replaces imitative.

The building industry has more than mere speculative interest in any attempt to project the form of house that is to be typical of the approaching boom. The plans of manufacturers, builders, realtors, architects hinge on the answers to such significant questions as Will the house of the late Thirties be Modern? Will it be prefabricated? Will it be fireproof? Will it be air conditioned?

One test, of possibly questionable acidity, is the behavior of the one city in the U. S. that is already enjoying its boom—Washington (Arch. Forum, August, 1936, p. 136). If that were to be marked as evidence it would reveal that the house is going to be fireproof, air conditioned, and adequately mechanized and electrified. As for its architecture, except for a slight concession to outdoor living in the form of a ground floor terrace, the houses are as traditional as any Washington has built in the past.

But that is a city where architects are controlled by operative builders; and operative builders, dependent for their financing on local banks, are controlled by the bankers. And where public taste runs toward archaeology rather than architecture.

Thus, a conclusion based on Washington is subject to reservations.

In bold opposition, the editors of Fortune predict that Modern design, like love in the Gershwin song, will sweep the country. Says the magazine in its October issue:

"Along about the year 1936 there will sprout in the U. S. a second building boom. It will probably be less of a boom than its predecessor. Its mother will be necessity, not the stock market. Its wage scales may be lower, its silk stockings skimpier, and its automobiles more battered than the wage scales, silk stockings and automobiles of the decade before. But its architecture, by and large and with all proper allowance for the intransigence of occasional millionaires and occasional real estate developers, will not only surpass but will entirely eclipse, cancel, repeal, and nullify the architecture of the school of Coolidge. Inventive architecture replaces imitative."

Now Modern is a term susceptible to a thousand abuses. To the layman and indeed to many architects, it simply means the flat roofs and unadorned planes usually described as in the International Style. Modern really means planning from within—for convenience, comfort and health—and letting the exterior take care of itself. It is perfectly possible, if not always easy or wise, to have a Modern plan in a traditional shell. Conversely, flat roofs and sun decks do not a Modern house make.

The fact remains, however, that Modern has popularly come to mean an exterior style. Certainly most of the visitors at the Chicago Fair, when they said "Modern," were talking about the outside of the house, not the inside. The question immediately arises: "How do people feel about these Modern outsides?" An answer has been
indicated by an independent research organization which at Fortune's request rang the bells on 3,000 doors and asked housewives, clerks, laborers, merchants, bankers what they thought about Colonial and Modern architecture. In one hand the inquisitor held a photograph of a Modern exterior, in the other a Colonial. "If," said he, "you had to choose between these two houses for your home and they were the same except for style, which would you choose?"

"The preferences," says Fortune "were Colonial, 56.3 per cent; Modern, 41.2; don't know, 2.5. The relatively large proportion of choices for Modern houses were not, as might be supposed, among the younger people; men over and under forty, and women under forty were nearly equally for it at around 43 per cent, and the women over forty only a little less favorable, at 36 per cent. Geographically the extremes are between the plain states of the West, where only 37.2 per cent of the people like the Modern, and the Southeast, the only region in which a majority—54.1 per cent prefer it."

The Banker balks at Modern.

If there is one shadow across the path of new style of exteriors more ominous than any other, it is that of the banker, whose hesitancy to support it with mortgage money is born not of dislike of unornamented design, but of the fear that the apparent trend may be no more than a fad. He believes that if and when a mortgage on a Modern house had to be foreclosed, he would find no buyer. Given proof or assurance that in five, ten and twenty years houses in the Modern style will still be salable, he would open his purse strings as wide for them as for any other type.

While proof of resale value will never be documentary, there has been set down on the side of Modern architecture a case so compelling as to move even a banker. In its technical bulletin No. 2, prepared by Miles L. Colean, the Federal Housing Administration exhorts its field organization not to refuse mortgage insurance to houses so styled. Its arguments are as potent for the original granting of the loan as they are for its insurance. The friends of Modern architecture could do no better than to place Colean's text in the hands of every mortgage lender in the U.S.

There they would find such sound logic as:

"The history of architectural design has shown many periods of accelerated development when new styles arising from changing modes of thought and living have rapidly become popular. It may well be that the increasing popularity of Modern architecture marks such a period. Coming after a period of major depression which has produced widespread ferment in inventive and artistic thought, at the same time preventing all normal flow of development, change may be expected to come with unusual rapidity.

"From the point of view of mortgage security, the problem presented is obviously not a simple one. On the one hand, it would be harmful and ultimately useless to offer resistance to a change which is rooted in changing modes of thought and living. On the other, where rapid and unforeseeable change is occurring, the hazards to a system which relies upon stability over a long period are increased. These hazards must be taken into account in order to assure the soundness of our program. It must be kept in mind, of course, in treating with this subject of obsolescence is no new thing in real estate. What we are simply an additional factor to consider in existing obsolescence. It must also be recognized that housing field, even an accelerated rate of obsolescence likely to proceed much more slowly than is frequent other commodities, such as the automobile.

"If Modern design could be classed as a fad, the Insuring Offices [of the FHA] would be more likely to eliminate it from eligibility. It appears obvious, however, that in spite of many faddish features displayed in the movement is one of more than a transitory character and that the basic elements which characterize it are all likelihood, sooner or later, become characteristic of a large body of our stock of housing.

"The basic characteristics of Modern design lie in the attempt made (1) to create a plan which will provide for functional relation between rooms arranged to suit day modes of living, to facilitate efficient housing, and to permit an economical use of materials, to permit the exterior treatment to be dictated primarily by the plan and to be an expression thereof with no regard to traditional concepts; (3) to use materials efficiently, economically and directly, boldly eliminating decorative features and relying upon texture and materials together with skillful arrangement of doors and openings to produce an aesthetic effect.

"There can be no quarrel with such principles.

Whether or not Modern design in its nakedness will dominate the building scene for the next five years or will undoubtedly influence the appearance, construction, and planning of whatever houses may be built.

Probably the most acceptable sign that architectural thinking is shifting its ground was the predominant open planning in the New American Home conducted this spring. (Arch. Forum, April, 1935.) The square and rectangular plans of ten and two hundred years ago were discarded in favor of a more open plan, specifically adapted to the living needs of modern terms, where compromise demands, it is a testable into any style—as examination of certain houses in this issue will disclose.

Prefabrication's major point unproven

— that it costs less.

Though Modern architecture may ride into popular favor on its own pedaling, it has, in the speed with which promise of prefabrication is fulfilled, a powerful tar...
or although Modern architecture need not be pre-
red, factory built houses must be modern.

of the acceptance of prefabricated houses are not
so specific, primarily because prefabrication it-
far away from its principal goal—lowered cost.

more than 100 companies which are now in widely
stages of development, less than half a dozen
become actual contenders for business in home g.

Topping the list are General Houses of Chicago,
American Houses, Inc., of New York. After three
if sporadic building, General Houses last month
or a sales coup by signing up Sears Roebuck as a
or (see page 452). And American Houses, whose
is termed the Motohome, was still attracting
ads of the curious along the Atlantic Coast with-
es of model houses but no volume of sales.

her of these, however, nor any other firm in the
is has come even close to attaining the self-an-
d goal “twice as good a house at half the price.”

still they do, prefabrication must continue to con-
only a slight fraction of 1 per cent of the houses
S. will build during the next five years.

before counting them out as an immediate fac-
home production, the reservation must be made
nce the seed of prefabrication is fertilized with
ste funds to make mass production a reality, and
6 halve the cost, it will overnight make the bay
em as bloomless as a century plant.

proof, fireproof, pestproof—
ew construction techniques.

struction technique is nevertheless more to the left
planning and design. At the last count there were 53
ent methods of steel house framing, 44 different pre-
crete systems, half a dozen new wrinkles in wood
uction, and only a few less innovations in reen-
brickwork. All are aimed at better construction
ver prices. The first target has been squarely hit,
se second, with few exceptions, has been missed by

fabricators contend that building better for less
y can come only through factory manufacture of
ete houses. But the weight of opinion, in numbers
fst, is on the side of those who believe mass produc-
d of residential units does not necessarily entail stock
and stock designs. The right system, composed
assembly of standard units, should be able to pro-
a house of any size and any style.*
ether the late Thirties house is wholly factory built,
factory built, or built entirely on the site, it will
likelihood tend definitely to fireproofness. And
not alone or not even primarily because fireproof
ction earns a lower insurance rate and is safer, but
me the firesafe construction invariably offers greatly
ed rigidity, and protection against termites and other
of insect annoyance.
ong with fireproof construction, heat insulation has
dy earned its way into the house of the next five
s. Worth its price as a fuel saver, it contributes to
er comfort as well. To be decided is not whether it

detailed to permit thorough examination in this issue.
ction techniques, new materials and equipment will be
under the microscope in the December Fourier.

Air conditioning is the trend.

Ever since the advent of mechanical refrigeration the
sales promotion methods of their manufacturers have
introduced a new note in building material merchandis-
ing. Aggressive selling of the public has never been com-
mon practice among producers. Now, however, the public
has been what is politely termed “educated” to demand
as much gadgetry in its homes as it demands in its auto-
mobiles. The same manufacturers who introduced me-
chanical refrigeration into home building have expanded
their activities in many cases to include air conditioning,

The new financing that cuts costs and
lessens foreclosures.

This house of the late Thirties, it has been shown, is
a better house but it has not yet become a cheaper house.

Whether or not labor and material prices will be reduced
during the next five years is problematical. But one thing
remains inescapable—reductions in the cost of financing
will lead to important reductions in the cost of ownership.

The Federal Housing Administration plan of financing
which has a mandatory maximum interest rate of 5 per
cent plus ½ per cent for insurance per year and ½ per
cent servicing charge has tended to bring all other
interest rates down. In the table on page 232 are shown the
costs of financing homes ranging from $5,000 to $20,000
over periods of from ten to twenty years.

In comparing the present method of FHA financing
with the typical home financing of the past, the figures
stand out in revealing contrast.

Under the old plan, on a $5,000 house and lot with a
first mortgage of 50 per cent, a second mortgage of 40 per
cent, the costs would be:

| Down payment of 10 per cent... | 8 500.00 |
| Interest at 6 per cent on $2,500 first mortgage, term 3 yrs., renewed at each maturity, over 20 years | $150.00 3,000.00 |
| Renewal fee every 3 yrs. at 3 per cent. | 75.00 450.00 |
Interest and amortization on 5-year second mortgage of $2,000 at 6 per cent (yearly principal payment $400, interest $120) $220.00 $2,600.00
Balance paid or due at end of 20 years 2,500.00
$9,050.00

Under the FHA plan, total cost for financing would be on the same $5,000 house and lot:
Down payment of 20 per cent... $1,000.00
Monthly payment for 20 years ($29 months, including interest, amortization, mortgage insurance, service fee) $29.77 7,115.08 $8,115.08

Saving by FHA method over former method $934.97

Reducing the cost of mortgage money is not the only feather in the Federal Housing Administration's cap. It has, for the first time in the history of U.S. home building, set up a series of standards which, although flexible and indefinite, do establish for the home owner the real values in residential property.

Briefly, the FHA sets up five yardsticks by which property is insured and calibrates the yardsticks in terms of specific considerations. Under the three divisions which directly affect the property itself the relative values assigned to each of the elements contributing to the mortgage risk involved are as follows:

**RATING OF PROPERTY**

General layout 15%
Design 8
Suitability to climate 7
Livability 15
Light and air 8
Mechanical equipment 7
Accessory equipment 8
Special equipment 2
Structural soundness 20

**RESISTANCE TO ELEMENTS**

Resistance to elements.
Resistance to use.

**RATING OF NEIGHBORHOOD**

Stability of the neighborhood
Protection from adverse influences
Adequacy of transportation
Appeal of the neighborhood
Sufficiency of utilities and conveniences
Level of taxes and special assessments
Presence of civic, social and commercial centers
Topography and special hazards of neighborhood

**RATING OF RELATION OF PROPERTY TO NEIGHBORHOOD**

Conformity as to type
Conformity as to usefulness and function
Conformity as to physical condition
Conformity as to architecture
Relative adequacy of utilities and municipal improvements
Relative accessibility to neighborhood conveniences
Relative freedom from nuisances
Conformity as to probable remaining useful life
Conformity as to placing of building on lot

The FHA has, for the first time in realty appraisal, conditions influencing property value and which had in the past been disregarded have been fully weighed. Never before has such importance been given to the relation of a house to its neighborhood or to the neighborhood itself, before has the setting of the house on a lot and its aspect landscaping been a vital consideration in the mind of the lender. And never before has the house itself—its design, construction and equipment—been subject to exacting scrutiny.

The advance of the small house is thus propelled half a dozen different fronts: design, construction, material, landscaping, site, neighborhood, financing. In the past has been celebrated for its small size, the possibility looms large that when the history decade is written, the keynote will be "The Small Comes Into Its Own."

---

### THE COST OF BUYING HOMES, PRICED FROM $5,000 TO $20,000, BY THE FHA PLAN

<table>
<thead>
<tr>
<th>Cost of House and Lot</th>
<th>Assuming 90% Lien</th>
<th>Under 10-yr. Plan</th>
<th>Monthly Payment Required</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Cash Required for Equity</td>
<td>Installment incl. interest at 5%</td>
<td>FHA Insurance</td>
</tr>
<tr>
<td></td>
<td>$8,000</td>
<td>$10,000</td>
<td>$12,000</td>
</tr>
<tr>
<td></td>
<td>$8,000</td>
<td>$10,000</td>
<td>$12,000</td>
</tr>
<tr>
<td></td>
<td>$1,600</td>
<td>$2,000</td>
<td>$2,500</td>
</tr>
<tr>
<td></td>
<td>$1,600</td>
<td>$2,000</td>
<td>$2,500</td>
</tr>
<tr>
<td></td>
<td>$1,600</td>
<td>$2,000</td>
<td>$2,500</td>
</tr>
<tr>
<td></td>
<td>$1,600</td>
<td>$2,000</td>
<td>$2,500</td>
</tr>
<tr>
<td></td>
<td>$1,600</td>
<td>$2,000</td>
<td>$2,500</td>
</tr>
<tr>
<td></td>
<td>$1,600</td>
<td>$2,000</td>
<td>$2,500</td>
</tr>
<tr>
<td></td>
<td>$1,600</td>
<td>$2,000</td>
<td>$2,500</td>
</tr>
<tr>
<td></td>
<td>$1,600</td>
<td>$2,000</td>
<td>$2,500</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Installment incl. interest at 5%</th>
<th>FHA Insurance</th>
<th>Taxed</th>
<th>Fire Insurance</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$813.65</td>
<td>$816.65</td>
<td>$819.67</td>
<td>$822.69</td>
<td>$825.71</td>
</tr>
<tr>
<td></td>
<td>$816.65</td>
<td>$819.67</td>
<td>$822.69</td>
<td>$825.71</td>
<td>$828.73</td>
</tr>
<tr>
<td></td>
<td>$819.67</td>
<td>$822.69</td>
<td>$825.71</td>
<td>$828.73</td>
<td>$831.75</td>
</tr>
<tr>
<td></td>
<td>$822.69</td>
<td>$825.71</td>
<td>$828.73</td>
<td>$831.75</td>
<td>$834.77</td>
</tr>
<tr>
<td></td>
<td>$825.71</td>
<td>$828.73</td>
<td>$831.75</td>
<td>$834.77</td>
<td>$837.79</td>
</tr>
<tr>
<td></td>
<td>$828.73</td>
<td>$831.75</td>
<td>$834.77</td>
<td>$837.79</td>
<td>$840.81</td>
</tr>
<tr>
<td></td>
<td>$831.75</td>
<td>$834.77</td>
<td>$837.79</td>
<td>$840.81</td>
<td>$843.83</td>
</tr>
<tr>
<td></td>
<td>$834.77</td>
<td>$837.79</td>
<td>$840.81</td>
<td>$843.83</td>
<td>$846.85</td>
</tr>
<tr>
<td></td>
<td>$837.79</td>
<td>$840.81</td>
<td>$843.83</td>
<td>$846.85</td>
<td>$849.87</td>
</tr>
<tr>
<td></td>
<td>$840.81</td>
<td>$843.83</td>
<td>$846.85</td>
<td>$849.87</td>
<td>$852.89</td>
</tr>
</tbody>
</table>

*Figured on the customary 90% and 11% basis.
**Assumed at 4% of actual appraised value annually.
***Assumed at 5% of assumed value of house at 73% of the total cost of house and lot.

**THE ARCHITECTURAL FOR**
HERE are houses. 101 by count, which is important only because they add up to 101 by reason. This is in large part a picture book but not a pretty picture book. The photographs were picked from hundreds because they convey the most information about each house; not because the editors like the cloud effects. But this issue more than a picture book. Each house is also shown in plan and with full construction data. So that anyone who wants to know how a real 1935 house looks may also discover how was built and how it works. And to establish standards of value, costs are given wherever attainable. Finally, the editors have commented on each house, pointing out its merits of an, design and construction, and, in instances, what appear to them as demerits. This experimental in architectural criticism should not be confused with condemnation. Every house in this issue has been selected for its excellence. Some are brilliant in plan and design, all are pod. Therefore, the introduction of critical notes hitherto missing from American professional journals is intended solely to advance this publication’s usefulness. The profession’s acceptance of this attitude follows naturally its acceptance of the new approach to the small house.
The client's desire was simply stated: a week-end and summer house accommodating the maximum number of people at the lowest possible cost. The architect solved the problem with brilliant simplicity by using the porch connecting the two portions of the house as part of the sleeping quarters. Three wall beds are placed in a heated closet which forms the back of the porch. Thus this small house comfortably takes care of seven people and a maid. The house is laid out so that the court is protected from cold winds. A shelter provided for automobiles, and the entrance so arranged that it is possible to bring in baggage without going through the living or dining rooms. The house is built in the simplest manner. Any decorative effort is inherent in the materials and their disposition; nothing is applied. Cost (including wall beds, slabs, floor, terrace retaining wall, brick paving on the porch and terrace): $5,700—about 29 cents per cubic foot.

### CONSTRUCTION OUTLINE

<table>
<thead>
<tr>
<th>Foundation</th>
<th>Frame Construction</th>
<th>Roof</th>
<th>Exterior Surface</th>
<th>INTERIOR WOODWORK</th>
</tr>
</thead>
<tbody>
<tr>
<td>Walls—Reinforced concrete</td>
<td>Sills—Redwood</td>
<td>Wood shingles on spaced sheathing—clear cedar shingles, 5 butts to 2&quot; laid 4½&quot; to weather</td>
<td>Vertical rough boards No. 2 Common Redwood</td>
<td>Trim—vertical grain Douglas Fir</td>
</tr>
<tr>
<td>Columns or piers—reinforced concrete</td>
<td>Floor Joists</td>
<td>Glass</td>
<td>Grade “B”</td>
<td>Floors—T &amp; G No. 2 Douglas Fir in bedroom wing. Rest of floors concrete. Yosemite slate in living room and hall</td>
</tr>
<tr>
<td></td>
<td>Rafters</td>
<td></td>
<td></td>
<td>Hardwood—oak thresholds</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Painted surfaces—Redwood and Douglas Fir</td>
</tr>
<tr>
<td></td>
<td>No. 2 Douglas Fir</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Girders</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ties</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MASONRY CONSTRUCTION—none</td>
<td>DOOR AND WINDOW FRAMES</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>GUTTERS—Redwood with lead strips at joints</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>FLASHING—Galvanized iron</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>DOWN SPOUTS—Galvanized iron</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>COMPOSITION SHEATHING PAPER—heavy block building paper, well lapped</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sash and frames</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(a) double hung</td>
<td>Sugar Pine sash</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(b) casement</td>
<td>Douglas Fir frames</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Doors and frames (exterior)—Redwood and Sugar Pine, Douglas Fir frames</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>PORCHES</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>FLOOR—second hand common brick</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>EXTERIOR PAINT</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Shingles—left unpainted</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Siding</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(a) Priming—none</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(b) Finish coat—heavy sprayed coat of whitewash</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Trim</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(a) Priming</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(b) Finish coat</td>
<td>Lead and oil</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sash</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(a) Priming</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(b) Finish coat</td>
<td>Lead and oil</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>LATH AND PLASTERING—none</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

Cost (including wall beds, slabs, floor, terrace retaining wall, brick paving on the porch and terrace): $5,700—about 29 cents per cubic foot.
LIVING ROOM

Elving and cabinets—Douglas Fir.
Cedar linen shelving.

Lock millwork—most doors stock, five panel.

Rior Painting
Doors—(in Bedroom Wing)—oil filler and 2 coats spar varnish ("Lightning").

Paints—2 coats white lead and oil, one coat enamel (W. P. Fuller's "Silken White").

Walls—2 coats cold water paint (Fuller's), in bath and kitchen, 2 coats white lead and oil, one coat enamel (Fuller's "Silken White").

Electrical fixtures—knob and tube
Switches—H. & H. toggle type

Lighting
Direct—Fixtures by Preston Hopkins, San Francisco.

Plumbing
Kitchen
Sink—Enameled iron, Westcoast S-721

Bathroom
Cabinets—Medicine cabinets, Peerless
Built-in, No. 15
Bath tubs—Enameled iron, Westcoast "Barbara" S-334
Toilets—Vitreous china, Westcoast "San Carlos" S-1643
Showers—Westcoast fittings.

Walls—T&G Douglas Fir.

Pipes
Steel—Supply pipes, National Steel Spell-erized pipe.

Heating
Gas-fired hot air with fan, Aladdin Heating Corp., Oakland
Hot water heater—Ruud

Air Conditioning—none

Chimney
Fireplaces
(a) facings—common brick
(b) hearths—none
(c) mantels—none
(d) damper—none

Hardware
Interior Corbin & Stanley
Exterior

Screens
Redwood frames—16 mesh bronze.
**CONSTRUCTION OUTLINE**

**FOUNDATION**
- Cellar floor—3" cement paving No. 10 mesh reinforcing.
- Waterproofing—"Pabco" by The Paraffine Companies, Inc.

**FRAME CONSTRUCTION**
- Douglas Fir throughout with exception of redwood sills

**MASSONRY CONSTRUCTION**
- Cement block for fireproof study. Tiles by Gladding, McBean & Co.

**EXTERIOR SURFACE**
- Steel—suspension plate supporting porch overhang—U. S. Steel Co.

**ROOF**
- Gutters—Galvanized iron—No. 1
- Flashing—"Armco" by American Rolling Mill Co.
- Composition sheathing paper—"Pabco" composition roof by The Paraffine Companies.

**DOOR AND WINDOW FRAMES**
- "Druwhit" casement type steel sash sliding door, 16 feet long, by Druwhit Metal Products Co.

**GLASS**
- Libbey-Owens-Ford double strength grade A.

**EXTERIOR PAINT**
- Oil paint by National Lead Co. for exterior.
- Sash—"Alcoa" aluminum paint.

The gallery, most important room in the house, serves as living room, dining room, and exhibition space for the owner's collection of pictures by Kandinsky, Picasso, etc. One large glazed opening extends the length of the room, and access to the terrace is provided by a sliding door 16 feet long. The conflicting requirements of maximum glass area and wall space were each satisfied by the adoption of partitions which could be set over the glazed openings when it was necessary to increase exhibition space. The other elements of the house are simple, consisting of a small kitchen, dressing room, and bath, but are quite adequate for the owner's needs. A roof garden is connected with the leveled-off top of the mountain and the building's two lower stories open on three patios. Cost: under $3,000 or about $2.75 a square foot of net floor area.
HARD J. NEUTRA, ARCHITECT, GREGORY AIN, ASSOCIATE

DETIAL, GARAGE AND STUDY

PLAN

SECTION

Gammlery

GALLERY

SCALE IN FEET

10
15
20
25

1
2
3
4

3
1
2

C T O B E R • 1935

237
A most unusual use of early American motives in this house has resulted in an exterior that is anything Colonial in appearance. Wood pendants, the door, windows, and the roof, all of undoubted New England ancestry, are combined with a heavy masonry base and a definitely unconventional porch. The problem of the second-story porch has always been a difficult one to solve where a certain resemblance to the traditional Colonial house form is considered desirable; here the architect has attempted to avoid the heaviness of wood supports by means of light ironwork. The interiors are less of a departure from the Colonial manner; wood paneling treated very simply is used for the principal rooms. The bedroom shows the decorative possibilities in the use of uncomplicated wood forms contrasted with richly textured materials. Cost: $20,000.

Cubage: 48,500 at 41 cents per cubic foot.

CONSTRUCTION OUTLINE

FOUNDATION
Walls—brick and tile, Cleveland Builders Supply Co.
Cellar floor—Portland Cement
Waterproofing—R.I.W. Marine Cement, Toch Brothers

FRAME CONSTRUCTION
Norway yellow pine

MASONRY CONSTRUCTION
Common brick walls—Cleveco, Cleveland Builders Supply Co.
Faced brick—Cleveco, painted white
Tiled walls with stone facing—Cleveland Quarries sandstone
Stone walls—Cleveland Quarries sandstone
Tiles—Cleveland Builders Supply Co.

EXTERIOR SURFACE
Flush siding, Idaho white pine
Stucco—Birkett sheathing. Cement plaster, Cleveland Gypsum Co.

ROOF
Slates on sheathing—black Bangor
Snow breaks—Clason Copper wire, M. N. Cartier & Son
Valleys
Gutters
Down spouts
Composition sheathing paper—Sisalkraft

DOOR AND WINDOW FRAMES
Sash and frames
Double hung—Idaho white pine
Casement—Idaho white pine
Steel sash—Crittall’s Stanwin casements
Doors and frames (exterior)—Idaho white pine
Garage doors—Overhead Door Corp.

GLASS
Libbey-Owens-Ford grade “A” do

EXTERIOR PAINT
Siding—Priming, Lead and oil. Flat
Trim Sash

LATH AND PLASTERING
Lathing—Rocklath
Composition plaster base—U. S. Gypsum Co.
Plastering
Patent plaster—U. S. Gypsum
“Red Top”
Finishing coat—U. S. Gypsum Co., drated finishing lime

INTERIOR WOODWORK
Trim and floors
PLAN: Irregular rooms like the living room and master bedroom are easy to furnish and offer changing vistas that increase their apparent size. A further extension of the living room space is obtained by a wide opening to the hall. The stairs to hall and dining room are inconvenient, but this is a matter of the owner's preference.

LIGHTING
Direct

PLUMBING
Kitchen
Sink—Crane Corland acid resisting enamel iron

BATHROOM
Fixtures—Crane Co.
Cabinets—Corcoran
Baths—Crane Co.
Toilets—Crane Co.
Seats—Church
Showers—Speakman
Tile—Mosaic flint floor, satin finish wall tile

PIPS
Chase brass and Byers' wrought iron

HEATING
Gas
Boilers—Bryant Heating Co.
Radiators—'Arco' by Petroleum Heat and Power Co.

AIR CONDITIONING
Bryant split system

CHIMNEY
Fireplaces
Facings and hearths—Cleveland Builder's Supply rustic brick and Birmingham buff sandstone, Cleveland Quarries
Mantels—knotty pine in library and living room
Damper—Majestic poker damper

HARDWARE
Interior—part wrought iron

SCREENS
Higgin Manufacturing Co.

Hardwood—Ritter's Appalachian red oak
Stainwoods—knotty white pine
Painted surfaces—poplar
Shelving and cabinets—poplar

SULATING
Outside walls—ground cork
Attic floor—ground cork
Weatherstripping—Monarch

TERIOR PAINTING
Floors—one coat of silicate paste filler, one coat of black stain, two coats of Permalite
Trim, Doors, Sash—Enamel finish

CABLE—flexible loom
Switches—General Electric tumbler type
PROBLEM: "To build a home for the purpose of privately, comfortably, and efficiently rearing a family, eating, drinking, sleeping, playing . . ." The plot, approximately 90 x 100 ft., is situated between two streets which are not parallel, one a main thoroughfare, the other a short minor street.

With only himself to please, the architect has used brick in this severely rectangular house to relieve the coldness of its form. Unlike the typical modern house, which strives for an expression of lightness and space, this residence, its use of masonry and wood sash, achieves a solidity quite similar to that of a more traditional type of dwelling. All furniture and fittings were built specifically to the architects' designs. The location of the house on the plot is successfully worked out; privacy on the street side has been obtained by the elimination of windows, all important rooms facing on the garden. Brick walls in the garden give a unity to house and entourage which is too often neglected. Cost: $19,800. Cubage: 45,850 at about 43 1/2 cents per cubic foot.

CONSTRUCTION OUTLINE

FOUNDATION
Walls and piers—concrete, Alpha cement
Waterproofing—none, careful control of water cement ratio made waterproofing unnecessary

FRAME CONSTRUCTION
Southern yellow pine

MASONRY CONSTRUCTION
Common brick walls—sand lime brick

ROOF
Built-up roof—Barrett Co.
Flashing—26 oz. copper, Anaconda
Coping

DOOR AND WINDOW FRAMES
Sash and frames—double hung, Eastern white pine.
Doors and frames (exterior)—Eastern white pine.
Garage doors—overhead doors by Overhead Door Corp., Hartford City, Ind.

PORCHES
Reinforced concrete—Alpha cement.

GLASS
1/8" polished plate, Pittsburgh Plate Glass Co.

EXTERIOR PAINT
Trim and Sash
Priming—oil stain.
Finish coat—Benite by Bens Chemical Co., Jackson, Mich.

LATH AND PLASTERING
Lathing

DOOR AND WINDOW FRAMES
Sash and frames—double hung, Eastern white pine.
Doors and frames (exterior)—Eastern white pine.
Garage doors—overhead doors by Overhead Door Corp., Hartford City, Ind.

INSULATING
Outside walls—1" jute blanket.
Roof rafters—1" jute blanket, 1/2" insulation on roof sheathing.
Weatherstripping—Chamberlin Weatherstrip.

INTERIOR WOODWORK
Trim—Eastern white pine.
Floors—oak, maid's room, 3rd grade oak, workshop, No. 1 yellow pine.
Painted surfaces—Eastern white pine.

EXTERIOR PAINT
Trim and Sash
Priming—oil stain.
Finish coat—Benite by Bens Chemical Co., Jackson, Mich.

LATH AND PLASTERING
Lathing

Metal—U. S. Gypsum Co.
Composition plaster base—Insulcoat Plastering—U. S. Gypsum Co.

INTERIOR WOODWORK
Trim—Eastern white pine.
Floors—oak, maid's room, 3rd grade oak, workshop, No. 1 yellow pine.
Painted surfaces—Eastern white pine.

EXTERIOR PAINT
Trim and Sash
Priming—oil stain.
Finish coat—Benite by Bens Chemical Co., Jackson, Mich.

LATH AND PLASTERING
Lathing

Metal—U. S. Gypsum Co.
Composition plaster base—Insulcoat Plastering—U. S. Gypsum Co.

INTERIOR WOODWORK
Trim—Eastern white pine.
Floors—oak, maid's room, 3rd grade oak, workshop, No. 1 yellow pine.
Painted surfaces—Eastern white pine.

EXTERIOR PAINT
Trim and Sash
Priming—oil stain.
Finish coat—Benite by Bens Chemical Co., Jackson, Mich.

LATH AND PLASTERING
Lathing

Metal—U. S. Gypsum Co.
Composition plaster base—Insulcoat Plastering—U. S. Gypsum Co.

INTERIOR WOODWORK
Trim—Eastern white pine.
Floors—oak, maid's room, 3rd grade oak, workshop, No. 1 yellow pine.
Painted surfaces—Eastern white pine.

EXTERIOR PAINT
Trim and Sash
Priming—oil stain.
Finish coat—Benite by Bens Chemical Co., Jackson, Mich.

LATH AND PLASTERING
Lathing

Metal—U. S. Gypsum Co.
Composition plaster base—Insulcoat Plastering—U. S. Gypsum Co.

INTERIOR WOODWORK
Trim—Eastern white pine.
Floors—oak, maid's room, 3rd grade oak, workshop, No. 1 yellow pine.
Painted surfaces—Eastern white pine.

EXTERIOR PAINT
Trim and Sash
Priming—oil stain.
Finish coat—Benite by Bens Chemical Co., Jackson, Mich.

LATH AND PLASTERING
Lathing

Metal—U. S. Gypsum Co.
Composition plaster base—Insulcoat Plastering—U. S. Gypsum Co.

INTERIOR WOODWORK
Trim—Eastern white pine.
Floors—oak, maid's room, 3rd grade oak, workshop, No. 1 yellow pine.
Painted surfaces—Eastern white pine.

EXTERIOR PAINT
Trim and Sash
Priming—oil stain.
Finish coat—Benite by Bens Chemical Co., Jackson, Mich.

LATH AND PLASTERING
Lathing

Metal—U. S. Gypsum Co.
Composition plaster base—Insulcoat Plastering—U. S. Gypsum Co.
The house was backed up against the street, heavy planting screens the rear, and a garden visible only to the occupants of the house was created. The usual in that living and dining rooms are on separate floors. The entrance hall, finished in the same brick as the exterior, leads on the upper floor to the living to the bedroom wing, which can be shut off. The service entrance is perhaps to the bedroom window to afford privacy to the occupant, but is otherwise fly placed, leading directly to the kitchen on the lower floor. The dining room, of the main stair, is easily approached through an ample passage. The of this element from the service portion is well worked out, and the placing to the kitchen is excellent.

**Room**

**Refrigerator**—Seeger Refrigerator Co., St. Paul, Minn.  
**Washing machine**—General Electric.

**BATHROOM**  
**Fixtures**—Standard Sanitary Mfg. Co.  
**Cabinets**—built to order.  
**Shower heads**—Speakman heads.  
**Tile**—Franklin Tile Co., Ohio.

**PIPES**  
**Steel** by National Tube Co.

**HEATING**  
**Gas.**  
**Hot water heater**—Humphrey, Kalama-zoo, Mich.  
**Thermostat and regulators**—Minneapolis-Honeywell.

**AIR CONDITIONING**  
**Bryant Heater Corp.**

**CHIMNEY**  
**Fireplaces**—beehive.  
**Hearths**—Indiana limestone.  
**Mantels**—Colonial Fireplace Co.

**HARDWARE**  
**Interior and exterior**—Russwin, Stanley.

**WINDOW DRESSING**  
**Venetian blinds**—Columbia Mills.  
**Curtain material**—F. Schumacher, New York.

**SPECIAL EQUIPMENT**  
**Water softener**—Stover Water Softener Co., St. Charles, Ill.  
**Sump pump** (house is below sewer)—Union Steam Pump Co., Battle Creek, Mich.
The client introduced a distinctly human touch in his specifications for this house: "there must be no provision for guests." The plan shows two large bedrooms with triple exposure, one with bathroo and one with shower. Garage and maid's quarters are in a separate building. The house is a restrain adaptation of Georgian design. Cost: $7,500 or approximately 34 cents per cubic foot.

CONSTRUCTION OUTLINE

FOUNDATION
Walls—reinforced concrete.
Cellar floor—concrete.
Waterproofing—emulsified asphalt.

FRAME CONSTRUCTION
Yellow pine.

MASTONRY CONSTRUCTION
Walls—salmon pink common brick, Fraser Brick & Tile Co.

EXTERIOR SURFACE
Salmon pink common brick, Fraser Brick & Tile Co.

ROOF
Slate on sheathing—variegated slate, full range of colors.

GUTTERS
Flashings
Down spouts

Composition sheathing paper—30 lb. asphalt saturated roofing felt.
DOOR AND WINDOW FRAMES
Sash and frames.
Double hung—white pine, check rail.
Doors and frames (exterior)—yellow pine frames, white pine doors.
Garage doors—yellow pine with fir panels.
PORCHES
Reenforced concrete—Front porch of concrete with paving brick edging, exterior steps of paving brick.

GLASS
Double strength Quality A Pennewor., Pittsburgh Plate Glass Co.

EXTERIOR PAINT
Priming—lead and oil.
Finish coats—outside paint, Pittsburgh Plate Glass Co.

INTERIOR WOODWORK
Trim and floors—yellow pine trim painted;
Oak floors stained dark.
Hardwood—white oak.
Stainwoods—oak handrail only.
Painted surfaces—yellow pine.
Shelving and cabinets—yellow pine panels, some white pine.

INSULATING
Weatherstripping—Doors only weatherstripped, Chamberlain Weathers Co.

INTERIOR FINISHES
Floors—Stained dark.
Trim
Doors—Painted light, products of Pittsburgh Plate Glass Co.
PLAN: The first floor is typical of center hall plans. On the second floor, bedrooms are oriented to take advantage of exposure and garden view.

Walls—papered on sheetrock.
Wallpaper-throughout, excepting in bathrooms, which are tile, texture on sheetrock above tile wainscoting.

SWITCHES—toggle.
LIGHTING—Direct.

KITCHEN:
Cabinets—milled.
Stove—by owner.
Refrigerator—by owner.

BATHROOM:
Cabinet—milled.
Seats—Church Mfg. Co.
Tile—Wheeling.

HEATING:
Gas, hot air furnace by Pacific Gas Products Co.
Piping—asbestos covered tin ducts.
Hot water heater—Pittsburgh instantaneous, Pittsburgh Water Heater Co.
Thermostat and regulators—Minneapolis-Honeywell.

CHIMNEY:
Fireplaces.
Facings—tile.
Hearths—tile.
Mantels—wood.
Damper—Majestic.

HARDWARE:
Interior Corbin.
Exterior Corbin.

SCREENS:
Wood milled screens, bronze netting.

WINDOW DRESSING:
Shades—by owner.
Venetian blinds.
Blinds—milled of white pine.
The difficulty with speculative building from the architectural point of view is that the problem usually boils down to designing something sufficiently negative to please most of the customers most of the time. Numerous "safe" formulas have been adopted by various builders. This little house represents one of the latest and best. Colonial in style, it includes a separate dining room, attached garage, first floor lavatory, completely equipped kitchen, and basement playroom. The plan is well organized, and space, as a matter of fact, is efficiently used. The work space works, and the service entrance, right outside the kitchen window, is excellently located. Had a good landscape architect been employed to supervise planting, the house would have appeared to much better advantage. Cost: $6,500.
Cubage: 27,500 at about 23½ cents per cubic foot.

**CONSTRUCTION OUTLINE**

**FOUNDATION**
- Walls: poured concrete.
- Piers: poured concrete.
- Cellar floor: waterproofing—integral, Truscon Steel Co.

**FRAME CONSTRUCTION**
- Wood

**EXTERIOR SURFACE**
- Brick veneer—second-hand common brick whitewashed.
- Shingles—red cedar shingles on garage portion.

**ROOF**
- Slate on sheathing—¾" Bangor slate.

**DOOR AND WINDOW FRAMES**
- Sash and frames—double hung, local mill.
- Doors and frames (exterior)—local mill.
- Reenforced concrete.

**GLASS**
- Libbey-Owens-Ford.

**EXTERIOR PAINT**
- Shingles—painted, Atlantic white lead.
- Trim—Dutch Boy, National Lead Co.

**LATH AND PLASTERING**
- Lathing
  - Metal—2.75 lb. Triplex.
- Composition plaster base—metal backed aluminum foil.

**INTERIOR WOODWORK**
- Floors—stained, Minwax.
- Shelving and cabinets—local mill, architect's design.

**INSULATING**
- Outside walls—2nd floor ceiling, eave and outside walls aluminum-back wire lath.
- Weatherstrip—American Weatherstrip Co.

**INTERIOR FINISHES**
- Floors—stained, Minwax.
Dutch Boy white lead by National Lead Co., Valspar by Valentine & Co. Living room, stain mixture of linseed oil, umber, dryer. Wallpaper — Salubra, Imperial, Lloyd's, Thibaut.

Trim Doors Dutch Boy white lead by National Lead Co., Valspar by Valentine & Co. Living room, stain mixture of linseed oil, umber, dryer. Wallpaper — Salubra, Imperial, Lloyd's, Thibaut.

First Floor

BASMENT

Doors Dutch Boy white lead by National Lead Co., Valspar by Valentine & Co. Living room, stain mixture of linseed oil, umber, dryer. Wallpaper — Salubra, Imperial, Lloyd's, Thibaut.

Cabinet—Millwork, local.
Stove—Magic Chef by American Steve Co.

BATHROOM

Fixtures—Speakman.
Bath tubs Standard Sanitary.
Toilets Seats—Church Mfg. Co.

Pipes
85 per cent copper (red brass).

Heating
Home oil burner.
Boilers—Arco.
Radiators—concealed, Richmond Radiator Co. "Richwar."

Valves—Hoffman.
Thermostat and regulators—Minneapolis-Honeywell.

Chimney

Fireplaces
Facings—black face brick.
 Hearth—black tile.
Damper—cover throat.

Hardware

Interior—Sargent, Stanley.
Exterior—Corbin.

Screen
Bronze

Window Dressing
Blinds—local mill, painted red.
7. HOUSE FOR DR. KERESZTURI, CARMEI, CALIFORNIA

PROBLEM: To build a summer house for less than $2,500 which would also be suitable for winter week-ends. The owner's tastes were necessarily simple and his only demands were that the house be reasonably well built, comfortably suited to outdoor living, possess at least minimum accommodations for a fairly large number of people, and have plenty of windows. The house is built on the property of the Gypsy Trail Club.

The architectural committee which had to approve this design is not required upon a gable roof. It will be noted, however, that the roof was extended far enough to soothe the aesthetic sensibilities of the committee, which it became the roof terrace desired by the client. The simplicity which the cheap materials were used is most commendable. The house, sleeping quarters for six, and can accommodate six more in a pinch. The plan, designed for simple and informal living, consists of an arrangement of bedrooms, sleeping porches and utilities surrounding a central which is used as the living room. Cost (exclusive of architect's fee, air furnace and built-in furniture): $2,440 or about 20 cents a cubic

CONSTRUCTION OUTLINE

FOUNDATION
Walls—concrete block and siding (one side) between piers.
Piers—concrete.
Cellar floor—cement.

FRAME CONSTRUCTION
Fir.

EXTERIOR SURFACE
Clapboards—redwood siding.

ROOF
Wood shingles on shingle lath—cedar shingles on gable. Canvas on flat roof terrace.
Valleys and gutters—Anaconda copper.

DOOR AND WINDOW FRAMES
Sash and frames—wood casement.
Doors and frames (exterior)—Flush doors.

PORCHES
Longleaf pine laid in "Dutch Boy" white lead.

EXTERIOR PAINT
Siding—linseed oil.
Sash—linseed oil.

LATH AND PLASTERING

INTERIOR WOODWORK
Trim and floors
Painted surfaces
Shelving and cabinets

INSULATING
Outside walls—U. S. Gypsum rock wool

INTERIOR PAINTING
Floors—linseed oil and Johnson's wax.
Trim
Doors—lead and oil paint.
Sash
TO ROOF DECK IN MAIN LIVING SPACE

DECK

BATHROOM
- Fixtures: Standard Sanitary.
- Seats: Church Mfg. Co.
- Walls: "Stonite" finish, Vinolyte resin protective coating.
- PIPES: Chase brass.
- HEATING: Coal—hot air furnace. Hot water heater—coil in heater and small coal heater.
- CHIMNEY: Fireplaces Facings—stone.

CATHERINE HORSLEY, ARCHITECT

Walls—all water paint except "Stonite" in kitchen and bath.

Fixtures—Standard Sanitary.
Seats—Church Mfg. Co.
Walls—"Stonite" finish, Vinolyte resin protective coating.

PIPEs
Chase brass.

HEATING
Coal—hot air furnace.
Hot water heater—coil in heater and small coal heater.

CHIMNEY
Fireplaces Facings—stone.

Hearths—slate.
Mantels—oak plank.
Damper—Covert.
Built-in fireplaces—"Heatilator."

HARDWARE
Interior Corbin.
Exterior Corbin.

SCREENS
Wood.

WINDOW DRESSING
Curtains—hand-woven silk.

FLOOR PLAN

1935
The architect: "An inexpensive residence for a small family; the plan permits future additions. In order to make the most of the outlook the building was placed high to the rear of the lot, with the living room on the top floor. The closeness of the neighbors necessitated special provisions to secure privacy; in this case an extensive trellis scheme which becomes the dominating motif of the building. . . . This interior gives a feeling of spaciousness far surpassing the actual moderate dimensions of the room. This is obtained by the following features: 1. An entrance hall running up through the second floor becomes part of the living room. 2. Kitchen, living room and one bedroom joined spatially and separated by low partitions, 3. Variation in height of living room ceiling." While many a client would consider the trellis too extreme a method of securing privacy, few, if any, would object to the sensible placing of the living room on the upper floor. Provision was made for an outdoor fireplace and for a laundry. Cost $5,000. Cubage (including garage): 12,000 at less than 12 cents per cubic foot.

CONSTRUCTION OUTLINE

FOUNDATION
Walls and piers—concrete.
Columns—wood.
Cellar floor—cement.

FRAME CONSTRUCTION
Oregon pine.
Sills redwood.

EXTERIOR SURFACE
Stucco—Monolith cement.

ROOF
Composition flat roof.
Down spouts—cast iron.

DOOR AND WINDOW FRAMES
Sash and frames
Casement type
Doors and frames (exterior)—wood.

PORCHES
Reinforced concrete.

GLASS
American Glass Co. "Lustra Glass."

EXTERIOR PAINT
Trim
W. P. Fuller Co.

LATH AND PLASTERING
Lathing—wood.
Plastering
Patent plaster—Blue Diamond.
Finishing coat—interior stucco.

INTERIOR WOODWORK
Trim and floors—stainwoods.
Shelving and cabinets—Oregon pine.

248
M. SCHINDLER, ARCHITECT

ROOM WITH KITCHEN PARTITION AND DINING SPACE


ULATING
None

ERIOR PAINTING
None

HTING
Indirect

UMBING
Kitchn

Stove—built-in.
Refrigerator—General Electric.

BATHROOM
Toilets—1 piece, Crane Co.
Seats—Pyrene.
Tile—Pomona Tile Co.

PIPES
Steel

HEATING
Gas—furnace, hot air.

AIR CONDITIONING
Unit system.

CHIMNEY
Fireplaces
Facings—brick.
Hearts—cement.
Dampers—special design.

HARDWARE
Interior—nickel plated.

SCREENS
Galvanized iron.

OBER • 1935

CTOBER \ 1935

249
**CONSTRUCTION OUTLINE**

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>DETAILS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FRAME CONSTRUCTION</strong></td>
<td>Wood.</td>
</tr>
<tr>
<td><strong>MASONRY CONSTRUCTION</strong></td>
<td>Chimney—Sayre &amp; Fisher Brick Co.</td>
</tr>
<tr>
<td><strong>EXTERIOR SURFACE</strong></td>
<td>Clapboards 12&quot; cypress 10&quot; to weather. Shiplap. Stucco—cement stucco on wire lath.</td>
</tr>
<tr>
<td><strong>ROOF</strong></td>
<td>Slate on sheathing—1/4&quot; Pennsylvania black “Bangor.”</td>
</tr>
<tr>
<td><strong>DOOR AND WINDOW FRAMES</strong></td>
<td>Sash and frames Double hung Casement Doors and frames (exterior)—wood.</td>
</tr>
<tr>
<td><strong>PORCHES</strong></td>
<td>Concrete floor. Matched pine walls.</td>
</tr>
<tr>
<td><strong>GLASS</strong></td>
<td>Double thick Libbey-Owens-Ford.</td>
</tr>
<tr>
<td><strong>INTERIOR PAINT</strong></td>
<td>Siding Primer Finish coat lead and oil.</td>
</tr>
<tr>
<td><strong>LATH AND PLASTERING</strong></td>
<td>Lathing Metal on ceiling. Wood on walls. Plastering—patent plaster, white finishing coat.</td>
</tr>
<tr>
<td><strong>INSULATING</strong></td>
<td>Attic floor—Johns-Manville rock wool. Weatherstripping—doors only, Chamin.</td>
</tr>
<tr>
<td><strong>INTERIOR FINISHES</strong></td>
<td>Floors—stain, shellac and wax.</td>
</tr>
</tbody>
</table>

**Notes:**
- Down spouts—16 oz. copper round.
- Composition sheathing paper—“Sta-tite.”

---

*Richard Scramm Photo*
The house was first designed as flat-roofed modern. The client objected to its uncompromising severity, and present house is the result. It is in no definite “style” but the exterior achieves by simplicity character which many consciously traditional designs lack. The relation of the house to the plot and the treatment of garden are excellent. Through the use of walls this house, like the quite different No. 4, gains greatly in parent size, and the garden is not only sheltered, but becomes an integral part of the living scheme. The plan is intelligently adapted to a narrow plot. The entrance, close to the middle of the side elevation, is interesting and reduces the trip of the maid to the front door. Three bathrooms on the second floor are more in a small house architect often has to cope with. The architect managed to include them without cramping either bathroom or bedroom. Cost: $11,800. Cubage: 28,000 at about 42 cents per cubic foot.

**Trim**
- Doors: lead and oil
- Sash: lead and oil
- Walls: painted

**R I N G**
- Cable: BX
- Electrical fixtures: James R. Marsh

**H I G H T I N G**
- Direct.

**U N B I N G**
- Kitchen: Kohler combination laundry tray and sink

**S T O V E**
- Gas.

**R E F R I G E R A T O R**
- Electric.

**B A T H R O O M**
- Fixtures: Kohler Co.
- Cabinets: Columbia Metal Box Co.
- Bath tubs: Kohler Co.
- Toilets: Kohler Co.
- Seats: Church Mfg. Co.

**P I P E S**
- Chase Brass & Copper Co.

**H E A T I N G**
- Oil
- Boilers: Quiet May, May Oil Burner Corp.
- Radiators: Richwar, Richmond Radiator Co.
- Piping: steel.

**V A L V E S**
- Warren Webster (2-pipe air return).
- Hot water heater: integral with boiler.

**C H I M N E Y**
- Fireplaces
- Facings: selected old brick.
- Mantels: wood.
- Damper: Covert old style.

**H A R D W A R E**
- Interior: Corbin
- Exterior: Corbin

**S C R E E N S**
- Bronze mesh.

**W I N D O W D R E S S I N G**
- Blinds: solid raised panel.
Situated on a little more than an acre of Connecticut land, the house savor s of the style and plan of the farmhouse in which the kitchen was the one room constantly lived in. Dictated by economy and util this old scheme of the kitchen-living room as the actual living center of the house, is still soundly servicea today. The stove, which burns either coal or oil, heats the living room in winter while the windows on three exposures provide means for cooling the kitchen in summer and for speedy removal of cooking ode There is a view of Long Island Sound from the bay window of the living room. The house fits well into surroundings without needing the customary fringe of planting at the base of the walls to tie it to the grou Cost: $2,968. Cubage: 11,000 at 27 cents per cubic foot.

**CONSTRUCTION OUTLINE**

<table>
<thead>
<tr>
<th>FOUNDATION</th>
<th>DOOR AND WINDOW FRAMES</th>
<th>INTERIOR WOODWORK</th>
</tr>
</thead>
<tbody>
<tr>
<td>FRAME CONSTRUCTION</td>
<td>Doors and frames (exterior)—wood.</td>
<td>INSULATING</td>
</tr>
<tr>
<td>Rafters—wood.</td>
<td>PORCHES</td>
<td>Roof rafters—Cabot’s quilt.</td>
</tr>
<tr>
<td>MASONRY CONSTRUCTION</td>
<td>Reenforced concrete.</td>
<td>Weatherstripping on wood doors—cop</td>
</tr>
<tr>
<td>Cinder block walls—Bedford Hills Con crete Products Co.</td>
<td>EXTERIOR PAINT</td>
<td>INTERIOR FINISHES</td>
</tr>
<tr>
<td>ROOF</td>
<td>Walls—white cement paint</td>
<td>Floors—Master Builders’ cement co</td>
</tr>
<tr>
<td>Wood shingles on shingle lath.</td>
<td>Trim—white cement paint.</td>
<td>colored.</td>
</tr>
<tr>
<td></td>
<td>Sash—painted.</td>
<td>Trim—stained and waxed.</td>
</tr>
<tr>
<td></td>
<td>LATH AND PLASTERING</td>
<td>Sash—painted.</td>
</tr>
<tr>
<td></td>
<td>No lath or plaster</td>
<td>Walls—white cement paint.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Wallpaper—attic rooms.</td>
</tr>
</tbody>
</table>
PLAN: Extremely simple with living room taking advantage of southern exposure and view. Dormer windows of the second floor would have given cross ventilation. They were omitted, not to protect the roof’s lines, but for the sake of economy. Cross ventilation (north and south) may be had by leaving open the bedroom doors.
The plan of the house is organized, as so many Western houses are, to take advantage of the garden placed at the rear. This arrangement presents the difficulty of treating large and continuous wall areas in an interesting manner, happily solved in this example by a receding porch on the front and two gabled projections facing the rear garden. Cost: Approximately 30½ cents per cubic foot.

**CONSTRUCTION OUTLINE**

**FOUNDATION**
- Walls—concrete, California Portland Cement Co.
- Cellar floor—cement.
- Waterproofing—Anti-Hydro.

**FRAME CONSTRUCTION**
- Douglas fir.
- Sills—redwood.

**MASONRY CONSTRUCTION**
- Common brick walls in garden—Los Angeles Brick Co.

**EXTERIOR SURFACE**
- Clapboards—white pine.
- Stucco—cement, reinforcement by Youngstown Pressed Steel Co.

**ROOF**
- Wood shingles on shingle lath—No. 1
- Perfect cedar.
- Valleys
- Flashing
- Galvanized iron, Armco.
- Composition sheathing paper—Sisalkraft.

**DOOR AND WINDOW FRAMES**
- Double hung sash—sugar pine,
- Frames—Douglas fir.
- Doors and frames (exterior)—sugar pine and Douglas fir.
- Garage doors—white pine.

**PORCHES**
- Reenforced concrete—acid stained cement.

**GLASS**
- No. 1, 26 oz., American Window Glass Co.

**EXTERIOR PAINT**
- Shingles—oil stain.
- Siding
- Trim—Cabot's double white.
- Sash

**LATH AND PLASTERING**
- Lathing—Douglas fir.
- Finishing coat—putty.

**INTERIOR WOODWORK**
- Trim and floors—Hardwood—oak.
- Painted surfaces—white pine.
- Shelving and cabinets—white pine.
INSULATING
Outside walls—Sisalkraft paper.
Weatherstripping—Chamberlin metal.

INTERIOR FINISHES
Floors—stain and wax.
Trim
Doors—lead and oil.
Walls
Wallpaper—Lloyd's.

WIRING
Cable—General Electric.
Electrical fixtures—B. B. Bell & Co.

LIGHTING
Direct

PLUMBING
Kitchen
Sink—Standard Sanitary.
Stove—gas.
Refrigerator—Frigidaire.

BATHROOM
Cabinets—metal and wood.
Bathtubs
Toilets
Showers

Shower curtains—waterproof silk.
Tile—American Encaustic Tile Co.

PIPES
Wrought iron—Reading.

HEATING
Gas
Piping—galvanized iron.
Hot water heater—Crane Co.

CHIMNEY
Fireplaces
Facings
Hearths—marble.
Mantels—wood.
Damper—Covert.

HARDWARE
Interior and exterior—Yale & Towne.
SCREENS
Alloy, Hipolito Screen Co.

WINDOW DRESSING
Venetian blinds—National Venetian Blind Co.
The house reflects a fine scholarship which has not been distorted to adjust itself to the architect's preoccupation—present-day living. The trees at the front and rear form an admirable setting for the structural composition. The general spirit of the house is well indicated both by the dignified entrance front as also by the rear, which is dominated by the outside brick chimney and by the large dining room window overlooking the terrace—an agreeable spot for outdoor meals. The amiable garden affords consistent accompaniment. Extending the roof of the dining room bay-window over the door as a shelter was practical well as pictorial. Cost: $20,000. Cubage: 50,000 at 40 cents per cubic foot.

**CONSTRUCTION OUTLINE**

<table>
<thead>
<tr>
<th>FOUNDATION</th>
<th>DOOR AND WINDOW FRAMES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Walls—concrete, “Atlas” cement.</td>
<td>Sash and frames</td>
</tr>
<tr>
<td>Columns—lally</td>
<td>Double hung—Curtis Silentite.</td>
</tr>
<tr>
<td>Cellar floor—Universal cement.</td>
<td>Steel casement—Truscon.</td>
</tr>
<tr>
<td>Waterproofing—exterior face parged with 1/4” coat of waterproofed Medusa cement. Anti-Hydro Waterproofing Co.</td>
<td>Doors and frames (exterior)—wood, Morgan.</td>
</tr>
<tr>
<td></td>
<td>Garage doors—Overhead Door Corp.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FRAME CONSTRUCTION</th>
<th>PORCHES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Douglas Fir, Weyerhauuser.</td>
<td>Flagstone on concrete slab</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>EXTERIOR SURFACE</th>
<th>GLASS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clapboards—1/4” x 6”.</td>
<td>“A” double thick, clear sheet glass, Libbey-Owens-Ford Glass Co., American Window Glass Co.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ROOF</th>
<th>EXTERIOR PAINT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wood shingles on shingle lath—18” 4 1/2” to weather, Creo-Dipt Co.</td>
<td>Shingles—dipped</td>
</tr>
<tr>
<td>Gutters</td>
<td>Siding</td>
</tr>
<tr>
<td>Flashing</td>
<td>Trim</td>
</tr>
<tr>
<td>Down spouts</td>
<td>lead and oil, Devee &amp; Raynolds</td>
</tr>
<tr>
<td></td>
<td>Sash</td>
</tr>
<tr>
<td></td>
<td>Co.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>LATH AND PLASTERING</th>
<th>INTERIOR WOODWORK</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lathing</td>
<td>Trim—pine</td>
</tr>
<tr>
<td>Ceilings—metal</td>
<td>Floors—oak</td>
</tr>
<tr>
<td>Plastering</td>
<td>Shelves and cabinets—painted pine.</td>
</tr>
<tr>
<td>Patent plaster—King’s Windsor Rockwall</td>
<td>Stock millwork—Morgan and Curtis.</td>
</tr>
<tr>
<td></td>
<td>Finishing coat—hard white</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>INSULATING</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Outside walls</td>
<td></td>
</tr>
<tr>
<td>Roof rafters</td>
<td></td>
</tr>
<tr>
<td>Rock wool</td>
<td></td>
</tr>
<tr>
<td>Weatherstripping—Curtis Silentite</td>
<td></td>
</tr>
</tbody>
</table>
**TERIOR FINISHES**

Floors—Minwax floor finish.

Trim

Doors—3 coats lead and oil paint.

Sash

Walls—Salubra.


**RING**

Cable—BX.

Electrical fixtures—Chase Brass & Copper Co.

Switches—Hart & Hegeman tumbler.

**LIGHTING**

Direct

**UMBING**

Kitchen

Sink—Standard Sanitary enameled iron.

Cabinet—wood, Curtis stock.


Refrigerator—Frigidaire.

**BATHROOM**

Fixtures—Standard, Chromard fittings.

Bath tubs—"Pembroke."

Toilets—Compact.

Seats—Church Mfg. Co.

Showers—K 200.

Shower curtains—K 290, duck.

Tile—floor, ceramic mosaic. Walls, Parisian matt glazed, American Encaustic Tile Co.

**HEATING**

Oil—Gilbert & Barker.

Radiators—American Radiator Co.

Valves—H. A. Thrush & Co.


**CHIMNEY**

Fireplaces

Facings—brick.

Mantels—wood, Wm. H. Jackson.

Dampers—H. W. Covert Co.

**HARDWARE**

Interior and exterior—Yale & Towne Mfg. Co.

**SCREENS**

Curtis stock.
Elements of Tudor design were incorporated to produce a not unpleasing result. The hall descends through steps to the first floor level. A steeply sloping site dictated this change of level and also made possible an economical basement in which is stored the machinery and sound chamber of a pipe organ. Though the gabled dormers somewhat detract from the general repose of aspect, they are, nevertheless, a frank concession to utility and are not at variance with the modes from which the external form was adapted. One questions the expediency of having the kitchen veranda so close to the main entrance. The exterior of brick veneer, painted white, and wood form an agreeable combination. Cost: $13,000. Cubage: 53,000 at 25 cents per cubic foot.

**CONSTRUCTION OUTLINE**

<table>
<thead>
<tr>
<th>FOUNDATION</th>
<th>ROOF</th>
<th>GLASS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Columns—wood.</td>
<td>coursed 5x, Seattle Cedar Lumber Mfg. Co.</td>
<td></td>
</tr>
<tr>
<td>Cellar floor—concrete, Pioneer Sand &amp; Gravel Co.</td>
<td>Valleys 16 oz. copper, American</td>
<td></td>
</tr>
<tr>
<td>Waterproofing—hot asphalt, Union Oil Co.</td>
<td>Flashing Brass Co.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FRAME CONSTRUCTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fir Girders—steel I-beams, Bethlehem Steel Co.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>EXTERIOR SURFACE</th>
<th>DOOR AND WINDOW FRAMES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brick veneer—common brick, Builders Brick Co.</td>
<td>Sash and frames</td>
</tr>
<tr>
<td>Rough cedar siding—Seattle Cedar Lumber Mfg. Co.</td>
<td>Steel sash—Truscon Steel Co.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PORCHES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reenforced concrete—Pioneer Sand &amp; Gravel Co.</td>
</tr>
<tr>
<td>Tile floor—quarry tile, Builders Brick Co.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>EXTERIOR PAINT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shingles—brush stained, Schorn Paint Co.</td>
</tr>
<tr>
<td>Siding</td>
</tr>
<tr>
<td>Trim</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>LATH AND PLASTERING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lathing—wood, Reed Mill &amp; Timber Co.</td>
</tr>
<tr>
<td>Plastering—Standard Gypsum Co.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>INTERIOR WOODWORK</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hardwood floors—oak, Bruce Co.</td>
</tr>
<tr>
<td>Stainwoods—knotty hemlock.</td>
</tr>
<tr>
<td>Painted surfaces</td>
</tr>
<tr>
<td>Shelving and cabinets</td>
</tr>
</tbody>
</table>
PLAN: Kitchen convenient to hall and directly accessible to dining room. The interest of this plan derives from putting the kitchen at the front of the house with the windows of the living room at the back, where they command an extensive outlook. Maid's room has separate entrance, making it a self contained and, if the owners so desire, a rentable unit. Dressing room-bathroom arrangement good.

BATHROOM
Fixtures—Standard Sanitary.
Cabinets—American Glass Co. medicine cabinet.
Bath tubs
Toilets—Standard Sanitary.
Seats—Church.
Showers—Standard.
Tile—Gladding, McBean & Co.

PIPES
Wrought iron.

HEATING
Hart oil burner.
Thermostat and regulators—Minneapolis-Honeywell.

AIR CONDITIONING
Fan and air conditioner.

CHIMNEY
Fireplaces
Facings—brick.
Hearth—stone.
Mantels—wood.
Damper—Richardson high form.

HARDWARE
Interior and exterior—Yale & Towne, Earle.

SCREENS
Roller type.

WINDOW DRESSING
Shades
Venetian blinds.

OUTSIDE WALLS—Sisalkraft paper.
Attic floor—Insulite.
Weatherstripping—Chamberlin.

FINISHES
Fir—3 coats paint, Schorn Paint Co.
Doors—1 coat enamel, Pratt & Lambert's "Vitrolite."
Walls—paint and paper.

ELECTRICAL FIXTURES—Seattle Lighting Fixture Co.
Switches—Hart & Hegeman.

DIRECT VENT
Kitchen
Sink—Standard Sanitary.
14. HOUSE FOR DR. T. MCKEAN DOWNS, BRYN MA

PROBLEM: "The special considerations which influenced the design were very few. The client is the sole occupant of the house, except for occasional visits from his son. He therefore preferred a dining alcove to a full dining room. The living room, and the main bedroom directly above, had to be on the west side of the house to take advantage of the delightful outlook over fields, stream, and pool. Woodworking and flowers are the client's hobbies, and it was required to provide a completely equipped shop in the basement and a small lean-to greenhouse on the south-west corner of the house with direct communication to the office, where he spends most of his time."

Few types of early American houses show more vigor, or better adapt to local conditions than the Pennsylvania farmhouse. Few have been abominably travestied in the residential architecture of recent years; this house outside of Philadelphia the architect has handled his mate and forms with such restraint and skill that none of the criticisms ordinarily made can be applied here. The walls have excellent texture without being exaggeratedly rough, and the stone joints have been left in the natural state of the mortar, thereby preserving the simplicity of the wall surface. Softwood has been used for exterior surfaces, but in amount small enough to disturb the fine stone character of the house. Cost: 28 1/2 cents per foot.

CONSTRUCTION OUTLINE

FOUNDATION
Walls and piers—stone.
Cellar floor—cement.

FRAME CONSTRUCTION
Hemlock. Plate and girders Longleaf Yellow pine.

MASONRY CONSTRUCTION
Stone walls—local stone.

EXTERIOR SURFACE
Clapboards—cypress.

ROOF

DOOR AND WINDOW FRAMES

TERRACE
Brick floor—old paving brick.

GLASS
Libbey-Owens-Ford double thick grade A.

EXTERIOR PAINT
Roof—shingles, left to weather. Siding, trim and sash—priming of white lead. 3 coats Cabot's double white.

LATH AND PLASTERING

INSULATING
Outside walls—1 1/2" cork board used. Attic floor—6" rock wool over entire floor. Weatherstripping — zinc, interlocking type, all exterior openings except basement.

INTERIOR FINISHES
Entire 1st floor except library a kitchen, painted walls and woodwork

INTERIOR WOODWORK
Trim and floors—white pine trim, long leaf yellow pine. floors except in service portion or under linoleum white pine. N. C. pine is used. Library has S. brick floor. Stainwoods and paint surfaces of white pine. Shelving and cabinets—white pine. Stockmillwork—2nd floor interior doors.

THE ARCHITECTURAL FORUM
I N G ROOM

Arrangement of living room and dining alcove pleasant; it makes for a spacious interior and a form more resting than a simple rectangle. It is necessary for the need to go through the living room to go to the front door, in an informal living scheme, this should not be objectionable.

F I R S T FLOOR

Floors—Stained and waxed (dark).
Wallpaper—all bedrooms. Sanitas all bathroom walls.

W I N G

Switches—toggle, plates in colors to match walls.

L I G H T I N G

Direct.

L U M B I N G

Kitchen.
Sink—Kohler Co.
Cabinet—detailed and built in.
Stove—Chambers' Automatic gas range.
Refrigerator—Frigidaire.

B A T H R O O M

Fixtures—Kohler Co.
Cabinets—Kleer-Vu.
Showers—over tubs.

Shower curtain—white duck.
Tile—3 courses around tubs only.

P I P E S

Brass.

H E A T I N G

Oil—Williams' Oil-o-matic with B. & G. Booster.
Radiators—American Radiator "Corto" (concealed).
Hot water heater—included in Oil-o-matic set up.
Thermostat and regulators—separate thermostatic control for green house.

C H I M N E Y

Fireplaces
Facings and hearths—Verde Antique Marble in living room, rough stone in library. S. F. brick hearth in bedroom.

Mantels—Original mantel from old family mansion used in living room. Simple wood elsewhere.
Damper—Covert old style.

H A R D W A R E

Interior—about half of early American design, made to order. Remainder Corbin.
Exterior—Corbin.

S C R E E N S

Wood and copper wire by carpenter.

W I N D O W D R E S S I N G

Shades—throughout 2nd floor.
Venetian blinds—in all main rooms 1st floor.

S P E C I A L E Q U I P M E N T

Access to attic—Bessler Pull-Down stairs.
Small lean-to green house by Hitchings & Co.
The main part of the house and the wing on the left are approximately the same size. But the wing's arc and the consequent shadows skillfully subordinate it to the central portion. Proper planting would give the garage a less dominant position in the design. The hayloft pulley over the maid's window is purely affectation.

**Cost:** $12,500. Cubage: 43,000 at 29 cents per cubic foot.

---

**CONSTRUCTION OUTLINE**

**FOUNDATION**
- Walls and piers—poured concrete.
- Columns—Lally.
- Cellar floor—cement (fir floor for play room).

**FRAME CONSTRUCTION**
- Fir

**EXTERIOR SURFACE**
- Brick veneer—Staple's common brick.
- Stone veneer—Westchester.
- Shingles—cedar, Perfection.
- Flush boarding—redwood.

**ROOF**
- Slate on sheathing—Bangor black slate.
- Valleys
- Gutters
- Flashing
- Down spouts

**DOOR AND WINDOW FRAMES**
- Salt glazed tile drains—to drywells.
- Composition sheathing paper—30 lb. felt.

**PORCHES**
- Posts, arches and trim—redwood.
- Floors—concrete with slate flagging.

**LATH AND PLASTERING**
- Lathing—Wood-lath.
- Metal corner pieces.
- Composition plaster base—Celotex.
- 2nd floor ceiling.
- Patent plaster—King's Windsor.
- Finishing coat—plaster of Paris.

**INTERIOR WOODWORK**
- Floors—oak throughout.
- Stainwoods—knotty pine.
- Painted surfaces—white pine.
- Shelving and cabinets—knotty pine and white pine.

**INSULATING**
- Attic floor—Celotex.
- Weatherstrapping—Kingsway metal striping.
YORK, MAXMILLIAN R. JOHNKE, ARCHITECT

RANGE

SECOND FLOOR

FIRST FLOOR

RIOR FINISHES
Doors—Minwax stain and wax.
Trim—Cream color, some trim natural
Pan: wax.
Walls—Kitchen and baths enamel paint,
Paper—all principal rooms.
CABLING
Table—BX.
Electrical fixtures—Lightolier Co.
Switches—toggle.

HTING
Kitchen
Sink—Standard Sanitary flat rim sink.
Cabinet—Kingsway.
Stove—Star.

THROOM
Cabinets—Kingsway.
Bath tubs—Standard Sanitary recessed.
Toilets—Standard Sanitary.
Showers—Kingsway glass door.
Tile—Mosaic Tile Co.

IPES
Copper by National Copper Tubing.

RI CONDICATION
Central—Delco oil burning "Conditionair."

IMNEY
Fireplaces

ACING
Facings—brick.
Hearth—slate.
Mantels—design part of wall treatment
of knotty pine.
Damper—H. W. Covert Co.

ARWARE
Interior and exterior—Schlage Lock Co.

REENS
Copper screens full length.

INO W DRESSING
Shades—linen.
Blinds—Curtis.

IECIAL EQUIPMENT
 Telephone alcove unit special design.

CTOBER • 1935
Located on a thousand acres of cattle grazing land about 50 miles from Los Angeles, this pleasant retreat of a motion picture actor closely follows the lines of the traditional California ranch house. The central portion of the house is in stone tile; the wings are of whitewashed boards and batts—an attempt to give the impression that they have been added to an original small building. In spite of this trick, romantic touch, the home is attractive and suited to its location. It shows the excellent use of simple materials characteristic of Californian residential work and the irregular, sprawling plan solves the problems of site and living requirements with directness and ease. As fire protection and for cooling purposes, ordinary lawn sprinklers are spaced about 10 ft. apart on the roof ridge. A ten to twenty degree interior temperature reduction results from thorough soaking and evaporation on hot days. Cost: approximately $3 a square foot.

**CONSTRUCTION OUTLINE**

**FOUNDATION**
- Walls—Portland Cement.
- Piers—Portland Cement.
- Cellar floor—Portland Cement.
- Waterproofing—Anti-Hydro.

**FRAME CONSTRUCTION**
- No. 1 Common Douglas Fir.
- Sills—Redwood.

**MASONRY CONSTRUCTION**
- Common brick walls—Simons Brick Co.
- Faced brick—Los Angeles Pressed Brick Co.
- Tiles—"Hollostone," Hollostone Co.

**EXTERIOR SURFACE**
- Shingles—Split Redwood shakes.
- Stucco—Blue Diamond.

**ROOF**
- Valleys—Armco.
- Gutters—Armco.
- Flashing—Armco.
- Down spouts—Armco.
- Composition sheathing paper—No. 15 felt.
- Pioneer Roofing Co.

**DOOR AND WINDOW FRAMES**
- Sash and frames—Douglas Fir.
- Double hung—Sugar pine.
- Doors and frame (exterior)—Douglas Fir.
- Garage doors—Douglas Fir.

**PORCHES**

**GLASS**
- Libbey-Owens-Ford, double strength.

**EXTERIOR PAINT**
- Shingles—left natural.
- Siding—Cabot's "Old Virginia White" lead and oil.
- Sash—Finish Coat, Oakley Paint.

**LATH AND PLASTERING**
- Lathing—Long-Bell No. 1 green Douglas Fir.

**INTERIOR WOODWORK**
- Trim and floors—Douglas Fir.
- Hardwood—No. 2 oak.
- Painted surfaces—Douglas Fir and Sugar Pine.
PLUMBING
- PIPES: Steel—Youngstown Sheet & Tube Co.

HEATING
- Electric

TOBER • 1935

CHIMNEY

HARDWARE
- Interior: Dresslar Hardware Co., Exterior: Dresslar Hardware Co.

SCREENS
- "Hipolito"—Hipolito Mfg. Co.

WINDOW DRESSING
- Venetian blinds—National Venetian Blind Co.
The architect was obviously at ease with the changes of material demanded by the Pennsylvania farmhouses. Clapboards were originally added to the leaky field-stone walls of these houses as protection for the exposed elevations. Thus clapboards would appear on all walls with the same orientation. Modern insulation, however, allows these features to be arbitrarily decorative. The plan is typical, capably handled. Economy of local materials is reflected in the low cost of this house. Cost: $5,940. Cubage: 22,771 at 26 e per cubic foot.

### Construction Outline

<table>
<thead>
<tr>
<th><strong>Foundation</strong></th>
<th><strong>Door and Window Frames</strong></th>
<th><strong>Lath and Plastering</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Walls</td>
<td>Sash and frames</td>
<td>Lathing</td>
</tr>
<tr>
<td>and Piers</td>
<td>Double hung</td>
<td>Composition plaster base—U. S. Sheetrock.</td>
</tr>
<tr>
<td>Cellar floor</td>
<td>Casement</td>
<td>Plastering</td>
</tr>
<tr>
<td></td>
<td>Doors and frames (exterior)</td>
<td>Patent plaster (U. S. Gypsum)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Finishing coat</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Foundation</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Frame Construction</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Douglas fir, structural grade.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Masonry Construction</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stone walls—local stone.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Exterior Surface</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clapboards—California redwood.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Roof</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wood shingles on shingle lath—Washington red cedar.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Exterior Paint</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shingles—unfinished.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Siding</td>
<td>Priming</td>
<td>lead and oil mixed</td>
</tr>
<tr>
<td>Trim</td>
<td>Finish coat</td>
<td>on job.</td>
</tr>
<tr>
<td>Sash</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shutters—Cabot's Collopakes.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Building Materials**

- **Walls** and Piers: local stone.
- Cellar floor: cement.
- **Frame Construction**: Douglas fir, structural grade.
- **Masonry Construction**: Stone walls—local stone.
- **Exterior Surface**: Clapboards—California redwood.
- **Exterior Paint**: Shingles—unfinished.
- **Doors and Frames**: Sash and frames—white pine, specially milled.
- **Gutters**: Copper.
- **Flashing**: Copper.
- **Doors**: White pine.
- **Windows**: Libbey-Owens-Ford double strength A.
- **Insulating**: Outside walls: Balsam wool.
PLAN. Simple and direct. The circulation from kitchen to front entrance does not pass through intermediate rooms, a point frequently overlooked. One factor contributing to the low cost of this house was the single bathroom on the second floor.

INTERIOR FINISHES
- Floors—stained and waxed.
- Trim
- Doors—enameled.
- Sash
- Walls—tinted plaster, no paint.

WIRING
- Cable—BX.
- Electrical fixtures—locally purchased.
- Switches—Hubbell toggle.

LIGHTING
- Direct—mostly lamps, few fixtures.

PLUMBING
- Kitchen
  - Sink—enameled iron.
  - Stove
  - Refrigerator—electric.

BATHROOM
- Fixtures—Kohler.
- Bath tub—enameled iron.
- Toilet—vitreous china.
- Seat—white.

PIPES
- Wrought iron.

HEATING
- Coal
  - Boiler
  - Radiators—American Radiator Co.
  - Piping—Steel.
  - Valves—Jenkins.
  - Hot water heater—coal.

CHIMNEY
- Fireplaces.
- Facings—plaster.
- Hearth—common hard red brick.
- Mantels—wood.
- Damper—Covert.

HARDWARE
- Interior wrought iron, blacksmith made.
- Exterior wrought iron, blacksmith made, by Julius Rompp, Springhouse, Pa.

SCREENS
- Wood.

WINDOW DRESSING
- Done by owner.
Because this 230 x 350 foot lot was unruly and hilly the owner was able to buy it advantageously. Realizing that building in the center of the lot would have necessitated an expensive two-level house the owner decided to build on the crest of a hill and use this saving for landscaping. The incorporation of the garage with the house contributes to its pleasing form and results in the through-porch which creates an automatic draft in summer. There is no esthetic reason for repeating the shuttered windows on the garage. A glazed strip near the roof would have provided light and variety of treatment while better express the garage's purpose. Cost: $11,500. Cubage: 29,500 at 39 cents per cubic foot.

CONSTRUCTION OUTLINE

FOUNDATION

FRAME CONSTRUCTION
Yellow pine.

EXTERIOR SURFACE
Clapboards—first story. Shingles second story, some vertical boarding and battens garage wing.

ROOF
Wood shingles on shingle lath. Valleys—closed, copper flashed.


DOOR AND WINDOW FRAMES

PORCHES
Reinforced concrete.

GLASS
Double strength, quality A, by Libbey-Owens-Ford

EXTERIOR PAINT
Shingles—dipped and brush stained; 2 coats, Truscon white.

LATH AND PLASTERING

INTERIOR WOODWORK
house, both inside and out, has much to commend it. Greater living space
dhave been created from one end of the living room through to the garage, a
ance of about forty feet, by glazing from floor to ceiling with French windows
mply fixed-sash at the end of the living room and the part of the dining room
ch gives on the porch. The vertical boarding and the mantel design are good.

**DETAIL, STAIRWAY**

**FIRST FLOOR**

**SECOND FLOOR**

**PLAN:** Readily workable, with kitchen having easy access to main and servants' entrances, dining room and stairs. Bathroom connects directly with no bedroom. In a small house this is desirable because, when two flanking bedrooms have access to the intervening bathroom, the occupant of the bathroom locks his neighbor's door and then frequently forgets to unlock it.

**LIGHTING**

Direct.

**PLUMBING**

Kitchen

- Sink—Veribrite.
- Cabinets—McDougall.
- Refrigerator—General Electric.

**BATHROOM—**

- Fixtures—Crane.
- Cabinets—Lawco.
- Showers—Crane.
- Shower curtains—Crane.
- Tile—Cambridge.

**PIES**

By Anaconda.

**HEATING**

- Gas—Pennsylvania Furnace, gravity.
- Thermostat and regulators—Minneapolis-Honeywell.

**CHIMNEY**

- Fireplaces
  - Facings: slate tile.
  - Hearth: Mantels—knotty white pine.
  - Damper—Donley.

**HARDWARE**

- Interior and exterior—McKinney.

**WINDOW DRESSING**

- Blinds—American Shade Co., Brenneman.
The timbers of an old frame mill, 24 x 40 feet, were used in the construction of this guest house. Everything else in the construction was new, but the materials used and the site, with its associations, plainly indicated the most suitable manner of treatment. There is a garden below the spillway of the dam. The arrangement of levels was suggested by the irregularities of the site. The division between the upper and lower masses of the building became a natural separation between master's and servants' quarters. The bedrooms are of unusual shape and their somewhat unexpected disposal is determined by the placing of the stairs with reference to the demands of the great living room below. One of the living room's most engaging features is the long range of windows overlooking the stream. Cost, approximately $19,000.

### CONSTRUCTION OUTLINE

<table>
<thead>
<tr>
<th>FOUNDATION</th>
<th>ROOF</th>
<th>EXTERIOR PAINT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Walls—rubble stone.</td>
<td>Wood shingles on shingle lath.</td>
<td>Siding</td>
</tr>
<tr>
<td>Cellar floor—cement.</td>
<td>Valleys</td>
<td>Trim 2 coats linseed oil.</td>
</tr>
<tr>
<td>Waterproofing—integral, underfloor fill drained with porous fill.</td>
<td>Gutters</td>
<td>Sash</td>
</tr>
<tr>
<td>FRAME CONSTRUCTION</td>
<td>Flashing</td>
<td>copper.</td>
</tr>
<tr>
<td>Oak.</td>
<td>Down spouts</td>
<td></td>
</tr>
<tr>
<td>Rafters—spruce.</td>
<td>Salt glazed tile drains—to dry wells.</td>
<td></td>
</tr>
<tr>
<td>Wood pins.</td>
<td>DOOR AND WINDOW FRAMES</td>
<td></td>
</tr>
<tr>
<td>MANAGEMENT CONSTRUCTION</td>
<td>Sash and frames—white pine.</td>
<td></td>
</tr>
<tr>
<td>Stone walls—rubble stone, local.</td>
<td>Casement type—white pine.</td>
<td></td>
</tr>
<tr>
<td>EXTERIOR SURFACE</td>
<td>Doors and frames (exterior)—pine.</td>
<td></td>
</tr>
<tr>
<td>Clapboards—mill siding, composition sheathing paper under.</td>
<td>PORCHES</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Bluestone flagging.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>GLASS</td>
<td>Double thick, American Window Glass Co.</td>
</tr>
<tr>
<td></td>
<td>LATH AND PLASTERING</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Lathing—Toncan metal lath in bath</td>
<td></td>
</tr>
<tr>
<td></td>
<td>rooms, kitchen and pantry only.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Plastering—cement plaster in same</td>
<td></td>
</tr>
<tr>
<td></td>
<td>spaces, smooth finish.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>INTERIOR WOODWORK</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Trim and floors—red oak in living room</td>
<td></td>
</tr>
<tr>
<td></td>
<td>elsewhere spruce.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Wall surfaces—chestnut in living room</td>
<td></td>
</tr>
<tr>
<td></td>
<td>other rooms spruce.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Shelving and cabinets—white pine.</td>
<td></td>
</tr>
</tbody>
</table>
SULATING
Roof rafters—14” Insulite.
Attic floor—1/2” Cabot’s Quilt.

TERIOR FINISHES
Floors—stained, shellacked and waxed.
Trim
Doors—3 coats linseed oil.
Sash
Walls—living room naturally weathered and unfinished, all other rooms stained and oiled.

LIGHTING
Direct.

PLUMBING
Kitchen
Sink—enameled iron.
Stove—container gas.
Refrigerator—ice.

BATHROOM
Bath tubs—enameled iron.
Toilets—porcelain.
Seats—white, Church Mfg. Co.
Showers—over tub.
Floor—linoleum.

PIPES
Supply—brass.
Waste—cast iron.

HEATING
None.
Hot water heater—coal.

CHIMNEY
Fireplaces
Facings—common brick.
Hearths
Mantels
Damper—Covert, Old Style B.

HARDWARE
Interior and exterior—wrought iron latches, etc., P. & F. Corbin.

SCREENS
Wood frames.
The house comfortably adapts itself to the topography. The interior treatment, in which native sand plaster applied directly to the concrete-block building-unit gave the final finish for the walls, is economical and gives an air of sincerity. The garage approach, often an awkward item, is successfully integrated with the house and garden by the wall. The horizontal courses of the stone parapet wall, accented by the shadows in mortar joints, coincide with the roof lines. Windows on the road side have been kept at a minimum, but the house is open at the rear (See House No. 23). Cost: $15,800. Cubage: 42,060 at 37½ cents per cubic ft.

## CONSTRUCTION OUTLINE

<table>
<thead>
<tr>
<th>FOUNDATION</th>
<th>WALLS AND PIERs—CONCRETE.</th>
<th>Cellar floor—concrete.</th>
<th>WATERPROOFING—BAY STATE.</th>
</tr>
</thead>
<tbody>
<tr>
<td>FRAME CONSTRUCTION</td>
<td>Oregon pine.</td>
<td>Sills—redwood.</td>
<td></td>
</tr>
<tr>
<td>MASONRY CONSTRUCTION</td>
<td>8” stone tile.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EXTERIOR SURFACE</td>
<td>Stone tile—waterproofed and colored by Semolith.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ROOF</td>
<td>Slate on sheathing.</td>
<td>Gutters</td>
<td>galvanized iron.</td>
</tr>
<tr>
<td>DOOR AND WINDOW FRAMES</td>
<td>Sash and frames.</td>
<td>Double hung—white pine.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Doors and frames (exterior)</td>
<td>white</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Garage doors</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PORCHES</td>
<td>Brick floor—select common.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GLASS</td>
<td>Single strength by Libbey-Owens-Ford Glass Co.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EXTERIOR PAINT</td>
<td>Trim and sash—3 coats lead and oil.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LATH AND PLASTERING</td>
<td>Lathing—wood.</td>
<td>Plastering—gypsum patent plaster.</td>
<td></td>
</tr>
<tr>
<td>INTERIOR WOODWORK</td>
<td>Trim and floors—vertical grained Dougla fir.</td>
<td>Shelves and cabinets—white pine.</td>
<td></td>
</tr>
<tr>
<td>INSULATING</td>
<td>None.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
AN: Living and dining room space organized to give an impression of spaciousness. There is a 50-foot sight-line from alcove to dining room, although the actual length of the living room is less than 30 feet. Steps from the living room level to the bedroom level is fully handled and the vestibule at the end of the hall, instead of a door or window, adds perspective and seems to enlarge the entire area. The hall entrances to the garden good architectural treatment.

TERIOR FINISHES
Floors—special oil finish by owner.
Trim
Doors—4 coats lead and oil, W. P. Fuller & Co.
Sash
Walls—canvased and painted, 4 coats lead and oil in baths and kitchen, balance of house unfinished.

LIGHTING
Direct.

PLUMBING
Kitchen Sink—Crane Co.
Refrigerator—General Electric.

BATHROOM
Fixtures—Crane Co.

PIPES
Wrought iron—A. M. Byers Co.

HEATING
Gas—Payne Furnace.
Hot water heater—Crane.

CHIMNEY
Fireplaces
Facings—Mexican tile
Hearth—wood
Damper—Covert.

HARDWARE
Interior and exterior—Russwin.

SCREENS
Half screen, bronze wire.
PROBLEM: A small house for a lawyer and his wife. One positive requirement, an isolated law library virtually shut off from the rest of the house. A rear alley permitted placing the garage at the rear of the lot, thus eliminating a driveway from the street.

The house, instinct with all the quiet poise of the Regency manner, has a charring exterior characterized by simple formality; the ironwork of the porch of the entrance door is graceful and well detailed. A curious concession to preserve a stylized exterior is the large window over the main entry. This window opens into a closet, the wall of which was bent to accommodate. The formal lawn with the heavy trees close to the house is in character. Cost: 26.7 cents per cubic f

CONSTRUCTION OUTLINE

FOUNDATION
Walls and piers—Chattahoochee common brick.
Columns—steel.
Cellar floor—4" concrete.
Waterproofing—2 coats of pitch on exterior of walls, 4" open tile drains at footings.

FRAME CONSTRUCTION
Short leaf yellow pine.

MASONRY CONSTRUCTION
Common brick walls—Chattahoochee, Portland cement mortar.

EXTERIOR SURFACE
Brick veneer—Chattahoochee common brick.

ROOF
Composition shingles on sheathing—Bird & Son Inc., 3 in one strip, thick butt, black slate finish.
Gutters—Armaco galvanized iron.
Copper hood over front entrance and kitchen door.

DOOR AND WINDOW FRAMES
Sash and frames
Double hung—15/8" sash yellow pine on 2nd floor.
Casement—13/4" yellow pine on 1st floor.
Steel sash—"Fenestra" in basement.
Doors and frames (exterior)—yellow pine.

PORCHES
Reinforced concrete slab with random rectangular "Crab Orchard" stone finish.

GLASS
Single strength B grade, Libbey-Owens Ford Glass Co.

EXTERIOR PAINTING
Brick veneer—Sherwin-Williams stucco paint.
Trim—Sherwin-Williams exterior paint.

LATH AND PLASTERING
Lathing
Metal—on ceilings.
Wood—on walls, metal Cornerite.

Plastering

INTERIOR WOODWORK
Trim—yellow pine.
MONTGOMERY ANDERSON, ARCHITECT

FIREPLACE LIVING ROOM

ENTRANCE DETAIL

PLAN: Access from kitchen to entrance simply solved for typical cube house with center hall. An apparently simpler solution would have been to place the kitchen where the library is, but rear alley conditions prohibited it. Basement includes servant's toilet, laundry, heating equipment, storage space and recreation room.


WIRING: Cable—BX. Electrical fixtures—Capitol Electric Co.

LIGHTING: Direct.


HEATING: Gas. Heating with thermostat, humidistat, etc.


HARDWARE: Interior and exterior—Corbin, dead black finish.

SCREENS: Wood frames by local mill.

WINDOW DRESSING: Blinds—wood louvered by Willingham-Tift.
The architect: “This residence was planned entirely around the owner who desired plenty of sunshine and air. Note that in the living room, study, and owner’s bedroom the sun shines in all hours of the day. Note also the second floor porch where the owner has breakfast each morning, looking over the garden.” This house, like House No. 3, omits the supporting column at the corner of the porch. Here with a flatter roof and broken up masses, the treatment seems architecturally at ease. The kitchen is well placed; the study can be used as another living room. The living room fireplace was designed with openings on either side when wall space beside fireplaces is a more usual treatment. Cost: $15,000. Cubic feet: 55,500 at 27 cents per cubic foot.

### Construction Outline

<table>
<thead>
<tr>
<th>Foundation</th>
<th>Walls and piers—common brick.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cellar floor—concrete.</td>
<td></td>
</tr>
<tr>
<td>Waterproofing — emulsion No. 55—Union Products Co.</td>
<td></td>
</tr>
<tr>
<td>Frame Construction</td>
<td>Native yellow pine.</td>
</tr>
<tr>
<td>Masonry Construction</td>
<td>Tiled walls.</td>
</tr>
<tr>
<td>Exterior Surface</td>
<td>Common brick veneer over tile.</td>
</tr>
<tr>
<td>Roof</td>
<td>Tile on sheathing—B. Mifflin Hood Co.</td>
</tr>
<tr>
<td>Valleys—copper.</td>
<td></td>
</tr>
<tr>
<td>Gutters—24 ga. Galvanized iron.</td>
<td></td>
</tr>
<tr>
<td>Door and Window Frames</td>
<td>Sash and frames</td>
</tr>
<tr>
<td>Double hung</td>
<td></td>
</tr>
<tr>
<td>Doors and frames (exterior)—white pine.</td>
<td></td>
</tr>
<tr>
<td>Garage doors — roll up overhead type.</td>
<td></td>
</tr>
<tr>
<td>Yoder Morris Co.</td>
<td></td>
</tr>
<tr>
<td>Porches</td>
<td>Brick floor.</td>
</tr>
<tr>
<td>Matched pine.</td>
<td></td>
</tr>
<tr>
<td>Glass</td>
<td>Flat drawn sheet glass D. S. A., Libbey-Owens-Ford Glass Co.</td>
</tr>
<tr>
<td>Exterior Paint</td>
<td>Brick painted 2 coats “Bondex” cement paint.</td>
</tr>
<tr>
<td>Trim</td>
<td>Priming—lead and oil.</td>
</tr>
<tr>
<td>Sash</td>
<td>Finish coat—2 coats Sherwin-Williams outside paint.</td>
</tr>
<tr>
<td>Lath and Plastering</td>
<td>Lathing</td>
</tr>
<tr>
<td>Wood Plastering</td>
<td></td>
</tr>
<tr>
<td>Finishing coat—smooth finish, U. S. Gypsum Co.</td>
<td></td>
</tr>
<tr>
<td>Interior Woodwork</td>
<td>Trim and floors—hard wood.</td>
</tr>
<tr>
<td>Shelving and cabinets—painted except for cedar lining.</td>
<td></td>
</tr>
<tr>
<td>Stock millwork.</td>
<td></td>
</tr>
<tr>
<td>Insulating</td>
<td>Roof rafters—Johns-Manville rock wool.</td>
</tr>
<tr>
<td>Weatherstripping.</td>
<td></td>
</tr>
<tr>
<td>Interior Finishes</td>
<td>Floors—filled, varnished, 2 coats, Pratt &amp; Lambert.</td>
</tr>
</tbody>
</table>
PLAN: Kitchen in front makes it easy for maid to answer front door and allows dining room to have large window and pleasant view of rear garden. Garage well located in relation to service quarters. Upstairs arrangement workable with two guest rooms sharing bath.

---

**BATHROOM**
- Fixtures: Crane Co.
- Bath tubs: Crane Co.
- Toilets: Miami Cabinet Co.
- Cabinets: Miami Cabinet Co.
- Seats: Church Mfg. Co.
- Tile: 4 ft. high in guest bath.
- Composition tile—floor and wainscot owner's bath, Armstrong Cork Co.

**PIPES**
- Steel

**HEATING**
- Coal
- Boiler: cast iron, U. S. Radiator Co.
- Radiators: steel
- Piping: steel
- Valves: Dunham Co.
- Hot water heater—heated from main boiler with summer controls from stoker.
- Stoker: Iron Fireman.
- Thermostat and regulators.

**CHIMNEY**
- Fireplaces
- Fencing
- Heaths
- Mantele
- Damper
- Chimney: Wood.

**HARDWARE**
- Interior: Yale & Towne.
- Exterior
- Screens: By Rolscreen Co.

**WINDOW DRESSING**
- Shades
- Blinds
In this Florida seaside house the horizontal lines of the old adobe houses impart the dominant character. The unadorned lawn and the close planting are customary. Originally this planting protected the foundations by breaking up rainwater as it fell from the roof. The large living room window contributes to the appearance of the house, but at the cost of a three-foot furred wall. An optional arrangement would have placed the window facing a garden terrace on the private side of the house, in which case the position of the bathroom next the dining alcove, would have to be changed. The spacious hall with an iron grille across its opening at once hall and porch. Cost: $10,388. Cubage: 31,500 at 33 cents per cubic foot.

**CONSTRUCTION OUTLINE**

<table>
<thead>
<tr>
<th>FOUNDATION</th>
<th>VALLEYS</th>
<th>Flashing</th>
<th>GLASS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Walls—8&quot; cement blocks.</td>
<td>Copper.</td>
<td>Composition sheathing paper—75 lb. slate-surfaced roofing felt, Barber Asphalt Co.</td>
<td>Pennvernon double strength, Pittsburgh Plate Glass Co.</td>
</tr>
<tr>
<td>Footing reinforced concrete.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Waterproofing—Crystex.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FRAME CONSTRUCTION</td>
<td>DOOR AND WINDOW FRAMES</td>
<td>DOORS AND FRAMES (EXTERIOR)—cypress.</td>
<td></td>
</tr>
<tr>
<td>No. 2 common yellow pine. Cypress for exposed rafters.</td>
<td>Sash and frames</td>
<td>Garage doors—Overhead Door Corp.</td>
<td></td>
</tr>
<tr>
<td>MASONRY CONSTRUCTION</td>
<td>Steel sash—Fenwrought casements, Detroit Steel Products Co.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cement block walls—Maule Ojus Co.</td>
<td>Doors and frames (exterior)—cypress.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Faced brick—old red clay brick.</td>
<td>Garage doors—Overhead Door Corp.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ROOF</td>
<td>GLASS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tile on sheathing—Eaton shingle tile, National Fireproofing Corp.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**EXTERIOR PAINT**

<table>
<thead>
<tr>
<th>Trim</th>
<th>Sash</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benjamin Moore &amp; Co.</td>
<td></td>
</tr>
</tbody>
</table>

**LATH AND PLASTERING**

<table>
<thead>
<tr>
<th>Lathing</th>
<th>Glazing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metal—expanded galvanized metal lath, Clinton.</td>
<td>Metal—expanded galvanized metal lath, Clinton.</td>
</tr>
<tr>
<td>Wood—cypress.</td>
<td>Wood—cypress.</td>
</tr>
<tr>
<td>Plastering</td>
<td>Florida Red Top.</td>
</tr>
</tbody>
</table>

**INTERIOR WOODWORK**

<table>
<thead>
<tr>
<th>Floors—8&quot; pine plank.</th>
<th>Shelving and cabinets—specially milled.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Florida Red Top.</td>
<td></td>
</tr>
</tbody>
</table>

**INSULATING**

<table>
<thead>
<tr>
<th>Weatherstripping—Chamberlin.</th>
<th></th>
</tr>
</thead>
</table>
PLAN: The large hall would have gained by a larger opening to the living room. The bedroom at the south is well placed and, if desired, could form, with the bathroom, a completely separate unit in the house.

INTERIOR PAINTING
- Floors
- Trim
- Doors
- Sash
- Walls

WIRING
- Cable—thin wall conduit.
- Electrical fixtures—special.
- Switches—Bryant tumbler type.

LIGHTING
- Direct.

PLUMBING
- Kitchen

BATHROOM
- Fixtures—Standard Sanitary.
- Cabinets—Morton.
- Bath tube—Pembroke.
- Toilets—Compact.
- Seats—Church.
- Tile—Standard grade U. S. Quarry.

PIPES
- Copper, Mueller Streamline tubing.

HEATING
- Radiators—electric in baths only, Markel Electric Products, Inc.
- Hot water heater—gas, Pax X, 30 gal.

CHIMNEY
- Fireplaces
- Facings
- Hearths
- Mantels—brick and wood.

HARDWARE
- Interior—Sargent and McKinney.
- Exterior—McKinney.

WINDOW DRESSING
- Venetian blinds — Southern Venetian blinds.
PROBLEM: To build inexpensively for a small family a house combining economy of household labor and maintenance costs with urbanity of architectural style and due consideration for the amenities of modern suburban life. At the same time to adapt one or more of the Classic phases current in the late 18th or early 19th Century to the expression of present requirements.

Blending inspiration from the French Directoire and the English Regency modes which lend elegance and courtliness to the small house. This result challenges inspiration by its poised, convincing simplicity. The white-painted matched boarding of the external walls, the restraint of ornament, and the symmetrical proportions all contribute serenity, a quality likewise found in the plan. Cost: $12,750. Cubage: 39,965 at 32 cents per cubic foot.

CONSTRUCTION OUTLINE

FOUNDATION
Walls—poured concrete.
Columns—lally.
Cellar floor—concrete.
Waterproofing—fabric at sill line.

FRAME CONSTRUCTION
Spruce.
Girders—steel I beams.

EXTERIOR SURFACE
Flush boards—pine.

ROOF
Slates on sheathing—Bangor.
Gutters—copper lined pine.
Flashing—copper.
Down spouts—wrought iron, inside.
Flat decks—slate.

DOOR AND WINDOW FRAMES
Sash and frames
Double hung
Casement type
Doors and frames (exterior)—pine to details.

PORCHES
Floor—oak.

GLASS
Libbey-Owens-Ford Glass Co.

EXTERIOR PAINT
Siding
Trim
Lead and oil paint.

LATH AND PLASTERING
Lathing—composition plaster base, Celotex.
Plastering—2 coat job, white finish.

INTERIOR WOODWORK
Trim—pine.
Floors—oak.
Painted surfaces—pine.
Shelving and cabinets—pine to detail.
Stock millwork—doors, pine.

INSULATING
Outside walls
Roof rafters
Celotex.
Attic floor—Bird insulating board, Bird & Son, Inc.
Weatherstripping.

INTERIOR FINISHES
Floors—filled, stained and waxed.
Trim
Doors
Sash
Walls
Wallpaper—baths only.
PLAN: The plan is direct and logical. Flanked on one side by the maids' quarters, on the other by the kitchen—which commands ready access to both the front door and the dining room—the entrance hall leads straight to the large living room extending across the entire garden front of the main house. This assures both privacy and agreeable outlook. The sequence of divisions is natural and the compact arrangement thoroughly convenient.
PROBLEM: A house of contemporary design for an artist. House must include full facilities for his work, plus the normal amenities for living. An irregular lot with a steep grade on the approach side strongly influenced the solution. Esthetically this house acknowledges that raw wood in a natural setting is a suitable material. Collaboration between architect, client and a chemist, Mr. John produced an improved wood preservative which allowed the use of large plywood panels, $\frac{3}{4}$ in. thick on the exterior and $\frac{1}{4}$ in. thick for the interior. The house presents an interesting solution of the problem by providing the necessary shelter accommodations at a low cost. The style has been altogether dictated by the visual requirements and tastes of the owner and by the local conditions respecting materials and cost. Cost: $3,700 (including hot air furnace, refrigerator and stoves). Cubage: 16,100 at 23 cents per cubic foot.

CONSTRUCTION OUTLINE

FOUNDATION
Walls—Portland cement concrete
Piers—Mt. Diablo cement, Crockett Cement Co.
Cellar floor—Crockett Cement Co.
Waterproofing—asphalt hot coat, Paraffine Co.

FRAME CONSTRUCTING
Oregon pine and Douglass fir, sills of California redwood.

EXTERIOR SURFACE
Plywood—Port Orland red cedar shingles.
Stucco—California stucco.

ROOF
Tar and gravel roofing, Paraffine Co.

GLASS
Sheet glass by Libbey-Owens-Ford.
Ribbed glass old fashioned.

EXTERIOR PAINT
Shingles—painted, Collopaques (white) by Samuel Cabot.

Sliding—plywood.
Priming and finish coat—1 coat "Ply Seal."
Trim—1 coat "Ply-Seal."

SASH
Priming—Sherwin-Williams.
Finish coat—Sherwin-Williams.

LATH AND PLASTERING
Lathing—button board, U. S. Gypsum Co.
Wire—U. S. Wire.
Plastering—California stucco.

INTERIOR WOODWORK
Floors—random width oak plank, Wood Mosaic Co.
Stainwoods—$\frac{3}{8}$" knotty pine plywood.
Red River Lumber Co.
Painted surfaces, shelving and cabinets—California pine plywood, Oregon Washington Co.
Stock millwork—California white pine.
Spacious living room with large corner windows facing south and overlooking San Francisco Bay. Second floor work space has toilet lower economically placed over kitchen-bathroom plumbing. An or staircase makes this floor a complete separable unit. Traffic kitchen through living room to entry is not always desirable and a case might have been avoided by placing the entrance approxi-

PLYWOOD SIDING

The wood treatment here used experimentally was aimed at creating a preservative that would not discolor, polish nor eventually darken the wood’s natural color.

LATING
of rafters and attic floor—Flax-Li-Num.

RIOR FINISHES
doors—Sherwin-Williams stains and
timber—Sherwin-Williams paints.

NG
able—GI rigid conduit, General Electric Co.

TING
Cabinet—Oregon pine. Drainboard Onyxite, Onyxite Co. of California.

HEATING
Gas furnace, Torridaire Co.

BATHROOM
Fixtures—Standard Sanitary.

CHIMNEY
Fireplaces—reused brick.

RAINING
of rafters and attic floor—Flax-Li-Num.

HEATING
Gas furnace, Torridaire Co.

BATHROOM
Fixtures—Standard Sanitary.

CHIMNEY
Fireplaces—reused brick.

RAINING
of rafters and attic floor—Flax-Li-Num.
This white shingled, black shuttered house expresses its purpose directly and, striving for no trick architectural effects, pleasantly ornaments and fits in with its surroundings. The architect's original design stood logically called for front garage doors on the street front where they belong. Neighbors objected the doors had to be placed in the rear. The curtained garage window, therefore, was installed under project. The bay window gives light and spaciousness to the pine-paneled living room. The circulation from kitchen to entrance hall by means of the narrow "sneak" passage is commendable. Cost: $8,000. Cubage: 2, at 29 cents per cubic foot.

### Construction Outline

**Foundation**
- Walls—concrete block.
- Columns—lally.
- Cellar floor—cement.
- Waterproofing—blocks painted with asphalt.

**Frame Construction**
- Fir.

**Masonry Construction**
- Common brick walls, front entrance.

**Exterior Surface**
- Shingles—16" Dixie white shingles laid 7" to weather.

**Roof**
- Wood shingles on shingle lath—Crossette dipped and stained black, Creo-Dipt Co.
- Valleys—copper.
- Flashing.
- Composition sheathing paper.

**Door and Window Frames**
- Sash and frames
  - Double hung and casement type
  - Doors and frames (exterior)
- Garage doors—built up of diagonal beaded siding.

**Porches**
- Floor—flagstone laid in cement.

**Glass**
- Libbey-Owens-Ford Glass Co.

**Exterior Paint**
- Shingles—dipped, Creo-Dipt Co., Inc.
- Trim (lead, oil and turpentine, Dutch Sash)
- Boy, National Lead Co.

**Lathing and Plastering**
- Lathing—wood.

**Interior Woodwork**
- Floors—oak.
- Trim—white pine, hall and part of living room.
- Painted surfaces—white pine.
- Millwork—made special from detail drawings.

**Insulating**
- Outside walls—rock wool, Johns-Manville.
- Roof rafters—vibro.
WYORK, CHARLES H. UMBRECHT, ARCHITECT

Two bedrooms share the one bath. Guest at rear has private bath with shower. The long closets in the main bedroom may work larger than they appear to in plan. The walls of closets seem to shut off light from the two windows.

ERIOR FINISHES

BATHROOM

PIPES
Supply—brass. Soil and vent—wrought iron.

HEATING
Coal—hot air furnace. Hot water heater—coal.

CHIMNEY

HARDWARE
Interior and exterior—hand-wrought iron.

SCREENS
Bronze, frames white pine.

WINDOW DRESSING
Shades. Blinds.

CTOBER • 1935


RIFINISHES


KITCHEN

PICTURE
C TOBER • 1935

DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIRECT
DIR
This house is the first unit of a group near Cleveland, Ohio, designed for speculative purposes. A square, weather-boarded wooden structure, devoid of any pretense to the graces of “style,” it is most efficient as devised for the least laborious and inexpensive scheme of housekeeping for a small family demanding modern comfort and convenience. It frankly meets the physical requirements in a realistic manner, only a realist can be expected to appreciate it. The garden design is diverting, and smacks of the same orderly realism as the dwelling. Careful examination of the construction details below is essential to just appreciation of this stimulating design. The extent to which built-in equipment has been used is noteworthy. Cost: 32.8 cents per cubic foot.

**CONSTRUCTION OUTLINE**

**FOUNDATION**
- Walls and piers—concrete blocks.
- Cellar floor—cement.
- Waterproofing—Master Builders Co.

**FRAME CONSTRUCTION**
- Wood.
- Girders—steel.

**EXTERIOR SURFACE**
- Siding—flush wood.

**ROOF**
- 4-ply tar and gravel by Philip Carey Co., Lockland, Ohio.
- Drains—“Josam” (require no flashing) by Josam Mfg. Co., Michigan City, Ind.
- Composition sheathing paper—Sisalkraft.

**DOOR AND WINDOW FRAMES**
- Sash and frames
  - Steel sash—Vento Steel Sash Co., Muskegon, Mich.
  - Doors and frames (exterior)—wood.
  - Garage doors—Stanley overhead type.
- GLASS
  - Pennvernon, Pittsburgh Plate Glass Co.
  - “Sunproof” by Pittsburgh Plate Glass Co.
- Siding
- Trim
  - Composition plaster base—Gold Band

**LATH AND PLASTERING**
- Composition plaster base—Gold Band

**DOOR AND WINDOW FRAMES**
- Sash and frames
  - Steel sash—Vento Steel Sash Co., Muskegon, Mich.
  - Doors and frames (exterior)—wood.
  - Garage doors—Stanley overhead type.
- GLASS
  - Pennvernon, Pittsburgh Plate Glass Co.
  - “Sunproof” by Pittsburgh Plate Glass Co.
- Sash

**INSULATING**
- Outside walls—
  - 2” Rockwool
- Roof—4” Rockwool
- Thresholds—Chase Brass and Copper
PLAN: The plan is simple, direct, efficient. A place to cook, a place to live, and a place to keep the car; upstairs, adequate provision for sleep, bathing and study. The many merits of the plan are obvious. In addition to advantages of cross circulation, concentrating windows at the corners results in reduced carpentry and fitting labor with attendant savings. Rooms with such window treatment are easy to furnish.

PLUMBING
- Kitchen
- Cabinet fixtures-Kohler
- Sink fixtures-Kohler
- Wall fan—Victor Electric Products Co.
- PIPES-Chase Brass and Copper Co.
- HEATING-Coal

AIR CONDITIONING
- Central—"Moncrief," The Henry Furnace & Foundry Co., Cleveland, Ohio.

CHIMNEY
- Fireplaces—wood
- Hearths—slate
- Damper—Donley Bros.

HARDWARE
- Interior and exterior—P. & F. Corbin

SCREENS
- Metal frames by Vento Steel Sash Co.

WINDOW DRESSING
- Venetian blinds—Western Venetian Blind Co.
The studied rigidity and formality of this house with its single, great chimney and toilet vent pipe care on axis are relieved on the interior by a non-symmetrical plan. The sun porch, an element accepted by conservatives in architecture, is a summation of much of the philosophy expressed in such designs as Houses Nos. 8 and 9. In this case, it remains simply a glazed porch, well handled, and with the capricious criss-balcony above it a cheerful note. Cost: $13,137. Cubage: 30,460 at 43 cents.

CONSTRUCTION OUTLINE

FOUNDATION
Walls—concrete.
Columns—faked.

FRAME CONSTRUCTION
Fir.
Girders—steel.

EXTERIOR SURFACE
Clapboards—fired.

ROOF
Wood shingles—white cedar on boarding.
Valleys—closed.
Gutters—redwood.
Flashing—16 oz. copper.
Down spouts—wood, 16 oz. copper goose-neck.
Hoods over doorways—16 oz. copper.

DOOR AND WINDOW FRAMES
Sash and frames.
Double hung—white pine.
Doors and frames (exterior)—white pine.

PORCHES
Wood floor—heart rift hard pine.

GLASS
Single thick by Libbey-Owens-Ford Glass Co.

EXTERIOR PAINT
Siding
Trim
3 coats lead and oil.
Sash

LATH AND PLASTERING
Lathing
Metal—9 gauge, 2.8 lb. standard.
Composition plaster base—"Homesote," Agassiz Millboard Co.
Plastering

DOOR AND WINDOW FRAMES
Sash and frames.
Double hung—white pine.
Doors and frames (exterior)—white pine.

PORCHES
Wood floor—heart rift hard pine.

GLASS
Single thick by Libbey-Owens-Ford Glass Co.

EXTERIOR PAINT
Siding
Trim
3 coats lead and oil.
Sash

LATH AND PLASTERING
Lathing
Metal—9 gauge, 2.8 lb. standard.
Composition plaster base—"Homesote," Agassiz Millboard Co.
Plastering

INTERIOR WOODWORK
Trim and doors—Arkansas pine, stairs mahogany.

Painted surfaces—white wood, white pine.

Shelving and cabinets—red birch.

INSULATING
Attic floor—1" Cabot's Quilt under joel.
Weatherstripping—Reese Flexo-Seal interlocking zinc, Reese Metal Weatherstrip Co.

INTERIOR FINISHES
Floors—stain, Minwax.

Patent plaster—Rockwall plaster, Atlantic Gypsum Products Co.
Finishing coat—Riverside Gau plater and Rockwall hydro lime by Atlantic Gypsum Co.
This type usually has hall and stairs down the center of the building. Here the stairs are placed to the side against a window. The location of the maid's room gives direct access to the entire second floor, eliminating the customary service stairs.
PROBLEM: To design a Colonial house with lots of closet space, including trunk storage room on the second floor. The house to take full advantage of a fine view of a river at the rear of the property.

The architect concluded, and his client agreed, that a traditional style would not satisfactorily solve the problem. The house was planned so that only one living guest bedroom, faces the street. The rest of the rooms overlook the garden which slopes down to the river. Noteworthy are the large glazed areas of living room and dining room. The house is called “modern” for convenience, but it is modern, not because of “style,” but because it is an accurate reflection of contemporary ideas of living, and appropriately constructed of concrete, steel, and glass. Cost: $9,100. Cubage: 26,800 at 34 cents per cubic foot.

CONSTRUCTION OUTLINE

FOUNDATION
Walls and piers—concrete, Portland Cement Co.
First floor—4” reinforced concrete slab, Portland Cement Co.
Waterproofing—integral.

FRAME CONSTRUCTION
“Stran Steel”—Stran-Steel Corp., Detroit, Mich.

EXTERIOR SURFACE
Stucco—1/2” thick applied to 1” Thermax.

ROOF
5-ply composition.
Down spouts—cast iron soil pipe inside.
Flashings and copings—copper.

DOOR AND WINDOW FRAMES
Sash and frames.
Casement (Fenestra stock by Detroit Steel sash) Steel Products Co.
Doors and frames (exterior)—wood, flush.
Garage doors—Overhead Door Corp.

PORCHES
Reinforced concrete.

GLASS
“Thermopane” patent double glass with 1/4” air space, by Thermopane Co., Toledo, Ohio, Division of Libbey-Owens-Ford.

EXTERIOR PAINT
Trim
Sash
Doors

LATH AND PLASTERING
Lathing
Composition plaster base—1/2” insul-X and Rocklath.

Plastering
Patent plaster—U.S. Gypsum Red Tack
Finishing coat—sand float.

INSULATING
Outside walls—1” Thermax outside and
KITCHEN excellently placed in relation to entrance vestibule, laundry and entrance. Trunk closet next to bathroom. While dining room and living room into one another, the dining room still preserves its identity. The bedrooms are deep enough to be used as dressing rooms.

“Kimlark” (Kimberley Clark Paper Co.) between steel studs. Second floor—1” Thermax. Roof—3” Thermax.

INTERIOR FINISHES

LIGHTING
Direct and indirect.

PLUMBING
Kitchen
Stove—Hot Point, General Electric Co.

BATHROOM
Pipes
Copper—by Streamline Pipe & Fittings Co.

HEATING
Oil—Timken Silent Automatic oil burner. Thermostat and regulators—Minneapolis-Honeywell Regulator Co.

AIR CONDITIONING
Central—“Wier” furnace and air conditioner.

CHIMNEY

SCREENS
“Fenestra,” Detroit Steel Products Co.

WINDOW DRESSING
Venetian blinds.
The wall adds to the feeling of spaciousness of this house and gave a good landscape architect a good space against which he could plant. It also creates a semi-private court and to some extent masks the garage supports for the roof, similar to those in the architect's house for the Los Angeles Times (No. 32) with particular grace. An excellent touch was the use of white shutters against white walls. The living room fireplace was less imaginative. Cost: $9,000. Cubage: 33,000 at about 27 cents.

**LANDSCAPE ARCHITECT, FRED BA**

### CONSTRUCTION OUTLINE

<table>
<thead>
<tr>
<th>FOUNDATION</th>
<th>FRAME CONSTRUCTION</th>
<th>EXTERIOR SURFACE</th>
<th>ROOF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Piers</td>
<td></td>
<td>Stucco—Monolith Portland cement plaster, brush coated.</td>
<td></td>
</tr>
<tr>
<td>Cellar floor</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Waterproofing—Succonem.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FRAME CONSTRUCTION</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Douglas fir throughout with exception of redwood sills.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EXTERIOR SURFACE</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Common brick veneer and vertical redwood boards. Riverside Portland Cement Co.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stucco—Monolith Portland cement plaster, brush coated.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ROOF</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wood shingles on shingle lath—red cedar “Royal.”</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Valleys</th>
<th>Gutters</th>
<th>Flashing</th>
<th>Down spouts</th>
<th>Composition sheathing paper—Sisalkraft.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Armco iron galvanized.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DOOR AND WINDOW FRAMES</th>
<th>PORCHES</th>
<th>GLASS</th>
<th>EXTERIOR PAINT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frames—vertical grain Douglas fir.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Siding</th>
<th>Trim</th>
<th>Lead and oil paint.</th>
<th>Sash</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>LATH AND PLASTERING</th>
<th>INTERIOR WOODWORK</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lathing</td>
<td>Trim and floors</td>
</tr>
<tr>
<td>Wood—Douglas fir.</td>
<td>Hardwood—No. 1 common oak.</td>
</tr>
<tr>
<td>Plastering</td>
<td>Stainwoods—white pine select knots.</td>
</tr>
<tr>
<td>Patent plaster—Arden hardwall.</td>
<td>Painted surfaces vertical</td>
</tr>
<tr>
<td>Finishing coat—smooth putty co</td>
<td>Shelving and cabinets Douglas</td>
</tr>
</tbody>
</table>

---

292
The motor court seems most practical allowing the automobile to stop to the front door and then into the garage. The entrance through the e and out into another court is pleasing. The long row of closets along the om walls is unusual. The Z-shaped plan takes advantage of exposures.

**SULATING**
Weatherstripping — Monarch on exterior doors.

**INTERIOR FINISHES**
Trim — enamel finish with Vitrolite enamel except where stained.
Sash — painted except in bedrooms and dining room.
Walls — in dining room and bedrooms.

**RIGID**
Rigid iron conduit.
Electrical fixtures — Luminaire Co., Los Angeles.
Switches — Bryant.

**LIGHTING**
Direct.

**PLUMBING**
Kitchen
Sink — Standard Sanitary 2-compartment sink built in kitchen casework.
Stove
Refrigerator — by owner
Washing machine

**BATHROOM**
Tile — Gladding, McBean & Co., Los Angeles.

**PIPES**
Steel.

**HEATING**
Gas — furnaces, unit type, Payne Furnace & Supply Co.
Hot water heater — Day and night automatic storage type.

**CHIMNEY**
Fireplaces
Facings — common brick.
Hearths — wood.
Mantels — wood.
Damper — Richardson damper and throat form.

**HARDWARE**
Interior and Exterior — Russwin.

**SCREENS**
In-Vis-O Disappearing Roller Screen Co.
This house is similar to House No. 30 by the same architect. The gable roofs, here preferred to hip roofs, a simpler, cleaner, more elementary form. The courtyard, also, seems simpler than the court of the previous house. The planting is an integral adornment of the house, accenting the horizontality of the house by contrast of vertical trees. The whole house is finely proportioned. The bay window too often merely a "habit" is here justified in a room so tiny. Cost: $6,300. Cubic feet: 23,000 at 27 1/2 cents.

LANDSCAPE ARCHITECT, FRED BARKELEW

**CONSTRUCTION OUTLINE**

<table>
<thead>
<tr>
<th>COMPONENT</th>
<th>MATERIALS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FRAME CONSTRUCTION</strong></td>
<td>Douglas fir throughout except redwood sills.</td>
</tr>
<tr>
<td><strong>ROOF</strong></td>
<td>Wood shingles on shingle lath—5 to 2&quot; vertical grain red cedar. Valleys: Tocan iron galvanized. Composition sheathing paper: Sisalkraft.</td>
</tr>
<tr>
<td><strong>PORCHES</strong></td>
<td>Brick floor: Simons common brick.</td>
</tr>
<tr>
<td><strong>GLASS</strong></td>
<td>Libbey-Owens-Ford clear glass.</td>
</tr>
<tr>
<td><strong>EXTERIOR PAINT</strong></td>
<td>Shingles: oil stain. Trim: Sash: Lead and oil paint.</td>
</tr>
</tbody>
</table>
Similar to House No. 30 with the entrance on axis to entrance to court. The elimination of the breakfast nook and the conversion of the end dining rooms into one large room for the joint purposes might have more pleasant planning. The study is well isolated and can be used as a bedroom for the unexpected guest.

**Lighting**
- Direct

**Plumbing**
- **Kitchen**
  - Sink—Crane Co. flat-rim sink built-in.
  - Stove
  - Refrigerator by owner.
  - Washing machine

- **Bathroom**
  - Fixtures—Crane Co.
  - Shower curtains—"Emdee" colored curtains.

**Heating**
- Radiators—James B. Clow non-vented gas steam.
- Hot water heater—Crane Co. "Superior."

**Chimney**
- Fireplaces
- Hearths—Simons common brick.
- Mantels—wood.
- Damper—Richardson damper and throat form.

**Hardware**
- Interior and exterior—old brass finish.
- Russell and Erwin Mfg. Co.

**Screens**
- Roller screens—"Inviso," In-Vis-O Disappearing Roller Screen Co.
The house shows the growing tendency in California residential architecture to combine features of modern and traditional design. Not unlike the typical ranch house with its long lines and sloping roof, this house takes on new character through the use of horizontal rows of casements, and of the glazed lattice over the entrance terrace. The plan provides living and sleeping quarters separated without loss of convenience. The one bath centrally located is accessible from any part of the house. A dining terrace and a porch furnish outdoor living spaces, privacy being obtained by screens of translucent glass. The interior carries out the scheme of combining old and new motives; the walls of the living room, hall and dining room are covered with large sheets of wood veneer, while the bedroom is treated in a more conventional manner. Cost: $10,000. Cubage (house) 19,000, (garage) 5,250.

**CONSTRUCTION OUTLINE**

**FOUNDATION**

**FRAME CONSTRUCTION**
Entire frame, steel—standard rolled sections electrically welded by Columbia Steel Co. Fabrication, Unifype Builders, Inc., Los Angeles.

**MASONRY CONSTRUCTION**
Terrace walls and chimneys. Same brick and mortar as for exterior veneer.

**EXTERIOR SURFACE**
Brick veneer—specially manufactured small Roman brick light coral color by Gladding, McBean & Co. and Los Angeles Brick Co.

**ROOF**
Tile on Sheathing—special white over-glazed shingle tile on 1½" wood sheathing and tile by Gladding, McBean & Co. Sheathing—1½" T. & G. Oregon Pine.

**GUTTERS**
Galvanized Iron—"ARM-Flash Co."—American Rolling Mill Co.

**FREEMASONRY SHEATHING**
Composition sheathing paper—Two thicknesses "Flintco" by Pioneer Roofing Co., subsidiary of Johns-Manville Co.

**DOOR AND WINDOW FRAMES**
Windows and French doors steel casements by Druwhit Metal Products Co., Los Angeles.

**DOORS AND FRAMES**
Main entrance and service, wood.

**GARAGE DOORS**
"Over-the-top" door equipment by Frantz Mfg. Co.

**PORCHES**
Brick Floor—Entrance terrace paved with brick, same as exterior veneer.

**GUTTERS**
Galvanized Iron—"ARM-Flash Co."—American Rolling Mill Co.

**FREEMASONRY SHEATHING**
Composition sheathing paper—Two thicknesses "Flintco" by Pioneer Roofing Co., subsidiary of Johns-Manville Co.

**DOOR AND WINDOW FRAMES**
Windows and French doors steel casements by Druwhit Metal Products Co., Los Angeles.

**DOORS AND FRAMES**
Main entrance and service, wood.

**GARAGE DOORS**
"Over-the-top" door equipment by Frantz Mfg. Co.

**PORCHES**
Brick Floor—Entrance terrace paved with brick, same as exterior veneer.

**EXTERIOR PAINT**
All paint and stain by General Paint—White Lead by National Lead Co.

**LATH AND PLASTERING**
Metal—"Lathex," by Penn Metal & Plastering—"Lavalite" patent acoustical plaster by Lavalite Products Co.

**INTERIOR WOODWORK**
Trim and Floors—All doors and Oregon Pine, Dining Room and floors of Oak. Living Room throughout, bedrooms and linoleum by Paraffine Co., Inc.

**GLASS**
Pennvernon, Pittsburgh Plate Glass

**EXTERIOR PAINT**
All paint and stain by General Paint—White Lead by National Lead Co.

**LATH AND PLASTERING**
Metal—"Lathex," by Penn Metal & Plastering—"Lavalite" patent acoustical plaster by Lavalite Products Co.

**INTERIOR WOODWORK**
Trim and Floors—All doors and Oregon Pine, Dining Room and floors of Oak. Living Room throughout, bedrooms and linoleum by Paraffine Co., Inc.

**GLASS**
Pennvernon, Pittsburgh Plate Glass

**EXTERIOR PAINT**
All paint and stain by General Paint—White Lead by National Lead Co.

**LATH AND PLASTERING**
Metal—"Lathex," by Penn Metal & Plastering—"Lavalite" patent acoustical plaster by Lavalite Products Co.

**INTERIOR WOODWORK**
Trim and Floors—All doors and Oregon Pine, Dining Room and floors of Oak. Living Room throughout, bedrooms and linoleum by Paraffine Co., Inc.

**GLASS**
Pennvernon, Pittsburgh Plate Glass

**EXTERIOR PAINT**
All paint and stain by General Paint—White Lead by National Lead Co.

**LATH AND PLASTERING**
Metal—"Lathex," by Penn Metal & Plastering—"Lavalite" patent acoustical plaster by Lavalite Products Co.

**INTERIOR WOODWORK**
Trim and Floors—All doors and Oregon Pine, Dining Room and floors of Oak. Living Room throughout, bedrooms and linoleum by Paraffine Co., Inc.

**GLASS**
Pennvernon, Pittsburgh Plate Glass

**EXTERIOR PAINT**
All paint and stain by General Paint—White Lead by National Lead Co.

**LATH AND PLASTERING**
Metal—"Lathex," by Penn Metal & Plastering—"Lavalite" patent acoustical plaster by Lavalite Products Co.

**INTERIOR WOODWORK**
Trim and Floors—All doors and Oregon Pine, Dining Room and floors of Oak. Living Room throughout, bedrooms and linoleum by Paraffine Co., Inc.

**GLASS**
Pennvernon, Pittsburgh Plate Glass

**EXTERIOR PAINT**
All paint and stain by General Paint—White Lead by National Lead Co.

**LATH AND PLASTERING**
Metal—"Lathex," by Penn Metal & Plastering—"Lavalite" patent acoustical plaster by Lavalite Products Co.

**INTERIOR WOODWORK**
Trim and Floors—All doors and Oregon Pine, Dining Room and floors of Oak. Living Room throughout, bedrooms and linoleum by Paraffine Co., Inc.

**GLASS**
Pennvernon, Pittsburgh Plate Glass

**EXTERIOR PAINT**
All paint and stain by General Paint—White Lead by National Lead Co.

**LATH AND PLASTERING**
Metal—"Lathex," by Penn Metal & Plastering—"Lavalite" patent acoustical plaster by Lavalite Products Co.

**INTERIOR WOODWORK**
Trim and Floors—All doors and Oregon Pine, Dining Room and floors of Oak. Living Room throughout, bedrooms and linoleum by Paraffine Co., Inc.

**GLASS**
Pennvernon, Pittsburgh Plate Glass

**EXTERIOR PAINT**
All paint and stain by General Paint—White Lead by National Lead Co.

**LATH AND PLASTERING**
Metal—"Lathex," by Penn Metal & Plastering—"Lavalite" patent acoustical plaster by Lavalite Products Co.

**INTERIOR WOODWORK**
Trim and Floors—All doors and Oregon Pine, Dining Room and floors of Oak. Living Room throughout, bedrooms and linoleum by Paraffine Co., Inc.

**GLASS**
Pennvernon, Pittsburgh Plate Glass

**EXTERIOR PAINT**
All paint and stain by General Paint—White Lead by National Lead Co.

**LATH AND PLASTERING**
Metal—"Lathex," by Penn Metal & Plastering—"Lavalite" patent acoustical plaster by Lavalite Products Co.

**INTERIOR WOODWORK**
Trim and Floors—All doors and Oregon Pine, Dining Room and floors of Oak. Living Room throughout, bedrooms and linoleum by Paraffine Co., Inc.

**GLASS**
Pennvernon, Pittsburgh Plate Glass

**EXTERIOR PAINT**
All paint and stain by General Paint—White Lead by National Lead Co.

**LATH AND PLASTERING**
Metal—"Lathex," by Penn Metal & Plastering—"Lavalite" patent acoustical plaster by Lavalite Products Co.

**INTERIOR WOODWORK**
Trim and Floors—All doors and Oregon Pine, Dining Room and floors of Oak. Living Room throughout, bedrooms and linoleum by Paraffine Co., Inc.

**GLASS**
Pennvernon, Pittsburgh Plate Glass

**EXTERIOR PAINT**
All paint and stain by General Paint—White Lead by National Lead Co.

**LATH AND PLASTERING**
Metal—"Lathex," by Penn Metal & Plastering—"Lavalite" patent acoustical plaster by Lavalite Products Co.

**INTERIOR WOODWORK**
Trim and Floors—All doors and Oregon Pine, Dining Room and floors of Oak. Living Room throughout, bedrooms and linoleum by Paraffine Co., Inc.

**GLASS**
Pennvernon, Pittsburgh Plate Glass

**EXTERIOR PAINT**
All paint and stain by General Paint—White Lead by National Lead Co.

**LATH AND PLASTERING**
Metal—"Lathex," by Penn Metal & Plastering—"Lavalite" patent acoustical plaster by Lavalite Products Co.

**INTERIOR WOODWORK**
Trim and Floors—All doors and Oregon Pine, Dining Room and floors of Oak. Living Room throughout, bedrooms and linoleum by Paraffine Co., Inc.

**GLASS**
Pennvernon, Pittsburgh Plate Glass

**EXTERIOR PAINT**
All paint and stain by General Paint—White Lead by National Lead Co.

**LATH AND PLASTERING**
Metal—"Lathex," by Penn Metal & Plastering—"Lavalite" patent acoustical plaster by Lavalite Products Co.

**INTERIOR WOODWORK**
Trim and Floors—All doors and Oregon Pine, Dining Room and floors of Oak. Living Room throughout, bedrooms and linoleum by Paraffine Co., Inc.

**GLASS**
Pennvernon, Pittsburgh Plate Glass

**EXTERIOR PAINT**
All paint and stain by General Paint—White Lead by National Lead Co.

**LATH AND PLASTERING**
Metal—"Lathex," by Penn Metal & Plastering—"Lavalite" patent acoustical plaster by Lavalite Products Co.

**INTERIOR WOODWORK**
Trim and Floors—All doors and Oregon Pine, Dining Room and floors of Oak. Living Room throughout, bedrooms and linoleum by Paraffine Co., Inc.

**GLASS**
Pennvernon, Pittsburgh Plate Glass

**EXTERIOR PAINT**
All paint and stain by General Paint—White Lead by National Lead Co.
PLAN: Diagonal ventilation in living and dining rooms. Outdoor fireplace. Recessed wardrobes. Less preoccupation with symmetry and publicity requirements would have resulted in more efficient utilization of space. The hall and terrace arrangement is somewhat out of proportion to the scheme as a whole.

**LATING**
- Paint and enamel by General Paint Corp.
- White Lead by National Lead Co.
- Insulite 1" thick, atherstripping—None.

**FINISHES**
- Side walls—"Insulite" 1" thick.
- Venetian Blinds—National Venetian Blind Co.
- Roller Screens—Inviso Disappearing Roller Screen Co.

**AIR CONDITIONING**
- None.

**CHIMNEY**
- Fireplaces.
- Facings—Brick same as exterior veneer.
- Hearths—Quarry tile (Alhambra Kiln).
- Mantels—Wood.
- Damper—None.

**HARDWARE**
- Interior—locks and knobs by Schlage Lock Co., hinges, Rixon Olive Knuckle Hinges.

**WINDOW DRESSING**
- Venetian Blinds—National Venetian Blind Co.
- Roller Screens—Inviso Disappearing Roller Screen Co.

**SPECIAL EQUIPMENT**
- Radio—Patterson.
- Garage Door—Operated by Varnum Door Engine.

**BATHROOM**
- Fixtures—Standard Sanitary Mfg Co.
- Cabinets—medicine case especially made by Pryne Co., Los Angeles.
- Wainscot—"Carrara" glass by Pittsburgh Plate Glass Co.

**PIPES**
- All water pipe steel.

**HEATING**
- Gas—Forced air circulating unit, by Payne Furnace & Supply Co.
- Piping—Steel.
The unusually steep slope of the site permits entrance from the ground at three levels, and makes it possible to incorporate the garage economically in the basement. The retaining walls and steps to the terraces are substantially built of fieldstone. The walls of the house are covered with cedar shingles. The roof is also shingled. The design adapts itself well to a difficult site. Although the fenestration in the main is agreeable, the bathroom window and the window of the room next might have been made larger, while there seems little need for so generous a window in the coat closet. This type of house, characteristic of this part of New York, is far more spacious inside than the exterior appearance suggests. Cost: Approximately $12,000.

### CONSTRUCTION OUTLINE

<table>
<thead>
<tr>
<th>FOUNDATION</th>
<th>FRAME CONSTRUCTION</th>
<th>MASONRY CONSTRUCTION</th>
<th>EXTERIOR SURFACE</th>
<th>ROOF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cellar floor—cement.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Waterproofing — Integral, underfloor drained by porous fill.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>GUTTERS</th>
<th>Flashing</th>
<th>Down spouts</th>
<th>SALT GLAZED TILE DRAINS</th>
<th>TO DRY WELLS.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Valleys</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DOOR AND WINDOW FRAMES</th>
<th>DOOR AND WINDOW FRAMES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sash and frames</td>
<td></td>
</tr>
<tr>
<td>Double hung and casement—white pine.</td>
<td></td>
</tr>
<tr>
<td>Doors and frames (exterior)—pine.</td>
<td></td>
</tr>
<tr>
<td>Garage doors—white pine, hinged.</td>
<td></td>
</tr>
<tr>
<td>PORECHES</td>
<td>GLASS</td>
</tr>
<tr>
<td>Fir.</td>
<td>Double thick—American Window Glass Co.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>EXTERIOR PAINT</th>
<th>LATH AND PLASTERING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Siding</td>
<td>Lathing.</td>
</tr>
<tr>
<td>Trim</td>
<td>Metal—Toncan metal throughout.</td>
</tr>
<tr>
<td>lead and oil, 3 coats.</td>
<td>Plastering—3 coats, hard white finish.</td>
</tr>
<tr>
<td>Sash</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>INTERIOR WOODWORK</th>
<th>INTERIOR FINISHES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Floors—soft pine.</td>
<td>Floors—painted gray.</td>
</tr>
<tr>
<td>Trim—white pine.</td>
<td>Trim—painted white.</td>
</tr>
<tr>
<td>Shelving and cabinets—white pine.</td>
<td></td>
</tr>
</tbody>
</table>

298 THE ARCHITECTURAL FOR
The plan is compact and efficient, and displays an easy, logical sequence of communication throughout. The direct entrance to the living room is probably more used than the main entrance to the dining room. Maid's room and sleeping porch accessible from the ground.

- Doors—painted green exterior, white interior.
- Ash—painted white.
- Wallpaper—papered throughout.
- Electrical fixtures—specially designed brass.
- Switches—toggle type.
- Table—BX.
- Sink—enameled iron.
- Stove—container gas.
- Refrigerator—General Electric.
- Bath tubs—enameled iron.
- Toilets—porcelain.
- Seats—white Church.
- Floor—linoleum.
- Brass.
- Cast iron wastes.
- Coal—hot air.
- Hot water heater—coal.
- Fireplaces.
- Facings: common brick.
- Hearth: wood.
- Mantels: wood.
- Damper: Covert old style B.
- Interior and exterior: brass, Yale & Towne.
- Wood frames.
- Curtains only.
The broad expanse of lawn abutting on the clipped hedge against the parapet wall makes a sympathetic frame for this house. As might be expected, the interiors are simple and restrained and evince a nice feeling for appropriate detail. The louvered doors or jalousies in the living room, typical of warm or tropical climates, are practical and have decorative value. Cost: $10,900.
N: Service quarters in good relation to motor yard. If the size of yard
ates numerous guests, the yard to bedroom route for incoming and outgoing
age seems unnecessarily roundabout. Kitchen, pantry, maid’s, and dining
sequence convenient.

Floors—½”x2” hardwood.
Shelving and cabinets—white pine.
INSULATING
None.
Weatherstripping—“Monarch.”
INTERIOR FINISHES
Floors—stain, 2 coats shellac, 2 coats
Johnson’s floor wax.
Trim—4 coats lead and oil, W. P. Fuller
Doors & Co.
Sash
Walls—baths, service porch and kitchen,
2 coats lead and oil, final coat “Ful-
lergo.”
Wallpaper—balance of house.

WIRING
Cable—Sherarduct.
Electrical fixtures—especially designed.
Switches—General Electric.

LIGHTING
Direct.

PLUMBING
Kitchen
Sink—Standard Sanitary.
BATHROOM
Fixtures—Standard Sanitary.

PIPES
Steel.

HEATING
Oil—Oil-O-Matic, Model K
Hot water heater—40 gal., “Everhot”
electric.

CHIMNEY
Fireplaces
Facings—selected common brick.
Hearths
Mantels—knotty white pine.
Damper—Covert.

HARDWARE
Interior and exterior—Russwin.

SCREENS
Metal frame, bronze wire, special make.
The architect has produced a house in reasonable conformity with the manner of the neighborhood in its major features, yet one stamped with individuality. Casement windows with metal sash have taken the place of double-hung sash; painted a warm maroon, they give an agreeable color accent in contrast with the white exterior walls. The veranda top becomes a sun deck with canvas floor and a wooden railing. The railing, maroon like the casements, and the blue veranda posts continue the color interest. Inside, the blue linoleum flooring of the hall and library, inlaid with 1-in. white strips at 30-in. intervals, carry color emphasis. Horizontal wallboard paneling in some of the rooms, linoleum dadoes in kitchen and pantry, the absence of wooden window trim in the upstairs rooms, where the plaster returns or curved jambs and heads into steel sash, all contribute. Cost, including architect’s fee, $15,000.

CONSTRUCTION OUTLINE

FOUNDATION
Walls—cinder block.
Columns—lally.
Cellar floor—4" concrete.
Waterproofing—Anti-Hydro Waterproofing Co.

FRAME CONSTRUCTION
Fir.
Girders—steel 1-beams

EXTERIOR SURFACE
Clapboards—5/4" x 12" cedar.

ROOF
Wood shingles on shingle lath—16" Perfection.
Valleys—16 oz. copper.
Gutters—copper and sheet lead.
Flashing—copper and sheet lead.
Decks covered with 4 lb. sheet lead.

DOOR AND WINDOW FRAMES
Sash and frames
Steel sash—Fenwrought "Fenestra,"
Detroit Steel Products Co.
Doors and frames (exerior)—wood, special design.
Garage doors—Overhead Door Corp.

PORCHES
Floor—4" reinforced concrete.

CLASS
Double strength, quality B, Pennvernon, Pittsburgh Plate Glass Co.

EXTERIOR PAINT
Shingles—Cabot’s brush stained.
Siding—3 coats, Sherwin-Williams.
Trim
Sash
Primings—1 coat metalastic
Finish coat—1 coat maroon

LATH AND PLASTERING
Lathing
Metal—garage.
Composition plaster base—Rocklath U. S. Gypsum Co.

Plastering
Patent plaster—2 coat float, Red T prepared.

INTERIOR WOODWORK
Floors—library, hall, kitchen, lavatory and pantry—linoleum by Congoleum Nairn Co. Balance of house cle plain white oak.

Trim
Stainwoods—birch.
Painted surfaces—clear white pine.

Shelving and cabinets—pine.
PLAN: In a tightly compact arrangement, there is ready access from the kitchen to the front door, and, through the pantry, to the dining room, while the study obtains desirable privacy from the rest of the house through a passage flanked on one side by a closet and by a lavatory on the other. Upstairs, the plan is equally well considered, and there is adequate provision for baths, cross ventilation and convenient circulation.

LIGHTING
Direct and indirect.

PLUMBING
Kitchen
Cabinet—Murphy Door Bed Co.
Stove—gas
Refrigerator—electric
Washing machine—provided by owner.

BATHROOM
Fixtures—Standard.
Cabinets—Morton.
Toilets—vitreous china
Seats—Church Mfg. Co.

PIVES
Brass.

HEATING
Oil.

AIR CONDITIONING
Central—Gilbert and Barker Mfg. Co. unit with oil burner.

CHIMNEY
Fireplaces
Facings—tile in living room, copper in library.
Hearths—tile.
Damper—Dunley.

HARDWARE
Interior—dull pewter, Schlage Lock Co.
Exterior—black, Schlage Lock Co.

SCREENS
Copper in wood for porch, copper in steel frames for windows.
Spiritually descended from a type of house common throughout the Middle and New England States from the mid-eighteenth to the mid-nineteenth century—a type whose main mass was augmented by a lower wing, whether coeval or in the form of a later addition. This suburban house asserts the still vigorous claim of that type to consideration. It is of a sort that appeals to conservative people and assures them a known quantity of comfort. Its style, inside or out, is a composite drawn from several sources, but the combination has been creditably effected. The house is brick-veneered, painted white, and the roof of slate. Cost, including planting, decorating and architect’s fee, $15,000, at 39 cents per cubic foot.

**CONSTRUCTION OUTLINE**

<table>
<thead>
<tr>
<th>FOUNDATION</th>
<th>FRAME CONSTRUCTION</th>
<th>EXTERIOR SURFACE</th>
<th>ROOF</th>
<th>DOOR AND WINDOW FRAMES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Walls—concrete blocks.</td>
<td>Fir</td>
<td>Brick veneer—North River common brick.</td>
<td>Slate on sheathing—No. 1 Bangor.</td>
<td>Sash and frames</td>
</tr>
<tr>
<td>Cellar floor—4” concrete.</td>
<td>Bridging—spruce.</td>
<td></td>
<td>Gutters</td>
<td></td>
</tr>
<tr>
<td>Waterproofing—Medusa waterproof cement by Medusa Portland Cement Co.</td>
<td></td>
<td></td>
<td>Down spouts</td>
<td>copper.</td>
</tr>
</tbody>
</table>

**FRAME CONSTRUCTION**

- **Fir**
- **Bridging**—spruce.

**EXTERIOR SURFACE**

- **Brick veneer**—North River common brick.

**ROOF**

- **Slate on sheathing**—No. 1 Bangor.
- **Gutters**—copper.
- **Down spouts**—copper.

**DOOR AND WINDOW FRAMES**

- **Sash and frames**
- **Double hung**—pine, 1½” thick to detail by Midland Mill & Lumber Co.
- **Doors and frames (exterior)**—pine to detail.
- **Garage doors**—overhead with Crawford hardware.

**PORCHES**

- **Blue stone flagging on reinforced concrete slab.**

**GLASS**

- **Double strength quality** A. Libbey-Owens-Ford Glass Co.

**EXTERIOR PAINT**

- **Brick veneer**—2 coats Bay State cement coating, DeVoe and Reynolds.
- **Trim**—3 coats Dutch Boy, Nat'l Sash Lead Co.
- **LATH AND PLASTERING**
  - **Lathing**—Metal, 3 lb. black.

**INTERIOR WOODWORK**

- **Floors**—oak.
- **Trim, painted surfaces**—pine and wood.
- **Shelving and cabinets**—wood.

**INSULATING**

- **Outside walls**—4” rock wool.
- **Attic floor**—4” rock wool.
PLAN: A sloping site permits the economy of putting the garage in the basement, along with a commodious playroom and the laundry. The dining alcove is probably a source of satisfaction in plan rather than in actuality. The upstairs arrangement is well thought-out and roomy.

PLUMBING

Kitchen

BATHROOM
Seats—Church Mfg. Co.
Tile—American Encaustic Tile Co.

PIPES
Anaconda brass.

HEATING
Oil—Fairfield Burner.
Boilers—Fitzgibbons Boiler Co., Inc.

Radiators—convector type, American Radiator Co.
Piping—steel.
Thermostat and regulators—Minneapolis-Honeywell Regulator Co.

CHIMNEY
Fireplaces
Facings: Slate.
Hearths
Mantels: wood to detail.
Damper—H. W. Covert Co.

HARDWARE
Interior and exterior—P. & F. Corbin.

SCREENS


INTERIOR FINISHES
Floors—stain and wax.
Doors—4 coats oil paint.
Walls
Wallpaper—Richard E. Thibaut, Inc.

LIGHTING
Table—8X

ELECTRICAL FIXTURES

WITCHES
Toggle, Arrow-Hart & Hegeman Electric Co., Hartford, Conn.

DIRECT.

PLUMBING
Kitchen

BATHROOM
Seats—Church Mfg. Co.
Tile—American Encaustic Tile Co.

PIPES
Anaconda brass.

HEATING
Oil—Fairfield Burner.
Boilers—Fitzgibbons Boiler Co., Inc.

Radiators—convector type, American Radiator Co.
Piping—steel.
Thermostat and regulators—Minneapolis-Honeywell Regulator Co.

CHIMNEY
Fireplaces
Facings: Slate.
Hearths
Mantels: wood to detail.
Damper—H. W. Covert Co.

HARDWARE
Interior and exterior—P. & F. Corbin.

SCREENS
The problem offered here was to design a house for a single woman, living alone without a servant. Consequently, everything had to be done to minimize labor and augment convenience. The house is built with cellars, except under the kitchen; this space serves for food storage and the heating equipment. On a foundation of native sandstone, the walls are of brick veneer whitewashed, and the flat roof is of asphalt wood deck. On the road or entrance side, the window space is minimized, while generous ranges of doors in the living units command views of lake and forest. The windows themselves are double-glazed ments. Inside, the walls are finished with Sheetrock and the ceiling is made of acoustic tile. There is considerable built-in equipment not only in the kitchen and bathroom, but elsewhere also. The ranges of doors overlooking lake and forest are highly desirable. Cost, including architect's fee, approximately $-
Cubage: 12,000, at about $33 1/2 cents.

CONSTRUCTION OUTLINE

<table>
<thead>
<tr>
<th>FOUNDATION</th>
<th>Adams Co. (double glazed), wood, Carr, Ryder &amp; Adams Co.</th>
<th>INTERIOR WOODWORK</th>
</tr>
</thead>
<tbody>
<tr>
<td>Walls—Native stone</td>
<td></td>
<td>Trim—white pine.</td>
</tr>
<tr>
<td>Cellar floor and</td>
<td></td>
<td>Floors—1 in. white oak.</td>
</tr>
<tr>
<td>main floor—4 in.</td>
<td></td>
<td>Painted surfaces—white pine.</td>
</tr>
<tr>
<td>concrete.</td>
<td></td>
<td>Shelving and cabinets—1 in. white and 5/16 in. plywood doors.</td>
</tr>
<tr>
<td>FRAME CONSTRUCTION</td>
<td></td>
<td>Stock millwork—white pine.</td>
</tr>
<tr>
<td>Fir.</td>
<td></td>
<td>INSULATING</td>
</tr>
<tr>
<td>Sills—Douglas fir.</td>
<td></td>
<td>Outside walls—aluminum foil on Sheetrock, Reynolds Metallation.</td>
</tr>
<tr>
<td>Roof Joists—hemlock.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EXTERIOR SURFACE</td>
<td></td>
<td>Roof rafters—insulating wool, U. S. Gypsum Co.</td>
</tr>
<tr>
<td>Brick veneer—Madison sand lime brick.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ROOF</td>
<td></td>
<td>INTERIOR PAINTING</td>
</tr>
<tr>
<td>4-ply built-up asphalt, Bird &amp; Son.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flashing—26 ga. Armco iron.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DOOR AND WINDOW FRAMES</td>
<td></td>
<td>Floors—filler, varnish, wax.</td>
</tr>
<tr>
<td>Casement type—wood, Carr, Ryder &amp;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Glass</td>
<td></td>
<td>Sash—finish coats—lead and oil.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>INTERIOR WALLS</td>
</tr>
<tr>
<td></td>
<td></td>
<td>No plaster—all sheet materials, walls Sheetrock; and ceilings, acoustic tile, U. S. Gypsum Co.</td>
</tr>
</tbody>
</table>

306 THE • ARCHITECTURAL • FOR
Although the living room, with its dining alcove, and the entrance occupy a large rectangle, of which one corner is cut out for kitchen, the parts are so integrated that each retains its identity. The gain in spaciousness through the absence of divisions. By sliding one of the garage doors it becomes a service entrance to the house.

**Trim**
- Doors
- Sash
- Walls

**RINO**
- Cable—BX armored conduits, G. E.
- Electrical fixtures—Moe Brothers, Milwaukee.
- Switches—General Electric.

**GLIGHTING**
- Direct.

**UNLINING**
- Kitchen
- Sink—Kohler.

**STEEL**
- General Electric.
- Refrigerator—Frigidaire, Division of General Motors Corp.

**BATHROOM**
- Fixtures—Kohler Co.
- Floor—linoleum.

**PIES**
- Wrought iron.

**HEATING**
- Oil—Superfex No. 120 forced hot air heating, Perfection Stove Co.
- Hot water heater—Lonergan automatic kerosene.

**CHIMNEY**
- Fireplaces
- Facings
- Hearth
- Mantels—white pine.
- Damper—Adams Co.

**HARDWARE**
- Interior
- Exterior
- locks, McKinney Co.

**SCREENS**
- Wood frames.

**WINDOW DRESSING**
- Venetian blinds—Mitchell Molding Co.
Many unusual requirements are satisfied in this servantless house for three people: a large, high ceiling studio with north light and individual entrance as far as possible from the rest of the house; a library opening into the studio, with the possibility of using the two together for social purposes; a living room-dining room, and a kitchen; and a garage to be included within the walls of the house. The design meets the views of the client who had definite ideas about modern continental architecture. With stone foundations, the house is built of concrete blocks painted white. The steel sash are painted blue-gray; on the raised seam in roof is coated with aluminum paint to reflect the heat. Over the studio is a canal sun deck whose iron railings are painted blood red. The wooden doors are painted two shades of pale green. Indoors, the library walls are horizontally boarded with white pine, stained a light, warm gray. The joints and solid bridges have one coat of aluminum paint, rubbed, and the molding between ceiling and walls is Chinese red. Cost, exclusive of architect’s fee and finished grading of garden, $5,833.

Cubage: 21,500, at about 27 cents per cubic foot.
The basement, besides containing the laundry and garage, provides for a loggia at garden level. As no servant is contemplated, the ground floor plan logically provides a kitchen window commanding the approach to the front door. The easy rise of the steps deserves a special word of praise.

**INTERIOR WOODWORK**
- Trim and floors—longleaf quarter-sawed yellow pine.
- Hardwood—white oak treads.
- Painted surfaces—poplar and white pine.

**INSULATING**
- Outside walls—triple ply waterproof Cabot’s Quilt.
- Attic floor—4” bulk Gimco rock wool and B type aluminum foil, Reynolds Metals Co., Inc.
- Weatherstripping—none.

**INTERIOR FINISHES**
- Floors—stained, shellacked, waxed.
- Trim—oil paint.
- Sash—natural sand finish plaster.
- Walls—natural sand finish plaster.

**WIRING**
- Cable—BX.

**LIGHTING**
- Direct and indirect.

**PLUMBING**
- Cabinet—wood as detailed.
- Refrigerator—Frigidaire, Division of General Motors Corp.

**BATHROOM**
- Fixtures

**PIPEC**
- Copper tubing.

**AIR CONDITIONING**
- Winter only.
- Central—Fox Furnace-American Radiator system, coal-fired.

**CHIMNEY**
- Fireplaces
- Brick, Hearth
- Damper—H. W. Covert, improved.

**HARDWARE**
- Interior and exterior—P. & F. Corbin.

**SCREENS**
- Sliding copper mesh in wood frames.
The architect says of Miss Sten, "that she is not an overgroomed town and parlor creature; she fits into a frame of gardens . . . . likes the out-of-doors. She and her husband are charming and hospitable people, but they do not wish to be mere organizers of social events and would hardly care for parties in the grand style." The first floor of this beach house, luxurious in its expanse of window and air of spaciousness, looks extremely comfortable, but was obviously not designed for large-scale entertainment. Simply, the second floor, with almost all of its area given over to the suites of the owners, is not intended to accommodate many guests. The house is well located, with no interruption of the fine views of the sea and distant mountains. Cost was between $4.50 and $5 a square foot of net floor area.

**CONSTRUCTION OUTLINE**

**FOUNDATION**
- Cellar floor—cement floor, 3 in. thick, re-enforced No. 10 mesh.
- Waterproofing—Backstone waterproofing, Pabco Membrane, damp courses under balcony tile.

**FRAME CONSTRUCTION**
- Standard unit type chassis, Douglas fir with surfaced timber supports, rebated to receive steel sash, Pacific Manufacturing Co. Sills—Redwood.

**MASONRY CONSTRUCTION**
- Garden walls—concrete block, brush coated.

**EXTERIOR SURFACE**
- Stucco on Armco No. 1 sheet steel.

**ROOF**
- Flashing—Armco No. 1.
- Down spouts—24 Ga. 3 in. diam. galv. iron, Armco No. 1.
- Salt glazed tile drains—Gen. Ceramics Co.
- Composition sheathing paper—ten-year composition roof (gravel) Pabco, Paraffine Co., Inc.
- Copper—Revere Copper & Brass, Inc.

**DOOR AND WINDOW FRAMES**
- Sash and frames—Druwhit steel sash casement type with extension hinges.
- Doors and frames (exterior)—sugar pine doors, glazed, and covered with tempered Preswood panels.
- Garage doors—sliding on overhead Richard Wilcox Track, 1 x 4 in. Douglas fir tongued and grooved with vertical joints on 1 x 6 in. Douglas fir braced frame.

**PORCHES**
- Reinforced concrete—3 in. slabs reenforced with 6 x 6 No. 10 galv. wire mesh. V-jointed and integrally colored with "Lithochrome."

**GLASS**

**EXTERIOR PAINT**
- Sash—first quality
- Finish coat—Aluminum coating on exterior steel, steel windows, steel woodwork; Aluminum Co. of America.
- Priming—Copper—Revere Copper & Brass, Inc.

**LATH AND PLASTERING**
- Plastering—Keene's cement in bathrooms above wainscoting, and Empire hard plaster.
- Exterior—Light gray cement plaster.
- Interior—White smooth putty finish, Cemelith brush coat.

**INTERIOR WOODWORK**
- Trim and floors—Hardwood block floor, E. L. Bruce Battleship Linoleum by Armstrong Cork Products Co.
- Painted surfaces—Douglas fir.
- Shelving and cabinets—3/4 in. Douglas No. 2 clear vertical grain.
- Stock millwork—clear Douglas fir.
FORNIA BEACH, CAL.,  RICHARD J. NEUTRA, ARCHITECT

SECOND FLOOR

GARDEN

FINISHES

-4 coat enamel in kitchen and bathrooms, oil stain, shellac rubbed, waxed and polished in all other rooms.
-3 coats aluminum paint.
-4 coats enamel in kitchen and bathrooms above wainscot, 3 coat oil paint in living room, dining room, entrance hall.

PLUMBING

Kitchen

Sink—Kohler, porcelain enamel.
Cabinet—1/4" hard Masonite Presswood on Douglas fir frame.
Stove—Southern California Gas Co.
Refrigerator—General Electric.

BATHROOM

Fixtures—Kohler.
Cabinets—Sugar pine with tile top.
Bath tubs—recessed, Kohler.
Toilets—flush valve, Kohler.
Seats—Church Mfg. Co.
Showers—American encaustic glazed tile.
Glass shower doors.
Tile—encaustic tile, floor and wainscot.

PIPECES

Brass, copper and galvanized iron.
Wrought iron—mains, Central Tube Co.
Steel—Reading Iron Co.

HEATING

Magic Way gas furnace.
Hot air registers, Hart & Cooley.

Piping—galvanized iron ducts, Johns-Manville asbestos covered.
Hot water heater—Hoyt 60 gal. automatic.
Regulators—electric push buttons.

AIR CONDITIONING

Unit furnaces with electrically boosted air circulation, Magic Way.

CHIMNEY

Fireplaces
Facade—split brick.
Hearth—cement.
Mantele—wood top on split brick front.
Damper—cast iron.

HARDWARE

Interior—Schlage Locks, 2 in. knobs, chromium plated hinges.
Exterior—Yale cylinder locks.

SCREENS

Roller screens, Rollaway.

WINDOW DRESSING

Shades—Mission cloth curtains on Kirsch curtain track.

SPECIAL EQUIPMENT

Swimming pool—filter plant by Paddock Engineering Co.
The growing favor with which the Regency phase of Georgian domestic architecture has been received denotes its affinity with the modern trend. This house displays a generally good Regency exterior. The front elevation has distinct individuality and poise. The windows are excellently proportioned and the fenestration and frieze nicely balanced. The “swan neck” apron above the door might better have been omitted. Cost, including architect’s fee, $11,880. Cubage, 36,200 at 32⅛ cent per cubic foot.

**CONSTRUCTION OUTLINE**

<table>
<thead>
<tr>
<th>FOUNDATION</th>
<th>ROOF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Walls—Haydite.</td>
<td>Wood shingles on shingle lath—Perma-Stain.</td>
</tr>
<tr>
<td>Columns—brick.</td>
<td>Gutters</td>
</tr>
<tr>
<td>Cellar floor—cement colored. Coloring by Master Builders, Inc., Cleveland, Ohio.</td>
<td>Down spouts</td>
</tr>
<tr>
<td>Waterproofing—Toch Bros., Inc.</td>
<td>Flashing—zinc, New Jersey Zinc Co.</td>
</tr>
<tr>
<td>FRAME CONSTRUCTION</td>
<td>SASH AND WINDOW FRAMES</td>
</tr>
<tr>
<td>Sills</td>
<td>Sash and frames</td>
</tr>
<tr>
<td>Floor joists</td>
<td>Double hung—white pine, Babin Sash and Door Co., Cleveland, Ohio.</td>
</tr>
<tr>
<td>Studding</td>
<td>Doors and frames (exterior)—white pine, Babin Sash and Door Co., Cleveland, Ohio.</td>
</tr>
<tr>
<td>Plate</td>
<td>Bridging</td>
</tr>
<tr>
<td>Douglas fir.</td>
<td>Ties</td>
</tr>
<tr>
<td>RAFTERS</td>
<td>EXTERIOR SURFACE</td>
</tr>
<tr>
<td>Ties</td>
<td>Brick veneer—Cleveland “Rustics” by Cleveland Builders Supply Co.</td>
</tr>
<tr>
<td>EXTERIOR SURFACE</td>
<td>PORCHES</td>
</tr>
<tr>
<td>Enforced concrete—colored finish by Master Builders Co., Cleveland.</td>
<td></td>
</tr>
<tr>
<td>GLASS</td>
<td>INTERIOR WOODWORK</td>
</tr>
<tr>
<td>Flat drawn sheet glass, Libbey Ford Glass Co.</td>
<td>Trim—gumwood.</td>
</tr>
<tr>
<td>EXTERIOR PAINT</td>
<td>Floors—select white oak.</td>
</tr>
<tr>
<td>3 coats lead and oil,</td>
<td>Painted surfaces—yellow pine, garage basement.</td>
</tr>
<tr>
<td>TRIM</td>
<td>Shelving and cabinets—yellow pine.</td>
</tr>
<tr>
<td>WILLIAMS PAINT CO., CLEVELAND</td>
<td>Stock millwork—Babin Sash and Door Co., Cleveland, Ohio.</td>
</tr>
</tbody>
</table>
PLAN: The injection of a breakfast room into the plan cuts down the area of a dining room that might have been more satisfying without the partition. On the second floor the backstairs cut into a good rear bedroom. When a bath serves two rooms, it is better entered by a door from outside rather than from the rooms it serves.
This pleasant little house might have been transplanted from one of the southern counties of EN. With walls of red brick and a shingled roof, the treatment unmistakably belongs to the “picturesque” school. While the dormers somewhat break the repose of the roof—and peacefulness in roof this type is presumably valued—they are not so large as to be obtrusive. One danger with houses mantic mode is that the occupants, in their fervor, often smother them with herbaceous planting. In case, there seems a likelihood of luxuriant growths obscuring light that ought to enter the window internal convenience of an otherwise adequate plan would be increased were the space now devoted kitchen and pantry together given wholly to the kitchen. Cost, $13,500. Cubage, 25,000 at 54 cen cubic foot.

### Construction Outline

<table>
<thead>
<tr>
<th><strong>Foundation</strong></th>
<th><strong>Door and Window Frames</strong></th>
<th><strong>Exterior Paint</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Walls</td>
<td>Sash and frames</td>
<td>Shingles—creosote stained.</td>
</tr>
<tr>
<td>Columns</td>
<td>Steel sash—“Fenwrought,” Detroit Steel Products Co.</td>
<td></td>
</tr>
<tr>
<td>Cellar floor—Wabash Portland cement.</td>
<td>Doors and frames (exterior)—wood, Detroit Lumber Co.</td>
<td></td>
</tr>
<tr>
<td>Waterproofing—R.I.W. by Toth Bros., Inc.</td>
<td>Garage doors—overhead, Detroit Steel Products Co.</td>
<td></td>
</tr>
<tr>
<td><strong>Frame Construction</strong></td>
<td><strong>Porches</strong></td>
<td><strong>Glass</strong></td>
</tr>
<tr>
<td><strong>Exterior Surface</strong></td>
<td><strong>Lath and Plastering</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Roof</strong></td>
<td>Plaintiff plaster—U. S. Gypsum wall.</td>
<td></td>
</tr>
<tr>
<td>Wood shingles on shingle lath—creosote stained.</td>
<td>Finishing coat—sand and putty.</td>
<td></td>
</tr>
<tr>
<td>Valleys</td>
<td>INTERIOR WOODWORK</td>
<td></td>
</tr>
<tr>
<td>Gutter</td>
<td>Trim—gumwood.</td>
<td></td>
</tr>
<tr>
<td>Flashing</td>
<td>Floors—oak.</td>
<td></td>
</tr>
<tr>
<td>Down spouts</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
PLAN: There is no waste of space in this compact plan, and there can be no complaint on the score of circulation on the ground floor. Access from kitchen to both front door and dining room is particularly convenient. Upstairs, it is unfortunate that one must pass either through a bathroom or a bedroom to reach the sleeping porch over the dining room.
PROBLEM: A small hillside home for a professor and his wife, house and garden to be no larger than actually needed, and devised to reduce maintenance labor and cost to a minimum. Living room to accommodate seminars of 25 to 30 students in a single large group around fireplace. Living room to serve also a dining room, with kitchen provision for serving large buffet suppers. Beside master bedroom, one small room to be used either as study or guest room. Living room and master bedroom to have view of mountains to north and all rooms to have southern exposure. Garage to have room for small woodworking shop, and floor areas to extend into the garden wherever practicable.

This house with large open wall areas is built to be more than usually resistant to earthquakes, and at a cost no greater than for ordinary wood-frame construction. With the assistance of Dr. Hugo Benioff of the Carnegie Seismological Laboratory, a shape was chosen which responds only to the shorter and less destructive shocks. All loads are carried on 4x4 in. wood columns spaced 3 ft. on centers and continuous diagonal bracing occurs in both exterior and interior walls and also in roof and ceiling. To reduce maintenance to a minimum, the interior is finished with easily cleaned surfaces and the garden is planted with native shrubs. Interior walls are of light buff plaster with deep coral-red trim. Inside, the pine is its natural color, with deep coral-red woodwork, eggplant-colored metal trim. Cost: $5,300.

**CONSTRUCTION OUTLINE**

| FOUNDATION | Walls and piers—concrete | Door (exterior)—white pine flush panel |
| Cellar floor—concrete | Garage doors—redwood | Porches |
| Waterproofing—Asphaltum | Reinforced concrete—with and without colored topping |
| FRAME CONSTRUCTION | Brick floor—common red, Simons Brick Co. |
| Douglas Fir. | Glass |
| Sills—redwood. | 3/16" crystal by Libbey-Owens-Ford Co. |
| EXTERIOR SURFACE | EXTERIOR PAINT |
| Stucco—"La Habra" integrally colored light buff. | All paint Bauer's Shingles—filled with oil and finished with aluminum. |
| ROOF | Trim and sash—deep coral color. |
| Wood shingles on shingle lath—16" redwood, 5" to weather. | LATH AND PLASTERING |
| Gutters | Lathing Wire 16 gauge wire mesh, with 1½" openings for exterior. |
| Flashing | |
| Down spouts  |
| Flat roofs—4-ply built-up asphalt and felt with gravel top. |
| DOOR AND WINDOW FRAMES | |
| Sash—white pine casement | |

**INTERIOR WOODWORK**

| DOORS (exterior) | |
| Garage doors—redwood | |

**INSULATING**

| Aluminum surface on roof. |

**INTERIOR FINISHES**

| All paint Bauer's Shingles Shellacked and waxed. |

| Wall panels—3" x 6" x 9" 3 ply white pine natural color. |
| Painted surfaces—white pine |

| Shelving and cabinets—white pine Douglas fir. |

| Stock millwork—white pine. |

| Composition plaster base—"Grip" for interior. |
| Plastering. |

| Patent plaster—"La Habra" exterior and interior colored stucco. |

| INTERIOR WOODWORK | |
| Wall panels—3" x 6" x 9" 3 ply white pine natural color. |
| Painted surfaces—white pine |

| Shelving and cabinets—white pine Douglas fir. |
| Stock millwork—white pine. |
| Insulating |

| Aluminum surface on roof. |

| INTERIOR FINISHES | |
| All paint Bauer's Shingles Shellacked and waxed. |
| Wall panels—3" x 6" x 9" 3 ply white pine natural color. |
| Painted surfaces—white pine |

| Shelving and cabinets—white pine Douglas fir. |
| Stock millwork—white pine. |
| Insulating |

| Aluminum surface on roof. |

| INTERIOR FINISHES | |
| All paint Bauer's Shingles Shellacked and waxed. |
| Wall panels—3" x 6" x 9" 3 ply white pine natural color. |
| Painted surfaces—white pine |

| Shelving and cabinets—white pine Douglas fir. |
| Stock millwork—white pine. |
| Insulating |

| Aluminum surface on roof. |
Inside site and the insistent horizontals of the house seem to cling to the soil. With floor surfaces con-
out of doors wherever possible, and the recurrent flat of the structure, the illusion of clinging and belonging soil is heightened.

Toilets—F2140 "Compact" china—Standard.
Seats—Church No. 600 Regal.
Showers—K-968 all metal "Chromard"—Standard.
Lavatories—F-115-F "Companion"—Standard.
Linoleum—"B" gauge Armstrong on floors.

PIPES
Wrought iron.

HEATING
Gas and electric.
Hot water heater—No. 302-S Dictator 30 gal. automatic storage by American Radiator Co.

CHIMNEY—Reenforced concrete.

Fireplaces.
Facings—monastery brown Zenitherm.
American Cyanamid & Chem. Corp.
Hearths—colored cement.
Damper—"Superior Fireplace Form Damper" by Superior Fireplace Co.

HARDWARE
Interior—Schlage locks and latches, Stanley butts, dull nickel finish. "Whitco" casement hangers.
Exterior—Richards-Wilcox garage door hardware.

SCREENS
No. 16 galvanized wire cloth.
SPECIAL EQUIPMENT
Aluminum trim for bullnosing and picture mold by Superior Metal Trim Co.
"Micarta" counter top in kitchen.
This house, like House No. 14, shows a skillful and sympathetic use of the Pennsylvania farmhouse. Again the stone surfaces have been kept from being exaggeratedly jagged and the combining of stone and wood is not disturbing. The corner lot makes possible the complete separation of the professional entrance from the social entrance (the difference between these two elevations is reminiscent of the front and elevations of House No. 49). The loggia screens living quarters from patients. In answer to the problem, the kitchen is in good relation to the two main and to the service entrances. Because of plumbing problems the problem was quite properly and conveniently placed next to the laboratory. Cost: approximately 40 cents per foot.

CONSTRUCTION OUTLINE

FOUNDATION
Walls—local stone.
Columns—steel.
Cellar floor—cement.

FRAME CONSTRUCTION
Hemlock
Plate—longleaf yellow pine.

MASONRY CONSTRUCTION
Walls—local stone.
Garage—cement blocks.

EXTERIOR SURFACE
Clapboards—white pine.
Stucco—concrete blocks.

ROOF
Composition shingles on sheathing—Keastly-Mattison Old Colony asbestos shingles.
Valleys—open.

Gutters—pole gutters, copper lined.
Flashing
Down spouts—copper.

DOOR AND WINDOW FRAMES
Sash and frames
Double hung and casement—cypress frames, white pine sash, longleaf yellow pine sills.
Doors and frames (exterior)—white pine.
Garage doors—frames cypress, doors white pine.

PORCHES
Flagstone floors except 2nd floor porch which is T. & G. N. C. pine.

GLASS
"Lustra," Pittsburgh Plate Glass Co.

EXTERIOR PAINT
Siding
Trim
Finish coat—white lead and copper.

LATH AND PLASTERING
Lathing
Metal—in corners.
Wood—spruce.
Plastering
Patent plaster.

INTERIOR WOODWORK
Floors—random width oak floors down 1st floor, 2½ face T. & G. white 2nd floor.
Painted surfaces—white pine, all interior work.
Shelving and cabinets—white pine.
Stock millwork—interior doors only.
INSULATING
Outside walls—Reynold's Metallation over sheathing of frame walls. Weatherstripping—all openings, spring bronze type.

INTERIOR FINISH

WIRING
Switches—toggle, plates to match color of walls.

LIGHTING
Direct

PLUMBING
Kitchen

BATHROOM

PIPES
Copper tubing.

HEATING

Thermostat—Minneapolis-Honeywell with oil burner.

CHIMNEY

HARDWARE
Interior—Schlage (a few reproductions of early hardware made to order). Exterior—Reproductions of early hardware.

SCREENS
Wood and copper wire by carpenter.

WINDOW DRESSING
From the designs of the architects, this ranch house was built in the native manner by a local builder attached to the ranch staff, employing local and Indian workmen. The design and material alike cannot fail to be of special interest to those unacquainted with the Southwest. Upon a foundation of rough stone grouted with cement, the walls are built of adobe blocks, made of mud from a nearby pit; the blocks were afterward coated, inside and out, with an adobe plaster and then washed with white or pale colors prepared from local earth (tierra blanca). The exterior has a rose hue so like the color of the foothills as to be almost indistinguishable from them at a distance. Pine logs, from the higher land a few miles away, supply the posts of the portico around the patio, and also the rafters for the roof; these are ceiled above with planks of Oregon pine. The whole structure is thoroughly robust—the walls of the living room are 30 in. thick. Fireplaces provide all necessary heating. Notwithstanding the extreme simplicity of the structure, every advantage is taken of modern mechanical facilities. A generator with batteries is installed in the garage and pumps water from an artesian well. Works a refrigerator and operates an electric light system. A septic tank meets all sanitary requirements. Cost—excluding generating plant, pump, septic tank and well: $15,000.

**CONSTRUCTION OUTLINE**

**FOUNDATION**
- Walls—stone and cement.

**WALL CONSTRUCTION**
- Adobe brick

**FRAME CONSTRUCTION**
- Floor Joists
- Studding
- Bridging
  - No. 1 Oregon pine.

**EXTERIOR SURFACE**
- Adobe finish.

**ROOF**
- Built up (felt and asphalt), Johns-Manville.
- Gutters—galvanized iron.
- Flashing—5-ply felt and asphalt.

**DOOR AND WINDOW FRAMES**
- Sash and frames—wood casement, special made.
- Doors and frames (exterior)
- Garage doors
  - wood, special made.

**PORCHES**
- Floor—flagstone.

**EXTERIOR PAINT**
- Trim
- Sash
  - 3 coats lead and oil

**LATH AND PLASTERING**
- Lathing—metal.
- Plastering—adobe.

**INTERIOR WOODWORK**
- Floors—hardwood.
- Trim, shelving and cabinets—pine.
Since the portico of the patio serves as a general means of communication, and oftentimes as an outdoor living room as well, the plan is necessarily organized loosely, with rooms of associated use in proximity as, for instance, the kitchen and the living room, which latter is likewise the dining room. The bathrooms are planned for showers.

PLUMBING
- Kitchen
- Sink
- Cabinet
- Stove
- Refrigerator

PIPES
- Galvanized iron.

HEATING
- Fireplaces.
- Hot water heater—Pierce, one unit in each bathroom.

CHIMNEY
- Fireplaces
- Facings—brick.
- Hearths—stone.
- Mantels—adobe.

HARDWARE
- Interior and exterior—plain black.
This white-boarded house is something more than merely a well-executed reproduction of the familiar old Connecticut "salt-box" dwelling. As a matter of fact, its exterior is an exact replica of an old house in South Windsor. Inside, however, it displays the revolutionary change wrought by the introduction of central heating, bathrooms and electric cooking. The living room and dining room walls have dadoes formed of three widths of horizontal matched boarding, beaded at the joints, with a cap at window sill height. The inside of the open corner cupboard in the dining room is painted a robin's-egg blue; the remainder of the trim in the house is enameled a light putty color. There is full insulation with rock wool and the house is heated by an air conditioning system. At the rear of the upstairs hall there is enough space for another bath to be eventually stalled. Cost, including architect's fee, $10,600. Cubage, 33,540 at 31½ cents per cubic foot.

CONSTRUCTION OUTLINE

FOUNDATION

Walls—concrete, 1-3-5 mixture.
Columns—4 in. lally.
Cellar floor—concrete, 1-2-4 mixture.
Waterproofing—1 coat of hot asphalt on outside of wall.

FRAME CONSTRUCTION

Fir.
Girders—8" steel I-beams.

EXTERIOR SURFACE

Clapboards—6 in. red cedar, 4 in. to the weather.

ROOF

Wood shingles on shingle lath—18 in. perfection red cedar.
Valleys
Gutters 16 oz. copper.
Flashing
Down spouts—2 x 3 in., 16 oz. copper.

DOOR AND WINDOW FRAMES

Sash and frames
Double hung—stock white pine with Unique sash balance, Unique Sash Balance Co.
Steel sash—in basement, Detroit Steel Products Co.
Doors and frames (exterior)—white pine, Curtis Companies, Inc.
Garage doors—white pine by Curtis.

PORCHES

Flagstone laid loose on fill.

GLASS

"A" quality Pennvernon, Pittsburgh Plate Glass Co.

EXTERIOR PAINT

Siding: Dutch Boy white lead, National Lead Co.
Trim: White pine.
Sash: Patent paint.

LATH AND PLASTERING

Lathing: Metal for ceilings, Z-Rib, U. S. Gypsum Co.
Wood on all walls.
Finishing coat—red top trowel finish, U. S. Gypsum Co.

INTERIOR WOODWORK

Floors—clear white oak.
Painted surfaces—white pine.
Shelving and cabinets—white pine.
Stock millwork—mantel, stairs and corner cupboard, Curtis Companies, Inc.
PLAN: The plan is good. It is valuable for comparison with the old central-chimney type of plan, in use before the advent of modern equipment and mechanical facilities to lighten household labor.

LATING
featherstripping—Chamberlin.

INTERIOR FINISHES
doors—1 coat stain filler, 2 coats Johnson’s floor wax.
trim—1 coat white lead and oil, 2 coats
Vitrallite enamel undercoat—1 coat white lead and oil, 2 coats
Vitrallite enamel—1 coat Vitrallite enamel.
alls—bath, lavatory and kitchen sized and painted 2 coats.
Wallpaper—Birge wallpaper in all other rooms.

LIGHTING
Direct.

PLUMBING
Kitchen,
Stove—electric, by owner.
Refrigerator—General Electric.

BATHROOM
Cabinets—metal, Venetian mirror.
Bath tubs—recessed type, enameled iron, built-in, Standard.
Toilets—syphon action, Standard.
Sinks—Church Mfg. Co.
Shower—over tub, Standard.

PIPES
Brass for hot and cold water.

HEATING AND AIR CONDITIONING
Gar Wood air conditioning and heating unit, oil fired, thermostat and regulators.

CHIMNEY
Fireplaces
Facings—hard burned sand mold
Hearths—common brick.
Damper—new style, H. W. Covert.

HARDWARE
Interior—hand wrought iron, Tull Bros.
Exterior—Hartford, Conn.

SCREENS
Full length bronze screening in wood frames.
Dignity and interest attach to this house with the two-story veranda. The plan is straightforward and evidently adopted to meet the peculiar and agreeable conditions of the site. In design, the house savors local traditions, though there is no affected archaeological forcing to be detected. For the sake of the outlook, the living rooms were turned away from the street and toward the community commons; by the same token, the garage, kitchen entrance and kitchen were placed facing the road. The dwelling was planned for a man and wife, their widowed daughter and her son. No servant’s room is included. The inconspicuous entrance through a porch between the end of the living room and the side of the garage, might puzzle the approaching visitor. The sun room, living room and dining room occupy the whole “commons” front of the house and all open onto a paved terrace under the high arcade of the lower veranda. The principal bedrooms are on the upper veranda. Cost, approximately $8,000.

CONSTRUCTION OUTLINE

FOUNDATION
- Columns
- Cellar floor: Volunteer Cement Co., Louisville, Ky.

FRAME CONSTRUCTION
- Virginia yellow pine, creosoted.

EXTERIOR SURFACE
- Stone veneer: local fieldstone.
- Clapboards: random width, shiplapped rough sawn, Virginia pine.

ROOF
- Wood shingles on shingle lath—“Aristocrat” cypress, textured.
- Gutters: copper, Chase Brass & Copper Co.
- Flashing
- Down spouts

DOOR AND WINDOW FRAMES
- Sash and frames
- Double hung with “Unique” sash balances, Unique Window Balance Co.
- Casement type
- Doors and frames (exterior)
- Garage doors

PORCHES
- Brick floor—Monticello Brick Co.
- Floor on covered porch—No. 1 heart Virginia pine.

GLASS

EXTerior PAINT
- Roof shingles—creosote stain, gray.
- Siding and frames
- Virginia pine, special design.
- Priming—lead and oil, “Boy,” National Lead Co.
- Finish coat—Cabot’s white.

LATH AND PLASTERING
- Lathing
- Composition plaster base—Celotex lath, Celotex Co.
- Plastering

INTERIOR WOODWORK
- Floors—wide pine boards.
- Trim—Virginia pine
- Shelving and cabinets: special design

INSULATING
- Outside walls—Celotex lath, 2” air
ENTRANCE DETAIL

PLAN: Stairs ascend from the adjacent corner of the living room. There is no direct passage from the kitchen to the front door. Such remoteness, even in a home with service, is open to criticism. Excellent is the planning of the sun room, living room and dining room area so that all connect by large openings, making virtually one great room, though each may be separated by screens or curtains. The bathrooms, centrally located, are entered only from the hall.

between frame construction and stone veneer.

PLUMBING

Kitchen
Cabinet—Monel metal top by International Nickel Co., wood below.
Stove—General Electric Co.

BATHROOM

Fixtures
Bathtub
Toilets
Seats—Church sani-white.
Floor—linoleum, Armstrong Cork Products Co.

PIPES

Copper—Streamline Pipe & Fittings Co.,
Division of Mueller Brass Co.

HEATING

Oil—Gilbert & Barker Co.
Boilers—"Red Flash"
Radiator—"Corto"
Hot water heater—none, hook-up to oil burner.

CHIMNEY

Fireplaces
Facings—brick.
Hearths—wood (antique).
Dampers—Old Style, H. W. Covert Co.

HARDWARE

Interior and exterior—Sargent Mfg. Co.
with antique locks and hinges.

SCREENS

Wood frames

WINDOW DRESSING

Shades—"Mayflower," Belknap Co.
A modern interpretation of Dutch Colonial, this house at Sleepy Hollow Manor faithfully perpetuates tradition. It makes use of materials in pleasant combinations; it discloses an interior surprisingly large for the modest external measurements; and its exterior bears that aspect of sturdy unadorned solidity which was common to the old Dutch houses of New York State and North Jersey. Though the house appears small from the outside, it contains seven rooms and three baths, all of good dimension. The cast sandstone used for the lower story closely resembles the brown sandstone ashlar of northern New Jersey. Air conditioning, heating, decks and all modern appointments are included. Cost: Approximately $12,500.

### CONSTRUCTION OUTLINE

<table>
<thead>
<tr>
<th><strong>FOUNDATION</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Walls</strong></td>
</tr>
<tr>
<td><strong>Columns</strong></td>
</tr>
<tr>
<td><strong>Cellar floor</strong></td>
</tr>
<tr>
<td><strong>Waterproofing</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>MASONRY CONSTRUCTION</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Concrete block, 1st story, integrally colored</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>FRAME CONSTRUCTION</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Spruce</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>EXTERIOR SURFACE</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Clapboards—2nd story</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>ROOF</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Wood shingles on shingle lath.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Gutters</strong></th>
<th>flashings</th>
<th>copper.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Down spouts</strong></td>
<td>canvas.</td>
<td></td>
</tr>
<tr>
<td><strong>Roof decks</strong></td>
<td>canvas.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>DOOR AND WINDOW FRAMES</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sash and frames—double hung, wood.</strong></td>
</tr>
<tr>
<td><strong>Doors and frames (exterior)—wood.</strong></td>
</tr>
<tr>
<td><strong>Garage doors—wood, sliding.</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>PORCHES</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Columns—concrete block.</strong></td>
</tr>
<tr>
<td><strong>Floor—bluestone.</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>EXTERIOR PAINT</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Shingles—no finish</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Siding</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Trim</strong></td>
</tr>
<tr>
<td><strong>Lead and oil paint.</strong></td>
</tr>
<tr>
<td><strong>Sash</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>LATH AND PLASTERING</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Lathing—metal, galvanized Truscon.</strong></td>
</tr>
<tr>
<td><strong>Plastering—2 coat job, white finish.</strong></td>
</tr>
<tr>
<td><strong>Special finish in living room, dining room and hall.</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>INTERIOR WOODWORK</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Trim—pine.</strong></td>
</tr>
<tr>
<td><strong>Floors—oak.</strong></td>
</tr>
<tr>
<td><strong>Stairway and cabinets—pine.</strong></td>
</tr>
<tr>
<td><strong>Painted surfaces—pine.</strong></td>
</tr>
<tr>
<td><strong>Shelving and cabinets—pine.</strong></td>
</tr>
<tr>
<td><strong>Stock millwork—doors and cabinets.</strong></td>
</tr>
</tbody>
</table>
AN: Following in the main a rather conventional arrangement of the downstairs-plan of the small house, this case the architect has departed from it to the point of thrusting out the kitchen at one side, thereby placing a maid's room and bath at the rear. This position of the maid's room and bath is economically convenient in placing the two upstairs bathrooms side by side, an arrangement that fits in suitably with the plan of the room floor.

LIGHTING
Direct and indirect.

PLUMBING
Kitchen
Sink—by owner.
Cabinet—pine to architect's details.
Stove—by owner.
Refrigerator—by owner.
Washing machine—by owner.

BATHROOM
Fixtures—Crane Co.
Cabinets—by owner.
Bathtub—by owner.
Toilet seats—Crane Co.

TILING
Outside walls—rockwool.
Roof rafters—rockwool.

INTERIOR FINISHES
Floors—filled, stained and waxed.
Trim—lead and oil paint.
Doors—lead and oil paint.
Walls—wallpaper—all rooms except kitchen, hall, pantry.

ELECTRICAL
Cable—BX. Electrical fixtures—by owner.
Switches—toggle type, Hubbell, Inc.

HEATING AND AIR CONDITIONING
Oil—Robeson Engineering Corp.

CHIMNEY
Fireplaces.
Facings—tile.
Hearths—by owner.
Mantels—pine to detail.
Damper—H. W. Covert Co.

HARDWARE
Interior and exterior—Reading Iron Co.

SCREENS
Copper, wood frames.
This house shows the architect's fondness for handling Colonial precedent in an individual way. The narrow clapboards and heavy pediment have an early 19th Century atmosphere but the fieldstone was the architect's own idea. The octagonal window vents the first floor lavatory. The very good L-shaped plan allows for three comfortable, cross-ventilated bedrooms with easy access to the bathrooms. Cost: $11,160. Cubage: 30,000 at 37 cents per cubic foot.

CONSTRUCTION OUTLINE

FOUNDATION
Walls—Tile by Cleveland Builders Supply Co.
Cellar floor—Portland Cement.
Waterproofing—R. I. W. Marine cement by Toch Bros.

FRAME CONSTRUCTION
Norway yellow pine throughout.

MASONRY CONSTRUCTION
Stone walls—Cleveland Quarries sandstone.

EXTERIOR SURFACE
Clapboards—Idaho White Pine.

ROOF
Wood shingles on shingle lath—Permas-tain.
Valleys
Gutters
Down spouts
Composition sheathing paper—Sisalkraft.

DOOR AND WINDOW FRAMES
Frames—Idaho White Pine.
Steel sash—Crittall's Stanwin Casements.
Doors and frames (exterior)—Idaho White Pine.
Garage doors—Overhead Door Corp.

GLASS
Pennvernon Grade A double strength.

EXTERIOR PAINT
Siding, trim, and sash—Lead and priming, Cabot's double white finish coat.

LATH AND PLASTERING
Lathing—Composition plaster base Rocklath by U. S. Gypsum Co.

INTERIOR WOODWORK
Trim and floors—Hardwood of Appalachian Oak, Stainwoods knotty white pine. Painted surfaces of poplar, shelving and cabinets—poplar.
PLAN: The kitchen is excellently placed in relation to both front and service entrances. The unusual long hall provides a fitting reception to the spacious living room beyond. The breakfast room is also unusual in that it can be reached without going through the dining room.

LIGHTING
Direct.

PLUMBING
Kitchen Sink—"Inco" by International Nickel Co.

BATHROOM
Fixtures—Kohler.
Cabinets—Corcoran.
Bathtubs—Kohler.
Toilets—Kohler.
Showers—Speakman.
Tile—Continental Faience & Tile Co.

PIPES
Chase brass and Byers' wrought iron.

HEATING
Coal—Lennox boilers. Kennedy Hot Stream water heater.

AIR CONDITIONING
Central.

CHIMNEY
Fireplaces—facings and hearths of Cleveland Builders' Supply rustic brick, Poplar mantels, Donley Poker damper.

HARDWARE
Interior—Midland Hardware Co.

SCREENS
Metal frame.
Even with its definitely French character this house is still unmistakably Californian. Typical is the strong preoccupation with surface textures—slate, whitewashed brick, wood. Also typical is the marked differentiation between the formal "public" elevation and the easy-going, informal "private" elevation (cf. House No. 43). The shape was partly determined by an effort to save some fine oak trees on the property. Maid quarters are in the upper part of the garage. The plan is comfortable with excellent separation of elements: service, living, sleeping, study. Cost: $18,500. Cubic feet: 38,000 at about 48⅓ cents.
The bedroom "unit" is planned so that it may be entered from the side court into the rear passage, a scheme of considerable merit when entertaining is part of the home life.

**TERIOR WOODWORK**
- Trim—Douglas Fir, white pine, Port Orford cedar in living room and entrance hall.
- Hardwood—Bruce oak flooring, both planks and 1 1/2" straight run.
- Millwork—clear pine to detail.

**SULATING**
- Roof rafters—1" Celotex.
- Weatherstripping—Chamberlin.

**TERIOR PAINTING**
- Floors—in 2 bedrooms 3 coats Pratt & Lambert floor paint.
- Trim—Dutch Boy white lead for trim and pure linseed oil with color pigment added mixed on the job. All other interior paint the same.
- Wallpaper—local distributor.

**WIRING**
- Cable—rigid iron conduit, Underwriter's label.
- Electrical fixtures—made to order locally.

**PLUMBING**
- Kitchen Sink—Crane Co.
  Refrigerator—Westinghouse Electric.

**BATHROOM**
- Fixtures Bath tubs
  Toilets
  Showers
  Shower curtains
  Floor covering—Armstrong's linoleum.

**PIES**
- Mueller brass, other pipe steel galvanized.

**HEATING**
- Gas fired, hot air, Payne Furnace Co.
  Hot water heater—Crane Co.

**CHIMNEY**
- Fireplaces
  Damper—Richardson.

**HARDWARE**
- Interior—finish, Corbin.
  Exterior—Richards-Wilcox.

**SCREENS**
- Roll-Aways screens by Disappearing Screen and Shade Co.
50. DEVELOPMENT HOUSE, CHATHAM, NEW JERSEY

The cheerful white exterior, accented by dark shutters, and the large brick chimney to connote stability, conspire to give this house an unaffected appeal. The house is particularly fortunate in its wooded location. Inside, the open stair increases the spaciousness of the living room which occupies half the ground floor area. All rooms except the kitchen have cross ventilation. Cost: $6,000. Cubage: 18,000 at about 33 cents per cubic foot.

**CONSTRUCTION OUTLINE**

<table>
<thead>
<tr>
<th>FOUNDATION</th>
<th>FRAME CONSTRUCTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cellar floor—6&quot; concrete slab.</td>
<td>EXTERIOR SURFACE</td>
</tr>
<tr>
<td>Waterproofing—none.</td>
<td>Shingles—edge grain red cedar, 18&quot; No. 1 &quot;Perfection.&quot;</td>
</tr>
</tbody>
</table>

**Valleys**

| Gutters | 14 oz. copper, American Brass Co. |
| Flashing | Down spouts |
| Salt glazed tile drains—4" copper. | Composition sheathing paper. |

**DOOR AND WINDOW FRAMES**

| DOOR and frames | Double hung—clear white pine, Andersen Frame Corp. |
| Doors and frames (exterior)—No. 2 pine. | Garage doors—fir. |

**PORCHES**

| Floor—1½" matched pine. | GLASS |
| EXTERIOR PAINT | Quality B. |
| Shingles—Brush stained, "Dutch Boy." | National Lead Co. |

**Siding**

| Trim | 2 coats oil paint. |
| Sash | |

**LATH AND PLASTERING**

| Lathing | Wire—all corners, garage and bath. |
| Wood—No. 1 spruce balance of house | Plastering—3 coats, trowel finish. |

**INTERIOR WOODWORK**

| Floors—select red oak. | Trim—white pine. |
| Stair treads—oak. | Stair railings—birch. |
| Painted surfaces | Shelving and cabinets | white pine. |
| Stock millwork | |

**INSULATING**

| Attic floor—4" Cabot's Quilt. | |

---

332 THE ARCHITECTURAL FORUM
Second floor plan quite workable. In so small an establish-
ment, direct access from kitchen to living room should prove a
convenience. The proximity of the garage and kitchen doors
car to cause unnecessary congestion. Second floor closet space
unevenly distributed.

Weatherstripping—metal, all doors and
windows.

INTERIOR FINISHES
Floors—shellacked and waxed, kitchen—
Armstrong linoleum.
Trim
Doors—oil paint.
Sash
Wallpaper—all rooms except kitchen and
bath.

RILING
Cable—BX.
Electrical fixtures—brass,
Switches—toggle.

HTING
Direct.

UMBING
Kitchen.

Sink
Drain boards—tile, Franklin Tile Co.,
Lansdale, Pa.
Stove
Refrigerator
Washing machine

BATHROOM
Seats—Church Mfg. Co.
Floors and walls—tile, Franklin Tile Co.

PIES
Brass.

HEATING
Coal
Boilers—American Radiator Co.

Piping—1 pipe steam.

Valves—American Radiator Co.

Hot water heater—Excello Products
Corp., Division American Radiator &
Standard Sanitary Corp.

CHIMNEY
Fireplaces
Facings—wood and face brick.
Hearths—tile.
Mantels—wood.
Damper—H. W. Covert Co.

HARDWARE
Interior and exterior—brass with black
finish, Schlage Lock Co.

WINDOW DRESSING
Shades—Holland Shade Co.
Blinds—white pine, louvered.
PROBLEM: To adapt a house of ample proportions to a lot considerably constricted by a 25-foot setback requirement. To provide cross ventilation in most of the rooms and space for the weaving and furniture-making hobbies of the owner.

The vertical boards and battens in the kitchen wing, and the masonry veneer in master’s quarters, exemplify the contrast in textures popular in the West. The living room window facing the street is the dominating feature. The house has much of the hospitable and informal aspect typical of this part of California, where exterior design is still largely traditional. These same houses, however, have undergone great structural changes due to technological developments. Cost: $12,000. Cubage: 32,076 at 40 cents per cubic foot.

CONSTRUCTION OUTLINE

FOUNDATION
Walls—concrete.
Cellar floor—cement.

FRAME CONSTRUCTION
Oregon pine.
Sills—redwood.

MASONRY CONSTRUCTION
Common brick walls—Los Angeles Brick Mfg. Co.

EXTERIOR SURFACE
Common brick veneer.
Stucco—California stucco.

ROOF
Wood shingles on shingle lath—Old Colony shakes.
Valleys
Gutters
Flashing
Down spouts

Gutters
Flashings
Down spouts

DOOR AND WINDOW FRAMES
Sash and frames
Steel sash—Ariston.
Doors and frames (exterior)
Garage doors

PORCHES
Brick floor—common brick.

EXTERIOR PAINT
Shingles—Cabot’s brush stained.
Brick veneer
Trim—Cabot’s double white.
Sash—Cabot’s Collopakes.

LATH AND PLASTERING
Lathing—wood.
Plastering
Finishing coat—putty.

INTERIOR WOODWORK
Floors—oak.
Shelving and cabinets—white pine.
Stock millwork

334
PLAN: Balcony decorative but of doubtful practical value being too near front door to be used as a kitchen veranda and too near kitchen for family use. Circulation from kitchen to dining room or vestibule is complicated. If long bedroom hall had been glazed, it would have added to the openness of the house.
PROBLEM: To plan a home of informal character for a man and his wife, one daughter and a servant; the rooms to be small and easily cared for; the house to be placed on an irregular corner lot of 65 ft. frontage, with set-back restrictions of 20 ft. from main road, 20 ft. from secondary road, and 10 ft. from property line along the other side.

Both in structure and downstairs plan the architect has adhered to an early England type, so far as it was compatible with modern conditions and equipment. On a concrete foundation, the house is brick-veneered for one story across the with old sidewalk bricks; the rest is walled with cedar clapboards stained and the roof is shingled. The sash are painted red, the trim light brown, and the oyster white. The vertical boarding of the interior is pine, molded along the Insulation, brass piping, complete electric cooking and refrigerating apparatus and an oil burning furnace are included in the equipment. Cost, $9,700, or 336 cents per cubic foot.
PLAN: While downstairs the traditional central chimney type, with stair adjacent and rooms on each side, has been only slightly modified, the upstairs plan shows more change. There is a generous bathroom and the space over the garage and connecting loggia has been well employed for a bedroom.

PLUMBING

TILING

Sink—Monel metal, International Nickel Co.

KITCHEN

Sink—Monel metal, International Nickel Co.

STOVE—Crawford Electric Range.
Refrigerator—Frigidaire Division of General Motors Corp.

BATHROOM

Bath tubs—Kohler “Metropolitan,” white.
Toilets—Standard Sanitary, one piece, white.
Tile—hand-made special 3”x3”, blue-green faience walls and floors.

PIPES

Copper—Streamline Pipe & Fittings Co., Division of Mueller Brass Co.

HEATING

Oil—pipe steam, “Ballard” oil burner.
Boilers—Richardson & Boynton.

RADIATORS—“Arco” convectors, American Radiator Co.

SCREENS AND SHADES


Piping—wrought iron.

Valves—No. 2B vacuum valves, Dole Valve Co.

Hot water—connected to boiler with aquastat.

Chimney

Fireplaces—brick

Hearth—Old Style, H. W. Covert Co.

Hardware


Painters


Hinges—Hart & Hegeman.

Toilet—Standard Sanitary, one piece, white.

Tiles—hand-made special 3”x3”, blue-green faience walls and floors.

Copper—Streamline Pipe & Fittings Co., Division of Mueller Brass Co.

Oil—one pipe steam, “Ballard” oil burner.
Boilers—Richardson & Boynton.

RADIATORS—“Arco” convectors, American Radiator Co.

SCREENS AND SHADES


This house recalls the type associated with Cape Cod, but on a somewhat larger scale. Screened by a plantation of beach shrubs, the road front faces east or northeast and gets the full morning sun. Silver gray shingles, white trim for definition, and green shutters for deeper accent, with the masses of glossy foliage in the dooryard, combine to give a crisp, sparkling character. On the other front, the living room windows command a long view down and across Barnegat Bay. The fireplace wall of the living room is pine paneled in early American manner; the stair hall is finished with vertical pine boarding, molded along the joints. In addition to the usual bathrooms the plan provides an accessible shower where one can shed wet bathing suits and have a fresh water bath without tracking water and sand through the house. Cost: $13,475. Cubage: 35,000 at 38 1/2 cents per cubic foot.
W JERSEY, KENNETH W. DALZELL, ARCHITECT

W FROM BEACH SIDE

INTERIOR FINISHES
Floors—wax.
Trim—stain and paint.
Doors—oil paint.
Sash—oil paint.
Walls—oil paint, living room, kitchen, baths, maid's room.
Wallpaper—dining room and bedrooms.

PLUMBING
Kitchen
Cabinet—to detail.
Stove.
Refrigerator.
Washing machine.
Floor—linoleum.

BATHROOM
Tile floor.

CHIMNEY
Fireplaces
Facings—tile.
Hearths—brick.
Mantels—wood.
Built-in fireplaces—Heatilator.

HARDWARE
Interior—bronze.
Exterior—bronze, black finish.

SCREENS
Copper.

WINDOW DRESSING
Shades.
Awnings.
Blinds.

LIGHTING
Direct.

PLUMBING
Cable—BX.
Electrical fixtures—bronze.
Switches—General Electric.

GHTING
DIRECT.

BOTH.

CTOBER • 1935

339
This cottage for one or two occupants has distinct and virile charm. It is built of cinder concrete blocks painted white; the inside walls are also of cinder concrete blocks painted, and every bit of material and construction is modern. Floors and ceiling, too, are of concrete construction, their surfaces treated to render them both practical for cleaning and agreeable to the eye. Not the least arresting feature is the compact plan. A work room shares an equal part of the basement with the laundry and heating apparatus. The ground floor has every provision for comfort and the amenities of modest, unlaborious living; the attic storage space is sure to prove useful: Cost: $4,400. Cubage: 13,800, at about 32 cents per cubic foot.

**CONSTRUCTION OUTLINE**

**FOUNDATION**
- Walls—concrete blocks, Bedford Hills Concrete Products Corp.
- Cellar floor—ready mixed concrete, Bedford Hills Concrete Products Corp.
- Waterproofing—Mason lime.

**MASONRY CONSTRUCTION**
- Walls—concrete masonry units, cinder concrete, Bedford Hills Concrete Products Corp.

**FLOOR CONSTRUCTION**
- Joists—“Floroform” concrete, Bedford Hills Concrete Products Co.

**ROOF CONSTRUCTION**
- Plate: wood.
- Rafters: wood.

**CUT SHEETING—CONCRETE TILE SET IN MASTIC ON ROOF PAPER.**
- Gutters: copper.
- Down spouts: copper.
- Flashing: heavy roof cement around chimney.
- Tile drain: concrete, Bedford Hills Concrete Products Corp.

**DOOR AND WINDOW FRAMES**
- Sash and frames: Casement type—steel, Truscon Steel Co.
- Doors and frames (exterior)—pine wood.

**PORCHES**
- Concrete flagging on terrace, Bedford Hills Concrete Products Co.

**EXTERIOR PAINT**
- Concrete masonry units painted with Bedford Hills Concrete Products masonry paint.
- Trim: Priming and finish coat—Pittsburgh Plate Glass Co.

**LATH AND PLASTERING**
- None.
EVERETT BURBANK, ARCHITECT

Every room is well lighted and ventilated, and the bedroom and bathroom of the cottage can be completely shut off from the rest. There is ample space. The kitchen is large enough to contain all necessary equipment for serviceable and efficient cookery.

Concrete blocks painted with masonry paint.

ERIOR WOODWORK
Trim—pine.
Shelving and cabinets—pine.
Floors—concrete finish stained.

ERIOR PAINTING
Floors—acid stain on concrete.
Trim—Pittsburgh Plate Glass Co.
Doors—ash—Aluminum paint.
Walls—masonry paint, Bedford Hills Concrete Products Co.

PLUMBING
Kitchen
Sink—"Priscilla," Sears, Roebuck & Co.
Stove—Westinghouse Mfg. Co.

BATHROOM
Cabinets—Sears, Roebuck & Co.

PIPES
Brass—Chase Brass & Copper Co.

HEATING
Coal.
Square boiler plate, hot air, Sears, Roebuck & Co.
Thermostat and regulators.

AIR CONDITIONING
Semi-system by Richmond & Decker.

CHIMNEY
Fireplaces—cinder masonry units painted with masonry paint by Bedford Hills Concrete Products Co.
Hearths—concrete, plain gray, by Bedford Hills Concrete Products Co.
Mantels—chestnut plank.

SCREENS
Casement side-hinged, Truscon Steel Co.

CTOBER - 1935
This house is small—how small, a glance at the plans will show. But it has a large presence—derived from the scale of the front penetrations; and it has personality, derived from its Dutch ancestry. Of brick construction, it is veneered with local fieldstone, excepting one gable, which is shingled. The materials help this house appear to belong where it is. One of the faults of the old Dutch houses was the relatively small size of their windows. They not only shut out cold in winter but kept out much-needed air circulation from small rooms in warm weather. This defect the large window openings remedy. One commendable feature of the plan is the ease of completely shutting off the service portion from the rest of the house.

Cost: $17,640. Cubage: 42,000 at 42 cents per cubic foot.

## CONSTRUCTION OUTLINE

<table>
<thead>
<tr>
<th>Description</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FOUNDATION</strong></td>
<td></td>
</tr>
<tr>
<td>Walls</td>
<td>Portland cement concrete, Atlas Co.</td>
</tr>
<tr>
<td>Columns</td>
<td>lally</td>
</tr>
<tr>
<td>Cellar floor</td>
<td>concrete, Atlas Co.</td>
</tr>
<tr>
<td>Waterproofing</td>
<td>integral and external, L. Sonneborn Sons, Inc.</td>
</tr>
<tr>
<td><strong>FRAME CONSTRUCTION</strong></td>
<td></td>
</tr>
<tr>
<td>Fir</td>
<td></td>
</tr>
<tr>
<td>Girder</td>
<td>steel</td>
</tr>
<tr>
<td><strong>EXTERIOR SURFACE</strong></td>
<td></td>
</tr>
<tr>
<td>Stone veneer</td>
<td>8 in. field granite from Lebanon, N. J.</td>
</tr>
<tr>
<td>Shingles</td>
<td>on one gable, pilgrim shakes, Cabot</td>
</tr>
<tr>
<td><strong>ROOF</strong></td>
<td></td>
</tr>
<tr>
<td>Slate on sheathing</td>
<td>Vermont fading green, Vermont Structural Slate Co.</td>
</tr>
<tr>
<td>Valleys</td>
<td>copper, Cheney Co.</td>
</tr>
<tr>
<td>Down spouts</td>
<td></td>
</tr>
<tr>
<td>Gutters</td>
<td>fir</td>
</tr>
<tr>
<td>Composition sheathing paper</td>
<td>Sisalkraft, treated</td>
</tr>
<tr>
<td><strong>DOOR AND WINDOW FRAMES</strong></td>
<td></td>
</tr>
<tr>
<td>Sash and frames</td>
<td></td>
</tr>
<tr>
<td>Double hung casement</td>
<td>Andersen narrow line, Andersen Frame Corp.</td>
</tr>
<tr>
<td>Steel sash</td>
<td>Fenestra, Detroit Steel Products</td>
</tr>
<tr>
<td>Door and frames (exterior)</td>
<td>white pine</td>
</tr>
<tr>
<td>Floor</td>
<td>slate on reinforced concrete slab, Co.</td>
</tr>
<tr>
<td><strong>PORCHES</strong></td>
<td></td>
</tr>
<tr>
<td>Floor</td>
<td>slate on reinforced concrete slab, Vermont Structural Slate Co.</td>
</tr>
<tr>
<td><strong>GLASS</strong></td>
<td></td>
</tr>
<tr>
<td>Clear</td>
<td>Libbey-Owens-Ford Glass Co.</td>
</tr>
<tr>
<td><strong>EXTERIOR PAINT</strong></td>
<td></td>
</tr>
<tr>
<td>Trim / Priming</td>
<td>White lead and oil</td>
</tr>
<tr>
<td>Sash</td>
<td>Finish coat, Atlantic Paint Co.</td>
</tr>
<tr>
<td><strong>LATH AND PLASTERING</strong></td>
<td></td>
</tr>
<tr>
<td>Lathing</td>
<td>Metal—Meshtex, Penn Metal Co.</td>
</tr>
<tr>
<td><strong>INTERIOR WOODWORK</strong></td>
<td></td>
</tr>
<tr>
<td>Floors</td>
<td>red oak, linoleum in kitchen arms, Armstrong Cork Products Co.</td>
</tr>
<tr>
<td>Painted surfaces</td>
<td>white pine</td>
</tr>
<tr>
<td>Shelving and cabinets</td>
<td>white pine, Curtis Stock millwork Companies</td>
</tr>
<tr>
<td><strong>INSULATING</strong></td>
<td></td>
</tr>
<tr>
<td>Outside walls</td>
<td>rock wool, Johns-Manville Corp.</td>
</tr>
<tr>
<td>Roof rafters</td>
<td></td>
</tr>
<tr>
<td>Attic floor</td>
<td></td>
</tr>
</tbody>
</table>
PLAN: The placing of the coat closet and lavatory is good; so is the arrangement of the bathrooms upstairs. Closet spaces are exceptionally generous in all places where they are needed. The maid is well taken care of. Her bedroom and bath, over the garage, connect by a private stair and entry with the kitchen. The whole plan is well organized and well proportioned.
The problem of the very small house is completely in its infancy. The background of U. S. archi
tecture seems to have been framed in vast divisions: railroad stations, office buildings, large residences, e
thoughtfully planned house of the above type remains rare. Of simple clapboard construction, this has a direct, honest expression of its purpose. Because of economy, a front vestibule or shelter has been o
cessed. In a region where rain and snow are commonplace, this might be essential. Cost: $4.200. Cubage: at 35 cents per cubic foot.

CONSTRUCTION OUTLINE

FOUNDATION
Walls and columns—18” fieldstone, local.
Cellar floor—concrete, Atlas Cement Co.
Waterproofing—waterproofed cement, Anti-Hydro Waterproofing Co.

FRAME CONSTRUCTION
Wood by Weyerhaeuser Sales Co.

MASONRY CONSTRUCTION
Stone walls—18” fieldstone, local.

EXTERIOR SURFACE
Clapboards.

ROOF
Wood shingles on shingle lath—18” perfection.

Valleys—closed, copper flashed.
Gutters—copper, American Brass Co.
Down spouts—copper, American Brass Co.
Flashing—copper, Anti-Hydro Waterproofing Co.

DOOR AND WINDOW FRAMES
Sash and frames—double hung, Curtis Companies, Inc.
Doors and frames (exterior)—pine.

PORCHES
Flooring—fir.

GLASS
American Window Glass Co.

EXTERIOR PAINT
Shingles—brush stained.
Siding—white lead and oil, Sherwin-Williams.
Sash—white lead and oil, Sherwin-Williams.

LATH AND PLASTERING
Lathing—metal, Truscon Co.
Plastering—patent plaster, hard finish, Red Top, Best Bros., Keene’s cement.

INTERIOR WOODWORK
Floors—oak.
Trim—pine.
Shelving and cabinets—pine.
Stock millwork—Curtis and Morgan.
FLOOR PLAN

PLAN: Separation of bedroom from bathroom in a house of this character is permissible but open to question.

KIRBY, ARCHITECT

PLOOMING

PLUMBING

KITCHEN

Cabinet—pine, Curtis Co.
Stove—Pyrofax gas by Carbide and Carbon Chemical Corp.
Refrigerator—General Electric.

BATHROOM

Seats—Church Mfg. Co.

PIPES

Brass, American Brass Co.

HEATING

Coal.
Hot water heater—coal-fired.

CHIMNEY

Fireplaces
Facings—common brick.
Hearth—wood.

HARDWARE

Interior and exterior—P. & F. Corbin.

SCREENS

Wood frames.

TOBER 1935

345
A front of sophisticated severity, tastefully planted, facing the street, is in contrast to the treatment court, which performs the role of an open-air living room. The house is divided into two parts, the section consisting of master bedroom with living, dining and kitchen facilities and a rear section consisting of two bedrooms and bath, maid’s room and garage. The two rear bedrooms, circuitous of approach to front entry, may be conveniently and independently reached through the breakfast room porch. The room with glazing on one side is virtually a shelter off the court. The long narrow kitchen with circulation is efficient. Cost: $8,500.

CONSTRUCTION OUTLINE

FOUNDATION
Walls and piers—concrete.
Cellar floor—cement.
Waterproofing—by Super Concrete Emulsion, Ltd.

FRAME CONSTRUCTION
Douglas fir — Hammond Lumber Co.
Sills—Redwood
Girders—Steel.

EXTERIOR SURFACE
Stucco—by California Stucco Co.

ROOF
Hand-split cedar shakes.
Valleys
Gutters
Flashings
Down spouts
Armo galvanized iron.

DOOR AND WINDOW FRAMES
Steel frames and sash—Fenestra by Detroit Steel Products Co.
Doors and frames (exterior)—wood doors of sugar pine, French doors—steel.
Fenestra.
Garage doors—sugar pine overhead doors by Wread Overhead Door Co.

PORCHES
Cement—blocked off in 12” squares, colored. Lithacreme color hardener—L. M. Scofield Co.

GLASS
Lustra glass—Pittsburgh Plate Glass Co.

SALT GLAZED TILE DRAINS—Pacific Clay Products Co.

EXTERIOR PAINT
Shingles—natural.
Trim and sash—Cabet’s Collopakes.

LATH AND PLASTERING
Lathing—metal in garage, Diamond copper bearing by Milcor Co., 1” chicken wire over wood lath in kitchen and bath, wood lath balance of house.
Plastering—Blue Diamond Co. Harp patent plaster. Finishing coat exterior stucco by California Stucco.

INTERIOR WOODWORK
Trim—California pine.
Floors—oak.
Painted surfaces.
Shelving and cabinets.
Plumbing
- Kitchen
  - Sink—enameled iron, Crane Co.

Bathroom
- Fixtures—enameled iron by Crane Co.
- Cabinets—enameled iron, Albatross Co.
- Bathtub—enameled iron by Crane Co.
- Seats—Church Co. white
- Showers—Crane Co.
- Shower curtains—cotton, Bud Brand Products Co.
- Tile—ceramic and glazed by Gladding, McBean & Co.

Heating
- Gas-fired hot air by Payne Furnace Co.
- Ducts—tin
- Water heater—gas fired storage type—Hoyt Co.

Air Conditioning
- Fans available for Payne furnaces to blow natural cool air through ducts.

Chimney
- Fireplaces
  - Facings and mantels—common brick
  - Los Angeles Brick Co.
  - Hearths—brick tile, Gladding, McBean & Co.

Hardware
- Interior and exterior—Sargent.

Screening
- Roller screens by Inviso Roller Screen Co.
This demonstration house was built by Copper Houses, Inc., to show what could be done with copper as a building material. Of copper, steel and concrete construction, it is fire-resisting; the use of wood is confined to rafters, sheathing, trim and floor surfaces. The lower-story walls are vertical sheaths of copper, stiffened and sound-insulated by composition boards cemented to the backs; these walls afterwards painted. Roofs are covered with standing-seam copper; what appear to be clapboards on gable ends and elsewhere are copper. Strong individuality marks the exterior. The main block follows the Maryland tradition of steeply pitched gambrels (and incidentally displays a large expanse of copper) the wings are challenging. The merit of the veranda-sleeping porch wing may be questioned, its daring quality cannot be denied. Cost, including architect's fee, $13,500. Cubage, 39,000 at 34 1/2 cents per cubic foot.

CONSTRUCTION OUTLINE

FOUNDATION
Walls—concrete block.
Cellar floor—concrete.
Waterproofing—2 coats of hot pitch tar.

FRAME CONSTRUCTION
First story—structural steel, 4" channel studs 2'-8" on center, bolted or welded to steel sill and fastened on top with 4" steel channel; horizontal and diagonal bracing with 1 1/2" angles.
Floor joists of 1st and 2nd floor—Truscon open-truss.
Sub-flooring—Gypsteel floor planks.
Second story and roof—sloping upwards and rafters, wood.

EXTERIOR SURFACE
Walls—48 oz. copper plates applied to steel studs by special bronze extruded shape. Copper is backed with 1/4" Celotex Truscon metal lath and plaster applied to inside face of steel (on cushion strip of Celotex to prevent condensation). Clapboards—copper at gable ends.

ROOF
Copper roof—16 oz. standing seam, Chase Brass & Copper Co.
Gutters—Chase Brass & Copper Co.
Flashing—Chase Brass & Copper Co.
Down spouts—Chase Brass & Copper Co.

DOOR AND WINDOW FRAMES
4" steel frames around doors and windows.
Steel sash—Truscon Steel Co.
Exterior doors—wood.

PORCHES
Floor—reinforced concrete.

GLASS
Libbey-Owens-Ford Glass Co.

EXTERIOR PAINT
Copper
Trim—Du Pont.
Sash—Du Pont.

LATH AND PLASTERING
Inside of exterior walls and interior partitions
Lathing—metal, Truscon Steel Co.
Plastering—3 coats.

INTERIOR WOODWORK
Floors—white oak applied in mastic to Gypsteel sub-flooring.
Shelving and cabinets—Oxford.

INSULATING
Outside walls 1 1/2" Red Top spun glass.
Roof rafters—U. S. Gypsum Co.
Weatherstripping—Chase Brass & Copper Co.
One excellent feature is the spacious recreation room with fireplace in the basement. The maid's room and bath above the garage, reached by service stairway, are completely shut off from the family sleeping quarters. Besides central heating, all mechanical equipment is of recent type.

**ERIOR FINISHES**
- Trim: Du Pont
- Doors: Du Pont
- Walls: W. & J. Sloane
- Wallpaper: W. & J. Sloane
- Cabling: Concealed BX
- Electrical fixtures: Chase Brass & Copper Co.
- Switches: Per Co.

**HEATING**
- In service rooms, kitchen, and bathrooms: Gas
- Boiler: General Electric
- Radiators: Copper concealed convectors
- Piping: Copper tube
- Hot water heater: Ruud
- Thermostat: Humidistat

**UMBING**
- Kitchen:
  - Stove: General Electric Co.
  - Refrigerator: Frigidaire Division of General Motors Corp.
- Bathroom:
  - Fittings: Chase Brass & Copper Co.
- Pipes:
  - Copper water tube and sweat fittings by Chase Brass & Copper Co.

**AIR CONDITIONING**
- Central system by Westinghouse, 9½ ton capacity

**CHIMNEY**
- Fireplaces: Copper in recreation room
- Hearths: Slate
- Mantels: Special Caen stone and wood
- Damper: H. W. Covert

**HARDWARE**
- Interior and exterior: Brass, Yale & Towne Mfg. Co.

**SCREENS**
- Bronze wire mesh by Chase Brass & Copper Co.

**WINDOW DRESSING**
- Venetian blinds: W. & J. Sloane

CTOBER • 1935

349
In its main mass this Mid-Western house recalls the early New England two-chimney type. The overhang pear-shaped pendants are, of course, particularly reminiscent, and while the overhang may be explained the change of materials, the pendants have no recognizable structural or decorative value. A simpler elevation might have resulted had the eaves been raised sufficiently to eliminate the dormers and a full-size window substituted for the octagon which lights the bath. The location of the entrance at one side rather than in center, as is customary, makes possible an excellent arrangement of living room and hall, as may be seen from the plan. The two-story porch presents a problem which is rarely solved satisfactorily; reference to several of the California houses in this issue will show a number of solutions of interest. It is never flattering to a house to show it before landscaping has been completed, and the appearance of this particular example will be greatly improved by planting. Cost: $13,000. Cubage: 4,400 at 29 cents per cubic foot.

**CONSTRUCTION OUTLINE**

**FOUNDATION**
- Walls—concrete.
- Columns—steel.
- Cellar floor—cement.

**FRAME CONSTRUCTION**
- Wood
- Girders—steel.

**MASONRY CONSTRUCTION**
- Stone walls, 1st story—native limestone.

**EXTERIOR SURFACE**
- Shingles, 2nd story—edge grain, 7 1/2" to weather.

**ROOF**
- Wood shingles on shingle lath.
- Valleys
- Gutters Wheeling Cop-R-Loy sheets, Wheeling Corrugating Co., Kansas City, Mo.
- Flashing
- Down spouts

**GLASS**
- Double strength, quality A, by Libbey-Owens-Ford Glass Co.

**EXTERIOR PAINT**
- Roof shingles—Creo-Dipt, ready stained.
- Wall shingles—Cabot's Old Virginia white.
- Trim and sash—white lead and oil Dutch Boy, National Lead Co.

**LATH AND PLASTERING**
- Lathing—expanded metal by Wheeling Corrugating Co.
- Finishing coat—Red Top.

**INTERIOR WOODWORK**
- Floors—clear, plain, white oak.
- Trim—white pine.
- Shelving and cabinets—white pine.
- Stock millwork—all special.
PLAN: Had the breakfast room been omitted the first floor bedroom might have been incorporated in the main body of the house with a considerable saving. Closet space is rather pinched. Well worked out entrance hall with pleasant vista from living room.
On an island intended to reproduce a little corner of France, this house faithfully follows a northern French farmhouse tradition; the ensemble is appealing and indicates the ready adaptability of this type to the needs of a modest domestic establishment. Construction is entirely frame, veneered with brick and stucco washed; the roof is covered with random width hand-riven shingles and all exposed timbers, inside and out, are hand-hewn. The result is a mellowness of textures not often attained in a new house. Living room and kitchen are both open to the peak of the roof, the timbers exposed. Designed for a family of two adults, the owners’ bedroom is on the ground-floor to save steps, the guest’s suite on the upper floor for privacy. There is no heating other than by fireplaces. Cost, including architect’s fee, $7,260. Cubage, 21,586 at 33.6 cents cubic foot.

**CONSTRUCTION OUTLINE**

**FOUNDATION**
- 4" reinforced concrete slab laid on grade level. Slab covered with one thickness of 30 pound felt mopped in place with hot asphalt. A second 3" slab is poured over the first.

**FRAME CONSTRUCTION**
- Longleaf yellow pine.
- First floor—sleepers secured with “Bull Dog” floor clips placed in concrete slab.
- Rafters—hewn by hand where exposed.

**EXTERIOR SURFACE**
- Brick veneer—second hand non-vitrified paving brick, 4x4x8.

**GLASS**
- Libbey-Owens-Ford flat drawn sheet glass.

**EXTERIOR PAINT**
- Roof shingles—dipped before application then given one coat of creosote.
- Siding
- Trim
- Creosote.
- Sash

**LATH AND PLASTERING**
- Lathing—wood, yellow pine.
- Plastering—3 coats ivory.

**INTERIOR WOODWORK**
- Floors—random width yellow pine 4" to 20" wide.
- Trim
- Cypress, by local mill.

352 THE • ARCHITECTURAL • FORU
I:

Circular turret facilitates adjustment of the canted garage to rest of the structure. If the turret had been used for the office instead of being made into a guest's dressing room, there would have been some additional space both upstairs and down. This is merely a possible alternative; the plan is thoroughly satisfactory as it stands.

PLUMBING

- Kitchen:
  - Sink—Crane flat rim.
  - Cabinet—local manufacture.
  - Stove—Westinghouse electric, "Flavor Zone."
  - Refrigerator—Kelvinator.

- Bathrooms:
  - Tile—3"x6" white.

- Piping:
  - Copper by Mueller Brass Co.

HEATING

- None
- Hot water heater—Holyoke Heater Co.

CHIMNEY

- Fireplaces—plaster.
- Hearths—second hand brick and cement.
- Mantels—wood.
- Damper—Colonial throat and damper.

HARDWARE

- Interior and exterior—McKinney hand forged.

SCREENS

- 18 mesh copper.

OCTOBER 1935

CTOBER 1935

353
Described by the architects as a vacation house, its planning and treatment show the close relation with outdoor living which was sought. Two walls of glass admit ample sunlight, which may be controlled by awnings and curtains; they also give an excellent view of the surrounding countryside. A notable feature is that while the house consists of but one story, the light steel columns and flat roof give it three living levels: the space below is used for a porch as well as an automobile shelter while the roof is used for sun bathing and outdoor sleeping in summer. The facing of the house is particularly interesting, being of heavy canvas laid over tongued and grooved redwood flooring. Walls are insulated by aluminum foil placed as a continuous membrane between the exterior and interior of the 4 in. wall. The interior wall finish is 1 in. plywood. Cost including furnishings: $982.

**CONSTRUCTION OUTLINE**

**FOUNDATION**
- Footings—concrete, tapered sides resting on concrete slab.
- Pavement under house at ground level—concrete.

**FRAME CONSTRUCTION**
- Columns—4" steel tubes (extra heavy section) support a pair of 2"x10"s bolted to a welded-on steel "fin" that penetrates columns. A 10" square steel plate ½" thick is welded to base of each column. Columns not filled with concrete.
- Joists—floor and roof 2"x8".
- Bridging—double row.
- Studding—two 2"x2"s to take membrane of aluminum foil between (see "Insulating")

| Exterior facing—9" California redwood flooring laid diagonally. Exposed surface sanded. |
| EXTERIOR SURFACE |
| Facing given one coat of bedding paint (William L. Barrell & Co., New York) to serve as a preservative and adhesive base for canvas (Turner Halvey Co., New York) Canvas "Duck" No. 6, 42" wide stretched on wall; joints lapped 1½" and nailed ¾" apart with spiral, double clad zinc nails; surface of canvas sponged slightly; canvas paint (Devoe & Reynolds) applied as 2 surface coats; final paint aluminum. Ground floor ceiling—Masonite.

| ROOF |
| 3" California redwood flooring laid diagonally covered with No. 4 cotton duck canvas "Mt. Vernon" treatment similar to walls. Flashing—canvas surface requires flashing. Down spout—cast iron connected to copper drain pipe at center of house. |

| DOOR AND WINDOW FRAMES |
| Sash and frames, steel factory-type Fextra sash throughout, 3 winds projecting, by Detroit Steel Prod. Co. Doors and frames (exterior)—steel frames. |

| GLASS |
| Lustra, ultra-violet, by American Window Glass Co. |

| EXTERIOR PAINT |
| Walls and roof—listed under "Exterior Surface" and "Roof." |
To reduce housework to a minimum, as well as to keep costs down, the plan is treated as a single open space, with the bathroom as the only wall-enclosed unit. This arrangement also gives a small area an effect of spaciousness. For sleeping the space may be subdivided by means of curtains into three bedrooms, each with free access to the bathroom. The simplicity of the plan is deceptive, and its admirable organization of the available space is worthy of study.

round floor ceiling—aluminum paint, ash and railing.
Priming—metal paint.
Finish coat—"Duco," E. I. du Pont de Nemours & Co., Inc.

Prior woodwork
Floor—California redwood covered with canvas and painted like outside but with color as finish coat.
Walls—1/4" plywood, clear white pine, by U. S. Plywood Co.

Lathing
outside walls—continuous membrane of double-faced aluminum foil between studs providing two air spaces.
floor and roof—continuous double-faced aluminum foil placed 2" below floor and roof, insulating against heat and cold.

2nd floor ceiling—rigid insulation board by Johns-Manville.

Interior painting
Floors—clear spar varnish in addition to canvas paint.
Walls—clear spar varnish.
Doors and sash—metal paint and "Duco."

Wiring
Cable—BX.
Electrical fixtures—factory-type aluminum reflectors recessed in ceiling.

Lighting
Direct.

Plumbing

Cabinets—metal by Hamilton Mfg. Co., Rahway, N. J.
Stove—electric.

Bathroom

Heating
Coal
Heater—Vecto No. 2 (central convection) by American Radiator Co.

Screens
Copper.

Window dressing
Shades and curtains—made of Revolite by Johnson & Johnson, New Brunswick, N. J.
Awnings—for control of sun heat.
In this house the architect planned for his wife and himself a conventional New England type. Its eaves and high roof are well adapted to the hilltop site. The large center bay is the main feature of facade and living room and its large expanse of glass gives ample light to the interior while leaving plenty of wall space for furniture. The above photograph shows the house in a rather unfavorable light, but the very bareness of its winter surroundings is an excellent illustration of the importance of adequate landscaping in setting off a house to best advantage. Cost: $15,400. Cubage: 34,426, at 45 cents a cubic ft.

**CONSTRUCTION OUTLINE**

**FOUNDATION**
- Wall—stone and cinder concrete block.
- Columns—lally.
- Cellar floor—cement.
- Waterproofing—integral, Medusa.

**FRAME CONSTRUCTION**
- Fir.

**EXTERIOR SURFACE**
- Shingles—red cedar random width, "Weatherbest" 12" to weather.

**ROOF**
- Wood shingles on shingle lath—"Weatherbest" 6½" to weather, left natural.
- Valleys
- Gutters
- Flashing
- Down spouts
- Salt glazed tile drains—4" along foundations.
- Composition sheathing paper—Sisalkraft.

**DOOR AND WINDOW FRAMES**
- Sash and frames
- Double hung
- Pendant "D" select Casement type
- white pine.
- Steel sash in basement.
- Doors and frames (exterior)
- Garage doors
- Shingles—dipped in Cabot's bleaching oil.

**TERRACE**
- Floor—2" Bluestone laid in cement on 5" cinder concrete.
- Glass
- Single thick quality B Pennvernon, Pittsburgh Plate Glass Co.

**EXTERIOR PAINT**
- Trim: oil paint.
- Sash: white pine.

**LATH AND PLASTERING**
- Lathing—metal, 2½ lbs. per sq. yd.
- Plastering—patent plaster Red Keene cement in bathroom.

**INTERIOR WOODWORK**
- Floors—quality red and white oak
- Paneling—Swedish knotty pine in room.
- Trim
- Shelving and cabinets

**INSULATING**
- Outside walls
- Attic floor
- Weatherstripping
- Red Top wool, U. S. Gypsum Co.

**INTERIOR PAINTING**
- Floors—stained.
PLAN: Excellent handling of vistas, particularly from entrance through living room. The vista through the dining room door and north and south windows is given added interest by a slight change in levels. Garage entrance to house is well located. The second floor studio with its large north light is an interesting use of the space over the garage.

Cabinets—Hoegger.
Bath tubs—Standard Sanitary.
Toilets—Church Mfg. Co.
Seats—Church Mfg. Co.
Floor—tile mosaic.

PIPES
Main—copper.
Supply—brass.
Soil and vents—wrought iron.

HEATING
Oil burner—General Electric, hot air.
Hot water heater—General Electric.
Thermostat and regulators—Electric.

AIR CONDITIONING
Central—General Electric.

CHIMNEY
Hard-burned common brick, 2" bluestone cap.

Fireplaces
Facings—fire brick.
Hearth—wood.
Mantels—wood.
Damper—Covert Old Style A.

HARDWARE
Interior and exterior—brass.

SCREENS
Copper in wood frames.

WINDOW DRESSING
Venetian blinds—Rolscreen Co.

SPECIAL EQUIPMENT
Incinerator, model R7, Kerner Incinerator Co.
PROBLEM: Adequately to house a family of five on a sloping lot 58 x 135 ft. A recreation room was desired. The house was faced east on the street, a stone retaining wall was built 15 ft. to the rear and along the north side. This permitted a two level lawn and garden treatment of the rear.

The two chief requirements were to house a family of five comfortably to provide a recreation room, besides the other usual essentials. They arrived to meet the needs of the case, the outward expression of style was a matter of arbitrary choice. Since there was no structural occasion for overhang—such as there once was—it's presence is a concession to precedent. The front elevation has balance and is well proportioned. The garage is detached, and put at the rear of the lot. Cost of house, excluding garage, $13,050. Cubage, 33,425, at 39 cents per cubic foot.

CONSTRUCTION OUTLINE

FOUNDATION
Walls—concrete block.
Cellar floor—cement, asphalt tile over cement in recreation room, Thomas Molding Co.
Waterproofing—1/8" coating of Portland cement (1 part) and sand (2 parts) with 5 per cent hydrated lime added, applied outside of foundation wall.

FRAME CONSTRUCTION
Fir

EXTERIOR SURFACE
Shingles—red cedar, 24" Royals, Edham Co.

ROOF
Wood shingles on shingle lath—16" red cedar, Edham Co.
Valleys
Flashing—tin, Taylor's "Target & Arrow"

DOOR AND WINDOW FRAMES
Sash and frames
Double hung—Northern white pine by Casement—local mill
Doors and frames (exterior)—Northern white pine
Garage doors—McKee Door Co., Chicago.

GLASS
Flat drawn glass, Libbey-Owens-Ford Glass Co.

EXTERIOR PAINT
Shingles
Dipped—side wall shingles factory dipped, Edham Co.
Brush stained—side wall shingles brush coated, 1 coat Cabot's double white.

Gutters—galvanized iron, Central Down spouts—Alloy Steel Co.

DOOR AND WINDOW FRAMES
Sash and frames
Double hung—Northern white pine by Casement—local mill
Doors and frames (exterior)—Northern white pine
Garage doors—McKee Door Co., Chicago.

GLASS
Flat drawn glass, Libbey-Owens-Ford Glass Co.

EXTERIOR PAINT
Shingles
Dipped—side wall shingles factory dipped, Edham Co.

LATH AND PLASTERING
Lathing
Metal—boiler room ceiling "Bi-Flax," outside walls and second ceiling.
Wood—white pine—interior partitions
Plastering
Finishing coat—"Tiger" lime,

INTERIOR WOODWORK
Trim—birch.
Floors—white oak.
Painted surfaces
Shelving and cabinets—birch
Stock millwork

INSULATING
Outside walls—1/4" thick "Bi-Flax," linen Co.
PLAN: The recreation room is in the basement under the living room, is equipped with a fireplace, and occupies that part not required by the heating plant and laundry. There are coat closets on each side of the vestibule. The kitchen has a well-lighted dining alcove. On both floors there is good closet provision and all rooms have cross ventilation.

Stove—"Universal"—Landers, Frary, and Clark.
Refrigerator—General Electric.

BATHROOM
Fixtures—Crane Co.
Cabinets—Morton.
Bath tubs—Crane Co.
Toilets—Crane Co.
Seats—Church Mfg. Co.
Showers—Crane Co.
Tile—matt glazed for walls, faience for floors.

PIPES
Steel.

HEATING
Hubbard Oil Burner.
Boilers—Capitol, U. S. Radiator Co.
Radiators—U. S. Radiator Co.
Piping—steel.

Hot water heater—electric, "Thermogrey."
Thermostat and regulators—Minneapolis-Honeywell Regulator Co.

AIR CONDITIONING
Unit—Lewis Air Conditioner.

CHIMNEY
Fireplaces—local manufacture.
Facings—Hart & Hegeman.
Hearths—brick.
Mantels—birch.
Damper—Peerless Mfg. Co.

HARDWARE
Interior and exterior—Sargent.

SCREENS
Wood—mill-made.

WINDOW DRESSING
Blinds—pine, mill-made.
HOUSE FOR PAULINE LOWE, ALTADENA, CALIFORNIA

PROBLEM: To make economical use of an inside lot 49 ft. wide, securing privacy and some garden space; to have earthquake-resisting construction; to create a congenial setting for a sculptor imbued with Oriental ideals, reducing furnishings to bare essentials; to secure a spacious effect from a minimum of actual area; to have a sunny exposure for each room; to give as little valuable space as possible to the garage; and to secure seclusion from street and neighbors.

A few simple materials—wood, straw, fiber and glass—their natural origin left mostly undisguised, used to secure simplicity and an environment harmonious with the sculptor's personality and work. To achieve spaciousness, large wall areas of glass were used, opening into paved gardens at bedroom floor which make room and garden one living space. These glass walls are opposite the entrances to each and thus create the longest vistas possible. Solid enclosures of wood frame the bedroom gardens. Both rooms and bathroom are placed to catch early morning sunlight; kitchen, dining room and living room sunlight all day. Building ordinances required separation of garage from dwelling; though under the roof, it is separated by a paved passage. Cost, $3,900.

CONSTRUCTION OUTLINE

FOUNDATION
Walls and piers—concrete.
Waterproofing—Asphaltum.

FRAME CONSTRUCTION
Douglas fir.
Sills—redwood.

EXTERIOR SURFACE
12" redwood vertical boards with battens.

ROOF
Wood shingles on shingle lath—16" redwood 5" to weather.

GUTTERS
No. 24 gauge galvanized iron.

FLASHING

DOWN SPOTS

DOOR AND WINDOW FRAMES
Sash—horizontal sliding of white pine.
Doors (exterior)—Douglas fir.
Garage doors—horizontal sliding redwood.

PORCHES
Brick floor—common red brick.

GLASS

EXTERIOR PAINT
All paint is by W. P. Fuller Co.
Shingles—linseed oil without color.
Sliding—left natural.
Sash—"Negrosene," an alcoholic dye.

LATH AND PLASTERING
None.

INTERIOR WOODWORK
All wall surfaces are heart common wood left natural. 3⁄4" strip oak fl.
Shelving and cabinets—redwood white pine.
To secure seclusion from the street and neighbors the entrance is inside the house. To approach the front door from the street one traverses a paved and roofed tunnel-like passage between bedroom walls on one side, and garage and enclosed garden on the other. The dining room and living room are one, and open onto a dining terrace.

**PLUMBING**
- Kitchen: West Coast.
- Stove: Wedgewood Gas.

**BATHROOM**
- Fixtures: Kohler.
- Seats: Church.
- Tile: Pomona tile on floor.

**PIPES**
- Wrought iron.

**HEATING**
- Gas unit hot air: "Magic Way" Furnace Co.

**THERMISTAT AND REGULATORS**—button control.

**CHIMNEY**
- Fireplaces.
- Facings and hearths: brick.

**SCREENS**
- No. 16 galvanized wire cloth.

**SPECIAL EQUIPMENT**
- Chinese grass matting—California Asia Co.
- Glass cloth—Turner Bros.
It is altogether possible to design a house in the romantic manner without lapsing into sentimentality or leaving one's common-sense, as this example proves. Generally, such a house will fit more consistently into its local environment than one of more uncompromising characteristics that might appear overdressed for the occasion. This little white shingled house, for all its picturesque reminiscence of early Victorian models, is practical in its provision for the future and in its construction and equipment. While the latticed case of the dining room bay window recall the era of Jane Austen, the metal casement adaptation of the windows is both ingenious and modern. Though the upper floor is not needed for present occupancy, it is forehandedly ready to be made easily into two bedrooms and a bathroom, with good closets and geometrically planned storage lofts. Cost: $7,610. Cubage: 24,600, at 31 cents per cubic foot.

**CONSTRUCTION OUTLINE**

**FOUNDATION**
- Walls and columns — hollow cement blocks.

**FRAME CONSTRUCTION**
- No. 1 fir.
- Girders—long leaf yellow pine.

**EXTERIOR SURFACE**
- Shingles—red cedar, Weyerhaeuser.
- Stucco—foundation walls, Artstone stucco, Artstone Stucco Co.

**ROOF**
- Wood shingles on shingle lath—red cedar, Weyerhaeuser.
- Valleys—copper, American Brass Co.
- Flashing—copper, American Brass Co.
- Down spouts—friar.

**DOOR AND WINDOW FRAMES**
- Sash and frames
  - Steel sash—Fenestra, Detroit Steel Products Co.
  - Doors and frames—white pine, Cur- tis Companies, Inc.
  - Garage doors—white pine, Cur- tis Companies, Inc.

**PORCHES**
- Flagstone.

**GLASS**
- Vita-glass, Libbey-Owens-Ford Glass Co.

**EXTERIOR PAINT**
- Shingles—2 coats creosote, Samuel Cabot Inc.
- Trim
  - Sash
  - Atlantic white lead and linseed oil.

**LATH AND PLASTERING**
- Lathing
  - Metal—expanded, Milcor Steel

- Plastering

**INTERIOR WOODWORK**
- Floors—selected red oak.
- Trim
  - Shelving and cabinets—white pine.
  - Stock millwork—white pine, Curtis Companies, Inc.

**INSULATING**
- Outside walls—4" rock wool, U. S. Insulation Co.
- Attic floor—4" rock wool, U. S. Insulation Co.
- Weatherstripping—zinc.
Next the kitchen is the laundry, equipped with requisite appliances, and through the laundry is the service entrance; the inside door to garage. There is no fast room nor dining alcove and the space much better bestowed on a convenient laundry. In a small house, a dining or breakfast room is usually an excrescence in space. There is a coat closet at the front door and, while there is no pantry to accompany it, the bathroom, reached from the hall, is near enough to

BATHROOM
Cabinets—Columbia Metal Box Co.
Cabinet—stock mill.

PIECES
Brass, Anaconda, American Brass Co.

HEATING
Oil furnace, Bettendorf.
Boilers—Fitzgibbon's "De Luxe" with tank-saver coils.
Radiators—National Radiator Co.

PIPING—black steel.
Valves—Hoffman Specialty Co., Inc.
Thermostat and regulators—Minneapolis-Honeywell Regulator Co.

CHIMNEY
Fireplaces
Facings—Howard brick.
Hearth—slate flagging.
Damper—H. W. Covert Co.

HARDWARE
Interior and exterior—Norwalk Lock Co.

SCREENS
Fenestra screens, Detroit Steel Products Co.
Here Buckminster Fuller awaits the Dymaxion House in a cottage designed by his wife and apparently shares his realistic approach to housing. The high, stone foundation walls were originally part of an older structure, sensibly reemployed in this house for economy. The unconventional use of large steel casements in a New England "carpenter-type" house is justified by the view and the numerous shade trees. The interior features a room paneled with large sheets of plywood, on ceiling as well as walls, with distinctly pleasant effect. The balcony is a definite contribution to the livability of the house, and the way it is built around trees is rational. Cost: $3,300. Cubage: 9,720, at 34 cents per cubic foot.

CONSTRUCTION OUTLINE

FOUNDATION
Walls—stone.
Cellar floor—concrete.
FRAME CONSTRUCTION
Fir.
EXTERIOR SURFACE
Clapboards—cedar.
ROOF
Composition shingles on sheathing.
Valleys
Flashing—copper.
Composition sheathing paper.
DOOR AND WINDOW FRAMES
Sash and frames
Casement type—steel.
Doors and frames (exterior)—pine.
Garage doors—overhead.
PORCHES
Floor—matched pine.
GLASS
Libbey-Owens-Ford Glass Co.
EXTERIOR PAINT
Siding
Trim—3 coats Dupont.
Sash
LATH AND PLASTERING
None.
Walls and ceilings ½" fir plywood
Joint coverings, ½" convex tri corners.
A long narrow rectangle, necessarily divided into a simple arrangement of rooms. Small windows give privacy on the entrance side. The plan as shown below shows excellent utilization of space.

**INTERIOR WOODWORK**
- Floors—Carolina pine.
- Shelving and cabinets—\(\frac{3}{4}\)" fir plywood, sugar pine frame.

**SULATING**
- None.
- Weatherstripping—copper felt.

**INTERIOR PAINTING**
- Floors—varnished and waxed.
- Walls—1 coat dull varnish, 1 coat wax, kitchen and bath oil paint.
- Sash—oil paint.

**LIGHTING**
- Direct and indirect.

**PLUMBING**
- Manifold plumbing unit between kitchen and bath.
- Kitchen:
  - Sink—enameled iron.
  - Cabinet—wood.
  - Stove—General Electric.

**BATHROOM**
- Fixtures complete.

**PIPES**
- Supply—brass.
- Soil—wrought iron.

**HEATING**
- Coal-fired boiler, 2-pipe system.
- Hot water heater.

**SCREENS**
- Roller type.
A small lot of irregular shape was the first part of the problem; to fit house and garage on it without building the way from property line to property line and, at the same time, to keep a desirable exposure for the house was the second. How the situation was met, the plot plan shows. The garage is canted at one end of the dwelling.

A brick-piered entrance court gives deep shelter to the front door, accents the approach and by the color of the bricks strikes a sharp contrast to the white stuccoed walls. Planning is simplified and building costs reduced by not having to provide for heating apparatus—the climate requires none—and by having to make little or no excavation. Nor have any stairways to be considered. The dining room walls from floor to ceiling are horizontally boarded, with chamfers at the joints. One of the bedrooms has a pair of bunk bedsteads built in. This saves much space and affords welcome storage capacity in the cupboards and drawers built in underneath. Both master bedrooms have private baths. Cost, $8,000.

**CONSTRUCTION OUTLINE**

**FOUNDATION**
- Wood piling.
- Columns—reinforced concrete, stub columns and grade beams.

**FRAME CONSTRUCTION**
- Yellow pine.
- Rafters—yellow pine and clear cypress.

**MASONRY CONSTRUCTION**
- Walls—common brick and concrete blocks.

**EXTERIOR SURFACE**
- Brick veneer—used common red brick and second hand brick.
- Stucco—Florida Portland cement, waterproofed.

**ROOF**
- Tile on sheathing—Natco Eton by National Fireproofing Corp.

**GLASS**
- Double strength, quality A Pittsburgh Plate Glass Co.

**DOOR AND WINDOW FRAMES**
- Sash and frames—Steel sash—Soule Co.
- Doors and frames (exterior)—cypress.
  - East Coast Millwork & Fixture Co.
  - Garage doors—cypress, Overhead Door Corp.

**EXTERIOR PAINT**
- Priming—Bushin
- Finish Coat—Benjamin Moore Co.

**LATH AND PLASTERING**
- Lathing—Metal—galvanized Clinton cloth.
- Wood—cypress.
- Finishing coat—U. S. Gypsum (textured).

**INTERIOR WOODWORK**
- Floors—red oak plank and blocks.
- Paneling—dining room, white oak.
- Painted surfaces—cypress.
- Shelving and cabinets—white pine.
- Stock millwork—white pine, bedroom bunks cypress.
PLAN: The bath of the nearest bedroom is close enough to the front door to serve for guests, but there is no coat closet. In disposing of the difficulty of canted rectangles, it might have been better to lop off one corner of the garage and give the kitchen better shapes and more space. Similarly, the maid's bedroom is cramped by its amputated corner.
Thoroughly modern without being assertive, both in construction and design, this house indicates plain
that the modern mode can be comely and well-mannered. Such tactful design will go far to reconcil
modern trends the feelings ruffled by the more aggressive examples of external composition. The fen-
tration, usually a sore point with those who resent the methods of the modern school, is managed in a way
which few could take exception. The walls are of cinder concrete blocks painted white and the semicircul-
hood above the door is a monolithic concrete slab—a pleasant as well as useful conceit that adds interest
the entrance without marring its simplicity. The mechanical appliances correspond with the rest of the
house in efficient modernism. Cost, $5,000. Cubage, 17,700, at about 28 cents per cubic foot.

CONSTRUCTION OUTLINE

FOUNDATION
Walls and footings—poured stone concrete.
First floor—4" poured reinforced concrete
slab on concrete girders.

MASONRY CONSTRUCTION
Walls and interior partitions—hollow
cinder concrete units.

ROOF CONSTRUCTION
Joists
Plate—Fir.
Rafter

ROOF
Slate on sheathing—Bangor black slate.
Decks—four ply slag on wood sheathing.
Valleys
Gutters—Copper.

DOOR AND WINDOW FRAMES
Sash and frames
Casement type—"Fenestra" by De-
troit Steel Products Co.
Doors and frames (exterior)
Garage doors

DOOR AND WINDOW FRAMES

Glass
Double strength, American Window Glass
Co.

EXTERIOR PAINT
Cinder block walls—2 brush coats of
white cement paint, Medusa Co.
Trim and Sash
Priming—lead and oil.
Finish coat—2 coats, lead and oil.

LATH AND PLASTERING
Lathing—metal, Reynolds Ecod metallated
fabric on ceilings only.
Plastering—cement plaster and wood
float finish on ceilings only, no plaster
on walls.

INTERIOR WOODWORK
Interior doors, door frames and wood
sub-frames of casement windows
Ponderosa pine. No other wood trim
in this house excepting kitchen dress-
ers.
Stock millwork—Curtis Companies, Inc.

INSULATING
Outside walls—none.
Roof—under sheathing, Reynolds meta-
lation.
Weatherstripping—copper and brass sash
bolts, exterior doors only.
The plan is simplicity itself. Being simple, it is also workable. The only point for slight regret is that the bathroom door is far from the entrance; a door on the line of the living room partition would remedy this minor defect.

**INTERIOR FINISHES**
- Ceilings—treatment similar to walls.
- Walls—2 coats cement paint of varying light shades, Medusa Co.
- Floors—asphalt tile, boiler pit floor cement hardener.
- Trim—3 coats of lead and oil, of different colors.

**BATHROOM**
- Cabinet—G. M. Ketcham Mfg. Corp.
- Bathtubs—enameled iron, Kohler Co.
- Toilets—vitreous china, low tank, Kohler Co.
- Seats—white, Church Mfg. Co.
- Piping—wrought iron.

**HEATING**
- Hot water heater—Gas.
- Boiler—York Oil Burner Co., York, Penn.
- Radiators—American Radiator Co.
- Piping—wrought iron.
- Valves—American Radiator Co.

**CHIMNEY**
- Fireplaces—cinder concrete blocks.
- Hearth—Sayre & Fisher down draft brick.
- Mantels—cinder concrete.
- Damper—H. W. Covert.

**HARDWARE**
- Interior and exterior—Norwalk Lock Co.
- Screens—Copper on stock wood frames.
- Window Dressing—Venetian blinds.

**EQUIPMENT**
- Electrical fixtures—Shapiro and Aronson, New York.
- Switches—Bryant.
- Paint—Rior Finishes.

- Doors—asphalt tile, boiler pit floor cement hardener.
- Windows—Venetian blinds.
This house achieves consistency by being built of materials native to the neighborhood. The quality of rubble masonry conveys a feeling of sincerity. Good proportions of mass and well-disposed fenestra gain a note of accent from the belt course beneath the upper windows. The one superfluous element of composition is a certain whimsicality—the scalloped apron of the portico, the pierced shutters above, the frettings of the semicircular window in the roof. Barring this minor blemish, no reasonable excepi can be taken to either design or plan of this really engaging house. Both privacy and pleasant outlook re from placing the living room and dining room at the back. Coat closet and lavatory are conveniei close to the front door, and between them is the door to a small study, quite shut off from the rest of house; on the other side of the entrance is the kitchen with direct access to the front door. The steep si made it possible to locate the garage in the basement, next to the laundry and heater room. Cost: $10,0 Cubage, 26,000 at about 38½ cents per cubic foot.

**CONSTRUCTION OUTLINE**

<table>
<thead>
<tr>
<th>FOUNDATION</th>
<th>DOOR AND WINDOW FRAMES</th>
<th>Sash</th>
<th>Priming</th>
<th>Finish coat</th>
<th>White oil paint.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Walls—stone.</td>
<td>Sash and frames.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Columns—Lally.</td>
<td>Double hung—Curtis Silentile.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cellar floor—cement.</td>
<td>Doors and frames (exterior)—Curtis Companies, Inc.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Garage doors—Overhead.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>MASONRY CONSTRUCTION</strong></td>
<td><strong>PORCHES</strong></td>
<td><strong>EXTERIOR PAINT</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Common brick walls, garage only.</td>
<td>Floors—old brick.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Stone walls—local stone, warm colors.</td>
<td></td>
<td><strong>Trim</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>DOOR AND WINDOW FRAMES</strong></td>
<td></td>
<td>Priming</td>
<td></td>
<td>White oil paint.</td>
</tr>
<tr>
<td></td>
<td>Sash and frames.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Double hung—Curtis Silentile.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Doors and frames (exterior)—Curtis Companies, Inc.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Garage doors—Overhead.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>PORCHES</strong></td>
<td>Floors—old brick.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>EXTERIOR PAINT</strong></td>
<td></td>
<td><strong>Trim</strong></td>
<td></td>
<td>White oil paint.</td>
</tr>
<tr>
<td></td>
<td><strong>PORCHES</strong></td>
<td>Floors—old brick.</td>
<td></td>
<td></td>
<td>White oil paint.</td>
</tr>
<tr>
<td></td>
<td><strong>EXTERIOR PAINT</strong></td>
<td></td>
<td><strong>Trim</strong></td>
<td></td>
<td>White oil paint.</td>
</tr>
<tr>
<td></td>
<td>Sash and frames.</td>
<td></td>
<td><strong>Trim</strong></td>
<td></td>
<td>White oil paint.</td>
</tr>
<tr>
<td></td>
<td>Double hung—Curtis Silentile.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Doors and frames (exterior)—Curtis Companies, Inc.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Garage doors—Overhead.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>PORCHES</strong></td>
<td>Floors—old brick.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>EXTERIOR PAINT</strong></td>
<td></td>
<td><strong>Trim</strong></td>
<td></td>
<td>White oil paint.</td>
</tr>
<tr>
<td></td>
<td>Sash and frames.</td>
<td></td>
<td><strong>Trim</strong></td>
<td></td>
<td>White oil paint.</td>
</tr>
<tr>
<td></td>
<td>Double hung—Curtis Silentile.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Doors and frames (exterior)—Curtis Companies, Inc.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Garage doors—Overhead.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>PORCHES</strong></td>
<td>Floors—old brick.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>EXTERIOR PAINT</strong></td>
<td></td>
<td><strong>Trim</strong></td>
<td></td>
<td>White oil paint.</td>
</tr>
<tr>
<td></td>
<td>Sash and frames.</td>
<td></td>
<td></td>
<td></td>
<td>White oil paint.</td>
</tr>
<tr>
<td></td>
<td>Double hung—Curtis Silentile.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Doors and frames (exterior)—Curtis Companies, Inc.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Garage doors—Overhead.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>PORCHES</strong></td>
<td>Floors—old brick.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>EXTERIOR PAINT</strong></td>
<td></td>
<td><strong>Trim</strong></td>
<td></td>
<td>White oil paint.</td>
</tr>
<tr>
<td></td>
<td>Sash and frames.</td>
<td></td>
<td><strong>Trim</strong></td>
<td></td>
<td>White oil paint.</td>
</tr>
<tr>
<td></td>
<td>Double hung—Curtis Silentile.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Doors and frames (exterior)—Curtis Companies, Inc.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Garage doors—Overhead.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>PORCHES</strong></td>
<td>Floors—old brick.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>EXTERIOR PAINT</strong></td>
<td></td>
<td><strong>Trim</strong></td>
<td></td>
<td>White oil paint.</td>
</tr>
<tr>
<td></td>
<td>Sash and frames.</td>
<td></td>
<td><strong>Trim</strong></td>
<td></td>
<td>White oil paint.</td>
</tr>
<tr>
<td></td>
<td>Double hung—Curtis Silentile.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Doors and frames (exterior)—Curtis Companies, Inc.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Garage doors—Overhead.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>PORCHES</strong></td>
<td>Floors—old brick.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>EXTERIOR PAINT</strong></td>
<td></td>
<td><strong>Trim</strong></td>
<td></td>
<td>White oil paint.</td>
</tr>
</tbody>
</table>
LAN: Every inch of space is well used. The backstairs problem is settled by a
or from the pantry opening on the stair landing; one pair does duty for two.
evry room has cross ventilation, and all bedrooms adequate closet space. There
is good linen closets and a housemaid's closet besides.

INTERIOR WOODWORK
Trim and floors
Hardwood
Stainwoods
Painted surfaces
Shelving and cabinets
Stock millwork

CURTIS COMPANIES INC.

TERIOR FINISHES
Wallpaper—Sanitas in kitchen, baths, liv­ing­room.

LIGHTING
Direct.

PLUMBING
Kitchen,
Sink—Monel metal,
International Nickel Co.

BATHROOM
Fixtures—Hajoca Co.
Cabinets—Miami, Philip Carey Co.
Bath tubs
Toilets—Hajoca Co.
Showers
Composition tile—linoleum wainscot.

PIES
Copper tubing.

HEATING
Oil.

AIR CONDITIONING
Central—Holland Furnace.

CHIMNEY
Fireplaces
Facings
Marble.
Hearths
Mantels—made up of stock moldings.
Damper—Covert.

HARDWARE
Interior
Exterior
Sargent.
The pleasant quality of this "Monterey" type of ranch house arises from the straightforward manner in which it meets the problems of a simplified and rather rustic mode of life: the way in which the most readily available local materials are utilized; and the suitability of the design to the climatic conditions of the country. Partly enclosed courtyard gives a measure of protection from the outer world and from bad weather, yet it does not shut out ventilation nor curtail the outlook in a countryside of splendid distances. The whole arrangement reflects the informality of an almost completely outdoor scheme of life. At the same time, the interiors themselves to the amenities. Cost: $8,000. Cubage: 28,925 at 27½ cents per cubic foot.

CONSTRUCTION OUTLINE

FOUNDATION
Walls Portland Cement.
Piers
Cellar floor
Waterproofing—Anti-Hydro.

FRAME CONSTRUCTION
No. 1 Common Douglas Fir.
Sills—Redwood.

MASSONRY CONSTRUCTION
Common brick walls—Simons Brick Co.
Faced brick—Los Angeles Pressed Brick Co.

EXTERIOR SURFACE
Siding—Vertical boards and battens, select common Douglas Fir.
Stucco—Blue Diamond.

DOOR AND WINDOW FRAMES
Sash and frames.
Double hung—Sugar Pine.
Garage doors—Douglas Fir.

PORCHES
Reenforced concrete—Portland Cement and Clinton wire mesh.

GLASS
Libbey-Owens-Ford, Double Strength.

EXTERIOR PAINT
Shingles—left natural.
Siding.
Finish coat—Cabot's "Old Virginia White."
Trim Priming, Lead and Oil.
Sash Finish coat, Oakley Paint.

LATH AND PLASTERING
Lathing
Wood—Long-Bell No. 1 green Douglas Fir.

Plastering
Patent plaster—Medusa Portland cement Co.

INTERIOR WOODWORK
Trim—Douglas Fir.
Floors—No. 2 Oak.
When two or more rectangles are canted at obtuse angles, always difficult to avoid considerable waste of space, unless one or another is annoyingly misshapen. The ingenious plan of this house has avoided any material difficulty of that sort. The pantry is the room of distinctly irregular shape and the pantry that is unimportant; its irregularities are taken up by closets.

**Materials**

- **Electrical fixtures**—Meyberg Co.
- **Switches**—Pass & Seymour, Inc.
- **Lighting**—Direct.
- **Heating**—Gas—Payne Furnace Co. Hot water heater—Superbo, "Commodore."
- **Hardware**—Interior Dresslar Hardware Co.
- **Exterior** Dresslar Hardware Co.
- **Screens**—"Hipopito"—Hipopito Mfg. Co.
- **Window dressing**—Venetian blinds—National Venetian Blind Co.

**Finishes**

- **Walls**—Oakley Paints.
- **Ceilings**—Pass & Seymour, Inc.
- **Paints**—Pass & Seymour, Inc.
- **Paper**—Stockwell Wall Paper.
- **Woodwork**—Pass & Seymour, Inc.

**Insulation**

- **Side walls**—Daggett Insulating Co., "Dagonite."
- **Roof boards**—Daggett Insulating Co., "Spray-o-flake."
- **Weatherstrip**—American Weatherstrip Co.
One of the requirements for this house for a family of three was that it should be modern and yet confi
in design to conservative neighborhood standards. In fact, the client expressed a strong leaning toward C
nial precedents. The exterior is of shingles and brick, painted white, and its general mien is engaging, tho
it seems a little whimsical that brick should have been used only to veneer the lower story of the front.
straight, flat shelter over the front door—it can scarcely be called a hood—is a welcome substitute for a
thic, which would have destroyed the elevation. Blue shutters give character and incisive definition to the fr
An unusual feature in this house is the use of linoleum to cover not only the floors of kitchen, lavatory,
bathrooms, but their entire wall surface as well. Cost, including architect's fee, $9,800.

CONSTRUCTION OUTLINE

FOUNDATION
Walls—cinder block.
Columns—lally.
Cellar floor—4” concrete.
Waterproofing—Anti-Hydro Waterproofing Co.

FRAME CONSTRUCTION
Fir.

EXTERIOR SURFACE
Brick veneer—common brick, Sayre & Fisher Co.
Shingles—“Ambassador” Creo-Dipt, 10” to weather.

ROOF
Wood shingles on shingle lath—18” perfection.

DOOR AND WINDOW FRAMES
Sash and frames

Double hung—Morgan.
Casement—special, made in mill.
Steel sash—in kitchen and basement.
“Fenestra,” Detroit Steel Products Co.
Doors and frames (exterior)—white pine by Morgan.
Garage doors—Overhead Door Corp.

PORCHES
4” reinforced concrete.

GLASS
Double strength, quality B, Pennvernon.

EXTERIOR PAINT
Brick veneer 3 coats oil, Sherwin-Williams.

Sash
LATH AND PLASTERING
Lathing

Metal—U. S. Gypsum in garage.
Composition plaster base—U. S. Gypsum Rocklath.

Plastering
Finishing coat—Red Top trowel.

INTERIOR WOODWORK
Trim—No. 1 clear white pine.

FLOORS—2%” clear plain white oak random width.

Paneling—mantel and one wall in living room knotted pine.

INSULATING
None.

Weatherstripping—Chamberlain.

INTERIOR FINISHES
Floors—filler, sealer, 2 coats of wax, Sherwin-Williams.
PLAN: The compact plan which gives a generous living room, a communicating dining room, and a well-appointed kitchen with convenient access to the front door does not waste space on a pantry, but it does include the convenience of an inside entrance from the garage with a lavatory beside it. The house is so planned that at any time an additional bedroom and bath can be arranged over the garage.

Cabinet—Murphy Door Bed Co.
Stove—gas.
Refrigerator—Frigidaire.
Washing machine.
Walls and floors—linoleum, Armstrong Cork Products Co.

BATHROOM
Cabinets—Columbia Metal Box Co., New York.
Walls and floor—linoleum by Armstrong Cork Products Co.

HEATING
Boiler—oil-fired.
Radiators.
Hot water heater—gas.

AIR CONDITIONING
Central—Evans with Petro oil burner.

CHIMNEY
Fireplaces—brick.
Hearths.
Mantels—knotted pine.
Damper—Donley.

HARDWARE
Interior—Sargent.

SCREENS
Copper mesh.
Building in parts of Louisiana, where the nature of the ground forbids any considerable excavation, pre-
structural problems not often encountered elsewhere. The wall-section diagram shows how the difficulty
met. The load on the concrete piers is not unduly great since the construction, though staunch, is light-
throughly modern vein, the house is refreshingly straightforward in its recognition of a utilitarian
that appealed to the owner, regardless of the asymmetrical appearance of the exterior. Conservatives
decry every ultra-modern form of expression must remember that the fundamental criterion of fitne-
the comfortable and convenient fulfillment of function; a willingness to subordinate the claims of v
satisfaction. Cost: $3,638. Cubage, 18,140 at 20 cents per cubic foot.

CONSTRUCTION OUTLINE

FOUNDATION
Footings and piers—concrete.

FRAME CONSTRUCTION
Pine

EXTERIOR SURFACE
Clapboards—1"x6" pine siding, flush.

ROOF
Flat built-up roof, 3-ply.

DOOR AND WINDOW FRAMES
Sash and frames
Double hung—wood 3'-4" wide.

Steel sash—Fenestra, Detroit Steel Products Co.

DOORS AND FRAMES (EXTERIOR)—pine
frames, flush doors.

PORCHES
Floor—matched heart pine.

GLASS
Double strength, quality A

EXTERIOR PAINT
Siding
Trim
Sash

LATH AND PLASTERING
Lathing
Composition plaster base—sheet ro
Plastering
None.

INTERIOR WOODWORK
Floors—3" oak.
Trim
Shelving and cabinets

INSULATING
Air space between ceiling and roof.
Direct, simple and as wholly convenient for the domestic requirements of two people as a plan could be. It provides for all the daily needs actually. The built-in features have great practical merit.

**INTERIOR PAINTING**
- Floors—varnished and waxed.
- Trim—lead and oil, and enamel.
- Walls—enamel.

**WIRING**
- Built-in flush lights in major rooms.

**HEATING**
- Gas stoves.
- Hot water heater—automatic.

**SCREENS**
- Copper mesh.

**BATHROOM**
- Fixtures
- Cabinets
- Bath tubs
- Toilets
- Seats
- Showers
- Shower curtains

Cabinet—pine.
Stove—electric.
Refrigerator—electric.


**PIPES**
- Wrought iron and steel.

**HEATING**
- Gas stoves.
- Hot water heater—automatic.

**SCREENS**
- Copper mesh.
If the house is to be defined as a machine for living, this example honestly fulfills the definition. It is an efficient machine. Revised methods of construction, new materials and new ways of using old materials have made the modern builder independent of structural limitations that shaped the usages and conventions of the past to which many people are still sentimentally attached. If this house lacks in the external graces of tradition, it is wholly acceptable to the present day realist. Cost: $8,250. Cubage 16,900, at 49 cents per cubic foot.

CONSTRUCTION OUTLINE

FOUNDATION
Walls—stone.
Cellar floor—concrete, cement finish.
Waterproofing—none.

FRAME CONSTRUCTION
Wood

FLOOR CONSTRUCTION
1st floor—precast concrete joist and light cinder concrete slabs by the Bedford Hills Concrete Products Corp., Bedford Hills, N. Y.
2nd floor and roof—wood.

EXTERIOR SURFACE
Clapboards—1"x12" red cedar.

ROOF
Tar and gravel built-up flat.
Gutters—wood.
Flashing—copper.
Down spouts—copper.

DOOR AND WINDOW FRAMES
Sash and frames—double hung—wood.
Doors and frames (exterior)—wood.
Garage doors—wood.

PORCHES
Brick floor.

EXTERIOR PAINT
Siding—stain, Cabot's.
Trim—lead and oil.

LATH AND PLASTERING
Lathing—composition plaster base—plaster board.

INTERIOR FINISHES
Floors—1st floor, "Durite" asphalt tile reinforced with rubber by Paul Coste Inc., Providence, R. I. 2nd floor oak.
Shelving and cabinets—wood.
The ground floor plan is conceived for the convenience amenities of living, assuring mechanical facilities and abundant light and ventilation at every point. Upstairs—thanks to methods of construction—the plan follows somewhat different pattern, all well thought out however. Also recognizes the cheer deriving from a bedroom fireplace.

**BATHROOM**
- Bath tubs
- Toilets
- Floor: linoleum, Armstrong Cork Products Co.

**HEATING**
- Silent Glow oil burner.
- Boilers: Crane Co.

**PIPING**
- Brass and copper.

**SCREENS**
- Copper mesh.

**WINDOW DRESSING**
A good example of a Colonial type house in the moderate price range. The above illustration shows well this style of dwelling is adapted to the northern American climate; its long low lines are in ex- 
contrast to the sweeping verticals of the fine elms which surround it, while the dark accents of 
windows, and evergreens break up the blank white of the walls, giving the house a scale which em-
phases its air of intimacy and comfort. The low picket fence, formerly more common than it is today, is 
successful device for conveying a sense of privacy, and, by its repetition of the material of the house 
the entire composition a size and importance which would be otherwise lacking. An outstanding ex-
of the vital part that setting and landscaping play in presenting any house to its best advantage. Cost: $1 
Cubage: 34,200 at 39½ cents per cubic foot.

CONSTRUCTION OUTLINE

FOUNDATION
Walls—cement blocks.
Columns—Lally.
Cellar floor—cement.
Waterproofing—tar, 1 coat.

FRAME CONSTRUCTION
Wood.

EXTERIOR SURFACE
Shingles—Perfection.

ROOF
Wood shingles on shingle lath—Perfection.

Valleys
Gutters
Flashing
Down spouts

DOOR AND WINDOW FRAMES
Sash and frames—wood, double hung, by Curtis.
Doors and frames (exterior)—Curtis.

PORCHES
Flagstone.

GLASS
By Pittsburgh Plate Glass Co.

Copper by Chase
Brass and
Copper Co.

EXTERIOR PAINT
Siding
Trim

2 coats lead and oil—
Dutch Boy.

LATH AND PLASTERING
Lathing—composition plaster base,
Lath by U. S. Gypsum Co.
Plastering—U. S. Gypsum Co.

FLOORS
Minwax (2 coats).

INTERIOR WOODWORK
Trim—pine by Curtis.
Hardwood—red oak.
ILLIAM M. PAREIS, ARCHITECT

AN: Living room has been given ample space. In a house this size, direct access from kitchen or pantry to living room where tea or tails are served might be desirable. Maid's room large with access rest of second floor through rear master bedroom.

ILLUSTRATION

TRANCE DOOR

PIPING

Inside walls
of rafters—Johns-Manville.
Rafter floor
heatherstripping—Chamberlin.
Drier finishes
coats lead and oil—Dutch Boy, National
Lead Co.
Wallpaper—Lloyd's.
Lashe—BX.
Electrical fixtures—"Bronze Art."
TILING
Direct.

PLUMBING

Kitchen.
Sink—Standard flat rim.
Cabinet—White House.
Stove—Gas.
Refrigerator—General Electric.

BATHROOM

Cabinets—United.
Bath tubs—Pembroke.
Toilets—Devoro.
Seats—Church.

HEATING

Oil—Williams.
Boilers
Radiator
Valves
Hot water heater—Penfield.

HARDWARE

Interior and exterior—Corbin.

T O B E R • 1 9 3 5
This house is typical of a tremendous amount of suburban building in the U. S. The ornamentation confined to a discreetly enriched doorway, the location of the building in relation to the street, the materials employed, and the type of landscaping—all these are familiar sights in suburban developments for homes of moderate cost. This house varies in that the facade has been broken by a slight projecting wing; the small gable over the dressing room window is unusual, and was apparently introduced to establish a measure of balance with the gabled wing. The interiors are well carried out particularly the study, where the simple vertical paneling is successful. Cost: $14,500. Cubage, 41,942 at 35 cents per cubic foot.

**Construction Outline**

**Foundation**
- Walls—concrete block.
- Cellar floor—cement.
- Waterproofing—1/4" coating of Portland cement (1 part) and sand (2 parts) with 5 per cent hydrated lime added, applied outside of foundation wall.

**Frame Construction**
- Fir.

**Exterior Surface**
- Shingles—16" red cedar, Edham Co.

**Roof**
- Wood shingles on shingle lath—24" red cedar, Edham Co.
- Valleys—tin, Taylor's "Target & Arrow."

**Doors and Window Frames**
- Sash and frames—Northern white pine by local mill.
- Double hung—same as windows.
- Garage doors—Overhead Door Co.
- Doors and frames (exterior)—same as windows.

**Porches**
- Reinforced concrete.

**Glass**
- Libbey-Owens-Ford Glass Co.
- Windows—double hung.
- Doors—same as windows.

**Exterior Paint**
- Shingles—dipped Edham Co. stain.
- Trim—lead and oil paint.
- Sash—no. 1 white pine.

**Lath and Plastering**
- Lathing—No. 1 white oak.
- Plastering—"Tiger" lime.

**Interior Woodwork**
- Trim—birch.
- Floors—white oak.
- Painted surfaces—same as shingles.
- Shelving and cabinets—birch.
- Stock millwork—same as exterior.

**Insulating**
- Outside walls—Spray-O-Flake.
- Attic floor—same as shingles.
- Weatherstripping—Monarch Weather Co.
INNESOTA, ROLLIN C. CHAPIN, ARCHITECT

STUDY

Gravite Arti
lo—FLOOR

SECOND FLOOR

ERIOR FINISHES
Floors—stain, shellac and wax.
Trim
Doors—Vitrolite enamel.
Sash
Walls—Vitrolite enamel kitchen and
baths.
Wallpaper—all principal rooms.

RING
Electrical fixtures—local manufacture.
Switches—Hart and Hegeman.

IGHTING
Indirect

UNBING
Kitchen

STUDY

FIRST FLOOR

SECOND FLOOR

BATHROOM
Fixtures
Bath tubs
Toilets
Showers
Shower curtains
Seats—Church Mfg. Co.
Tile—matt glazed wall tile, Faience Tile
floors.

Pipes
Steel

HEATING
Forced warm air plant with Marr Oil
Burner.
Boilers—Waterman-Waterbury Furnace.

RINT
Electrical fixtures—local manufacture.
Switches—Hart and Hegeman.

SHERING
Kitchen

 harvest Arti

inners—stain, shellac and wax.

RING
Electrical fixtures—local manufacture.

IGHTING
Indirect

UNBING
Kitchen

BATHROOM
Fixtures
Bath tubs
Toilets
Showers
Shower curtains
Seats—Church Mfg. Co.
Tile—matt glazed wall tile, Faience Tile
floors.

Pipes
Steel

HEATING
Forced warm air plant with Marr Oil
Burner.
Boilers—Waterman-Waterbury Furnace.

Hot water heater—gas, American Radiator
Co.—"Hot-coil."
Thermoset and regulators—Minneapolis-
Honeywell Regulator Co.

CHIMNEY
Fireplaces
Facings
Hearth—brick.
Mantels—birch.
Damper—Peerless Mfg. Co.

HARDWARE
Interior and exterior—Largent.

SCREENS
Pine, by local mill.

WINDOWS DRESSING
Blinds—pine, by local mill.

C T O B E R • 1 9 3 5

383
The living room wall with its sweeping projecting eave is a splendid foil for the foreground planting, one in sunshine, the other in shadow. The large pepper tree has been purposely utilized to dominate the approach and keep it in shade. Typical of the excellent landscaping, done in the office of the architect, which surrounds this house is the rear garden with trellises and covered porches opening on paved terraces.

Constitution Outline

<table>
<thead>
<tr>
<th>FOUNDATION</th>
<th>DOOR AND WINDOW FRAMES</th>
<th>GLASS</th>
<th>LATH AND PLASTERING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Walls and piers</td>
<td>Sash and frames</td>
<td>Libbey-Owens-Ford Glass Co.</td>
<td>Lathing—3.4 lb. 5/8&quot;x3/4&quot;</td>
</tr>
<tr>
<td>Concrete</td>
<td>Steel sash—Truscon.</td>
<td></td>
<td>metal.</td>
</tr>
<tr>
<td>Cellar floor</td>
<td>Doors and frames (exterior)—white pine.</td>
<td></td>
<td>Plastering—Blue Diamond patent pl</td>
</tr>
<tr>
<td>FRAME CONSTRUCTION</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oregon pine.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sills—redwood.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EXTERIOR SURFACE</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stucco.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ROOF</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wood shingles on shingle lath—5 in 2&quot;s &quot;Perfects.&quot;</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gutters</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Down spouts</td>
<td>galvanized iron.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The sun porch, less sunny than most of its kind, is used as a transition element between living room and rear garden. Wardrobes instead of closets in the two bedrooms is desirable. Bedrooms orientated to receive the best of the exposure, as is also the tiny study comfortingly set between

**LATING**

Dek roof—\(1/4\)" Celotex.

**RIOR FINISHES**

Floors—stain, 2 coats shellac, 2 coats Johnson's floor wax.

Walls and ceilings of baths, kitchen and service porch—3 coats lead and oil.

Final coat Fuller's "Fullerglo." Balance of house given 2 coats "Permo."

Tiles and switches—General Electric.

**LIGHTING**

Electrical fixtures—brass and iron, specially designed.

**PLUMBING**

Kitchen fixtures—Crane Co.

Bathroom fixtures—Crane Co.

**HEATING**

Gas—Payne hot air furnace.

Hot water heater—Crane "Premier."

**CHIMNEY**

Fireplaces—H. W. Covert Co.

**HARDWARE**

Interior and exterior—Russwin.

**SCREENS**

In-vis-o Disappearing Roller Screen Co.
A one-story house on two levels, built for a client who occupies it alone. The house reflects the simple requirements both in its plan and exterior and its loose, rambling form is well suited to the irregular hillside. Completely unconventional in its treatment, it has a charming air of informal comfort. The huge chimney is difficult to explain from the standpoint of flue requirements, since the one fireplace is of moderate size, but it might be of interest to compare it with the treatment of house No. 82 where a similar situation was solved by expanding the masonry into an entire end wall. The gable over the porch, while pleasant in appearance, is hard to reconcile with the form of the living room. The porch, with its heavy square supports has a rustic simplicity most appropriate in the setting. Cost: $3,000, at about 20 cents per cubic foot.

CONSTRUCTION OUTLINE

FOUNDATION
Concrete blocks—Southern MacTile Co., Asheville.

FRAME CONSTRUCTION
Native yellow pine.

EXTERIOR SURFACE
Native cedar shingles.

ROOF
Slate from demolished old house.
Metal work—26 gauge galvanized iron.

DOOR AND WINDOW FRAMES
Metal casement windows—Detroit Steel Products Co.
Wood doors—white pine from local mill.
PORCHES
Flagstone floor over concrete base.
GLASS
Double strength, grade A.
EXTERIOR PAINT
Shingles—stained white, Samuel Cabot, Inc., Boston.

Doors, etc.—painted 3 coats lead and
LATHING AND PLASTERING
Wood lath.
Sand finished plaster.

INTERIOR WOODWORK
Living and dining room paneled in white chestnut. Balance of trim grade B and better yellow pine. Floors of oak.
PLAN: Few required elements produce a simple if unusual layout. Bedrooms, living-dining room and garage on different levels due to requirements of site. Nothing unnecessary has been forced into the plan.

INTERIOR FINISHES
Floors—filled and waxed—some varnished 2 coats.
Trim—Enamel 4 coats.
Walls—Plaster kalsomined.
Wallpaper—Bedrooms.

WIRING
Cable

LIGHTING
Direct

PLUMBING
Fixtures—Crane Co.
PIPES
Steel

HEATING
Warm air gravity system, Peerless Heater, ducts to each room.

CHIMNEY
Fireplace

 Facing ] brick.
Hearth ] brick.
Mantle—wood.
Damper—Covert.

HARDWARE
Sargent and Co.

SCREENS
Full length outside wood screens with copper mesh.
A small one-story house, simply designed to meet the modest living requirements of a family, direct in exterior expression. It may be a far cry from a temple-fronted exterior in Arkansas to a Gothic manor hall in the English Midlands, but the principle of plan is almost identical. The exterior is well-mannered and inviting in an unobtrusive way; the interior discloses more interest. In the living room, one end of which is used for dining purposes, the walls are vertically boarded and the hardware is of old New England provenance. The kitchen is completely equipped with all the most modern electric appointments against a color background of red, white and black. The house is fully insulated, Cost $6,000. Cubage: 26,000 at 23 cents per cubic foot.

CONSTRUCTION OUTLINE

FOUNDATION
Walls and piers—brick, Malvern.
Cellar floor—none.
Waterproofing—none.

FRAME CONSTRUCTION
Wood sills and plate, Bruce treated.

EXTERIOR SURFACE
Clapboards—10" pine, Monarch.

ROOF
Tin
Valleys
Gutters
Flashings
Down spouts
Slate glazed tile drains—Dickey.
Composition sheathing paper—15 lb. felt.

DOOR AND WINDOW FRAMES
Sash and frames—double hung yellow pine, Monarch.
Doors and frames (exterior)—cypress, Monarch.
Garage doors—rough pine, Monarch.

PORCHES
Reenforced concrete—Portland cement, Acme.

GLASS
Pennvernon, Pittsburgh Plate Glass Co.

EXTERIOR PAINT
Siding
Primings
Finish coat outside white, Benjamin Moore.

LATH AND PLASTERING
Lathing—flat rib metal lath 3 lb., Trusco.
Plastering
Patent plaster
Finishing coat Acme.

INTERIOR WOODWORK
Paneling—yellow pine, 4", 6" and 8" widths.
Stock millwork—window and door frames Monarch.

INSULATING
Outside walls—rock wool batt, Johns Manville.
The modern adaptation of an ancient plan does not make the underlying principle any less vital or worthy of present-day use. It has the advantage of simplifying the mechanics of living, as this arrangement nicely demonstrates.

Roof rafters—Celotex.
Attic floor—rock wool batt, Johns-Manville.

TERIOR FINISHES
Floors—Pyra-Seale, Vestal Chemical Co.
Trim—interior gloss, Benjamin Moore.
Sash—paper by Sherwin-Williams.
Pine walls—oil stain.

RING
Cable—Romex.
Electrical fixtures—Chase.
Switches—toggle, Bryant Electric Co.

PLUMBING
Kitchen
Sink—flat rim, Kohler.
Cabinet—yellow pine, Monarch.
Stove—Papan gas.
Refrigerator—X-6, General Electric.

BATHROOM
Cabinets—Hoegger.
Bathtub—built-in, Kohler.
Toilets—one piece, Kohler.
Seats—Kohler.
Showers—Kohler.
Shower curtains—Hoegger.
Tile—4½ x 4½ semi-glazed, Sparta Ceramic Co., East Sparta, Ohio.

HEATING
Hot water heater—Automatic "Crest."

CHIMNEY
Fireplaces
Facings—common brick, Malvern.
Heath—Job built.
Mantels—Job built.

HARDWARE

SCREENS
Galvanized screen.

WINDOW DRESSING
Blinds—Job built.
Here the first aim was to design at the outset the house eventually desired by the clients, but to build only that part of it which would be an irreducible living minimum for two people; second, to plan in such a way that the future enlargements could be made without disturbing anything already built or materially changing its use. The house as it stands represents the complete first stage of the program. The method employed here is one which might well be followed by many home-builders: to build one’s house in sections, adding to it as finances permit, is not only an intelligent and economical procedure, but it minimizes initial errors and omissions and makes possible their correction in future additions. Cost: $5.2
Cubage: 21,000 at 25 cents per cubic foot.

CONSTRUCTION OUTLINE

**FOUNDATION**
- Walls—stone.
- Columns—structural steel.
- Cellar floor—cement.

**FRAME CONSTRUCTION**
- Hemlock.

**EXTERIOR SURFACE**
- Brick veneer.
- Clapboards—cypress.

**DOOR AND WINDOW FRAMES**
- Sash and frames: white pine.
- Double hung: white pine.
- Casement: white pine.
- Doors and frames (exterior): white pine.
- Garage doors: white pine.

**PORCHES**
- Flagstone floor.

**GLASS**
- Single strength, quality A, Pennvernon.
- Pittsburgh Plate Glass Co.

**EXTERIOR PAINT**
- Brick—2 coats Bondex.
- Siding—3 coats du Pont’s exterior white.
- Sash—white.

**LATH AND PLASTERING**
- Lathing—composition plaster base.
- Finishing coat—U. S. Gypsum Co.

**INTERIOR WOODWORK**
- Floors—oak.
- Trim—poplar.
- Shelving and cabinets—poplar.

**INSULATING**
- Roof rafters—4" rock wool.
- Attic floor—zinc, interlocking.

- Composition sheathing paper—Sisalkraft.

- Composition sheathing paper—Sisalkraft.
The existing porch, as indicated on the plans, is purely. The upstairs space over the garage, indicated for "storage," has already been made into a small study. Plans show with how little trouble the enlargement will be carried out.

**ERIOR FINISHES**
- Trim: 3 coats du Pont's 
- Doors: Dulux. 
- Walls: kitchen and bathroom—oil paint. 
- Wallpaper—walls of living and bedrooms and stairhall.

**RNG**
- Ceiling: BX. 
- Electrical fixtures. 
- Switches—General Electric.

**HTING**
- Direct.

**UMING**
- Kitchen.

**BATHROOM**
- Fixtures
- Bath tubs
- Toilets
- Seats
- Showers
- Shower curtains
- Tile—Olean Tile Co. and Franklin Tile Co.

**PIPES**
- Copper tubing with Streamline fittings, Mueller Brass Co.

**HEATING AND AIR CONDITIONING**
- Oil-fired Gar Wood unit.
- Hot water heater—coal fired. 
- Thermostat and regulators—Minneapolis-Honeywell Regulator Co.

**CHIMNEY**
- Fireplaces.
- Facings—wood. 
- Hearth—flagstone.
- Mantels—wood.
- Damper—Covert, old style.

**HARDWARE**
- Interior and exterior—P. & F. Corbin.

**SCREENS**
- Anaconda screen cloth.
- Shades—cambric, Columbia Mills, Inc.
- Blinds—wood.
Although the owners have an excellent collection of Colonial furniture they did not for this reason insist upon a Colonial house. This board and batten, brick and shingle-roofed house fittingly accommodates the period furniture and happily emphasizes that a "modern" design for living does not have to depend upon modern materials. The style of the ventilating device over the garage is a romantic hangover from similar arrangements for barns and is the only jarring note in this otherwise excellent example of simple taste. Approximate cost today slightly exceeding $3.00 a square foot.

**CONSTRUCTION OUTLINE**

<table>
<thead>
<tr>
<th>FOUNDATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Walls</td>
</tr>
<tr>
<td>Columns</td>
</tr>
<tr>
<td>Cellar floor</td>
</tr>
<tr>
<td>Waterproofing—Anti-Hydro Waterproofing Co.</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>FRAME CONSTRUCTION</td>
</tr>
<tr>
<td>No. 1 common Douglas fir.</td>
</tr>
<tr>
<td>Sills—heart common redwood.</td>
</tr>
<tr>
<td>MASONRY CONSTRUCTION</td>
</tr>
<tr>
<td>Common brick walls—garage and chimney.</td>
</tr>
<tr>
<td>EXTERIOR SURFACE</td>
</tr>
<tr>
<td>Vertical board and batten.</td>
</tr>
<tr>
<td>Stucco—Monolith.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ROOF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wood shingles on shingle lath.</td>
</tr>
<tr>
<td>Valleys</td>
</tr>
<tr>
<td>Gutters—Armco.</td>
</tr>
<tr>
<td>Down spouts</td>
</tr>
<tr>
<td>Composition sheathing paper—30 lb. asphalt saturated rag felt</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DOOR AND WINDOW FRAMES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sash and frames—double hung, sugar pine.</td>
</tr>
<tr>
<td>Doors and frames (exterior)—Douglas fir frames, sugar pine doors.</td>
</tr>
<tr>
<td>Garage doors—overhead.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PORCHES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brick floor—Simons brick.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>GLASS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Libbey-Owens-Ford Glass Co.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>EXTERIOR PAINT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shingles—oil stained, Cabot's.</td>
</tr>
<tr>
<td>Siding</td>
</tr>
<tr>
<td>Trim—Oakley Paint Co.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>LATH AND PLASTERING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lathing—wood, No. 1 green Douglas fir.</td>
</tr>
<tr>
<td>Long-Bell Lumber Sales Corp.</td>
</tr>
<tr>
<td>Plastering—&quot;Blue Diamond&quot;</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>INTERIOR WOODWORK</th>
</tr>
</thead>
<tbody>
<tr>
<td>Floors—oak.</td>
</tr>
<tr>
<td>Trim—clear vertical grain Douglas fir.</td>
</tr>
<tr>
<td>Painted surfaces—vertical grain.</td>
</tr>
<tr>
<td>Shelving and cabinets—Douglas fir.</td>
</tr>
</tbody>
</table>
PLAN: Z-shaped, giving maximum exposure. A symmetrical living-dining room gives pleasant feeling of spaciousness. The house is small, no larger than the familiar Eastern-cube, but its livability strikingly exceeds that of the typical cube.

VIEWS OF THE LIVING-DINING ROOM

PLUMBING
- Kitchen
- Stove—"Magic Chef," American Stove Co.
- Refrigerator—General Electric Co.

BATHROOM
- Fixtures
- Toilets
- Seats—Church Mfg. Co.
- Showers—Crane Co.
- Tile—Gladding, McBean & Co.

PIPES
- Wrought iron—Reading Iron Co.

HEATING
- Gas—Payne Furnace & Supply Co.
- Hot water heater.

CHIMNEY
- Fireplaces
- Facings—Simons brick.
- Hearths—Richardson.

HARDWARE
- Interior and exterior—Dresslar Hardware Co.

SCREENS
- In-vis-o Disappearing Roller Screen Co.

WINDOW DRESSING
- Venetian blinds—Western Venetian Blind Co.
An admirable solution of the difficult problem of the two-story porch; the use of light posts and correspondingly open ironwork make this porch appear as an important and distinct element of the composition, while on the street elevation it is sufficiently set back and shielded by trees to attain a measure of privacy. The use of plants to enhance the design, favored by the California climate, might well be emulated in other sections of the country. The patio is used to excellent advantage as an outdoor living space, and shelters two sides provide shade as well as protection for furniture in inclement weather. The use of materials varied and rich: clapboards, plaster, and cement tile, all light in color, provide an agreeable play of texture without producing a restless design. Cost: $17,486.

### Construction Outline

<table>
<thead>
<tr>
<th>Foundation</th>
<th>Frame Construction</th>
<th>Exterior Surface</th>
<th>Roof</th>
</tr>
</thead>
<tbody>
<tr>
<td>Waterproofing—Anti-Hydro.</td>
<td></td>
<td>Vertical boards and battens—inside of patio.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sides and rear—cement plaster.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Roof—front porch and patio, common brick, basket weave.</td>
<td></td>
</tr>
</tbody>
</table>

### Exterior Paint

- Siding: Priming [lead, zinc, and oil, mixed].
- Trim: finish coat, lead, zinc, and oil, mixed.
- Exterior concrete tile and cement plate: 2 coats Lithide, Lithide Products Co.

### Lath and Plastering

- Lathing: Wood—Longbell No. 1 covered with mesh 20 gauge galvanized wire.
- Plastering: Patent plaster—Gypsum hardware, Blue Diamond.
- Finishing coat—smooth white putty coat.
N: Revolves about the enclosed patio which centers on the axis of the entrance and includes an
fireplace for barbecues. House set 50 feet back on a lot 100x190 feet. Access from patio to garden
truck garden beyond. Garage unattached. Note two dressing rooms flanking south bathroom.

LANDSCAPE ARCHITECT, EDWARD HUNTSMAN TROUT
A board and batten house of great simplicity, planned so that the principal rooms face away from the street. The outstanding feature of the exterior is the chimney, which has been expanded to become the entire end of the living room wing, providing interesting textural contrast to the wood walls of the other portions of the house. The raised hearth, on the interior, is not only a very practical arrangement, but is decorative as well. It is usually the case in houses of this type, the living room opens on to a porch, beyond which is the garden very interesting to note that this house has corner windows in both bedrooms, a feature better seen on the photographs; that the architect saw fit to incorporate this element, supposedly the exclusive privilege of the "International Style," in an otherwise traditional design, is another instance of a growing and healthy indifference to stylistic correctness in American residential work. Cost: $4,200. Cubage: 21,496 at 191/2 per cubic foot.

### CONSTRUCTION OUTLINE

<table>
<thead>
<tr>
<th>FOUNDATION</th>
<th>WALLS AND PIERS—CONCRETE.</th>
</tr>
</thead>
<tbody>
<tr>
<td>FRAME CONSTRUCTION</td>
<td>OREGON PINE.</td>
</tr>
<tr>
<td>SILLS—REDWOOD.</td>
<td></td>
</tr>
<tr>
<td>EXTERIOR SURFACE</td>
<td>SIDING—REDWOOD VERTICAL SHIPLAP AND BATTENS.</td>
</tr>
<tr>
<td>ROOF</td>
<td>WOOD SHINGLES ON 1&quot;x6&quot; SHEATHING.</td>
</tr>
<tr>
<td></td>
<td>GUTTERS</td>
</tr>
<tr>
<td></td>
<td>FLASHING ARMCO 26 GAUGE GALVANIZED IRON.</td>
</tr>
<tr>
<td></td>
<td>DOWN SPOUTS</td>
</tr>
<tr>
<td>DOOR AND WINDOW FRAMES</td>
<td>SASH AND FRAMES DOUBLE HUNG—CALIFORNIA WHITE PINE.</td>
</tr>
<tr>
<td></td>
<td>DOORS AND FRAMES (EXTERIOR)—CALIFORNIA WHITE PINE.</td>
</tr>
<tr>
<td>ROOFS</td>
<td>BRICK FLOOR—BASKET PATTERN COMMON.</td>
</tr>
<tr>
<td>GLASS</td>
<td>SINGLE STRENGTH &quot;LUSTRA&quot; GRADE A. AMERICAN WINDOW GLASS CO.</td>
</tr>
<tr>
<td>EXTERIOR PAINT</td>
<td>SHINGLES—OIL STAINED.</td>
</tr>
<tr>
<td></td>
<td>SLIDING—CASEIN COLD WATER.</td>
</tr>
<tr>
<td></td>
<td>TRIM—LEAD AND OIL.</td>
</tr>
<tr>
<td></td>
<td>SASH—LEAD AND OIL.</td>
</tr>
<tr>
<td>LATH AND PLASTERING</td>
<td>LATHING—1/4&quot; BEAVER INSULATING MULL.</td>
</tr>
<tr>
<td></td>
<td>PLASTERING—PATENT PLASTER-EMPIRE HARDWALL.</td>
</tr>
<tr>
<td></td>
<td>FINISHING COAT—PEERLESS STUCCO.</td>
</tr>
<tr>
<td>INTERIOR WOODWORK</td>
<td>FLOORS—PLANK OAK.</td>
</tr>
<tr>
<td></td>
<td>WALLS AND DOORS, LIVING ROOM AND DINING ROOM—&quot;SHEVIN&quot; KNOTTY WHITE PINE.</td>
</tr>
</tbody>
</table>
R PORCH

PLAN: Entrance to bedrooms can be effected without going through living room. The askew garage is adapted to the special requirements of the site. Rear porch common to entrance, storage and garage. Kitchen large and well planned.

ING ROOM WITH GREAT CORNER FIREPLACE

- Shelving and cabinets—"Shevlin" knotty white pine.
- Lighting
  - Direct.
- Plumbing
  - Kitchen
    - Sink—Standard Sanitary.
    - Cabinet—knotty pine.
    - Refrigerator—Frigidaire Division, General Motors Corp.
- Bathroom
  - Fixtures—Standard Sanitary.
  - Seats—Church Mfg. Co.
- Pipes
  - Galvanized iron and steel.
- Heating
  - Gas-fired hot air.
  - Hot water heater.
- Chimney
  - Fireplaces
    - Hearths
    - Common brick Mantels
- Hardware
  - Interior and exterior—Ry-Lock Co., Ltd., and handwrought iron.
The house looks comfortable in its setting. The small windows are in accord with early American tradition. The early settlers had no efficient heating systems and their best way of fighting the severe North Atlantic winters was with tiny windows. The rear elevation, with its small bow window, its terrace and its greater fenestration has a more utilitarian air. Cubage: 36,222 at 32 cents per cubic foot.

**CONSTRUCTION OUTLINE**

**FOUNDATION**
- Walls—Stone.
- Piers—brick.
- Cellar floor—cement.
- Waterproofing—integral cement.

**FRAME CONSTRUCTION**
- Wood

**EXTERIOR SURFACE**
- Shingles—hand-split cedar.

**ROOF**
- Wood shingles on shingle lath
- Valleys
- Gutters
- Flashing—copper.

**DOOR AND WINDOW FRAMES**
- Sash and frames.
- Double hung
- Casement—wood.
- Doors and frames (exterior)—white.
- Garage doors—special design—pine.

**PORCHES**
- Brick and flagstone floor.

**GLASS**
- Double thick—Libbey-Owens-Ford.

**EXTERIOR PAINT**
- Shingles—dipped in Cabot's bleaching oil.
- Trim—Priming
- Sash—Finish coat
- Lead and oil.

**LATH AND PLASTERING**
- Lathing—wire.
- Plastering
- Patent plaster—gypsum.
- Finishing coat—plaster of Paris in white.

**INTERIOR WOODWORK**
- Floors—oak and pine.
- Trim—white pine.

**INSULATING**
- Outside walls
- Rock Wool.
- Attic floor
- Rock Wool.
- Weatherstripping—Chamberlin.
Unusual is the large hall, approximately 25 feet long and 7 feet wide, with a small closet projecting into it. Dining room is strictly a one purpose room with entrance to living room; access to living room only through a small door. Maid's quarters over garage.
A familiar form of residence in the East, handled with taste and restraint. The use of brick veneer on the front, and wood on the ends and wings of the house produces an agreeable play of textures, while the white paint on both surfaces preserves the severe integrity of the form as a whole. The combination of the two materials as here employed also frankly reveals the front wall as a veneer rather than a solid masonry construction. The light-colored shutters give an effect as pleasant as it is unusual in residences of this type. A sense of privacy and richness is given by the picket fence, and it is a welcome division between the surrounding lawn and the more heavily planted area close to the house. Details are well handled, particularly the front door. Landscaping is excellent. Cost: $13,150. Cubage: 36,000, at 36½ cents per cubic foot.

**CONSTRUCTION OUTLINE**

**FOUNDATION**
- Walls—cement blocks.
- Columns—Lally.
- Cellar floor—cement.
- Waterproofing—tar (1 coat).

**FRAME CONSTRUCTION**
- Wood

**MASONRY CONSTRUCTION**
- Common brick walls.

**EXTERIOR SURFACE**
- Common brick—Sayre & Fisher Co.
- Shingles—Perfection.
- Slate on sheathing—black.

**DOOR AND WINDOW FRAMES**
- Sash and frames—double hung, Curtis.
- Doors and frames (exterior)—Curtis.
- Garage doors—Curtis.

**PORCHES**
- Flagstone.

**GLASS**
- Pittsburgh Plate Glass Co.

**EXTERIOR PAINT**
- Shingles—brush stained, Cabot's.

**Siding**
- 3 coats lead and oil, Dutch Boy.

**Trim**
- Plastering—U. S. Gypsum Co.
- Interior woodwork—Curtis.
- Stock millwork—Curtis.

**INSULATING**
- Roof rafters—Cabot's wool.
PLAN: A typical arrangement of rooms, with generous auxiliary space for the kitchen. Vistas through the rooms are good. End windows in living room make up for light cut off by the screened porch. Upstairs closets ample, and convenient in shape. Square form of dining room is one that might well be more widely adopted.

INTERIOR FINISHES
Floors—Minwax, 2 coats.
Trims—3 coats lead and oil, Dutch Boy.
Doors—Sash coats lead and oil, Dutch Boy.
Walls—Lloyd's.
Wallsaper—Lloyd's.

LIGHTING
Cable—BX.
Electrical fixtures—Chase.

UMBING
Sink—Standard Sanitary.
Stove—gas, Tappan Stove Co.
Refrigerator—General Electric.

BATHROOM
Fixtures—Standard Sanitary.
Cabinet—United.
Bath tubs—Pembroke.
Toilets—Devoro.
Shower—Standard Sanitary.
Tile—Pardee Matawan Tile Co.

PIPES
Brass.

HEATING
Oil—Petro.
Boilers—American Radiator Co.
Radiators—American Radiator Co.
Piping—American Radiator Co.
Valves—American Radiator Co.

CHIMNEY
Fireplaces—brick.
Heatrs—Corbin.

HARDWARE
Interior and exterior—Corbin.
The architect of this house is well known for his carefully studied adaptations of old New England residential architecture, and in this house, originally submitted in the small house competition recently held by General Electric Company, he handled the early forms with a certain amount of freedom. The design of the whole is simple, with a large and satisfying expanse of roof. The junction of main house with garage wing has been effected without complication. It is worth noting that the low eaves do not cut off needllight from the upstairs rooms, all of which also have cross ventilation. The projection of the garage wing gave an opportunity to create a small terrace whose form is sharply defined by the white picket fence. Erected as a demonstration house, the building was visited by thousands of people in the month that it was open to the public, and was sold shortly afterward. Cost: $9,000. Cubage: 18,850 at 471/2 cents cubic foot.

CONSTRUCTION OUTLINE

FOUNDATION
Walls—poured concrete.
Cellar floor—concrete.
FRAME CONSTRUCTION
Fir.
Girders—steel.
MASSONRY CONSTRUCTION
Chimney—brick.
EXTERIOR SURFACE
Clapboards.
ROOF
Slate on sheathing—Monson slate.
Valleys—copper.
Gutters—Toncan metal hung.
Flashing—copper.
Down spouts—round Toncan metal.
DOOR AND WINDOW FRAMES
Sash and frames all double hung wood except wood casements in kitchen and dining alcoves.
Doors and frames (exterior)—wood.
Garage doors—wood.
PORCHES
Reinforced concrete.
Brick floor.
GLASS
Flat drawn window glass.
EXTERIOR PAINT
Siding, trim and sash—white paint.
LATH AND PLASTERING
Lath—composition plaster base of re-enforced Rocklath.
Plastering—U. S. Gypsum patent plaster.
Oriental finishing coat.
INTERIOR WOODWORK
Trim—pine.
Floors—plain oak.
Painted surfaces—pine.
Shelving and cabinets—pine.
INSULATING
Outside walls—U. S. Gypsum wool.
Roof rafters—U. S. Gypsum wool.
Attic floor—U. S. Gypsum wool.
Weather stripping—Empire Metal Co., Cambridge, Mass.
INTERIOR FINISHES
Floor—stained and waxed.
Doors—Boston Varnish Co.
Sash—Boston Varnish Co.
Walls (kitchen and bath)
ERIOR DECORATION BY: C. M. FRANCIS MACDONALD

BATHROOM
- Tile—Wheeling Tile Co.

PIPES
- Copper—American Tube Co.
- Wrought iron.

HEATING
- Boiler—G. E. Oil furnace.
- Hot water heater—in furnace.
- Thermostat and regulators—G. E. Thermal Control, G. E. Humidistat time clock, day and night double thermostatic setting.

AIR CONDITIONING
- Central—G. E. system.

CHIMNEY
- Fireplaces.

TOBER • 1935
Built by the Catalina Foothills Estate, Inc., this house in the desert is patterned after the Mexican taos house, a type indigenous to the region and in harmony with the character of the gaunt, cactus-studded landscape. Adobe bricks, not coated with adobe plaster, furnish the structural material. The porch roof is covered with Spanish tiles. Notwithstanding the rugged quality of the exterior, the interior is planned and finished with full consideration for all the amenities and conveniences of modern life. There is an air conditioning-heating plant in the basement. There are fireplaces in the living room and two of the bedrooms. Cost, $16,000; Cunage, 44,000, at 36 cents per cubic foot.

**CONSTRUCTION OUTLINE**

**FOUNDATION**
- Walls—concrete.
- Cellar floor, boiler room: Cement
- Main floor: Waterproofing—emulsified asphalt.

**MASONRY CONSTRUCTION**
- Adobe, stabilized (waterproofed) with Bitumuls. American Bitumuls Co.

**FRAME CONSTRUCTION**
- Sills—redwood.
- Studding—2 x 6 Douglas fir.
- Rafters—6 x 8 Douglas fir exposed.

**ROOF**
- 3" of diatomaceous earth with 15 percent Portland cement, applied as concrete over sheathing and building paper. 30 lb. felt mopped with hot asphalt over same; surface then mopped with hot asphalt; then painted with asphalt aluminum paint. Paint by Republic Paint and Varnish Co.
- Flashing: Galvanized iron.
- Down spouts: Galvanized iron.
- DOOR AND WINDOW FRAMES
  - Sash and frames—wood, double hung.
  - Doors and frames (exterior)—plank doors.
  - Garage doors—plank doors with hardware from Overhead Door Corp.

**PORCHES**
- Reinforced concrete for sleeping porch.
- Brick floor, 8" x 12", front porch and patio terrace.

**GLASS**
- Single strength, Pittsburgh Plate Glass Co.

**EXTERIOR PAINT**
- Sash
- Priming: Oil paint by Pioneer
- Finish coat: Oil Paint Co., Tucson

**LATH AND PLASTERING**
- Lathing—wood.
- Plastering—patent plaster, "Sunco" Gypsum Products Co., Tucson

**INTERIOR FINISHES**
- Cement floors, no trim.
- Exposed beams and sheathing, mineral color and oil stain in living room halls, and dining room.
PLAN: Focused upon an irregular-shaped patio, the core and heart of the house is the living room which forms the center of communication, with entrance to the sleeping quarters at one end and to the dining room and service portion at the other. Chief access to the house is through an entry from the patio to one corner of the living room. The canted service wing is well managed without disfigurement of rooms or any waste of space.

**BATHROOM**
- Fixtures—chrome
- Bath tub—iron enamel
- Cabinets—steel, "Lawco."
- Toilets—china
- Seats—Church Mfg. Co.
- Shower curtains—duck
- Tile—Gladding, McBean & Co.

**PIES**
- Supply—copper, Chase Brass & Copper Co.
- Sewer and soil—cast iron.

**HEATING**
- Automatic oil burner by Taylor Metal Works, Tucson.
- Air ducts.
- Hot water heater—"Ever-hot" automatic storage.
- Thermostat and regulators—Minneapolis-Honeywell Regulator Co.

**AIR CONDITIONING**
- Central—"Monitor."

**CHIMNEY**
- Fireplaces.
- Facings—plastered.
- Hearths
- Mantels
- Tile or brick.
- Damper—Superior.

**HARDWARE**
- Stanley and wrought iron.

**SCREENS**
- Galvanized iron mesh, wood frames.

Listings of bedrooms, baths, pantry, kitchen, laundry and maid's room beams and planks painted flat white, Pioneer Paint Co., Tucson, Ariz.
- re-waxed, W. P. Fuller Co.
- Stained or painted, Pioneer Paint Co.
- Electrical fixtures—from Taxco, Mexico.

- Cabinet—rough pine boards.

29 October 1935
An interesting and unusual house composition. Starting with a typical rectangular block for the body of the house, the architect set the garage at a slight distance and developed the intervening space into a covered porch and a terrace. This ingenious arrangement produced an unusually livable house as well as giving a rather luxurious appearance to a residence of moderate cost. While the front is more successfully worked out than the back, the effect as a whole is satisfactory. By extending in the middle of the rear elevation the designer shut off the kitchen from the terrace, giving this space additional privacy. Cost: $14,650. Cubage: 48,540, at 30 cents per cubic foot.

**CONSTRUCTION OUTLINE**

**FOUNDATION**
- Walls—common brick.
- Cellar floor—4" concrete plus 1" cement topping.
- Waterproofing—none.

**FRAME CONSTRUCTION**
- Pine.

**EXTERIOR SURFACE**
- Brick veneer—3" x 8" rough surface.
- Clapboards—garage wing.

**ROOF**
- Slate on sheathing—weathered slate.
- Valleys—40 lb. tin.
- Gutters—24 gauge galvanized.
- Down spouts—Toncan.
- Flashing—tin and galvanized iron.
- Composition sheathing paper—Carey 30 lb. felt under slate.

**DOOR AND WINDOW FRAMES**
- Sash and frames.
  - Double hung—pine, cast iron weights, cotton cord.
  - Doors and frames (exterior) 1 Pine.
  - Garage doors.

**PORCHES**
- Reinforced concrete slabs.
- Terrace—hand made old brick.
- Porch—red quarry.

**GLASS**
- Double strength, quality A, Libbey-Owens-Ford Glass Co.

**EXTERIOR PAINT**
- Trim and floors.
  - Floors—mixed red and white oak widths.
  - Trim—yellow pine.
  - Doors—Ponderosa.
  - Shelving and cabinets—yellow pine.
  - Stock millwork—special, except in doors.

**LATH AND PLASTERING**
- Lathing—composition plaster base.
- Plastering—Certain-teed Products Corp.
- Gypsum Finishing coat—finishing lime

**INTERIOR WOODWORK**
- Trim and floors.
  - Floors—mixed red and white oak widths.
  - Trim—yellow pine.
  - Doors—Ponderosa.
  - Shelving and cabinets—yellow pine.
  - Stock millwork—special, except in doors.

**INSULATING**
- Outside walls—fiber board, Certain-teed Products Corp.
- Attic floor—klin dried treated pine slabs.
- Weatherstripping—zinc strips, thresholds.

**INTERIOR FINISHES**
- Floors—wood filler, 3 coats varnish.
  - Pittsburgh Plate Glass Co.
Though somewhat irregular, the plan is compact, efficient, and convenient. The generous kitchen is well planned. Basement is small. Note that the bath which serves two bedrooms has one door, a preferable arrangement, as a rule, to that of one door from each bedroom.

### BATHROOM
- Bath tubs—enameled iron
- Toilets—low tank models
- Seats—Church Mfg. Co.
- Shower curtains—canvas.
- Floors and walls—hard tile.

### PIPES
- Steel

### HEATING
- Split system—coal fired.
- Boilers—McWane.
- Radiators—in kitchen and bathrooms, Trane Co.
- Piping—steel, Central Tube Co.
- Hot water heater—cast iron, American Radiator Co.

### AIR CONDITIONING
- Prepared to install cooling coil or chilled water washer later, ducts are insulated.

### CHIMNEY
- Fireplaces.
- Facings—one handmade colonial brick, other marble.
- Mantels—wood.

### HARDWARE
- Interior and exterior—Yale & Towne Mfg. Co.
- Screen frames.

### WINDOW DRESSING
- Shades—cotton.
- Awnings—cotton duck.
- Blinds—wood.
Houses like this one give California clear leadership in U. S. residential architecture. Thoroughly modern in spirit, the house shows influences of the native "ranch house" architecture, the International School of New England Colonial, all combined with a single-mindedness of purpose that has resulted in a completely unified composition. The effectiveness of the repetition of a simple roof form, the use of wide verticals, the directness and delicacy of porch and window details are worthy of close study. Chimneys are suitably located and in character. The close proximity of house to highway suggests that a less open scheme of entrance elevation might have been adopted; it will be noted on the plan, however, that all the rooms but one face away from the road. Cost: $7,700. Cubage: 30,300 at 25½ cents per cubic foot.

**CONSTRUCTION OUTLINE**

**FOUNDATION**
- Walls: concrete.
- Columns: Oregon pine.
- Cellar floor: concrete.

**FRAME CONSTRUCTION**
- Sills: redwood.
- Oregon pine.

**EXTERIOR SURFACE**
- Vertical siding and California stucco.
- Wood shingles on sheathing—split cedar shakes.
- Copper.

**ROOF**
- Wood shingles on sheathing—split cedar shakes.
- Copper.

**DOOR AND WINDOW FRAMES**
- Sash and frames: double hung.
- Steel sash—Fenestra, Detroit Steel Products Co.
- Doors and frames (interior)—pine.
- Garage doors—redwood.

**PORCHES**
- Brick floor.

**GUTTERS**
- Galvanized iron.
- 4" salt glazed tile drains.

**DOOR AND WINDOW FRAMES**
- Sash and frames: double hung.
- Steel sash—Fenestra, Detroit Steel Products Co.
- Doors and frames (interior)—pine.
- Garage doors—redwood.

**EXTERIOR PAINT**
- Siding: Priming—lead and oil; Sherwin-Williams Paint Co.
- Trim: Finish coat—lead and oil; Willard Paint Co.
- Sash: oil and zinc.

**LATH AND PLASTERING**
- Lathing—wood.
- Plastering—patent plaster, Empire brand.

**INTERIOR WOODWORK**
- Floors—oak.
- Trim—pine.
- Shelving and cabinets: pine, to detail.
- Millwork.

**INSULATING**
- None.

EXTERIOR PAINTING
Floors—stained and waxed.
Doors—oil paint.
Walls—oil paint.
Wiring—G. E. wire, knob and tube wiring.
Switches—General Electric Co.

INTERIOR DECORATING
Cabinets—wood.
Stove—Crane Co.
Refrigerator—G. E. wire, knob and tube wiring.
Washing machine—General Electric Co.

CABINETS
BATHROOM
Cabinets—wood.
Toilets—Crane Co.
Bath tubs—Crane Co.
Seats—Crane Co.
Showers—Crane Co.
Shower curtains—Crane Co.

PIPING
Steel—galvanized, copper bearing, U. S. Steel Corp.

HEATING
Gas—Crane Co.
Hot water heater—Crane Co.
Thermostat and regulators—Crane Co.

CHIMNEY
Fireplaces—Crane Co.
Hearth—brick.
Mantels—brick and wood.
Damper—Richardson.

HARDWARE
Interior and exterior—Russwin, Russell & Erwin Mfg. Co.

SCREENS
Rolls—Pella, Iowa.

WINDOW DRESSING
Venetian blinds—Ry-Lock Co., Ltd.
In reverting approximately to the old English H-shape and lengthening one leg, the architect of this storied house at Santa Fe has nevertheless preserved the spirit of local usage and contrived a semi-palace with most of its agreeable portico features. Built of adobe and severely simple on the exterior, the interior with open pine-beamed ceilings and wide arched openings, lends itself admirably to the austere but refined treatment of decoration so admired in old Spanish houses. The interior walls are as plain as those outside, but their very severity makes an excellent foil for the colorful furnishings and the courses of polychrome tiles used in step risers and skirtings. The two functions of the spacious dining room-kitchen are divided by a high-backed dresser, placed like a screen across the room. The great living room is the means of communication between the parts of the house; a door at one end opens into a small hall connecting with the two bedrooms. Cost: $9,400.

**CONSTRUCTION OUTLINE**

**FOUNDATION**
- Walls
- Columns: concrete.
- Cellar floor.

**MASONRY CONSTRUCTION**
- Hollow tile walls.

**EXTERIOR SURFACE**
- Stucco.

**ROOF CONSTRUCTION**
- Round timber.
- Built up composition, 20 year guarantee.
- Flashing—tin.

**DOOR AND WINDOW FRAMES**
- Sash and frames.
- Double hung and casement type.
- Doors—wood, special design.

**PORCHES**
- Floors—flagstone.

**GLASS**
- Double strength flat drawn sheet, Pittsburgh Plate Glass Co.

**EXTERIOR PAINT**
- None.

**LATH AND PLASTERING**
- Lathing—metal.
- Plastering—patent plaster.
PLAN: Hall is the center of traffic with living room, kitchen, two bedrooms and the bathroom opening on it. The two small closets interfere with direct circulation from kitchen to entrance.

**TERIOR WOODWORK**
Floors—5/16" x 1 1/8" oak.
Trim—knotty pine.

**SULATING**
Attic floor—3" Thermapill.

**TERIOR PAINTING**
Floors—filled, stained and shellacked.
Trim 3 coats Dupont's Duco.
Sash

**WIRING**
Cable—BX cable and conduit.
Switches—Bryant.

**LIGHTING**
Direct.

**PLUMBING**
Kitchen fixtures—Crane Co.

**BATHROOM**
Fixtures—Crane Co.
Accessories—built-in, Fairfax Co.

**PIPES**
Galvanized iron.

**HEATING**
Hot water heater—Florence No. 2 coal oil heater, 30 gal. tank.

**HARDWARE**
Interior and exterior—dull brass.

**SCREENS**
Galvanized wire, wood frames.
A type of residence which is popular in the low and medium cost range, this house is characterized by simplicity of design, the attractive use of inexpensive materials, and by the almost complete lack of ornamentation. Obviously inspired in its form by the “salt-box” type of early New England, it nevertheless makes no attempt to be archaeologically correct. The slight overhang on the garden elevation may be objectionable to the confirmed functionalist as a useless survival of a bygone style, but its existence is justified, if not demanded, by the change of material. Cost: $9,175. Cubage: 28,724, at 32 cents per cubic foot.
PLAN: A typical small house plan, with chimney in the center, a minimum-size vestibule, and customary arrangement of living room, dining room, and kitchen; the maid’s room is a variation which in this case works well. Relation of kitchen to living room and dining room is excellent. Too often the circulation between kitchen and living room is neglected in the small house plan. No space has been wasted by the inclusion of a breakfast nook.

FLOORING
- Red oak, random width, 7/8” thick, living room, dining room and hall.
- Linoleum laid on felt and yellow pine, kitchen, maid’s bath, and rear hall.
- Oak select No. 1, balance of house.

INSULATING
- Outside walls: 4” bats, Johns-Manville.
- Roof rafters: 16” bats, Johns-Manville.

INTERIOR PAINTING
- Floors: 3 coats Minwax.
- Paneling: 3 coats dull wax.
- Trim: 1 coat white shellac, 2 coats flat white, 2 coats flat egg-shell enamel.

WIRING
- Cable: BX 3 wire.
- Electrical fixtures: not included in cost.

LIGHTING
- Direct.

PLUMBING
- Kitchen: Sink, by owner.
- Stove: by owner.
- Refrigerator: by owner.
- Washing machine: by owner.

BATHROOM
- Bath tub: neo-classic recess.
- Toilets: Standard Sanitary, vitreous china “Compact.”
- Seats: Church & Co.
- Floor: ceramic tile, 6” tile base.
- Wainscot: No. 1 glazed tile.

PIPES
- Supply: Streamline copper tubing by Mueller Brass Co.
- Under floor: brass.
- Sewer: cast iron.
- Vents: galvanized iron.

HEATING
- Gas: Boilers—Bee-Line by Columbia Gas Co.
- Radiators: United States Tin Cast, hot water type, damper control.
- Piping: wrought iron.
- Hot water heater.

CHIMNEY
- Fireplaces: Hearths—Beaver County sand stone.
- Facing: chestnut.
- Mantels: by owner.
- Damper: H. W. Covert, No. 648 face control.
Gambrel-roofed and with white walls of rubble masonry and shingles, the house of an architect-owner is somewhat reminiscent of the Hudson Valley. The promise of its comfortable-looking and assourd exterior is realized within. Like the old Dutch houses of the Valley it has bedrooms on the ground floor and is designed to use all available space to advantage. The cutting up of what might have been the full extent of the dining room by the presence of half-partitions to create a breakfast nook without opening into the kitchen seems questionable. Having the garage separated from the small house is not always objectionable. Cost of house, including garage and drive, $7,650.

**CONSTRUCTION OUTLINE**

<table>
<thead>
<tr>
<th>FOUNDATION</th>
<th>ROOF</th>
<th>GLASS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Walls and piers—partly stone, partly brick.</td>
<td>Tile on sheathing—B. Mifflin Hood’s tile.</td>
<td>Double strength, grade B, Pittsburgh Plate Glass Co.</td>
</tr>
<tr>
<td>Columns—galvanized iron pipe.</td>
<td>Valleys</td>
<td>EXTERIOR PAINT</td>
</tr>
<tr>
<td>Cellar floor—4” concrete.</td>
<td>Flashing</td>
<td>Shingles—Cabot’s primer dipped and painted 2 coats.</td>
</tr>
<tr>
<td>FRAME CONSTRUCTION</td>
<td>Down spouts</td>
<td>Trim</td>
</tr>
<tr>
<td>Sills</td>
<td>26 gauge galvanized iron.</td>
<td>LATH AND PLASTERING</td>
</tr>
<tr>
<td>Floor joists</td>
<td>Salt-glazed tile drains—4” and 6”.</td>
<td>Lathing—“Ecod” metal lath, Reynolds Metals Co., Inc.</td>
</tr>
<tr>
<td>Bridging—1”x3” rough.</td>
<td>DOOR AND WINDOW FRAMES</td>
<td>Finishing coat—eggshell, hard finish.</td>
</tr>
<tr>
<td>Ties—knotch and halved.</td>
<td>Sash and frames—B and better yellow pine.</td>
<td>INTERIOR WOODWORK</td>
</tr>
<tr>
<td>MASONRY CONSTRUCTION</td>
<td>Double hung—stock sizes.</td>
<td>Trim and floors B and better yellow pine.</td>
</tr>
<tr>
<td>Common brick walls—6” curtain wall.</td>
<td>Casement—1 1/2” wood casements and frames.</td>
<td>Painted surfaces</td>
</tr>
<tr>
<td>Stone walls—16” natural stone.</td>
<td>Steel sash—basement.</td>
<td>Shelving and cabinets</td>
</tr>
<tr>
<td>EXTERIOR SURFACE</td>
<td>Doors and frames (exterior)—yellow pine frame, white pine doors.</td>
<td></td>
</tr>
<tr>
<td>Shingles—Royal cedar.</td>
<td>PORCHES</td>
<td></td>
</tr>
<tr>
<td>4” reenforced concrete slab and 4”x8” brick tile.</td>
<td>GLASS</td>
<td></td>
</tr>
</tbody>
</table>

THE MORTGAGE ON THIS HOUSE HAS BEEN INSURED BY THE FEDERAL HOUSING ADMINISTRATION
PLAN: Free from the complication of stairways, the only flight of steps is between the kitchen and garage, leading to a deck on the flat roof.

ERIOR WOODWORK
- Floors—oak
- Trim
- Shelving and cabinets—fir

ULATING
- Roof—2" Temlock, Armstrong Cork Products Co.

ERIOR PAINTING
- None

WIRING
- Conduit
- Fixtures—special design

IGHTING
- Direct

PLUMBING
- Kitchen
  - Sink—Kohler
  - Cabinet—wood
  - Stove

ATHROOM
- Fixtures—Kohler
- Floors and wainscot—tile

Pipes
- Galvanized iron

ATING
- Gas
- Boiler—“Capitol” U. S. Radiator Corp.
- Radiators

ADWARE
- Interior and exterior—wrought iron
The house has great appeal probably because it consciously avoided routine trappings and effort to create charm. The same severe simplicity is carried into the interior. Sensible is the living room chimney placed off center on the gable simply because it belonged there according to the dictation of the period. Federal Housing Administration appraised value: approximately $5,000.

CONSTRUCTION OUTLINE

FOUNDATION
Walls—9" concrete.
Columns—24" tarry.
Cellar floor—4" concrete.
Waterproofing—Speeds waterproof cement.

MASONRY CONSTRUCTION
Common brick walls—used, 9" thick.

FRAME CONSTRUCTION
Floor joists
Studding, interior partitions
Rafter
Girders

ROOF
Composition shingles on sheathing—Johns-Manville.
Valleys
Old Taylor Scotts.
Flashing
Gutters
Down spouts—.06 gauge galvanized iron.

DOOR AND WINDOW FRAMES
Mill-built by Johnson Lumber & Millwork Co.

PORCHES
Reenforced concrete.

GLASS
Double strength, quality A.

EXTERIOR PAINT
Brick and woodwork—"Cabot's Vir white," 3 coats.
Trim—3 coats Duco, Dupont Co.

LATH AND PLASTERING
Plastering—patent plaster.
PLANT: Though the pantry has gone much out of favor in the small house, many feel that kitchen dressers alone afford insufficient storage room for china and glass, and prefer to have some intermediate place where the serving of meals may be managed. That the ground floor bathroom is accessible only through the adjoining bedrooms is open to criticism.

INSULATING
Roof rafters “Ecod” lath with aluminum foil.
Weatherstripping—exterior doors, Chamberlin’s 5” bronze threshold and interlocking strips.

INTERIOR FINISHES
Floors—filled, 3 coats shellac and waxed.
Trim
Doors painted, Pratt & Lambert Interior paint.
Sash
Walls
Wallpaper—dining room and 2 bedrooms.

WIRING
Cable—No. 14 BX, Frank Adams panel board-fuse type.
Switches—Bryant.

LIGHTING
Direct—except dining room.

PLUMBING
Kitchen
Sink—enameled iron, Crane Co.
Cabinet—mill detail.
Stove—Hot Point, General Electric Co.
Refrigerator—General Electric 6 cu. ft.

BATHROOM
Bath tubs
Toilets—Crane Co.
Showers
Shower curtains—white duck.
Tile—4” x 6” high wainscot, ceramic, standard grade, Wheeling Tile Co.

PIPES
Copper, type M, Streamline Pipe & Fittings Co., Division of Mueller Brass Co.

HEATING
Coal
Ducts—galvanized iron.

Hot water heater—electric.
Thermostat and regulators.

AIR CONDITIONING
Central—blower and filter type, no refrigeration, no washer.

CHIMNEY
Fireplaces
Facings—Crab Orchard stone.
Hearths
Mantels—wood to detail.

HARDWARE
Interior and exterior—Corbin.

SCREENS
Metal frames, copper cloth, Watson Mfg. Co., Jamestown, N. Y.

WINDOW DRESSING
Shades—cloth.
Venetian blinds—in dining alcove.
Blinds—wood.
The adaptability of Dutch domestic country architecture to other places than its original environment is clearly shown in this instance. Dutch in the way it rambles along in seeming additions to a parent block, Dutch to the very bell-flare of the roofs, it is nevertheless modern in construction and equipment. The outside walls of the living room—the central block—are veneered with brick; the rest of the structure is shingled. Inside, the house is highly original in its arrangement, but the scheme is just as effective as it is unusual. The living room is accepted as the center of the house; as such, circulation goes one way from it into the sleeping quarters, and the other way into the service portion. The maid has her room and bath on the upper floor, where there is also a store room; these connect directly with the kitchen by a stairway. The kitchen shows an orderly array of modern equipment. Cost: $18,200. Cubage: 59,164, at about 3 cents per cubic foot.

**CONSTRUCTION OUTLINE**

<table>
<thead>
<tr>
<th>FOUNDATION</th>
<th>Walls</th>
<th>Cellar floor</th>
<th>concrete.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Columns</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FRAME CONSTRUCTION</td>
<td>Yellow pine.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MASONRY CONSTRUCTION</td>
<td>Common brick walls—outside walls of living room.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EXTERIOR SURFACE</td>
<td>Shingles—Edham Co.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ROOF</td>
<td>Wood shingles on shingle lath—Edham Co.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Windows</td>
<td>Armco iron.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Gutters</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Flashing</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Down spouts</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DOOR AND WINDOW FRAMES</td>
<td>Sash and frames—Double hung and casement type—white pine.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Doors and frames (exterior)</td>
<td>white pine.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Garage doors</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PORCHES</td>
<td>Brick floor.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EXTERIOR PAINT</td>
<td>Shingles</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Dipped—1 coat.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Brush stained—1 coat.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Trim—Titanium oxide.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sash</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LATH AND PLASTERING</td>
<td>Lathing</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Metal—all corners.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Wood—inside walls and ceilings.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Composition plaster base—outside walls.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Plastering—patent plaster.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>INTERIOR WOODWORK</td>
<td>Trim—mostly sap poplar.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Floors—clear red oak.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
LAN: Considering the general excellence of plan, it seems unfortunate that no lavatory is available for visitors without passing through one of the bedrooms. A coat closet and lavatory have come to be almost inseparably associated. The bathroom between the two end bedrooms, entered from each, involves some cooperation between the occupants to avoid lockouts.

Stainwoods—paneling in breakfast room, wainscoting in dining room.

WIRING
Cable—BX.
Switches—General Electric.

LIGHTING
Direct.

PLUMBING
Kitchen
Sink—General Electric.
Cabinet
Stove
Refrigerator
Washing machine—Reading Iron Co.

BATHROOM
Tile—rubber.

PIPES
Reading Iron Co.

HEATING
Oil—forced air.
Radiators—American Furnace Co.
Hot water heater.

CHIMNEY
Fireplaces
Facings—marble.
Hearths—wood.
Mantles—wood.
Damper—Covert.

HARDWARE
Interior and exterior—polished bronze.

SCREENS
Copper.
The interior of this house has arrangements and provisions not commonly met with in a house of limited size. Besides the usual living room, dining room and kitchen on the ground floor, there is an extension of the kitchen fitted up as a breakfast room. And adjacent a convenient ground floor lavatory. Upstairs is a fair-sized study with open fireplace in the upper part of the garage extension. Commendable is the omission of the usual over-door window common in this type of plan. The back to back closets of the front bedrooms dictated solid wall. The equipment of the house is thoroughly modern and efficient in all respects. Cost: $8,400
Cubage: 32,530, at about 25½ cents per cubic foot.
Obert R. Royce, Architect

Lighting and cross ventilation are considered in all the rooms on the first floor, but it is to be regretted that the window at the side of the kitchen was placed directly over the sink, instead of one side. Upstairs, the bedroom near the front bedroom and the study has only one window, so that there can be no cross ventilation unless the door is open. The two bathrooms are symmetrically placed together above the men, and one of them has the advantage of a shower.

---

**FIRST FLOOR**

- **Lighting:** Direct and indirect—Carl B. Frey, Inc.
- **Plumbing:**
  - Kitchen: Sink—Kohler, Cabinet—stained pine.
- **Pipes:** Copper—Chase Brass and Copper Co.

---

**SECOND FLOOR**

- **Lighting:**
- **Plumbing:**
  - Kitchen: Sink—Kohler, Cabinet—stained pine.
- **Pipes:** Copper—Chase Brass and Copper Co.

---

**Trim and Stainwoods:**
- Wisconsin birch
- Painted surfaces—Ponderosa pine

**Ceilings:**

**Interior Painting:**
- Trim: Sherwin-Williams

**Switches:**
- Hart & Hegeman and "Square Deal"

**Lighting:**
- Direct and indirect—Carl B. Frey, Inc.

**Plumbing:**
- Kitchen: Sink—Kohler, Cabinet—stained pine.

**Pipes:**
- Copper—Chase Brass and Copper Co.

**Heating:**
- Coal
- Hot water heater

**Chimney:**
- Fireplaces
- Facings—Brick
- Hearth—Brick
- Mantels
- Damper—Peerless

**Hardware:**
- Interior and exterior—Sargent & Co.

**Window Dressing:**
- Venetian blinds
The mortgage on this house has been insured by the Federal Housing Administration.

Of North Jersey Dutch ancestry, and showing markedly Dutch character only slightly modified by current conditions, this cottage, both in design and plan, radiates a spirit of sturdy Dutch common sense and fort. The quadrangular central mass of the house has rubble masonry walls of local stone; the one-bedroom and kitchen wings are shingled. There is no consciously applied external ornament but the composition derives a strong picturesque quality from its homespun simplicity. Inside, the walls are verti-boarded with pine, and the ceilings show the open framing of beams and joists. Floors are of oak and fireplace is built up of local stone roughly dressed. Two good bedrooms and a bath accommodate the regular occupants, and several guests can sleep in the attic dormitory. A generous living room, taking more than half the area of the main block of the house, is also the dining room. The garage is located beneath the big living room veranda. Cost: $6,500. Cubage: 20,000, at 32.5 cents per cubic foot.

### Construction Outline

**Foundation**
- Walls—local stone and Vulcanite Portland Cement.
- Columns—4" lally.
- Cellar floor—Vulcanite Portland cement.
- Waterproofing—Aqua-Pruf.

**Frame Construction**
- "4-square" Douglas red fir, Weyerhaeuser.

**Masonry Construction**
- Common brick walls—used brick.
- Stone walls—local rubble and face stone.

**Exterior Surface**
- Shingles—18" Perfection, Seattle Cedar Lumber Co.

**Roof**
- Wood shingles on shingle lath—18" Perfection, Seattle Cedar Lumber Co.
- Gutters—16 oz. Anacoda copper.
- Flashing—American Brass Co.
- Down spouts—Composition sheathing paper—Flintkote.

**Door and Window Frames**
- Sash and frames—Double hung—"Master," Andersen Frame Corp., Bayport, Minn.
- Steel sash—Fenestra, Detroit Steel Products Co.
- Doors and Frames (exterior)—Andersen Frame Corp.

**Porches**
- Matched pine—"4-square" Idaho, Weyerhaeuser.

**Glass**
- Lustra glass, American Window Glass Co.

**Exterior Paint**
- Shingles—brush stained, Cabot's creos.
- Trim and Priming—American Brass Co.
- Sash—Finish coat—Cabot's Collopahe.
- Lath and Plastering—None.

**Interior Woodwork**
- Floors—oak, E. L. Bruce Co., Memphis, Tenn.
- Stainwoods and Painted surfaces—clear white pine.
PLAN: Bedrooms have abundant light and cross ventilation; the living room is flooded with light from three sides. Living room and bedrooms alike have plenty of closet space. The bathroom is entered only from the hall, and it is worth noting that the whole sleeping side of the house can be completely shut off by closing the door from the living room into the bedroom-hall, from which the dormitory stairs ascend.
This tidy little shingled house was the first in the vicinity of Darien to be built through a Federal Housing Administration insured mortgage. Designed in the Colonial spirit, its construction is of the best. It is thoroughly insulated, has brass piping throughout and is heated by an oil burning furnace. About the exterior there is little to be said beyond commending its just proportions and the pleasant use of materials. The entrance is too ambitious for the house. Cost: $7,300. Cubage: 22,428, at 32½ cents per cubic foot.

**CONSTRUCTION OUTLINE**

**FOUNDATION**
- Walls—concrete.
- Cellar floor—concrete, Atlas.
- Waterproofing—Anti-Hydro.

**FRAME CONSTRUCTION**
- Douglas fir, Weyerhaeuser.

**EXTERIOR SURFACE**
- Shingles—24" Royal.
- Roof—Wood shingles on shingle lath—18" Perfection.

**GUTTERS**
- Flashing—Copper.
- Down spouts—Copper—dormer roof.

**DOOR AND WINDOW FRAMES**
- Sash and frames.
- Double hung—wood.
- Casement—steel.
- Doors and frames (exterior)—Curtis stock.
- Garage doors—Curtis stock.

**PORCHES**
- Reenforced concrete.

**GLASS**
- American Window Glass Co.

**EXTERIOR PAINT**
- Shingles—brush stained.
- Siding—Priming and Sherwin-Williams.
- Trim—Finish coat—Williams.
PLAN: It is hard to conceive how a more satisfactory plan could have been packed into so small a space and yet be so well integrated. That one must go through the dining room and living room to get from the kitchen to the front door can be no objection in this case because the front door opens directly into the living room. The kitchen is well ordered and the upstairs arrangement is good.

LATH AND PLASTERING
Lathing—metal by Truscon.
Plastering—Best Bros.

INTERIOR WOODWORK
Shelving and cabinets—Curtis and Morgan.
Stock millwork—Morgan.

INSULATING
Roof rafters—rock wool, U. S. Gypsum Co.

WIRING
Cable—BX.
Switches—Bryant.

PLUMBING
Kitchen

BATHROOM
Seats—Church Mfg. Co.

HEATING
Oil—Petro.
Boiler
Radiators—American Radiator Co.

CHIMNEY
Fireplaces
Mantels—stone.

HARDWARE
Interior—Yale & Towne Mfg. Co.
It is the fashion to be eclectic in derivations—even amongst ultra-modernists, though few of them care to admit it—and the fashion is praiseworthy, provided it is followed with common sense. In the matter of design, the treatment of this house is conservatively eclectic. The whole tone, of course, is purely Georgian but a felicitous blending has yielded a door and bay windows on the garden front in the Regency manner, while the entrance front and the pine-paneled walls of the living room recall a much earlier era. The random variations in the color of the brickwork are gratifying. Despite a popular obsession for cornices, the designer has put in another good Regency touch by omitting one, using only enough roof projection to shed rainwater from the walls. The kitchen entrance is not far from the front door, and approached by the main drive, it is so unobtrusively managed that no one could object to its being there. Cost: $19,500. Cubage: 52,500 at 37 cents per cubic foot.

CONSTRUCTION OUTLINE

FOUNDATION
Walls
Concrete.
Cellar floor
Concrete.
Waterproofing—tar on exterior of concrete walls.

MASONRY CONSTRUCTION
Exterior walls—common brick 12” thick.
Hollow tile partitions, first floor.

FLOOR CONSTRUCTION
First and second floors are of “Lith-Barr” concrete joists covered with 2½” of concrete.

WOOD CONSTRUCTION
Studding (2nd floor partitions)
Pine.
Plate
Pine.
Rafter
Pine.
Bridging
Pine.

ROOF
Slate on sheathing—commercial thickness.
Gutters
16 oz. copper.
Flashing
Copper.
Down-spouts
Sheet metal work—copper.

DOOR AND WINDOW FRAMES
Sash and frames
Double hung type.
Steel sash for basement.
Doors and frames (exterior)—Pine.

PORCHES
Reinforced concrete.

GLASS
Single strength, Libbey-Owens-Ford Glass Co.

EXTERIOR PAINT
Trim
3 coats lead and oil.
Sash
3 coats lead and oil.

LATH AND PLASTERING
Lathing—metal.
Plastering—3 coats, last coat smooth butter finish.

INTERIOR WOODWORK
Trim—Pine.
Floors—oak blocks cemented to concrete.
Stainwoods—antique pine wainscoting in living room.
Shelving and cabinets—Pine.

INSULATING
Attic floor—4” rock wool, Johns-Manville.
Weatherstripping—Zinc.
TRANCE AND FRONT OF HOUSE

SECOND FLOOR

FIRST FLOOR

PLAN: Follows the familiar plan-pattern of a central hall through the whole depth of the house, with approximately a quarter of the ground floor space assigned to the kitchen and pantry. The compact planning of the kitchen, pantry and backstairs is good, and the access from kitchen to dining room and front door is excellent. Closet arrangement between the bedrooms is also commendable.

TERIOR FINISHES
Floors—stain, shellac and 2 coats wax.
Trim—prime and 3 coats, last coat enamel.
Sash—sized and painted 3 coats.
Wallpaper—all bedrooms.
Switches—flip switches.

GHTING
Direct.

UMBING
Kitchen Sink—enameled iron, Crane Co.
Counter top—linoleum.
Stove—gas.
Refrigerator—by owner.

BATHROOM
Bath tubs—enameled iron.
Toilets—vitreous china.
Tile—2" hexagon floors, 4" x 4" tile wainscot around tubs.

Pipes
Steel.

HEATING
Oil.
Boilers—ideal water tube.
Radiators—convector type.
Piping—one pipe, high temperature hot water forced-flow system.
Valves—American Radiator.
Hot water heater—forced-flow.
Thermostat and regulators—Minneapolis-Honeywell.

AIR CONDITIONING
Central—convector radiators plus air ducts by American Radiator Co. No cooling other than passing air through cold water spray.

CHIMNEYS
Fireplaces—facings white domestic marble and Hearths old Dutch tile.

HARDWARE
Interior and exterior—brass and old iron finish by P. & F. Corbin.

SCREENS
Copper wire, wood frame.

WINDOW DRESSING
Shades.
Exterior blinds.

C T O B E R • 1 9 3 5

427
A formal exterior more closely associated with the Renaissance manner of England than with the American adaptations of it. The window over the main entrance actually opens into a hall, according to the old tradition. This comes as a pleasing surprise after many plans which allow this window to open into a closet or bath. The rear of the house, strictly utilitarian, is neither formal nor symmetrical. The interior of the living room is well designed. A pleasing sense of space is obtained from the composition of the fireplace mantel with side pilasters extending from floor to ceiling. Federal Housing Administration appraised value: approximately $12,500.

**CONSTRUCTION OUTLINE**

<table>
<thead>
<tr>
<th>-item-</th>
<th>-content-</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FOUNDATION</strong></td>
<td></td>
</tr>
<tr>
<td>Walls—10&quot; concrete.</td>
<td></td>
</tr>
<tr>
<td>Columns—4&quot; lally.</td>
<td></td>
</tr>
<tr>
<td>Cellar floor—4&quot; concrete.</td>
<td></td>
</tr>
<tr>
<td>Waterproofing—none.</td>
<td></td>
</tr>
<tr>
<td><strong>FRAME CONSTRUCTION</strong></td>
<td></td>
</tr>
<tr>
<td>Fir.</td>
<td></td>
</tr>
<tr>
<td>Sheathing—yellow pine.</td>
<td></td>
</tr>
<tr>
<td><strong>EXTERIOR SURFACE</strong></td>
<td></td>
</tr>
<tr>
<td>4&quot; brick veneer over sheathing and 15 lb. roofing felt, &quot;Genasco&quot; by Barber Asphalt Co.</td>
<td></td>
</tr>
<tr>
<td><strong>ROOF</strong></td>
<td></td>
</tr>
<tr>
<td>Wood shingles on shingle lath—5 in 2&quot;s Washington red cedar edge grain.</td>
<td></td>
</tr>
<tr>
<td>Valleys</td>
<td>40 lb. tin, Scotta.</td>
</tr>
<tr>
<td>Flashing</td>
<td></td>
</tr>
<tr>
<td>Gutters</td>
<td>26 gauge galvanized iron.</td>
</tr>
<tr>
<td>Down spouts</td>
<td></td>
</tr>
<tr>
<td>DOOR AND WINDOW FRAMES</td>
<td></td>
</tr>
<tr>
<td>Sash and frames</td>
<td></td>
</tr>
<tr>
<td>Double hung and casement type—built by Louisville Lumber and Millwork Co.</td>
<td></td>
</tr>
<tr>
<td>Steel sash—Fensola, basement.</td>
<td></td>
</tr>
<tr>
<td>Doors and frames (exterior)</td>
<td>same as Garage doors</td>
</tr>
<tr>
<td>PORCHES</td>
<td>Reenforced concrete.</td>
</tr>
<tr>
<td>GLASS</td>
<td>Double strength quality A.</td>
</tr>
<tr>
<td>EXTERIOR PAINT</td>
<td>Shingles</td>
</tr>
<tr>
<td>Shingled</td>
<td>Dipped—creosote stain.</td>
</tr>
<tr>
<td>Siding and sash</td>
<td>3 coats linseed oil and 4 coats Dutch Boy white lead National Lead Co.</td>
</tr>
<tr>
<td>Priming</td>
<td>1 coat lead and oil, 1 coat flat.</td>
</tr>
<tr>
<td>Finish coat</td>
<td>2 coats enamel, semiglaze.</td>
</tr>
<tr>
<td>LATH AND PLASTERING</td>
<td></td>
</tr>
<tr>
<td>Lathing—walls and ceiling Rocklath, ceilings 2nd floor, Celotex.</td>
<td></td>
</tr>
<tr>
<td>Plastering</td>
<td>Patent plaster—Kentucky Wall Plast Co.</td>
</tr>
<tr>
<td>Finishing coat—Plaster of Paris and lime putty, smooth.</td>
<td></td>
</tr>
</tbody>
</table>
PLAN: The breakfast room bay becomes a bathroom bay on the second floor with wash basin placed between the two side windows. The two minor bedrooms seem to lack sufficient closet space. Entrance to garage steep but workable.
The design of this house is one not usually associated with Texas and, despite its merits, appears exotic to its environment and the result of some personal preference demanding a cherished form transplanted from North. The fact that it would seem more at home anywhere north of Charleston need not, however, blind its pleasant qualities. The general tenor of arrangement, with respect to both elevations and plan, suggests a residence in some leisurely country-town of the Middle States or New England where the quietude it displays would be peculiarly in keeping. Its well-mannered reflection of a mode that has long since proved its endurance and homelike charm creates a measurable degree of popular appreciation. It is more than merely a manner of mien; save for the earlier doorway, it actively and insistently recalls the spirit of a certain very estimable phase of our architectural past. Cost: $8,800.

CONSTRUCTION OUTLINE

FOUNDATION
Footings—reinforced concrete.

FRAME CONSTRUCTION
Yellow pine.
Sills—creosoted heart pine.

EXTERIOR SURFACE
Brick veneer—second-hand common.

ROOF
Wood shingles on shingle lath—Perfection No. 1 red cedar.

Gutters
Flashing 26 gauge Armco galvanized iron.
Down spouts

DOOR AND WINDOW FRAMES
Sash and frames
Double hung—white pine.


PORCHES
4" reenforced concrete slab covered with random slabs.

GLASS
Pennvernon single strength, Pittsburgh Plate Glass Co.

EXTERIOR PAINT
Shingles—brush stained with graphite and oil.
Sash Priming—Benjamin Moore Primer. Finish coat—Benjamin Moore exterior paint.

LATH AND PLASTERING

INTERIOR WOODWORK
Floors—hardwood.
Trim
Shelving and cabinets—white pine. Stock millwork

INSULATING
The plan almost exactly revives the plan of scores of city or country town houses of the early 19th Century. That plan was comfortable and efficient in practice, despite the fact that it was a long way from the kitchen to the front door. Barring the omission of the kitchen chimney—thanks to the advent of gas and electric cooking appliances—and barring provision for a breakfast room at the back of the hall (a concession to the popular acclaim for that feature), the plan makes many of us who have lived in old houses feel strangely at home.

**INTERIOR FINISHES**

- **Floors**—1 coat paste filler, 1 coat stain, 2 coats white shellac, 1 coat Pratt and Lambert wax.
- **Trim**—1 coat lead and oil, 2 coats Ripolin enamel.
- **Doors**—1 coat lead and oil, 2 coats Ripolin enamel.
- **Walls—baths**—1 coat size, 2 coats Ripolin enamel.
- **Wallpaper**—over canvas and shiplap. Canvas not less than 1 lb. to 6.75 yards.

**LIGHTING**

- **Direct.**

**PLUMBING**

- **Kitchen Sink—dual sink, Crane Co.**

**BATHROOM**

- **Fixtures—Crane Co.**
- **Seats—Church Mfg. Co.**
- **Shower—Crane Co.**
- **Shower curtains—Crane corded white.**
- **Tile—ceramic clay tile with cap and base.**

**PIPES**

- **Brass.**

**HEATING**

- **Hot air with gas-fired Moncrief by Henry Furnace & Foundry Co., Cleveland, Ohio.**
- **Hot water heater—"Superior," 36 gallon, Crane Co.**
- **Thermostat and regulators—with furnace.**

**CHIMNEY**

- **Fireplaces Facings**
- **Hearths slate**
- **Mantels—white pine.**

**HARDWARE**

- **Interior and exterior—Russwin, Russell & Erwin Mfg. Co.**

**SCREENS**

- **Copper.**
William Joern & Sons, Chicago builders, erected this demonstration house, kept it open for a month, and sold it. Total operating costs including fuel, taxes, maintenance and insurance are $24 per month. With an FHA loan of $6,000 for twenty years this monthly cost becomes $67.89, still less than a house of this type would normally rent for. The plan is typical for houses of this size, the recreation room being included as an increasingly important selling point. Structurally the house is of considerable interest; it is almost completely fireproof, the only wood construction being in the roof, and it is thoroughly insulated against heat losses and noise. Esthetically the house is less notable, although greatly superior to most of the speculative houses that are hopefully labeled “modern.” Cost, $7,250; cubage 20,850 at 34.8 cents per cubic foot.

**CONSTRUCTION OUTLINE**

<table>
<thead>
<tr>
<th>FOUNDATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Walls—concrete.</td>
</tr>
<tr>
<td>Columns—Lally.</td>
</tr>
<tr>
<td>Cellar floor—concrete.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MASONRY CONSTRUCTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Haydite building units—Western Brick Co., Chicago, Ill.</td>
</tr>
<tr>
<td>Partitions—4” U. S. Gypsum Pyrobar throughout.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FLOOR CONSTRUCTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jones &amp; Laughlin Junior Beams, 2½&quot; reenforced concrete slab.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>EXTERIOR SURFACE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stucco—Portland Cement Stucco, Medusa white waterproofed.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ROOF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wood joists, 16” on center.</td>
</tr>
<tr>
<td>Built-up asphalt 2–15 lb. and 1–30 lb. felt.</td>
</tr>
<tr>
<td>Gutters</td>
</tr>
<tr>
<td>Flashing</td>
</tr>
<tr>
<td>Down spouts</td>
</tr>
<tr>
<td>Copper, C. G. Hussey, Chicago, Ill.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DOOR AND WINDOW FRAMES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sash and frames.</td>
</tr>
<tr>
<td>Steel sash—Detroit Steel Products Co.</td>
</tr>
<tr>
<td>Garage doors—interior door frames, steel.</td>
</tr>
<tr>
<td>Metal Door &amp; Trim Co., La Porte, Ind.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PORCHES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flagstone.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>GLASS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/4” plate—Libbey-Owens-Ford Glass Co.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>EXTERIOR PAINT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trim</td>
</tr>
<tr>
<td>Priming Paint, Remien &amp; Kuhn, Chicago.</td>
</tr>
<tr>
<td>Finish coat Sash—aluminum paint.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>LATH AND PLASTERING</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>INTERIOR FINISHES</th>
</tr>
</thead>
<tbody>
<tr>
<td>No trim. Plaster return all windows and steel door bucks. Wood base only. Floors—carpet or linoleum on concrete. Shelving and cabinets—wood.</td>
</tr>
</tbody>
</table>
ILLIAM F. KRAMER, ARCHITECT

The I-beams in place for floor construction.

Enforcing floor with 3/4 steel rods, at intervals of 6 in. on center.

Wall of Haydite building units in course of construction, stucco applied directly to exterior walls, metal lath and plaster to inside walls.

<table>
<thead>
<tr>
<th>Trim</th>
<th>Paint and glazed.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Doors</td>
<td>Alum paint.</td>
</tr>
<tr>
<td>Sash</td>
<td>Aluminum paint.</td>
</tr>
<tr>
<td>Light</td>
<td>Direct and indirect.</td>
</tr>
</tbody>
</table>

PLUMBING

Kitchen
Sink—2 compartment, by Crane Co.
Cabinet—wood.
Stove—gas.
Refrigerator—electric.
Walls—linoleum, Armstrong Cork Products Co.

BATHROOM

Fixtures—Crane Co.
Floors and walls—Armstrong linoleum.

HEATING AND AIR CONDITIONING


HARDWARE


SCREENS

With steel sash.

WINDOW DRESSING

Venetian blinds.

SPECIAL EQUIPMENT

Stair railing—iron, chromium plated.

INSULATING

Outside walls—1/2" Sprayo-Flake.
Attic floor—8" U. S. Gypsum rock wool.
Garage ceiling—1" Armstrong Temlock.
Houses built in the vernacular have a peculiar fascination because of the use made of native materials and their local characteristics of design. The house, though of recent construction, bears the earmarks of traditional derivations inseparably associated with the vicinity in which it stands. The site is most irregular and demands ingenuity to achieve successful handling. With materials, forms and textures familiar to the everyday usage of the neighborhood, the architect has accommodated his design to the exigencies of the ground and produced an arresting result. On the lower level are the dining room, kitchen and garage. One half flight up, and reached either from outdoors, or by steps from the corner of the dining room, is the living room. Up half a flight more, by a stair beside the living room fireplace, are two bedrooms and a bath. The whole arrangement is unconventional and could be found only as a solution to some such highly individual site. Cost: $6,180. Cubage: 17,700 at about 34\(\frac{1}{2}\) cents.

CONSTRUCTION OUTLINE

<table>
<thead>
<tr>
<th>FOUNDATION</th>
<th>FRAME CONSTRUCTION</th>
<th>MASONRY CONSTRUCTION</th>
<th>EXTERIOR SURFACE</th>
<th>ROOF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Walls—stone.</td>
<td>Fir.</td>
<td>Stone walls—Brandywine granite with wide plaster joints.</td>
<td>Clapboards—(\frac{3}{4})&quot; x 10&quot; beveled siding of No. 1 cypress.</td>
<td>Wood shingles on shingle lath—sawn cypress.</td>
</tr>
<tr>
<td>Cellar floor—cement.</td>
<td>Bridging</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ties</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Girders—1-beams.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>EXTERIOR PAINT</th>
<th>LATH AND PLASTERING</th>
<th>INTERIOR WOODWORK</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shingles—natural.</td>
<td>Lathing</td>
<td>Floors—red oak.</td>
</tr>
<tr>
<td>Siding</td>
<td>Metal—cellar.</td>
<td>Stainwoods—firs.</td>
</tr>
<tr>
<td>Trim</td>
<td>Wood—1st and 2nd floor.</td>
<td>Painted surfaces</td>
</tr>
<tr>
<td></td>
<td>Plastering</td>
<td>Stock millwork</td>
</tr>
<tr>
<td></td>
<td>Finishing coat—white coat and texture sand finish.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DOOR AND WINDOW FRAMES</th>
<th>TERRACE</th>
<th>GLASS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sash and frames.</td>
<td>Terrace</td>
<td>Double thick No. 1 American.</td>
</tr>
<tr>
<td>Double hung and casement type—wood.</td>
<td>Avondale flagstone.</td>
<td></td>
</tr>
<tr>
<td>Doors and frames (exterior)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Garage doors</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ROOF</th>
<th>GLASS</th>
<th>EXTERIOR SURFACE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wood shingles on shingle lath—sawn cypress.</td>
<td></td>
<td>Clapboards—(\frac{3}{4})&quot; x 10&quot; beveled siding of No. 1 cypress.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
ATINGS
- Side walls—none.
- Vaults—Celotex.

PAINTING
- Stain and wax.
- 4 coats paint and enamel.
- Partially paint, partially.
- BX flexible cable.

KITCHEN FIXTURES
- Colonial.
- Tumbler type.

PLUMBING
- Kitchen:
  - Sink.
  - Cabinet.
  - Stove.
  - Refrigerator.

BATHROOM
- Fixtures—complete.
- Floor—ceramic tile.

PIPES
- Wrought iron.

HEATING
- Pacific oil burner.
- Boiler—Crane jacketed.
- Radiators—Crane.
- Piping—Byers' wrought iron.

VALVES
- Ohio Brass Co.

OTHER
- Hot water heater.
- Thermostat and regulators.

CHIMNEY
- Fireplaces:
  - Facings—stone.
  - Hearths—brick.
  - Mantels—white pine.
  - Damper—Donley.

HARDWARE
- Interior—brass.
- Exterior—wrought iron and brass.

SCREENS
- Wood frames with copper wiring.

WINDOW DRESSING
- Venetian blinds.
BUILDING MONEY

A monthly section devoted to reporting the news and activities of building finance, real estate, management and construction

CONTENTS

Washington Chart: The Month's Progress Among Federal Agencies 436
A Documented Forecast of Residential Building for 1936-40 438
A Collaboratively Designed Mortgage Structure Gets Under Way 441
Rental Formula for Housing Projects of Any Type, Any Size 443
Permits and Building Stocks Hit New 1935 High 448
Couzens' $550,000 Gift to the U. S. Starts a Homestead Project 449
Sears, Roebuck Adds Prefabricated Houses to its Catalogue 452
A Wall Street House Attempts to Market FHA Mortgages 453
Savings Bankers Collaborate on House Specifications 454

JOHN CUSHMAN FISTERE
Editor

Man of the Month STEWART McDONALD (see Page 441)
THE RISING TIDE OF HOME BUILDING

is floating the derelict building industry. Rising rents and selling prices presage immediate conversion of need into demand

One question dwarfs all others in the minds of building men: "Is this a boom, or isn't it?"

And the answer was never so important as it is today, not only to building, but to business of all kinds. For economists of both wings agree that national recovery is dependent on the answer.

Economists also agree that if the advance in volume experienced so far in 1935 is to continue into 1936 and the rest of the decade, the load must be borne by residential building. With commercial building vacancies hovering around 27 per cent, nothing but free rent will fill up the space until general recovery, accompanied by commercial expansion, is achieved. Thus increased commercial building becomes a dependency rather than a contributory to immediate building revival.

What, then, are the facts of residential building?

January was better than January a year ago, February better than February, August better than August. There was not a month in the first eight months of 1935 that did not top by a big margin the residential building for the corresponding month last year. The specific figures are:

<table>
<thead>
<tr>
<th>Month</th>
<th>1934 (thousands)</th>
<th>1935 (thousands)</th>
<th>Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>January</td>
<td>86,617</td>
<td>92,410</td>
<td>5,793</td>
</tr>
<tr>
<td>February</td>
<td>14,529</td>
<td>16,617</td>
<td>2,088</td>
</tr>
<tr>
<td>March</td>
<td>30,076</td>
<td>32,209</td>
<td>2,133</td>
</tr>
<tr>
<td>April</td>
<td>42,866</td>
<td>48,395</td>
<td>5,529</td>
</tr>
<tr>
<td>May</td>
<td>24,840</td>
<td>44,902</td>
<td>20,062</td>
</tr>
<tr>
<td>June</td>
<td>40,365</td>
<td>48,833</td>
<td>8,468</td>
</tr>
<tr>
<td>July</td>
<td>19,845</td>
<td>48,395</td>
<td>28,550</td>
</tr>
<tr>
<td>August</td>
<td>18,641</td>
<td>40,388</td>
<td>21,747</td>
</tr>
</tbody>
</table>

The total for the period is the best for any similar period since 1931. Ordinarily, such an uninterrupted uphill climb would justify the belief that more climbing was ahead. But five years of economic mirages have forced Business to conclude that its eyesight is bad. It is essential to examine the underlying causes before making anything better than a guess on the future of residential contracts.

The Law of Supply and Demand, although none the less operative in building than in any other industry, is modified by amendments peculiar to building. It is modified first by the unalterable fact that residential building is a local activity. A shortage in Des Moines is not a shortage in Savannah. Rising rents in New York have little or no influence on rents in Chicago. The second modifier is the defying elasticity of existing supply. Housing can be made to serve a period beyond its normal physical or even useful life if other factors do not produce new housing. And apparently the ability of a given number of housing units to absorb any number of inhabitants, as reflected in the doubling up of families, is indeterminable.

Recognizing the very real bearing of these two factors on the final answer, and weighing accurately the adverse influences that may retard volume, the conclusion seems inescapable that residential building in 1936 will top the gains of this year by equally large margins, and will continue to soar for the rest of the decade.

The supporting facts are these:

There is a definite physical shortage of housing units in the U. S.

In the four years from 1929 to 1933, there was a population increase of approximately 3,500,000 people. During those same years, new housing was built to accommodate only about 1,100,000 people, creating a surplus of population over housing accommodations of 3,400,000. Since the average number of persons per family is roughly 3.5, there was an undersupply on a purely numerical basis for families during the 4-year period of 7,000,000 units. This undersupply is reflected in the gradual decline in vacancies from a known 7 per cent in 1932, estimated 4 per cent at the present. Though accurate figures are not yearly for the nation, the National Association of Real Estate Boards, in its annual survey completed July 1, 1936 reported an actual shortage (more than 1 housing unit per family) of existing accommodations in 69 per cent of cities surveyed, a normal supply in 1 per cent, and an oversupply in only 2 per cent.

The complete figures are:

PERCENTAGE OF CITIES REPORTING OVER-BUILDING, NORMAL SUPPLY AND SHORTAGE IN SINGLE FAMILY DWELLINGS AND APARTMENTS

| Section and Size of City | Total | Over | Short | Not \n|--------------------------|------|------|------|------|
| Over 1,000,000, 1,000,000 to 500,000 | 4.00 | 9.00 | 0.00 | 87.00 |
| 500,000 to 250,000 | 3.00 | 6.00 | 0.00 | 81.00 |
| 250,000 to 100,000 | 2.00 | 4.00 | 0.00 | 94.00 |
| 100,000 to 25,000 | 1.00 | 2.00 | 0.00 | 97.00 |
| 25,000 to 5,000 | 0.50 | 1.00 | 0.00 | 98.50 |
| 5,000 to 1,000 | 0.00 | 0.00 | 0.00 | 100.00 |
| Under 1,000 | 0.00 | 0.00 | 0.00 | 100.00 |

The shortage is even more acute in small units of less than 500,000. The Real Property Directory, for example, reported approximately 8 per cent of the dwelling units in the 64 counties covered in its canvass were occupied.

There are unmistakable signs that better days are ahead for home building. The pendulum swung too high in the peak year of building back in 1928 and it swung too low in the depths of the depression in 1933. Already there has been a most significant and encouraging upturn in home building from the extreme low point. Obstacles in the way of building revival are slowly being cleared away and in my opinion we are now heading into a period of increasing activity: 1936 should see a good increase over this year. The tide is coming in and not going out. Frankly, I am optimistic for home building over the next five years.

ROGER W. BABSON, Economist

We have every reason to expect an upturn in business all along the line in the immediate future, owing chiefly to the restoration of the nation's principal circulating medium—namely, deposits subject to check as well as to the partial restoration of confidence. Usually such a recovery is more rapid in the building trades than in most others and their recovery should continue for several years, recording an improvement.

IRVING FISHER
Yale University

The stagnation in home building during the period of depression has undoubtedly as much attributable to the inability of the mortgage financing as to general conditions of employment, etc. Therefore, with the agencies providing sources of funds for the housing of families operating on an insured basis, Federal housing money avoiclability likely development in private mortgage field and improved economic conditions, I believe there will be a simulation in home building not of 1928 and in the years immediately following.

R. S. HEIGHT, President
American Bankers Association

438

THE • ARCHITECTURAL • FOB
The condition of the mortgage market:

In the short term, adjustments of debt; rise in values of alleviation of distress conditions and

finance or of such a conclusion are: (I) The con-

dependent on the nature of the borrower to pay, disregard moratorium provisions—these were worst.

The basic flaws in the economic situation upon which residential real estate has been built have been lost completely eliminated.

During the 1920-30 period, ill-advised financing created a national housing debt of fantastic proportions, rising from about 87,000,000,000 to 200,000,000 in ten years. Not only the amount of mortgage financing unknown, but the type of finance was in many cases fundamentally

faults have been too frequently cited in current elaboration: short terms, inadequate first mortgages requiring costly and

y second and sometimes third mortgagors, too much dependency on the value of property and not enough on the ability of the borrower to pay, disregard moratorium provisions—these were worst.

The result was that when the slump hit general business, residential building, thus unsoundly based, plunged to the lowest depths it has ever reached. Equities were wiped away almost overnight, and an uncontrollable deluge of foreclosures was let loose. Forced sales loaded mortgage institutions down with property and sent the prices of all property down to ridiculous levels.

For four years, nothing was done to right the market. But in 1933 the Home Owners Loan Corporation was formed, and began to operate as specified as the condition of real estate warranted. In its two years of existence it has refinanced nearly 1,000,000 mortgages, and has enabled an uncountable number of lending institutions to clean house. With the HOLC taking the worst cases, mortgagees have been enabled to reaffirm a large percentage of their "in trouble" mortgages themselves.

Although foreclosures are still running high, it is paradoxical that improved business conditions rather than weakness of the market is responsible. Mortgagors who were in difficulty last was due to the absence of a market are now exercising their foreclosure privilege because the market has come back again, a very favorable sign.

Dumping of properties has definitely come to a halt. The 1,000,000 mortgages held by the HOLC are not necessarily safe from foreclosure, but the properties will never be thrown on the market in volume sufficient to depress prices. The same is true of property held by banks and other institutions.

The combination of all these factors has produced an unusually healthy background for future building, leaving little property at distress prices on the market, and re-adjusting the debts of a considerable, though inescapable, number of owners.

A rise in rents and selling prices, generally regarded as the immediate predecessor of new building, has taken place.

Although no agency keeps complete and accurate figures on rents and property sales prices, two agencies which make a semi-

My analysis of the national housing situation is this: Contraction in space used vacated 1,500,000 living units early in the depression. Population increase creates demand for 300,000 new families yearly, while casual and destruction eliminates 200,000 yearly, making the annual requirements for new units about 500,000. Construction for the last four-year period was grossly less than 300,000, so vacated units today are completely unoccupied. Expect acute shortage to develop by the spring months, followed by rent and value increases. New units constructed should total 300,000 in 1936 and 600,000, 1,000,000 yearly till 1940.

Walter S. Schmidt, President
National Association of Real Estate Boards

There is ample reason to believe that the long-delayed recovery in residential building is finally under way. The improvement in 1935 will extend into 1936, but disappointment awaits those who believe a boom is just ahead. It is unlikely that residential building next year will reach the total for 1931; such an accomplishment would entail a virtual doubling of the 1933 volume. Since it is a practical certainty that we are in an ascending phase of the residential cycle which can be interrupted only by war, the longer range future looks better than the immediate past.

L. Seth Schmitz, Chief Statistician
F. W. Dodge Corporation

Moody's Investors Service

T OBER • 1935 • B U I L D I N G M O N EY

439
is generally considered the normal (1926) level. National Industrial Conference Board figures, based on that year as 100, have shown a steady rise since July, 1934, when the average was 64.7. For July, 1935, the average was 70.0, a gain over June of the same year of 0.6 per cent, and over May of 0.9 per cent. Still further increases attended the October 1st rental season. It can be assumed from all of the foregoing that first, a housing shortage exists; second, that the factors which pull the market down have been corrected; and third, that increases in rentals and prices have tended to narrow the gap between existing and new construction values.

What remains is to examine the remaining considerations that will contribute to increased volume: the desire to build and the ability to pay.

**American interest in home ownership is at a level seldom, if ever, approached before.**

Long regarded as the least capable merchandisers in all business, the building industry has recently given indications of a newly acquired technique. No small amount of credit is due the Federal Housing Administration, which performed the rather unusual governmental function of staging what is probably the most intensive campaign for home building and remodeling that the country has ever seen. Whether it is strictly a governmental function or not is immaterial, but more than 1,000 home shows have been staged during the past two years, and have been attended by an estimated 20,000,000 people.

But the interest stimulated by the FHA, or by any other source is only secondary compared with the interest created by the widely publicized advent of all kinds of new magic in residential design, construction and equipment. Prefabrication and air conditioning are two words that command attention today. It is relatively immaterial whether the day of prefabrication is five or five hundred years off, or whether air conditioning is two or ten years away from being priced reasonably enough to earn a place in every home. These two developments have drawn attention to building. The public understands very little about either—but they crystallize the idea that great expectations are justified in building a home today.

**Increased national income and more equitable financing are increasing the nation's ability to pay.**

Aside from the comparatively small number of houses that are sold for cash, paying for a home is split into two parts: the payment of money and the amortization of the mortgage debt with interest. At the root of both are national income and the condition of the mortgage market.

Including about $1,400,000,000 paid out last year for relief, national income increased about $5,500,000,000 over 1934. The total national income, as reported by the Division of Economic Research of the Department of Commerce, was $89,440,000,000 as against $84,831,000,000 the year before. While this was not favorably balanced against the peak of $87,576,000,000 in 1929, the increase was marked.

There is little doubt that whereas investment was seeking money no less than a year ago, money is today seeking investment. Apart from the generally improved conditions, a series of Federal acts has served to alter radically the position of mortgage lenders with respect to new building financing. In addition to providing fresh capital for new and old institutions alike, it has substantially increased both the security and effective liquidity of the mortgage instrument.

Topping all its activities is the creation of insured mortgages under the Federal Housing Administration. Under which mortgages are guaranteed through the exchange of defaulted mortgages for bonds, a return of at least 3 per cent on their investment. The insured mortgage plan, seemingly complicated at first, is now fully understood and endorsed by most lenders, and gives promise of becoming one of the best permanent features of home mortgage income in the U.S.

Not are the value of FHA mortgage insurance confined to the lenders. The lowered interest rates plus the lengthening out of the amortization have not only made home ownership cheaper and more convenient for the normal home buyer, but they have extended the opportunity of ownership to a new class of wage earners, heretofore blocked out by inability to pay.

Not to be overlooked for its future worth is the comparatively ancient Federal Home Loan Bank System. The scope of whose influence has recently been extended to permit both member and non-member institutions to rediscount their mortgages. While only negligible use has been made of the system so far, due to the abundance of money available, the System is a very real guarantor of liquidity.

Before drawing any general conclusions, it is essential to report the minus signs that can deter residential building revival for an indefinite length of time. Undoubtedly the most serious deterrent is the apparent high cost of building. The wide disparity between construction costs and rentals is frequently tabulated thus:

**CONSTRUCTION COSTS VS. RENTALS**

<table>
<thead>
<tr>
<th>Yearly Averages</th>
<th>Construction Costs (1926=100)</th>
<th>Residential Renta l Costs (1926=100)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1926</td>
<td>97</td>
<td>101.7</td>
</tr>
<tr>
<td>1927</td>
<td>102</td>
<td>99.0</td>
</tr>
<tr>
<td>1928</td>
<td>105</td>
<td>98.7</td>
</tr>
<tr>
<td>1929</td>
<td>107</td>
<td>97.1</td>
</tr>
<tr>
<td>1930</td>
<td>108</td>
<td>96.5</td>
</tr>
<tr>
<td>1931</td>
<td>109</td>
<td>95.8</td>
</tr>
<tr>
<td>1932</td>
<td>110</td>
<td>94.6</td>
</tr>
<tr>
<td>1933</td>
<td>111</td>
<td>93.5</td>
</tr>
<tr>
<td>1934</td>
<td>112</td>
<td>92.9</td>
</tr>
</tbody>
</table>

Relating those figures to booms, it vious that new building is created and rents and costs approach equality. Indices, however, are based on national housing and wage scales—what at the same as the actual cost of house. Neither the increased speculation building, creates down the add amount paid to labor, nor the widespread practice of hiring labor at less than prevailing wage or paying less than prevailing wages are taken into account.

Furthermore, the high initial building is partially financed with different interest rates seldom appreciated by the public. A difference of 1 per cent may equal a 1.5 per cent reduction in the total cost of price.

Assuming, for example, that on a $1,000,000 insured mortgage, the interest rate was 6 per cent, the total interest would be about $60,000 over the life of the mortgage. At 5 per cent, the total interest would be approximately $5,000, a saving of $55,000.

Then, too, when the cost of a house is based on the carrying charges per month and compared with the rent per month, a similar house, they are more nearly the same. Under the FHA plan, the carrying cost for a loan, including amortization of principal, interest, taxes and fire insurance, approximates 1 per cent a month. A $75,000 house with a $5,000 mortgage costs about $100 a month to carry under the FHA plan. A similar house rented would have just about the same to the owner.

Finally, the second handicap still to be overcome is the incontrovertible evidence of the relief rolls, on which families represent one-fifth of the population. However, a building boom is independent upon the entire population. The greatest boom has ever experienced produced housing accommodations for only 2,000,000 people in 1928. Prosperity in Detroit begot local boom; prosperity in Washington gets a local boom. The sum total of a series of local booms is—national recovery.

With rising building activity, a higher percentage of those unemployed will be back to work.

How sizeable the home figures for the year will be cannot be mathematically determined, if the same percentage of those unemployed are employed, and if the house is the same as the one of the period of 1930 to 1936, a volume of about $8,500,000,000 would be probable. If on the other hand, home building increases at a rate fast enough to wipe out physical shortage, the figures will be even higher, with the possibility that from period of 1930 to 1936, the average of all home production will near $8,000,000,000.
WE POTENT U. S. AGENCIES

elaborate to produce a new mortgage system, vague in form not in purpose, with McDonald’s key figure.

T O B E R • 1 9 3 5 • B U I L D I N G M O N E Y

A Pen to the Banking Act

Behind the toy-laden desk of the President smile Senator Glass, Comptroller O’Connor, Senator Fletcher, Secretary Morgenthau, RFC Chairman Jones, Representative Steagall, and FRB Governor Eccles.
desk of R. Gould Morehead, Pask & Walbridge partner, whose study of the FHA convinced him that insured mortgages offered an ideal security for the firm to handle.

What makes all these forms of liquidity possible is, of course, mortgage insurance, and the Federal guarantee of principal and interest on FHA debentures issued to mortgagees in return for defaulted mortgages. The buyer of an insured mortgage does not have to appraise the property himself; it has been appraised and insured for him, thus increasing their marketability.

*The Government guarantee applies only to mortgages insured before January 1.

The second attribute of a mortgage system is security to the lender, which is also accomplished through the FHA's mortgage insurance program. Not only is there a guaranteed return of 3 per cent on any insured mortgage, but the steps which FHA takes in determining the eligibility of a mortgage for insurance are so thorough (despite the fact that the work is done by a government agency) that the simple fact of insurance is a reasonably sound guarantee of the mortgage's value.

Finally, the provision of adequate funds at acceptable interest rates is assured by a handful of different methods. Changes in the Banking Act, enumerated in the box, constitute an almost inescapable invitation to national banks to elevate mortgages to high standing as securities. Sections 3 and 7 broaden the scope of their activities. Sections 8 and 9 eliminate the two serious deterrents.

Other stimulants to the supply of mortgage money are the Treasury's offer to buy shares in Federal savings and loan associations, and the already mentioned extension of discounting privileges in Federal Home Loan Bank system to member institutions. The first of the designed to swell the amount of funds immediately available, and the second insure a constant flow of funds in times and bad.

Although rates will still hinge on supply and demand, the fixing of a maximum rate of 5 per cent on FHA mortgages and insurance service fees) has had effect in lowering the cost of mortgage money.

Thus, it becomes apparent that a mortgage system is in the making, around the hastily assembled Federal Housing Administration. Gradually FHA is living down among unsympathetic bankers and business men the fact that it was born under Roosevelt. When pressure control and the PWA are forgotten, FHA will undoubtedly be flourishing permanent unit of the government.

Administrator. Because of the last decade of the agency which he is administering, Stewart McDonald, who last month was definitely chosen to succeed James Moffett as administrator, takes on importance to business and the building industry. On his pre-FHA record, he will appear to be as ill-suited for his job as his predecessor, and yet his willing ear listen to reason when it is good, and his Scotch habit of tending strictly to business may offset his ignorance of the real estate mortgage business.

The chief props in the McDonald background are that he is a graduate of Columbia University, that he was at one time head of the St. Louis firm which made Moon Diane motor cars, that immediately succeeding his Washington appearance he was associated with Speculator William Durant in New York where he met oil magnate William Moffett. Insignificant facts about him are that he was the onetime police commissioner of St. Louis, that he is divorced, that his daughter is married to the son of Missouri's late Governor Gardner.

Administrator McDonald looks like the man who can throw a shrewd, experienced hand over the Federal mortgage business. No better speechmaker Moffett, he has the wisdom to make fine speeches. In an agency that is laden with the customary amount of expensive personnel overhead, he knows how to handle to those who can talk and to sidetrack in figurehead jobs to those who can't. Possibly because of his polished background, he has far better control of his organization than Moffett had, an attribute in a Federal agency.

SUMMARY OF PRINCIPAL AMENDMENTS PASSED BY 74TH CONGRESS FACILITATING THE ADMINISTRATION OF THE NATIONAL HOUSING ACT

1. The limit of $2,000 originally set on insured modernization loans has been increased to $50,000 on certain types of property, in order especially to encourage improvements to business and industrial property, and the purchase and installation of machinery and equipment. Under the amendment it is not necessary that equipment and machinery become a part of the real estate.

2. The face amount of debentures paid to mortgagees in satisfaction of insurance claims is to include interest (present guaranteed rate is 3 per cent per annum) from the date foreclosure proceedings are instituted by the mortgagee. Originally provided for payment of interest was made only from date title to property was delivered to the Federal Housing Administrator.

3. The restriction that herebefore prevented a national bank from placing real estate loans outside its own Federal Reserve district, or farther than 100 miles from the location of the bank regardless of district lines, has been removed. This should facilitate especially the sale of insured mortgages between banks that have a correspondent or similar relationship with one another.

4. The requirement that in making a real estate loan a national bank must acquire the entire mortgage has been removed. This should make it feasible for banks to join with one another in financing low cost housing projects under the terms of the Housing Act.

5. Provision is made whereby the Comptroller of the Currency may classify as investment securities, rather than as real estate loans, novus issued against FHA-insured mortgages on low cost housing projects.

6. Holders of bonds secured by mortgages insured under the low cost housing provisions of the Housing Act are excepted from the corporate reorganization provisions (Section 71B) of the Bankruptcy Act.

7. The proportion of their funds that national banks may invest in real estate loans has been raised to 100 per cent of their capital and surplus or 60 per cent of their time and savings deposits, whichever is the greater. This raises the effective limit of mortgage lending by national banks to approximately $4,700,000,000, an increase of approximately $3,000,000,000. As present the volume of mortgages held by national banks is approximately $1,500,000,000. Hence, they could increase their mortgage loans by $3,400,000,000 before reaching the effective limit; and in the case of mortgages insured under the Housing Act such loans may be made up to 80 per cent of the appraised value of the property.

8. Under regulations to be prescribed by the Board of Governors of the Federal Reserve System, real estate mortgages will be eligible as security for advances by the Federal Reserve banks. Mortgages insured under the terms of the National Housing Act are also eligible as security for advances by the Federal Home Loan banks, to approved mortgagees, whether or not they are members of the Federal Home Loan Bank System.

9. Section 21 (a) of the Banking Act of 1933 under which it was unlawful for institutions receiving deposits to engage in the business of buying and selling securities, has been amended so as to permit banks to sell mortgages without recourse or agreement to repurchase.
### CAPITAL CHARGE PERCENTAGE

| ITEM                                | ADJUSTMENT | A | B | C | D | E | F | G | H | J | K | L | M | N | O | P | Q | R | S | T |
| 1. Debt Service                    |            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 2. Mortgage Insurance              |            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 3. Taxes                           |            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 4. Dividends                       |            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 5. Federal Income Tax              |            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| TOTAL CAPITAL CHARGES              |            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Equated Tax ExInst.               |            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

### FINANCING PLANS

| ITEM                                | A | B | C | D | E | F | G | H | J | K | L | M | N | O | P | Q | R | S | T |
| Incitiation in equal parts          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Interest Rate                       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Mortgage Insurance Coverage         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Tax Rate                            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Dividend Rate                       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Federal Income Tax                  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| TOTAL MORTGAGE                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| EQUITY                              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

**TOTAL CAPITAL COST PER ROOM**
A WORKABLE RENTAL FORMULA

that fixes the room return required for all land and building costs, financing plans, and operating budgets.

The unintelligent habit of branding all initiated U.S. agencies as interferers in private business has blinded many a building man and mortgage man to the very real difference in principle which exists between such agencies as the HOLC or the FHA, and the FHA or the FHHLB. Whereas the first two rely on relief agencies, even in their disbursement of Federal funds, the others are non-spending units, whose purpose is the encouragement rather than the supplanting of private business.

As part of its "breathing spell," the Administration is now definitely committed to a speedy termination of the direct spending agencies. This is particularly true of housing, where the once ascendant star of the PWA's Housing Division has fallen rapidly, accompanied by a steady rise of the FHA's kind of housing. Urged by the conservatives among the Administration's advisers, the end of PWA housing, presently all present allotments are spent, is assured.

As a counter proposal to direct Federal spending, the conservatives were framing last month a new method of housing finance, calling for the insurance of low yield mortgage bonds issued to finance projects of limited dividend companies. Until now, few lenders have been willing to finance FHA low cost housing developments because they involved too much money. Now, however, under the amended Banking Act, they are permitted to finance parts of projects through co-operatively underwritten bond issues. It is on this amendment that the new finance plan hinges.

In the opinion of a group of New York banks and Wall Street houses which met with FHA, RFC, and Treasury Department representatives in New York last month, FHA low-cost housing bonds will rank with governments and municipalities as an attractive investment. With a guaranteed return of at least 3 per cent (this is the return fixed by the FHA on debentures issued to holders of defaulted FHA mortgages), New York financial men tentatively saw no reason why such bonds would not make prime investments for their own accounts as well as for their clients.

In most of the intricate details surrounding the FHA low-cost housing program there was present but not evident the fine minds of Assistant to the Secretary of the Treasury Peter Grimm and his astute counsel, Harold Riegelman. Like hundreds of others in New York building circles, Peter Grimm values the practical as well as the legal wisdom of Attorney Riegelman. Member of the firm of Nordlinger, Riegelman & Cooper, Harold Riegelman drafted the State Housing Law and the Multiple Dwellings Law which are considered models for other state acts. He numbers among his clients a score or more of prime real estate companies, not the least of which is Knickerbocker Village, Inc., the Fred F. French Co., which built the mammoth development on New York's lower East side. Unlike most lawyers, Mr. Riegelman has the faculty of making difficult things simple, of boiling down complex laws for lay digestion. Of medium height and build, his face is a familiar one on New York speaking platforms and his name is equally familiar in the city's press.

Counselor Riegelman

Working in close cooperation with Mr. Riegelman the Technical Division of the FHA, had by last month prepared a wealth of data that would enable it to approve loans specifically once the applications were in. Not the least valuable item in the collection was a rental chart drawn up by Moses, Albert C. Shire and Paul M. Green of the FHA (see reverse pages). Designed to enable the FHA to check the financial accuracy of any scheme proposed under its low-cost housing program, the chart becomes to men a rapid estimator for calculating rents with any set of conditions. Complex in form, it is comparatively simple in operation.

Definition. It works thus:

The first part of the chart is based on the following equation:

\[ \text{Sq. Feet per Room} \times \text{Developed Land Cost} \times \% \text{Land Coverage} = \text{Land Cost per Room} \]

(1)

The horizontal scale represents the product of the number of stories multiplied by the per cent land coverage. The vertical scale represents the developed land cost per square foot. Two hundred square feet of space is assumed as an average room size.

The product of the number of stories multiplied by the per cent land coverage is found on the horizontal scale. The developed land cost per square foot is found on the vertical scale. These points are projected perpendicularly to the respective base lines, to the point where the two projections intersect. This point of intersection is projected along the diagonal line to the scale at the right side of this part of the chart. Here is read the land cost per room.

For convenience in reading this part of the chart a second scale is added. When the product of the number of stories multiplied by the per cent land coverage is not more than one and the developed land cost per square foot is not more than two dollars and fifty cents ($2.50) the supplementary scale should be used with the reading made as outlined above.

PART II

With the land cost per room established on the vertical scale on the second part of the chart the construction cost per room is found on the horizontal scale. This latter figure includes fees, carrying charges, and miscellaneous expenses. These two points are projected perpendicularly to the respective base lines to the point of intersection. This point of intersection is projected along a diagonal line to the scale at the top of this part of the chart. Here is read the total capital cost per room.

PART III

Before this part of the chart can be read the desired plan of financing must be found in the table at the base of the chart. With this done the total capital cost per room is projected perpendicularly to the base line to the point of intersection with the line representing the financing plan which has been selected. This point of intersection is projected horizontally to the left side of this part of the chart. Here is read the total capital charges per room per month.

PART IV

With the total capital charges per month per month established on the scale at the right side of this part of the chart the remaining step in the addition of the operating costs must be completed. This is accomplished by Part IV of the chart.

The operating cost per room per year is found on the horizontal scale. This point and the point representing the total capital charges per room per month are projected perpendicularly to the respective base lines to the point where the projections intersect. This point of intersection is then projected along the diagonal line to the scale at the left side or at the top of this part of the chart. On this final scale is read the rent per room per month.

Another valuable contribution to the quick estimation of costs and rentals was the series of tables prepared by the Treasury Department and the FHA (see page opposite). There in quick form are the answers to dozens of questions that temporarily perplex even the astuteness of financial statement framers—the difference in monthly room rentals per unit of difference in cost—land cost, building cost, interest rate, coverage, etc.
TABLE I

<table>
<thead>
<tr>
<th>RENTAL FACTOR</th>
<th>AMOUNT OF CHANGE</th>
<th>EFFECT ON MONTHLY RENT</th>
<th>NUMBER OF FLOORS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cost Per Cu. Ft.</td>
<td>8.01</td>
<td>8.02</td>
<td>8.20</td>
</tr>
</tbody>
</table>

Example:

An increase in construction costs of 1 cent per cu. ft. in a building three stories in height increases the rent 82 cents per room per month.

TABLE II

<table>
<thead>
<tr>
<th>Land Cost</th>
<th>Per Sq. Ft.</th>
<th>Coverage:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coverage:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>36%</td>
<td>8.61</td>
<td>8.13</td>
</tr>
<tr>
<td>35%</td>
<td>8.44</td>
<td>8.10</td>
</tr>
<tr>
<td>40%</td>
<td>8.10</td>
<td>8.01</td>
</tr>
<tr>
<td>45%</td>
<td>7.82</td>
<td>7.82</td>
</tr>
<tr>
<td>50%</td>
<td>7.56</td>
<td>7.56</td>
</tr>
<tr>
<td>55%</td>
<td>7.25</td>
<td>7.25</td>
</tr>
<tr>
<td>60%</td>
<td>6.96</td>
<td>6.96</td>
</tr>
</tbody>
</table>

TABLE III

<table>
<thead>
<tr>
<th>Coverage:</th>
<th>5% (For each 81.00 of land cost per sq. ft.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coverage:</td>
<td></td>
</tr>
<tr>
<td>36%</td>
<td>8.61</td>
</tr>
<tr>
<td>35%</td>
<td>8.44</td>
</tr>
<tr>
<td>40%</td>
<td>8.10</td>
</tr>
<tr>
<td>45%</td>
<td>7.82</td>
</tr>
<tr>
<td>50%</td>
<td>7.56</td>
</tr>
<tr>
<td>55%</td>
<td>7.25</td>
</tr>
<tr>
<td>60%</td>
<td>6.96</td>
</tr>
</tbody>
</table>

Example:

An increase in land costs of 81 per sq. ft. when coverage is 55 per cent and the number of stories is 6 increases rent per room per month 72 cents.

TABLE IV

Effect on Rent Per Room Per Month of Change (increase or decrease) of 0.1 in Total Debt Service Factor. (Debt service factor includes interest, amortization, taxes, insurance, and dividends.)

<table>
<thead>
<tr>
<th>From a total debt service factor of:</th>
<th>When Monthly Rent, Excluding Operating Cost, $1,</th>
<th>84.00</th>
<th>86.00</th>
<th>88.00</th>
<th>90.00</th>
<th>91.00</th>
<th>91.00</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.00</td>
<td></td>
<td>8.00</td>
<td>8.20</td>
<td>8.40</td>
<td>8.60</td>
<td>8.80</td>
<td>9.00</td>
</tr>
<tr>
<td>0.05</td>
<td></td>
<td>8.00</td>
<td>8.20</td>
<td>8.40</td>
<td>8.60</td>
<td>8.80</td>
<td>9.00</td>
</tr>
<tr>
<td>0.10</td>
<td></td>
<td>8.00</td>
<td>8.20</td>
<td>8.40</td>
<td>8.60</td>
<td>8.80</td>
<td>9.00</td>
</tr>
<tr>
<td>0.15</td>
<td></td>
<td>8.00</td>
<td>8.20</td>
<td>8.40</td>
<td>8.60</td>
<td>8.80</td>
<td>9.00</td>
</tr>
<tr>
<td>0.20</td>
<td></td>
<td>8.00</td>
<td>8.20</td>
<td>8.40</td>
<td>8.60</td>
<td>8.80</td>
<td>9.00</td>
</tr>
<tr>
<td>0.25</td>
<td></td>
<td>8.00</td>
<td>8.20</td>
<td>8.40</td>
<td>8.60</td>
<td>8.80</td>
<td>9.00</td>
</tr>
<tr>
<td>0.30</td>
<td></td>
<td>8.00</td>
<td>8.20</td>
<td>8.40</td>
<td>8.60</td>
<td>8.80</td>
<td>9.00</td>
</tr>
</tbody>
</table>

Since the total debt service factor is generally about 10 per cent, the following rough rule of thumb may be used. An increase of 1 per cent in debt service factor which may be due to a change or a combination of changes in interest, amortization, insurance, dividends, or taxes produces a 10 per cent change in rent per room per month exclusive of operating costs in every case.

The following table is included to provide concrete examples and is used in connection with Table IV. The decimal figures represent that part of the total debt service factor which combine interest and amortization under each of the various rates and plans indicated in the table. The change in total debt service factor due to a change in amortization plan, interest rate (or both) is obtained from this table by subtracting the factor for the new plan from the factor for the original plan.

TABLE V

Amortization Factors

<table>
<thead>
<tr>
<th>Plan of Amortization</th>
<th>Interest Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>4%</td>
<td>4½%</td>
</tr>
<tr>
<td>4½%</td>
<td>5%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>30 years</th>
<th>35 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>first 11 years</td>
<td>.0318</td>
</tr>
<tr>
<td>last 9</td>
<td>.0359</td>
</tr>
<tr>
<td>first 10 years</td>
<td>.0342</td>
</tr>
<tr>
<td>last 9</td>
<td>.0345</td>
</tr>
<tr>
<td>first 12 years</td>
<td>.0347</td>
</tr>
<tr>
<td>last 11</td>
<td>.0354</td>
</tr>
<tr>
<td>Constant total payment</td>
<td>.0456</td>
</tr>
</tbody>
</table>

Example:

Assume rent (excluding operating cost) is $88. If amortization is at 4 per cent for 55 years under the constant total payment plan; and if insurance, taxes, and dividends are assumed as follows:

| Interest and amortization | .0429 |
| Taxes | .0401 |
| Insurance (80% of .003) | .0040 |
| Dividend (20% of .006) | .0120 |

Then the total debt service factor is .0900.

Changing the interest rate to 5 per cent and the amortization period to 30 years increases the debt service factor by .0091 (.0520 - .0429) (Table V).

Example:

Assume that rent is $812. If occupancy percentage changes from 90 per cent to 100 per cent, the ratio of occupancy percentages (Table VII) is .90. Entering Table VII with 812 and .90, we find a decrease in rent of $3.36.

TABLE VII

Factor of Change in Occupancy Percentage

<table>
<thead>
<tr>
<th>Revised Percentage</th>
<th>Original Occupancy Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td></td>
</tr>
<tr>
<td>97¾</td>
<td></td>
</tr>
<tr>
<td>95¼</td>
<td></td>
</tr>
<tr>
<td>92¼</td>
<td></td>
</tr>
<tr>
<td>90</td>
<td></td>
</tr>
<tr>
<td>87¼</td>
<td></td>
</tr>
<tr>
<td>85</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Change in Rent Per Room Per Month due to Change in Occupancy Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>%</td>
</tr>
</tbody>
</table>

Example:

Assume that rent is $812. If occupancy percentage changes from 90 per cent to 100 per cent, the ratio of occupancy percentages (Table VII) is .90. Entering Table VII with 812 and .90, we find a decrease in rent of $3.36.
The right start for a successful piping system...

Begin with smooth, clean, scale-free pipe

The foundation of successful performance in a piping system lies in the intelligent selection of the pipe—
and, in good, sound installation practice. It costs more to use pipe that will assure better performance greater economy in the long run—pipe that has real
tical "plus" qualities, such as the National Scale Free Spellerizing features. A good workmanlike installa-
deserves to be backed by pipe that will measure up very expectation of both the installer and the owner.

National Scale Free process (applied to butt-weld 
and 3-inch) and the Spellerizing process (size 4-inch
under) give a real protection against corrosion, while uniform, strong, ductile steel and good threading
\ties of National make for easier and quicker time
the job. Consistent specification in the plumbing and
ing field by leading architects and engineers for many
s has made National Scale Free Pipe—

America's Standard Wrought Pipe

National Tube Company • Pittsburgh, Pa.
Pacific Coast Distributors—Columbia Steel Co., San Francisco, Calif.

Crchromate Treatment—All National Galvanized Pipe is given a special chromate treat-
ment to resist discoloration and the formation of white rust. This patented process
that smooth, glistening surface or metallic lustre which is characteristic of good galvanizing.
RESIDENTIAL BUILDING'S PACE

shows no sign of slackening, with rising rents forecasting more gains for the rest of '35.

All Installations Guaranteed for Life of Building

Absolute precision in manufacture characterizes all Accurate Metal Weather Strip.

Continuous improvement over a 30 year period assures the latest development in metal weather strip design.

Cold winds, dust, moisture are effectually barred when windows and doors are Accurate Metal stripped.

Ultimate dependability under all service conditions has helped to make Accurate the leading weather strip of the present day.

Reputation must be sustained, so Accurate strip is subjected to rigid inspection from raw material to finished product.

Air conditioning demands tightly sealed windows and doors, so Accurate Metal Weather Strip is widely used for this purpose.

The proof of Accurate superiority lies in its performance. Try out Accurate on your next weather strip requirement.

Either write or phone for list of typical installations and let us help you select the type of strip best suited to your specific needs.

ACCURATE
Metal Weather Strip Co.
214 East 26th Street, New York
A COUZENS GIFT
of $550,000 propels a U.S. housing venture in decentralization.

A PLEASANT land of lakes, rolling hills and wooded dells lies north and west of Detroit, Michigan. It is now a convenient playground for the thousands of families whose pay envelopes are filled with Ford and General Motors money. The automobile industry once concentrated in Detroit, has in recent years begun the decentralization which Henry Ford forecast as long ago as the dawn of the 1920's. Today the industry's activities have been dispersed to former farming centers in the neighborhood of Detroit; Flint, Pontiac and Lansing have become busy centers of General Motors activity; a score of small communities have been activated by the Ford program of decentralization, and the automobile industry actually surrounds the belt of hills and lakes north and west of Detroit.

Senator Couzens

Within that pleasant area, on an 850-acre tract lying 32 miles northwest of Detroit, construction began last month on the first 50 of 150 houses for a subsistence homestead project financed jointly, and in some respects, strangely by the Federal Government and affluent Senator James Couzens, onetime associate of Henry Ford.

Unnamed as yet, the project has been incorporated under Michigan laws as Oakland Housing, Inc., with a term existence of 30 years, which may be extended. A non-profit organization, it is directed by Chairman William J. Norton, who is also secretary of the Children's Fund of Michigan, another Senator Couzens' philanthropy which he founded with an initial gift of $10,000,000.
The land was acquired last June, when Senator Couzens donated $550,000 to the Federal Government to supplement the Government's $800,000 appropriation for a workingmen's subsistence homestead project in Oakland County. Senator Couzens' donation was accepted by Harry L. Hopkins, FERA Administrator, with an agreement that the Government would spend the first $300,000 and then draw upon the Couzens' grant for the remaining cost.

"If the work should cost more than the $850,000 thus provided," said Mr. Norton, "it is Senator Couzens' intention to see it to completion."

During the past summer the plans for the 150 houses that are to be ready next spring were completed by Barton P. Jenks, Jr., FERA supervising architect, and his staff. Each home will have about an acre of land for its "back yard," an acre which may be cultivated by factory workers in their spare time, and during seasonal unemployment. Each house will face on a street, designed to accommodate a family of six, construction being planned to permit facility of later expansion. The houses, all with attached garages, are of different design, but average about 98 x 22 ft. Typically is one having a living room (11 x 20 ft.), kitchen, dining alcove, garage and terrace on the ground floor, and three bedrooms and bath room on the second floor. There will be no basements. Utility rooms will contain laundry equipment, storage accommodations and forced circulation hot air heating system. Garages will house work benches. Bedrooms will be large enough to accommodate two single beds; closets will be large and windows, with metal casements, will be larger than those ordinarily used in houses of such dimensions. All houses will be insulated and interiors will be furred and plastered. First floor exteriors are of slag and cinder block; second floor, wide siding and shingles; roofs, asphalt slate.

The first of the houses will be finished by January 1, 1936. When the 150 houses are completed next spring, the homesteads will occupy approximately one-third of the available acreage. Plans call for the farming of a 300-acre tract of which a 70-acre apple orchard is a part, and the installation of a cannery and roadside market. This plot has been planted with rye and fertilized in preparation for farming next spring.

Although the plans make provision for stores, gasoline station, automobile service station, community center, etc., the planners, in deference to Couzens' views, point out that the homesteaders themselves shall have the last word on such phases of the project.

"We are conducting an economic experiment," says Mr. Jenks, "trying to do something on a sound economic basis, and there are no social implications involved. It is not the purpose of the proponents of..."
this project to fit the residents of the community into a planned pattern. We hope to include a community center, and other structures required for the needs and recreation of the homesteaders, but these will be built only as the homesteaders decide upon them.

This phase of the activity was stressed also by Senator Couzens’ explanation of his motives at the time the grant was made. At that time the Senator, who is now convalescing in a hospital in Rochester, Minn., called attention to defects in the so-called subsistence homestead policies then advanced, and cautioned against making the beneficiaries of such projects subservient and consciously inferior. Recognizing that decentralization of industry appeared to be inevitable, he expressed distrust of the possibility of forcing the issue by creating communities in the belief that industries would come to them. Confessing that he did not believe that a way had yet been found to make such undertakings economically sound, he added that he believed a solution to the problems would be found, and said:

“While we are waiting for the really effective solution we must permit considerations of social welfare to guide us.”

The managing corporation, Michigan ERA men for the most part, will select homesteaders (about 200 applications have been received, none have been acted upon), manage the farm and all properties not taken over by the homesteaders, and decide on future expansion of the homesteads when and if such expansion is deemed advisable.

“In order that men shall not be tied down so that they cannot better their economic status if opportunity offers, I have understood the meaning of the current and growing discussion of prefabricated shelter, believes that the trend is definitely in the direction of such shelter, but adds that the movement in that direction will continue to be a groping one until some individual with great vision enters the field with the objective of creating shelter as the automotive industry produces transportation.”

His assistants on the present project are FERA Architects E. G. Van Storch and R. O. Cuppy; Ray C. Perkins, architectural engineer, Royal Oak, Mich.; Miss Genecive Gillette, Lansing landscape architect, and four architects from Wayne and Oakland counties.

From the unusual quiet in the office of Resetlement Administrator Relford Tugwell, there came rumors last month that within a month details of a new suburban housing program would be forthcoming.
Permanency in
DECORATION FEATURES

AIDS QUICKER
LOAN APPROVAL...

Specify
WALL-TEX
CANVAS WALL COVERING

In submitting specifications for a building or improvement project on your own or a client's property, permanency in decoration carries a lot of weight. The durability and permanency of Wall-Tex as a practical decorative covering for walls and ceilings, insure that it will outlast the loan.

THESE WALL-TEX FACTS PROVE ITS ADVANTAGES

1. Wall-Tex is canvas decorated with permanent oil colors—the same mediums an artist uses. Gives colorings and textures not possible in paper.
2. Its strong fabric reinforces plaster walls and ceilings, prevents cracks, hides them if they should occur.
3. Wall-Tex is honestly washable—year after year, with soap and water. Its beauty is renewed with each cleansing.
4. The tough Wall-Tex fabric resists scuffing and tearing which so quickly ruin perishable paper.
5. Wall-Tex can be hung over plaster or any other smooth surface. No specialists are needed.
6. Wall-Tex is the perfect base for painting should it ever be desired to change the color scheme.
7. Dull prints, glazes, and metallic satins in nearly 200 patterns—for every room.

Let us send you full details. Ask for A.I.A. File Folder No. 28-C-1, including group of Wall-Tex sample patterns particularly desirable for income properties.

COLUMBUS COATED FABRICS CORP.
COLUMBUS, OHIO
for beauty and long service

WALL-TEX
DECORATIVE WALL CANVAS

SEARS ROEBUCK

boards the prefabrication bandwagon with plywood houses.

Long before the term "prefabricated houses" was bandied about by the building industry, Sears, Roebuck was in the pre-fabricated house business. It did not know its business by that name, nor did there hang over it the concealing haze of factory fabrication. Sears sold "ready-cut," stock plan houses so well that in its peak year of 1927 its construction department turned in about $20,000,000 in sales.

Guessing that it was missing just as much business in individually designed and built houses, Sears started a construction department in 1929, advertised widely that it was ready to build any size house in any style and, what was more important, was ready to finance the construction over a period of fifteen years. Had their announcement not preceded by a few months the tailspin of building, Sears today might have been the biggest home builder in the U.S. Instead it took an awful licking that forced it in 1932 to abandon its tailor-made construction, though not its ready-cut, business entirely. One thing Sears learned: Operating on a national basis, it is literally impossible to build to order and make money.

Last month the company announced its entry into real prefabrication. Its ally is a company which made news as the first pre-fabricated house company—General Houses, Inc., of Chicago, whose premature birth was announced in Fortune and The Architectural Forum in July, 1932.

Sears, Roebuck will sell 30 different models of General Houses' prefabricated dwellings, ranging in price from $2,900 to $4,200. But they will not be the all-steel houses that General Houses sells to its regular customers. Instead they will have a plywood exterior, which besides pulling the cost of the house down into a price range that Sears things it can sell, ought to appeal more immediately to Sears' rural and suburban trade.

Besides selling the houses through its widely scattered retail stores, this fall it will issue a new catalogue of the houses, will incorporate the best sellers in the general catalogue at some future undetermined date. As it does with standard make refrigerators and other items of equipment, Sears will market the houses as Sears houses, not as General Houses.

In charge of the division which will handle the new items in the catalogue will be Louis Royjo Walker, supervisor of Sears home construction, and veteran building man.

To show off its wares, the company will build a model house in Chicago (see cut). The display house, costing about $3,500, will contain five rooms—living room 19x16, dining room 10x10, kitchen 8x13, and two bedrooms 10x13 and 10x16—as well as a bath, a garage 15x8, and a utility-storage room in which will be stored the heating equipment and laundry tubs.

Different in construction from past General Houses units, all structural framing members such as joists and the like are to be of specially formed steel shapes. Walls will be of two thicknesses of plywood thoroughly insulated, the outer plywood being waterproof, and made with a thermoplastic adhesive in a hot plate press.

The roof, to be doubly insulated, will be of flat steel unit construction, with steel beams appearing. Windows will be of the steel house type furnished complete with curtain tracks and hinged screens.

Exclusive of their foundation and final painting, the new Sears houses will be pre-fabricated from front to back and top to bottom. With the exception of the ingredients for the foundation—soils, gravel, and cinders—Sears will supply every inch and ounce of materials and equipment to be used in assembling the house. It will leave actual construction, however, to local contractors.

Houses will be confined to the single story type for the present but it was indicated two-story structures will be offered at a later date.
A WALL ST. HOUSE

seeks to make a market for
FHA insured mortgages.

The same day that Morgan Stanley and
Co., underwriting offshoot of J. P. Morgan
& Co., offered its first issue last month, an
offering, less spectacular, but far more
significant to the building industry, was
made by the likewise consequential firm of
Pask & Walbridge. Trust officers, insurance
company treasurers, bond buyers for
institutions folded back the New York
Times and read with interest, if not com­
plete understanding, an advertisement for
$1,250,000 worth of FHA mortgages. It
was the first such offering they or anyone
else had seen.

Their interest lay in the phrase “at prices
to yield 4½ to 5 per cent,” but to the
building industry the yield was of only
minor concern compared with the simple
fact that a Wall Street brokerage house
was offering to sell FHA mortgages. For
the industry has long known that if a
market for mortgages could be made, con­
struction funds would pour from lending
institutions like water.

Several months ago, after a study of the
NHA, R. Gould Morehead, Pask & Wal­
bridge partner, concluded that mortgage
insurance gave to mortgages what they had
never had before—uniformity. In the
transfer of such a mortgage there was no
need for fresh appraisals, no need for the
buyer even to see the property. Since that
has always been the most serious handicap
to marketability of mortgages, Broker
Morehead saw no reason why they could
not be as salable as bonds.

Accordingly, the firm of Pask & Wal­
bridge talked to possible institutional buy­
ers, found them sympathetic. It then
communicated with banks in a few States,
expressing its intention of acting as broker
between the mortgage seller and buyer.
The result was that the firm was swamped
with offers to sell. Because it is not an
approved mortgagee and therefore cannot
actually own an FHA mortgage, Pask &
Walbridge arranged with the Manufac­
turers Trust Co. and the New York Trust
Co. to receive the mortgages direct from
the sellers and make deliveries direct to
the buyers. With that as its set-up, the
New York Times advertisement was in­
serted.

While it refused to disclose the specific
results of the offering, the firm admitted
that the response had been more than
satisfactory and it planned to extend its
service as a broker for FHA mortgages.
As it always does, the news of Pask &
Walbridge’s effort spread quickly through
Wall Street. Research departments of other
firms dug out of the files copies of the NHA
to determine how they too might add FHA
mortgages to their scant and none too
attractive inventories.

Moncrief Air Conditioning Systems have, over
many years, earned noteworthy reputations for
efficiency, reliability and fuel economy. The
experience of thirty-eight years in building
heating equipment for homes has contributed
their excellence of design, construction and
performance. Made in many types for gas,
cool, or oil, and in a wide range of sizes, of
both cast and steel construction.

Modern in every particular, substantially built,
and beautifully finished, they afford every
benefit of winter air conditioning at reasonable cost.

Moncrief Air Conditioning Systems have, over
many years, earned noteworthy reputations for
efficiency, reliability and fuel economy. The
experience of thirty-eight years in building
heating equipment for homes has contributed
their excellence of design, construction and
performance. Made in many types for gas,
cool, or oil, and in a wide range of sizes, of
both cast and steel construction.

Send for illustrated descriptive literature and
engineering data sheets.

The Henry Furnace & Foundry Co.
3485 E. 49th St. Cleveland, Ohio

Moncrief Engineering Service is freely
available to Architects and Builders.

Moncrief Oil Fire "Aristocrat"—Made also
with vestibule enclosing oil burner and
entire front. Takes any standard make
oil burner. "Aristocrats" include blower,
filters, humidifiers, patented windbox.
Superior units in every particular.
WHEN you buy new window shades ask the salesman—"Are they Hand Made?" Then you will be sure to get shades of inferior quality.

Hand Made Luxor and Victor shade cloths contain none of the cheap clay filling that is used in inferior grades, so of course, they do not readily crack or pinhole, even when roughly treated. Against sun and moisture—the window shade's greatest enemy—they are thoroughly protected with pure linseed oil colors, brushed into the fabric by hand.

We manufacture, of course, many other grades of window shades. But with no other process of manufacture have we or any other manufacturer been able to duplicate the qualities that have made Luxor and Victor Hand Made window shades the first choice of home owners for more than 50 years.

Your dealer, too, will recommend Hand Made window shades. He knows from experience that they are far more decorative and far more durable than window shades made in any other manner.

CUT FUEL BILLS WITH WINDOW SHADES

"By hanging a pair of shades at every window, and keeping them drawn at night," says the research department of a famous university, "you can reduce the dissipation of heat by more than 43 per cent, and thus effect a very noticeable saving in your heating costs." Thousands of home owners have learned that drawn shades keep the home warm in winter and cool in summer.

MAIL THIS COUPON FOR SAMPLES

THE WESTERN SHADE CLOTH CO.
Cermak Rd. & Jefferson St., Chicago, Illinois
or WILLIAM VOLKER & CO.
Main, Second and Third Sts., Kansas City, Mo.
Please send samples of HAND MADE shade cloth and your booklet, "The Inside Story."

Name: ____________________________
Address: _________________________

MINIMUM STANDARDS

set for one and two-family houses by Brooklyn savings banks.

FOLLOWING close on the heels of its minimum specifications for apartment houses, the Group Five Mortgage Information Bureau, cooperative research unit of Brooklyn, N. Y. savings banks (Arch. Forum, Aug., 1935, p. 12), issued last month an 18-page pamphlet covering one and two-family houses. The specifications, covering every item from general conditions to built-in equipment, were prepared by a savings bank committee, headed by Webster J. Caye, and including Adolph Goldberg and Paul W. Connelly.

What makes the work significant is that the specifications are not recommended, but mandatory. Says the committee, "Savings banks which have adopted these requirements will insist that any building on which they make a loan started after September, 1935, shall follow these minimum specifications. Builders are advised to make their contracts with the banks before starting construction, and owners are urged to insist on the requirements if they want loan approvals.

While the specifications contain no radical departures, they follow accepted practice closely. Sample paragraphs:

"The use of recognized architectural design will be preferred to modernistic forms of architecture. This will not preclude the use of modern" architecture but it is intended to discourage freak designs. . .

"Fireproof or semi-fireproof buildings shall be encouraged. . .

"The use of approved insulation material at least 1" thick on all roofs shall be required. . .

"Pitched roofs shall be covered with an asphalt felt of not less than 20 lbs. per sq. ft. and roofed with either copper, tile, slate, or rigid asbestos shingles. . . The use of paper asphalt shingles will be prohibited. . .

"The use of wall boards for walls and ceilings shall be permitted only for very low cost buildings. . .

"All plumbing fixtures shall be either 'Standard,' 'Kohler,' 'Crane,' 'Briggs,' or equal as approved. . .

"Where showers are installed. . . the use of tile or marble stalls with chrome plated glazed doors shall be required in preference to shower curtains. . .

"It is recommended that built-in brass or cast iron convectors be used in place of open radiation. . .

"Each building shall be equipped with mechanical refrigeration of standard manufacture. . .

"All kitchens shall be covered with either Grade B or better linoleum double cemented on felt or tiled with soft tile subject to approval."
The AZROCK line of products includes Carpet Tile, Floor Tile, Industrial Tile and Textured Plank.

AZROCK CARPET TILE could tell you just how easy it is for the cushiony resilience of this unusual floor covering to cling smoothly to its subfloor. AZROCK will not crack, warp nor fade. In addition, it is sound-absorbing, fire-resistant and easy to maintain. Specify AZROCK for any interior floor and it will meet your most exacting standard for durability and service. At the same time, your client gets just what he wants: a beautifully modern floor covering, distinctive yet inexpensive, with colorful patterns to harmonize with your decorative theme.

Uvalde Rock Asphalt Company
San Antonio, Texas.

Without obligation, please send me more information about AZROCK Carpet Tile.

Name: ___________________________ Address: ___________________________
The "Standard" Neo-Angle Bath, with seats in two opposite corners, is a full-size, roomy bathing space as long as the usual 5 1/2 ft. tub and 6" wider. The tub measures 46".
Modern Bathroom Design

"Standard" Neo-Angle Bath

- It's new...different...distinctive...and combines all the practical types of bathing in one modern bath. It's a bath that brings a new freedom to modern bathroom design without sacrificing utility. For the "Standard" Neo-Angle Bath is a convenient, roomy, full-size bath that adds beauty and charm to any decorative effect.

- Shown here are only a few of the many ways in which the Neo-Angle Bath fits almost any modern bathroom. It opens unlimited possibilities for new, unusual and original arrangements, because it is so adaptable to the artistic grouping of other bathroom fixtures. Here, indeed, is the bath of the future for the homes of today.

- Turn to your "Standard" Catalogue, or write for descriptive literature giving all the details of the "Standard" Neo-Angle Bath for both modernization and new building.

PITTSBURGH, PA.
Division of American Radiator & Standard Sanitary Corporation
THREE GREAT INDUSTRIES UNITE
to give you the new
Formed Metal Plumbing Ware
YOU will see in the new formed metal plumbing ware a perfect blending of the designer's art, the fabricator's ingenuity, the porcelain enameler's skill, and the steel-maker's long research. Light, strong, rolled metal replaces heavy, ponderous construction. Sheer bulk gives way to grace and style. Multi-color effects replace monotonous sameness of finish.

Formed metal plumbing ware is as new as today. It sounds a refreshing note in a depression-weary age. It is attuned to the times and enables you, the architect, to breathe new inspiration and utility into your creations.

Your clients will welcome this greatly-improved plumbing ware—kitchen sinks, bathtubs, lavatories, closets, cabinets and laundry tubs. You will approve it wholeheartedly, once you have seen how completely it eclipses everything that has gone before.

Formed metal plumbing ware opens a vast field for architects, builders and plumbers. Your clients are expecting new and better materials and products. Their interest is being whetted every day by new buildings and renovations of the old. They will respond keenly to formed metal fixtures. They will quickly approve your desire to give them the finest that industry affords at a reasonable cost.

And remember, this new-day plumbing ware is porcelain enameled on Armco Ingot Iron—a metal scientifically made to form perfectly in the giant presses and to hold the lustrous, lifetime porcelain enamel. Widely advertised, and used for years by the leading manufacturers of ranges, refrigerators, washing machines and other familiar household appliances, Armco Ingot Iron is known as "the world's standard enameling iron." You'll find a ready acceptance among your clients for this well-known metal.

Formed metal plumbing ware offers you and your clients new designs and color combinations, greater utility, proved installation economy, and definite assurance of lasting satisfaction. Now you can meet the challenge of a more exacting period with a completely new line of modern plumbing ware—made entirely of formed metal.

THE AMERICAN ROLLING MILL COMPANY

* Millions of people know the familiar Armco trademark as a sign of the highest quality in porcelain enameled products. Executive Offices, Middletown, O. District Offices in All Key Cities

* For more than twenty years buyers have been reading Armco advertising and for seven years listening to Armco on the air.

PORCELAIN ENAMELED ON ARMCO INGOT IRON FOR LIFETIME BEAUTY
"Electrolux has fully lived up to every claim made for it"

says HAROLD P. DWORSKY, of 1440 Broadway, N. Y. C.

MR. DWORSKY WRITES:

"Our original choice of the gas refrigerator for our properties was made because it has no moving parts to get out of order, because of its silence, and because the gas company stood back of and serviced Electrolux. During the past 3 years, we have installed more than 1,000 water-cooled and 1,000 air-cooled Electrolux, and I am happy to state that Electrolux has fully lived up to every claim made for it."

The New York builder's experience quoted above is typical of the experience of builders and owners the country over who have installed Electrolux in their properties. And it explains clearly why this modern gas refrigerator is such an overwhelming favorite—both for original equipment and to replace other types of automatic refrigeration! In New York City alone, Electrolux has been selected for more than 4,500 apartment buildings.

The reason for the utter dependability and efficiency of Electrolux is its basically different method of operation. A tiny gas flame takes the place of all moving parts. It circulates the simple refrigerant, which is cooled by ordinary air. This absence of moving parts that wear and cause noise eliminates probably the biggest sources of refrigeration complaint, interrupted service and high maintenance costs. In addition, your local gas company backs and services every Electrolux it sells. Another important advantage to you!

You will find it well worth your while to investigate Electrolux thoroughly before choosing any refrigerator for your properties. Electrolux gives you more—and it gives your tenants more, too. Tenants appreciate the low running cost which the simpler operation of Electrolux makes possible. And they appreciate, as well, its smart modern beauty, its many worthwhile conveniences. Electrolux is on display at your local gas company showroom. See the new models today. Servel, Inc., Electrolux Refrigerator Sales Div., Evansville, Ind.
ANNOUNCING

THE NEW SUNBEAM AIR CONDITIONING UNIT

IN THE NEW SUNBEAM Oil Burning Air Conditioning Unit, a pioneer organization in the heating, ventilating and air conditioning industry combines with efficiency of the highest order, beauty and attractiveness that heretofore have never been attained!

It is the result of 50 years of heating experience . . . . the result of successful air conditioning installations that number well into the thousands . . . . installations that have performed successfully for several years, from New York to San Francisco and from Minnesota to Texas.

There is a Sunbeam Air Conditioning Unit for every type of home, large or small — and for every kind of fuel, gas, oil or coal, stoker-fired or hand-fired.

The services of a capable staff of factory engineers, who will prepare air conditioning layouts from building plans, are available to architects.

The coupon below will bring you data on Sunbeam Air Conditioning equipment. Fill in your name and return it — today.

THE FOX FURNACE COMPANY
ELYRIA, OHIO

A Division of
AMERICAN RADIATOR & STANDARD SANITARY CORP’N

SUNBEAM AIR CONDITIONING UNIT

RETURN THIS COUPON

THE FOX FURNACE COMPANY
ELYRIA, OHIO

NAME ____________________________
ADDRESS _________________________
CITY and STATE ___________________

RETURN THIS COUPON

THE FOX FURNACE COMPANY
ELYRIA, OHIO

NAME ____________________________
ADDRESS _________________________
CITY and STATE ___________________

RETURN THIS COUPON

THE FOX FURNACE COMPANY
ELYRIA, OHIO

NAME ____________________________
ADDRESS _________________________
CITY and STATE ___________________

RETURN THIS COUPON

THE FOX FURNACE COMPANY
ELYRIA, OHIO

NAME ____________________________
ADDRESS _________________________
CITY and STATE ___________________

RETURN THIS COUPON

THE FOX FURNACE COMPANY
ELYRIA, OHIO

NAME ____________________________
ADDRESS _________________________
CITY and STATE ___________________

RETURN THIS COUPON

THE FOX FURNACE COMPANY
ELYRIA, OHIO

NAME ____________________________
ADDRESS _________________________
CITY and STATE ___________________

RETURN THIS COUPON

THE FOX FURNACE COMPANY
ELYRIA, OHIO

NAME ____________________________
ADDRESS _________________________
CITY and STATE ___________________

RETURN THIS COUPON

THE FOX FURNACE COMPANY
ELYRIA, OHIO

NAME ____________________________
ADDRESS _________________________
CITY and STATE ___________________

RETURN THIS COUPON

THE FOX FURNACE COMPANY
ELYRIA, OHIO

NAME ____________________________
ADDRESS _________________________
CITY and STATE ___________________

RETURN THIS COUPON

THE FOX FURNACE COMPANY
ELYRIA, OHIO

NAME ____________________________
ADDRESS _________________________
CITY and STATE ___________________

RETURN THIS COUPON

THE FOX FURNACE COMPANY
ELYRIA, OHIO

NAME ____________________________
ADDRESS _________________________
CITY and STATE ___________________

RETURN THIS COUPON

THE FOX FURNACE COMPANY
ELYRIA, OHIO

NAME ____________________________
ADDRESS _________________________
CITY and STATE ___________________

RETURN THIS COUPON

THE FOX FURNACE COMPANY
ELYRIA, OHIO

NAME ____________________________
ADDRESS _________________________
CITY and STATE ___________________

RETURN THIS COUPON

THE FOX FURNACE COMPANY
ELYRIA, OHIO

NAME ____________________________
ADDRESS _________________________
CITY and STATE ___________________

RETURN THIS COUPON

THE FOX FURNACE COMPANY
ELYRIA, OHIO

NAME ____________________________
ADDRESS _________________________
CITY and STATE ___________________

RETURN THIS COUPON

THE FOX FURNACE COMPANY
ELYRIA, OHIO

NAME ____________________________
ADDRESS _________________________
CITY and STATE ___________________

RETURN THIS COUPON

THE FOX FURNACE COMPANY
ELYRIA, OHIO

NAME ____________________________
ADDRESS _________________________
CITY and STATE ___________________

RETURN THIS COUPON

THE FOX FURNACE COMPANY
ELYRIA, OHIO

NAME ____________________________
ADDRESS _________________________
CITY and STATE ___________________

RETURN THIS COUPON

THE FOX FURNACE COMPANY
ELYRIA, OHIO

NAME ____________________________
ADDRESS _________________________
CITY and STATE ___________________

RETURN THIS COUPON

THE FOX FURNACE COMPANY
ELYRIA, OHIO

NAME ____________________________
ADDRESS _________________________
CITY and STATE ___________________

RETURN THIS COUPON

THE FOX FURNACE COMPANY
ELYRIA, OHIO

NAME ____________________________
ADDRESS _________________________
CITY and STATE ___________________

RETURN THIS COUPON

THE FOX FURNACE COMPANY
ELYRIA, OHIO

NAME ____________________________
ADDRESS _________________________
CITY and STATE ___________________

RETURN THIS COUPON

THE FOX FURNACE COMPANY
ELYRIA, OHIO

NAME ____________________________
ADDRESS _________________________
CITY and STATE ___________________

RETURN THIS COUPON

THE FOX FURNACE COMPANY
ELYRIA, OHIO

NAME ____________________________
ADDRESS _________________________
CITY and STATE ___________________

RETURN THIS COUPON

THE FOX FURNACE COMPANY
ELYRIA, OHIO

NAME ____________________________
ADDRESS _________________________
CITY and STATE ___________________

RETURN THIS COUPON

THE FOX FURNACE COMPANY
ELYRIA, OHIO

NAME ____________________________
ADDRESS _________________________
CITY and STATE ___________________

RETURN THIS COUPON

THE FOX FURNACE COMPANY
ELYRIA, OHIO

NAME ____________________________
ADDRESS _________________________
CITY and STATE ___________________

RETURN THIS COUPON

THE FOX FURNACE COMPANY
ELYRIA, OHIO

NAME ____________________________
ADDRESS _________________________
CITY and STATE ___________________

RETURN THIS COUPON

THE FOX FURNACE COMPANY
ELYRIA, OHIO

NAME ____________________________
ADDRESS _________________________
CITY and STATE ___________________

RETURN THIS COUPON

THE FOX FURNACE COMPANY
ELYRIA, OHIO

NAME ____________________________
ADDRESS _________________________
CITY and STATE ___________________

RETURN THIS COUPON

THE FOX FURNACE COMPANY
ELYRIA, OHIO

NAME ____________________________
ADDRESS _________________________
CITY and STATE ___________________

RETURN THIS COUPON

THE FOX FURNACE COMPANY
ELYRIA, OHIO

NAME ____________________________
ADDRESS _________________________
CITY and STATE ___________________

RETURN THIS COUPON

THE FOX FURNACE COMPANY
ELYRIA, OHIO

NAME ____________________________
ADDRESS _________________________
CITY and STATE ___________________

RETURN THIS COUPON

THE FOX FURNACE COMPANY
ELYRIA, OHIO

NAME ____________________________
ADDRESS _________________________
CITY and STATE ___________________

RETURN THIS COUPON

THE FOX FURNACE COMPANY
ELYRIA, OHIO

NAME ____________________________
ADDRESS _________________________
CITY and STATE ___________________

RETURN THIS COUPON

THE FOX FURNACE COMPANY
ELYRIA, OHIO

NAME ____________________________
ADDRESS _________________________
CITY and STATE ___________________

RETURN THIS COUPON

THE FOX FURNACE COMPANY
ELYRIA, OHIO

NAME ____________________________
ADDRESS _________________________
CITY and STATE ___________________

RETURN THIS COUPON

THE FOX FURNACE COMPANY
ELYRIA, OHIO

NAME ____________________________
ADDRESS _________________________
CITY and STATE ___________________

RETURN THIS COUPON

THE FOX FURNACE COMPANY
ELYRIA, OHIO

NAME ____________________________
ADDRESS _________________________
CITY and STATE ___________________

RETURN THIS COUPON

THE FOX FURNACE COMPANY
ELYRIA, OHIO

NAME ____________________________
ADDRESS _________________________
CITY and STATE ___________________

RETURN THIS COUPON

THE FOX FURNACE COMPANY
ELYRIA, OHIO

NAME ____________________________
ADDRESS _________________________
CITY and STATE ___________________

RETURN THIS COUPON

THE FOX FURNACE COMPANY
ELYRIA, OHIO

NAME ____________________________
ADDRESS _________________________
CITY and STATE ___________________

RETURN THIS COUPON

THE FOX FURNACE COMPANY
ELYRIA, OHIO

NAME ____________________________
ADDRESS _________________________
CITY and STATE ___________________

RETURN THIS COUPON

THE FOX FURNACE COMPANY
ELYRIA, OHIO

NAME ____________________________
ADDRESS _________________________
CITY and STATE ___________________

RETURN THIS COUPON

THE FOX FURNACE COMPANY
ELYRIA, OHIO

NAME ____________________________
ADDRESS _________________________
CITY and STATE ___________________

RETURN THIS COUPON

THE FOX FURNACE COMPANY
ELYRIA, OHIO

NAME ____________________________
ADDRESS _________________________
CITY and STATE ___________________
LOW COST AIR CONDITIONING AND HEATING PLANT

THAT Sells HOUSES

Modern SUPERFEX oil burning plant circulates cool, clean, air in summer and automatically warmed, humidified, filtered air in winter. Costs no more than automatic hot water heat!

THE more livable the house, the easier it is to sell. This is demonstrated, daily, by cases in which homes having Superfex air conditioning installations have quickly outsold similar houses having ordinary systems.

Single-unit plant provides summer and winter comfort

When you put a Superfex automatic oil burning air conditioning heating plant in a house, the one installation assures healthful comfort the year round. In summer, circulated, cool, pollen-free air; in winter, circulated, filtered and humidified warm air. Superfex heating dependability has been proved by years of satisfactory service including sub-zero weather.

There’s nothing complicated about Superfex

The Superfex method of burning oil is simple. It is completely automatic—year-round air conditioning in its simplest, most economical form. Superfex is made by Perfection Stove Company, for 45 years the world’s leading manufacturer of oil burning equipment.

Everyone interested in new construction should investigate the surprisingly low cost of the Superfex oil burning heating plant that conditions air.

I would like to know more about the modern, clean, economical SUPERFEX automatic oil burning heating plant that conditions air.

Please check: [ ] Architect  [ ] Engineer  [ ] Builder  [ ] Planning new home

Name:

Street:

Post Office:

State:

PERFECTION STOVE CO., 7071-A Platt Ave., Cleveland, Ohio
The new Hoffman Adjustable Vent Port Air and Vacuum Valves are sold everywhere by leading wholesalers of Heating and Plumbing Equipment.

6-SPEED VENTING

NOW BRINGS INDIVIDUAL RADIATOR CONTROL TO ONE-PIPE STEAM SYSTEMS

Lack of “balance” — the inherent disadvantage of one-pipe steam heating systems — can now be corrected by a new device incorporated in all Hoffman Air and Vacuum Radiator Valves. The Hoffman Adjustable Orifice Venting Port makes available six venting speeds, which permit an accurate control of the rate of steam flow into the radiators.

By a simple adjustment in the Venting Port size, large or distant radiators can be made to heat faster and smaller radiators slower. Thus a “balance” is achieved in which all radiators heat in equal proportion, regardless of size or distance from the boiler.

Hoffman 6-Speed Venting is particularly valuable in systems with concealed radiation or where automatically fired boilers are installed.

There is no guesswork in setting a Hoffman Adjustable Port Venting Valve. All six ports are visible and the method of adjustment assures a precise control of venting speed and hence the rate of heating. The special construction of the cap prevents accidental complete closure of the port.

The new Hoffman Adjustable Orifice Venting Port does not in any way affect the positive and sensitive action for which Hoffman Air and Vacuum Valves are noted. For descriptive literature, write to the Hoffman Specialty Co., Inc., Dept. AF-12, Waterbury, Conn.

SIMPLE, VISIBLE AND PRECISE ADJUSTMENT ELIMINATES ERRORS IN SELECTING AND SETTING THE PROPER VENT PORT.

HOFFMAN SPECIALTY CO., Inc.
WATERBURY, CONN.
Now all residential layouts for your clients can have the additional support of modern all-electric kitchen plans, based upon well-defined scientific principles, and drawn by the Westinghouse Kitchen Planning Staff. For example, an intensive study of thousands of kitchens proved conclusively that to be correctly arranged a kitchen must be laid out in one of four distinct classes, each containing three basic work centers. A formula was evolved to determine the exact kitchen cabinet space required for a given size family. The proper cooking utensils, supplies, and equipment for each center were also defined. These fundamentals were clarified and endorsed by leading women authorities who participated in the Westinghouse Kitchen Clinic, held in Mansfield, Ohio, early this year.

The results of all this research are now available to you. Complete color plans and elevations with detailed blueprints picturing proper arrangement in the modern kitchen will be submitted for your approval. This service is yours without charge. For full details of how your kitchen layouts can be filled in with modern, scientifically arranged equipment, write Kitchen Planning Department, Westinghouse Electric & Mfg. Company, Mansfield, Ohio.
A CONSULTING SERVICE FOR MODERN HOME KITCHENS

- Plans like the above, approximately 10" x 14 1/2", are submitted to you in full color. Included also are blueprints, detailed with all dimensions, and specification sheets which suggest the proper sizes and types of equipment for the particular residence problem you are solving. Each kitchen plan submitted has drawn into it the broad experience and research of the Westinghouse Kitchen Planning Staff. Make use of this service.

WESTINGHOUSE ELECTRIC & MFG., COMPANY MERCHANDISING DIVISION, MANSFIELD, OHIO
PROTECT YOUR WATER SUPPLY WITH SLOAN VACUUM BREAKERS

The SLOAN Vacuum Breaker is open to the atmosphere at all times, except during the flush, as shown above. It is leak-proof, noiseless and does not restrict the rate of flow.

The Sloan Vacuum Breaker is easily applied to old installations as well as new and is guaranteed to prevent back-siphonage with any make of flush valve when properly installed above the spill line of the fixture.

Send for your copy of our new catalog

SLOAN VALVE CO.
4300 WEST LAKE STREET, CHICAGO, ILLINOIS

For the Uninterrupted Trouble-Free Service that Clients Will Appreciate for Years to Come

SPECIFY CALDWELL Sash Balances

Forty-seven years' experience has demonstrated that Caldwell Sash Balances have a trouble-free life of 30 years, or longer. The home owner is quick to realize what economy this means in terms of actual upkeep savings.

Moreover, the new Caldwell Sash Balances, requiring less space between the frames, fit the attractive designs of modern tight-fitted narrow mullion windows. And the price... lower than it has been in our history.

• MODERN WINDOW DESIGN calls for
• CALDWELL SASH BALANCES

Caldwell Manufacturing Company
46 Industrial St., Rochester, N. Y.

For your files—A Complete Catalog of working drawings, installation instructions. Write for your copy.

A DISTINGUISHED HOME

World leaders and distinguished visitors... for over forty years... have stopped at The Waldorf-Astoria. For The Waldorf is more than an internationally famous hotel... it is a delightful home. Room rates are from $5 the day.

THE WALDORF-ASTORIA
PARK AVENUE - 49TH TO 50TH STREETS - NEW YORK

to have been in Europe and not to have been Paris...

or to have been in Chicago and not to have savored the very sheen of fine living at the largest of the world's hotels... THE GREAT STEVENS! Two great misses.

The new beautiful swift automobiles! Do you like them? And the new prices?

Here, too, at THE GREAT STEVENS modern operation has created multitudinous new finesses in living!

Living is "Streamlined" at THE STEVENS! And, from now on, new era prices prevail. Room with bath from $2.50

THE STEVENS
CHICAGO
WORLD'S LARGEST HOTEL
Dependable insulation assures permanent, economical temperature control in these modern homes.

HOME air conditioning efficiency and economy are largely dependent upon one thing—adequate insulation. Accordingly, in the Westinghouse Electric and Manufacturing Company's "Home of Tomorrow," as well as the Lancaster Real Estate Board's Manor House, Armstrong's Temlok Building Insulation was the architects' choice.

Armstrong's Temlok helps insure accurate temperature control at minimum cost. And it does more! Because it is fabricated from the resin-impregnated fibres of the southern yellow pine, Temlok resists the efficiency-destroying effects of moisture...provides dependable insulation for as long as the building stands!

In the modern, air conditioned Manor House, one-inch Temlok Insulating Lath was specified for all exterior walls and for the first and second floor ceilings. In addition, all interior partitions are insulated with half-inch Temlok Insulating Lath so that individual rooms or parts of the house can be cooled or heated independently without waste.

To guard against the passage of heat in the "Home of Tomorrow," one-inch Temlok Insulating Board was specified for sheathing of all exterior walls; one-and-one-half-inch Temlok Insulating Lath for all exposed ceilings; while various other thicknesses of board and lath were used for insulating the roof, penthouse, basement, and garage.

For complete information and samples of Armstrong's Temlok Building Insulation,—also Armstrong's Hard Boards, Temwood and Temboard—write today to Armstrong Cork Products Company, Building Materials Division, 900 Concord St., Lancaster, Pennsylvania.
WHATEVER
THE BUILDING
LESS NOISE
BETTER HEARING
MEAN
ACOUSTICAL

There are, of course, honest differences of opinion about various products entering the construction or modernization of a building. But when the problem is acoustical treatment, there is an almost universal agreement on Acousti-Celotex. This exceptional preference can be attributed to its proven superiorities demonstrated over a period of more than twelve years in all types of buildings.

Architects are thoroughly familiar with the permanent effectiveness of Acousti-Celotex, its adaptability to decorative design, its paintability without lessening its efficiency, its high noise absorbing qualities.

Sound absorption, better hearing, less noise—these requirements today call for Acousti-Celotex whether the specifications are for public or private buildings, churches or theatres, schools or hospitals.

When you are confronted with the problem of acoustical treatment, call in the Acousti-Celotex contracting engineer in your city. He will gladly work with you, submitting scientific analysis and costs. Or write direct.

Acousti-Celotex can now be furnished with a pre-painted hard finished surface especially adaptable to various installation requirements.

THE CELOTEX COMPANY, 919 N. Michigan Ave., Chicago.

SPECIAL NOTE—Acousti-Celotex Sound Absorbing Tiles are applied directly to ceilings, old or new. Unimpaired efficiency after repeated painting is due to patented perforations which permit access of sound waves to the inner absorbent material.

FORUM OF EVENTS
(Continued from page 34)

windows, two skylights, a circular staircase. And he published his famed *Vera una Architecture*, which contained his quoted phrase “a machine for living in.”

He is now entrenched as one of the great leaders of the architectural moderns. His name is indelibly associated with the flat planes and polychromy of the International Style, he is a messiah to the moderns, anathema to traditionalists. The Museum of Modern Art could have thought of no smarter architectural legedemain than bringing him to the U. S.

In January an exhibition of the architecture of Henry Hobson Richardson will commemorate the fiftieth anniversary of his death.

GERMAN ODDITIES

Germany, whence have issued some of the most important theories of contemporary architecture, also manages to keep in the architectural news every month with a continuous stream of oddities of interest, if not of importance. Last month’s oddities included two modern variants of ancient ideas.

For a Berlin editor and author, Kurt Safranski, Artist Bortning screened a bookcase with a gay panel, decorated in miniature. Thus when the bookcase is closed, the owner has the equivalent of a large picture on the wall. (When it is open, it looks like any other bookcase, the white, undecorated sides of the panel merely framing it like ordinary doors.)

Carrying something of the same idea to exteriors, Architekt Stadtrat Erdmann relieved the monotony of the blank walls of a Berlin development by taking a hint from ancient practice and inducing Painter Wolf Roehricht to put frescoes on them. Aware of the escapist philosophy of many an urban development, Herr Roehricht called his frescoes “A Country Idyll.”

GERMAN DESIGN: INTERIOR AND EXTERIOR
(Continued on page 60)
THESE ARE THE QUALITIES OF TERRAZZO FLOORS

For the convenience of architects in specifying flooring materials, here is a check-list of specific properties of terrazzo:

1. DURABILITY. Terrazzo is a form of concrete—made with an aggregate of marble chips and portland cement, separated by dividing strips. It is literally as hard as marble and as permanent as concrete. When ground and polished to its final finish, the surface area of terrazzo is approximately 85% marble and 15% portland cement matrix. This provides a surface that is highly durable.

2. APPEARANCE. Characteristic of terrazzo are its clear, warm colors, its rich natural sheen and its pleasing variations in design. Wide variety in color and combinations of color in domestic and imported marble chips, plus the choice of pigment for coloring the matrix, provide a color range in terrazzo which is practically unlimited. In terrazzo pattern, likewise, limitation depends only upon the requirements of decorative harmony and upon the architect’s expression in design. Each terrazzo floor may be individually planned for a particular installation. Any motif, in intricate pictorial detail or simple repetitive pattern, may be executed in terrazzo. And because of its durability, the excellent appearance of a well-designed, properly placed and maintained terrazzo floor is constant throughout its life.

3. ORIGINAL COST. Installation costs of terrazzo floors vary somewhat in relation to detail of design, type of metal strip, color and sizing of marble chips, color requirements, and portland cement used (white or gray). In general, however, original cost of terrazzo is directly comparable to cost of other types of high-grade floorings. Consideration of the unique results achieved in terrazzo, together with its exceptional durability, definitely establishes it as one of the most economical flooring materials.

4. MAINTENANCE. Little maintenance is needed for terrazzo. Routine washing and mopping, plus polishing at occasional intervals, keeps a terrazzo floor in excellent condition. The hard and dense finish of terrazzo is highly stain-resistant. It is practically mar-proof, even under severe wear. It is easy to clean. These factors are reflected in low maintenance cost.

This information is presented by The National Terrazzo and Mosaic Association, Inc.—an organization of qualified terrazzo contractors formed for the purpose of establishing and maintaining quality standards in terrazzo installation. Detailed information and established specifications for terrazzo may be obtained from the Secretary of the Association, 524 Brook Street, Louisville, Kentucky.

THE NATIONAL TERRAZZO AND MOSAIC ASSOCIATION

FOLLOWING ADVERTISEMENT WILL PRESENT A CHECK-LIST OF RECOMMENDED TERRAZZO USES

OCTOBER • 1935
FINE architectural finishes such as those produced by Berry Brothers definitely reduce painting cost. It is mechanically impossible to save money by specifying low priced paints, varnishes or enamels of mediocre quality. You do the figuring—we'll prove this to your complete satisfaction.

Labor accounts for 70% of the cost—in almost any finishing operation. Berrycraft architectural finishes cost only one to fifteen percent more than many so-called “bargain” brands. As compared with these same brands, however, they have up to 50% greater covering capacity, and, in some instances, several hundred percent greater durability. We do not even consider here the superior opacity of Berrycraft Finishes or the saving in labor that results from their extraordinary ease of application.

For more than 75 years Berry Brothers has been known as America's outstanding manufacturer of high quality architectural finishes. This reputation began generations ago when Berry Brothers produced HARD OIL. The fame of this finish became so great that its name was adopted as a generic term by other manufacturers who attempted unsuccessfully to duplicate the finish.

Today, rigid tests will prove to your complete satisfaction that Berry Brothers' quality standards are as high as ever. Specify Berry quality—for definite cash savings and for enduring satisfaction. Berry Brothers, Detroit, Michigan, Walkerville, Ontario—Manufacturers of Paints, Varnishes, Enamels, Lacquers.
The J & L Steel and Concrete Floor System offers the advantages of steel construction in the first floor of any residence or light-occupancy building without imposing any restriction on either architect or builder. No specialized experience or special equipment is necessary. This system is also applicable to upper floors when solid masonry walls or steel framing is used.

The concrete slab engages the top flanges of the beams, anchors the floor to the foundation and provides a continuous firestop. The simplicity of the system, ease of installation, economies effected, and the structural values added, have brought widespread acceptance of this rigid, shrink-proof, vermin-proof, fire-resistant floor.

A detailed description of J & L Junior Beam Floors will gladly be sent to you without obligation.

OTHER J & L CONSTRUCTION PRODUCTS
Steel Pipe — Bars for Concrete Reinforcement
Standard Structural Shapes
Light Weight Channels
Wire Nails — Steel Piling
CALKING is an essential factor in weatherproofing large and small RESIDENCES

For permanent protection against weather damage and undue heat losses—and a prime essential in air-conditioned buildings—no material is so dependable, so permanent, so sponsored by years of satisfactory performance, as Pecora—for it will not dry out, crack or chip when properly applied.

For further details see Sweet’s Catalogue or write direct to us.

Pecora Paint Company
Inc.
Fourth and Venango Sts.
PHILADELPHIA

Est. 1862 by Smith Bowen

Also Makers of
SASH PUTTIES
MORTAR STAINS
SUCTION MASTIC
for Structural Glass

DEATHS

HAROLD VAN BUREN MAGONIGLE, 67, F.A.I.A., of paralysis; in Buch Harbor, Vt. A draftsman of extraordinary skill, architect of the McKinley Monument, at Canton, Ohio, the Schenley Fountain, Pittsburgh, the Peace Memorial, Kansas City. Mr. Magonigle was one of the greatest U.S. exponents of academic scholarship and a witty, fiery critic of most “modern” architecture, which he detested. He made his architectural views known to the whole profession through his column “The Upper Ground” in Pencil Points. Born in Bergen Heights, N. J., he got his first architectural training in the office of Vaux and Radford, later working with Charles C. Haight, McKim, Mead and White, and Rotch and Tilden. He was 82 when he won the gold medal of the Architectural League of New York of which he later became president. In 1928 the New York Chapter, A.I.A., of which he was also a past president, gave him its medal of honor. Among his buildings were the Gates Avenue Court House in Brooklyn, the United States Embassy and Consulate in Tokyo, the Arsenal Technical School in Indianapolis, the Soldiers’ Memorial in Naugatuck, Conn., the residences of Isaac Guggenheim, Port Washington, Long Island, and of one time Governor Franklin Murphy of New Jersey in Mendham, N. J.

Architect Magonigle was also a sculptor, painter, and author. He wrote “Architectural Rendering in Wash,” “The Renaissance,” “The Nature, Practice and History of Art.” As a public speaker and a writer he always urged architects to think of themselves as professional men as against business men, deplored architectural offices that looked like “business offices,” insisted that architects were something more than “mere merchants of space.”

WALTER W. SHARPLEY, Jr., 56, architect; after long illness; in Haddonfield, N. J. In Philadelphia he designed the Belleview-Stratford Hotel, the Elks Home, in Atlantic City the Hotel Dennis. At the St. Louis Exposition he was assistant chief designer of the Louisiana Purchase exhibits.

WILLIAM F. DREWRY, Jr., 54, architect; of pneumonia; in Richmond, Va. Born in Petersburg, Va., he took a B.S. and a C.E. at Virginia Military Institute, later was graduated from the Architectural School at Columbia University. Two years ago he became an assistant professor at Columbia after several years’ work in the office of Greitel and Ricard, New York City. This year Columbia promoted him to a full professorship. With Dr. Werner Hegemann and Henry Wright he collaborated on the May Home Development Reference Number of The Architectural Forum.

SAMUEL E. HILGER, 73, A.I.A.; in Auburn, N. Y. An 1884 graduate in architecture of Cornell University, he entered the office of W. H. Miller, collaborated in the building of the Cornell Library and several Cornell fraternity houses. He opened his own office in Auburn in 1888, practicing there for 37 years. With H. Van Buren Magonigle (Continued on page 74)
WHEN THEY CALL YOU IN TO
"Modernize Main Street"
SPECIFY PITTCO STORE FRONTS

PITTCO Store Front Products are all of proven quality, all unusually well fitted to assist you in doing exceptional work in store front remodeling. Satisfactory to your client... who will be proud of his store and will not regret his investment when he sees the improvement a Pittco Front produces. And satisfactory to you... because Pittco Store Front Products permit such freedom of design, are so versatile, so adaptable, so easy to utilize in planning distinctive, sales-building store fronts.

To your remodeling prospects... to the merchants and property owners in your community, we are recommending the retention of a local architect to help them in modernizing their store properties. When these prospects call you in to help them "Modernize Main Street"... tell them how Pittco Store Fronts increase business volume, rentals, property value. And then specify Pittco Store Front Products on the job.

You’ll want our new booklet containing complete facts about Pittco Fronts, as well as many pictured examples of Pittco-remodeled properties, construction costs, resulting business increases, detail drawings, etc. Clip the coupon for your copy... now.

BEFORE: The site of the present Zelda Alexander Shop in Roanoke, Va., as it looked before being modernized. The property stood vacant for two years prior to remodeling.

AFTER: And here’s how Architect Douglas Orr of New Haven, Conn., and Martin Brothers, contractors of Roanoke, transformed the old property into a modern, productive one with a new Pittco Store Front. Black Carrara Glass, with sand-blasted, aluminum-painted inscription and decoration, combines with aluminum metal and a smartly designed, indirectly-lighted vestibule to make an outstanding installation.

**PITTCO STORE FRONTS**

glass...metal...paint

PRODUCTS OF

PITTSBURGH PLATE GLASS COMPANY

---

| Pittsburgh Plate Glass Company, 2254A Grant Building, Pittsburgh, Pa. |
| Please send me, without obligation, your new booklet entitled "How Modern Store Fronts Work Profit Magic": |
| Name |
| Street |
| | City State |

OCTOBER • 1935
ECONOMICAL and EFFICIENT
FOR COTTAGE OR MANSION

Requires no more attention than an electric refrigerator

COMPLETELY AUTOMATIC OIL HEAT HUMIDIFICATION, AIR CIRCULATION

So much that is new has been accomplished in cleanliness, economy, carefree operation and heating efficiency by the development of Toridheet Oil Burners, Oil Burner Boilers, and Air Conditioning Furnaces that every Architect will need to be fully posted on this new equipment for all types of homes...large or small...new or old.

The Toridheet Air Conditioning Furnace was designed for use in the great mass of modern American homes. It combines dependable oil heat with practical, automatic air conditioning. In winter it thoroughly filters and cleanses the air within doors...maintains room temperatures at any selected level...automatically humidifies dry air...eliminates cold floors, air drafts and stagnant air pockets by maintaining an effective but imperceptible movement of air throughout the home. In summer it takes out of the air pounds of dust, dirt, soot and pollen and circulates fresh, purified air throughout the home to effectively lower the temperature.

The Toridheet Air Conditioning Furnace liberates the household from shoveling coal and ashes and spending excess time and money to keep the home and its furnishings acceptably clean.

Toridheet equipment expresses the latest developments in scientific oil heating and air conditioning by a pioneer manufacturer of domestic oil-burning installations. Thousands upon thousands of homes, stores and moderate-sized commercial buildings are enthusiastic users. We welcome the privilege of supplying names and addresses of Toridheet users in your community. Talk with them. Get the unbiased facts from experienced users.

Specify Toridheet equipment in new homes and the modernization of older dwellings. Toridheet equipment will be installed without down payment, and 36 months to pay under regulations of the Federal Housing Act.

CLEVELAND STEEL PRODUCTS CORPORATION, 7306 W. MADISON AVE., CLEVELAND, O
PRESSURE ATOMIZING TORIDHEET OIL BURNER

Quickly, easily installed in warm air, steam, vapor or hot water heating systems to make them entirely automatic and emancipate the household from all heating chores. The thermostat control regulates operation of burner to maintain indoor comfort at any desired temperature level. Toridheet's development and exclusive use of the Rotoaire Principle assures exceptional economy of operation.

Write for free literature

Be posted. Read and file our descriptive printed matter. Ask the co-operation of our engineers on proposed installations. No obligation. Cleveland Steel Products Corporation, 7306 W. Madison Avenue, Cleveland, Ohio.
My Architect specified the Leader

TIMKEN OIL HEATING

Owners of modern homes prefer modern automatic heating that they know will satisfy in every way. It is only natural, therefore, that thousands of homes being planned today will be equipped with the leading manufacturer of automatic heating — Timken Silent Automatic.

Based upon a priceless experience gained during many years of leadership, and in heating more than 110,000 homes, Timken has perfected a complete line of oil-burning boilers and air-conditioning, warm air furnaces. These units are designed specifically for residential heating, and are made in a wide range of capacities and prices. Each unit is 100% automatic operation and is enclosed in a handsome, modern cabinet.

Famous patented features, which are responsible for outstanding fuel saving and Timken's widely-recognized quiet running, are built into each of these units.

For complete information and specifications, or for details of Timken's Air-Conditioning Engineering Service, send us the coupon below or see our nearest factory branch or dealer.

NO OBLIGATION COUPON

THE TIMKEN SILENT AUTOMATIC CO.
100-400 Clark Avenue, Detroit, Michigan

☐ Please send complete data and specifications of your Oilheater, Oilfurnace and Waterheater Units.
☐ Am interested in your Air-Conditioning Engineering Service.

Name
Address
City
State

BACKED BY A $15,000,000 ORGANIZATION
Providence County Courthouse, Providence, R. I., has a Telechron ADFR system consisting of 137 Telechrons inside the building; a giant (cast-bronze frame), 4-faced, illuminated Telechron tower clock; and automatic central control equipment. Architects: Jackson, Robertson and Adams, Providence, R. I. General Contractors: J. W. Bishop Co., Worcester, Mass. Electrical Contractors: Scannavin & Potter, Providence, R. I.


In addition to the 3799 Telechron clocks that keep time in the "Triangle Group" of government buildings in Washington, accurate, economical Telechron systems have been installed in public buildings all over the country.

Telechron clock systems have proved their efficiency and dependability in all kinds of structures — both new and modernized. Satisfied users are impressed by their accuracy and reasonable cost, as well as by their low operating and maintenance expense.

A Telechron system may include any number of clocks, from a single post or tower clock to thousands of Telechrons operating as a unit, centrally controlled. Every Telechron clock is synchronized with the other clocks in the system by the regulated impulses of the alternating current supplied by power companies.

A letter to us will bring our complete co-operation on your projects. Address the Warren Telechron Company, 410 Main Street, Ashland, Massachusetts.

TELECHRON CLOCK SYSTEMS FOR ALL TYPES OF PUBLIC BUILDINGS

Self-Starting Synchronous Electric Clocks

(Rog. U. S. Pat. Off. by Warren Telechron Co.)

October • 1935
FORUM OF EVENTS

(Continued from page 68)

he collaborated on the large Auburn grammar school, was the architect for all the other school buildings, and the Mercy and Auburn City hospitals. In 1928 he formed a partnership with Wallace P. Beardsley, A.I.A., who continues the practice.

GEORGE KELLER, 92, F.A.I.A.; after brief illness; in Hartford, Conn. He was the designer of the Gettysburg Memorial at the dedication of which President Lincoln made his famed speech. He also designed the Garfield National Memorial at Cleveland.


PERSONALS

PROFESSOR PETER MULLER-MUNK of Design Associates, Inc., New York City, has been appointed Associate Professor of Industrial Design at Carnegie Institute of Technology.

Carl C. Ade, architect and engineer, has moved his offices to 52 James Street, Rochester, N. Y.

The New York Building School has moved to new quarters at 67 West 44th Street, New York City, where it continues its courses in building design and review for State examinations under direction of L. M. Berntfeld and William H. Hoffberg.


Robert Helmer, architect, formerly of Habey, McCormack and Helmer, Inc., New York City, is now practicing independently at 118 South Fulton Street, Brooklyn, N. Y.

The following have been elected officers of the Chicago Architectural Club for the coming year. Ralph Gross, president; Evald A. Young, vice president; Thomas J. Mulig, secretary; John McPherson, treasurer; Henry Bresen, Charles Konsevic, George Recher, Albert J. Delong, William F. Thomson, Lee D. Berhiers, directors. The club's competition for the design of either a one- or two-story building, with terra cotta machine run wall blocks to be used in the facades, closed last month. American Terra Cotta Co. and the Northwestern Terra Cotta Corp. of Chicago were donors of $500 in prizes.

Vitale & Geffert, Gilmore D. Clarke, announce taking Michael Rapuano into their firm as their associate for the practice of landscape architecture. Offices are at 101 Park Avenue, New York City.

Joseph Norman Hettel, architect, is opening new offices at 730 Federal Street, Camden, N. J.

Isadore H. Braun, architect, announces the removal of his office to 228 North La Salle Street, Chicago, Illinois.

J. L. Duskie, architect, is reopening his office at 1942 West Dallas Street, Houston, Texas.

The American School and University, 470 Fourth Avenue, New York City, is canvassing all architects who have done educational buildings for inclusion in their annual Directory of Architects for Educational Buildings.

(Continued on page 78)
What’s news about Steel Windows?

Analysis of window costs including installation labor often shows Fenestra steel Casements effect substantial savings over double hung wood windows — news — good news for architect, contractor and homeowner. Few have realized that, besides being better steel casements frequently cost less.

A Detroit builder erected two houses from the same plans. Double hung wood windows in one, cost 13% more than Fenestra in the other.

A Baltimore contractor, averaging the window cost in several 1½ story houses, found wood windows averaged 29.83 each; Fenestra, $25.11 each.

Three contractors recently bid on a low cost housing development. Every one of them added 25% or more to the Fenestra Casement price if wood windows were used as a substitute.

Chief misconception of window costs lies in the idea that a window is merely frame and sash. In double hung windows, frame and sash may be only 25% of the total cost. Other material and installation labor may be as high as 75%. In Fenestra, frame and sash (shipped in one unit) may be as high as 48% of the total; other material and labor as low as 52%.

New designs in Fenestra Steel Casements include gratifying improvements in keeping with the new era of smart, modern homes at low cost.

Styled to harmonize with any type of architecture and built for durability, these windows provide conveniences unthought of even five years ago. Remember, too, Fenestra Windows are one of the few materials equally visible and attractive both from outside the house and from within.

Large sizes (equivalent to two ordinary double hung windows) can be used at an actual saving even in very low cost homes.

DETROIT STEEL PRODUCTS COMPANY
2251 East Grand Boulevard
Detroit, Michigan

Detroit Steel Products Co.,
2251 East Grand Blvd.,
Detroit, Michigan

Please send me FREE your "Check Sheet" showing the various items of window cost.

Name__________________________
Address________________________
City__________________________State_________

Detroit, Michigan
EDWARDS METAL SPANISH TILES

Architect John M. Peterson selected Edwards Metal Spanish Tile for his own Florida residence and specifies them for his clients because of their beauty and economy under all conditions of exposure to the action of the elements.

Write for Metal Tile and Shingle Book No. 72

See photographs of actual installations on charming houses. Note the heavy shadow lines, the apparent weight and mass. Yet they are so light that they require no special roof construction. These tiles protect from fire, lightning, wind and weather. The cost is very low. Estimates on request.

THE EDWARDS MANUFACTURING CO.
328 Eggleson Ave. Cincinnati, Ohio

Metal Roofing, Siding and Ceilings

Model kitchen of Briggs Manufacturing Company. Side walls are finished with Clip-Strip and porcelain enamel.

BEAUTIFY INTERIORS WITH CLIP-STRIP

Porcelain enamel used as an interior wall finish lends beauty, grace and color to kitchen and bathrooms. It is easy to clean and keep clean. The Frameless Steel Clip-Strip in either stainless steel or aluminum is the ideal attachment device—simple, secure and inexpensive. Write for complete information on interior or exterior finishes to:

INSULATED STEEL CONSTRUCTION CO.
MIDDLETOWN, OHIO

WANTED

Architect as Insurance Executive

Large manufacturing corporation is desirous of securing services of an architect to handle its insurance matters.

Applicant to be graduate architect and preferably one with some experience in the adjustment of insurance losses.

Address Box 40

THE ARCHITECTURAL FORUM
135 East 42nd Street
New York City

OF course you may never need a fountain for a small house, but you will want to know more about the complete line of Halsey Taylor Drinking Fountains, for public buildings, hospitals, schools, churches, etc. No matter which style you choose — three-part battery types, wall or pedestal fountains, or even coolers — you get the superior advantages of patented two-stream projector and practical automatic stream control — your guarantee of sanitation and health safety. Write for latest architect's catalog.

The Halsey W. Taylor Co.
Warren, Ohio
A second bath—in limited space
MODERN CABINET SHOWERS BY WEIS

New... handsome models of vitreous porcelain enamel... afford an additional bath for new and remodeled homes in space no larger than an ordinary closet... new one-piece, rustproof receptor of vitreous porcelain enamel... with exclusive Foot-Grip, No-Slip floor...

BEAUTIFUL, PRACTICAL, durable, Weisway Cabinet Showers are worthy of the finest home. And there are models suitable for the simplest cottage.

Vital improvement over all previous shower construction is the exclusive new Foot-Grip, No-Slip Receptor of vitreous porcelain enamel. As a safety factor the no-slip floor is equally effective, dry or wet.

Newest Weisway Cabinet Showers have beautiful walls of gleaming vitreous porcelain enamel, fused on Armco iron. Weisway Showers are complete units in themselves, not affected by any settling of the building. Guaranteed leakproof!

Weisway Cabinet Shower baths afford the additional facilities which every modern family needs—at an exceedingly small investment. And the extra sales value which this second bath adds to the property far exceeds its cost.

The complete Weisway Cabinet Shower line includes styles for homes of every size, as well as institutions. Write now for detailed specifications and prices—without obligation.

HENRY WEIS MANUFACTURING CO., Inc.
ESTABLISHED 1876
CABINET SHOWER DIVISION • ELKHART, INDIANA
When you wish to ship anything, all that is necessary to summon Railway Express is a telephone call. That simple operation snaps into instant action the nation-wide organization of swift trains, trucks and experienced men, whether you wish to ship one little package or a hundred big ones. A Railway Express truck will pick up your shipment, speed it to fast passenger trains to be rushed to destination. A receipt will be taken from consignee to prove safe delivery. Pick-up and delivery service in all principal cities and towns, at no extra charge. For information or service phone nearest Railway Express agent.

ON THE AIR • TUNE IN on the RAILWAY EXPRESS NEWS PARADE • Every week from the following stations: Boston, WREJ; New York, WOR; Cleveland, WHK; Chicago, WBBM; St. Louis, KMOX; New Orleans, WDRC; Dallas, WFAA; Atlanta, WGST; San Francisco, KFRC; Los Angeles, KFI; Seattle, KOMO; Minneapolis-St. Paul, KSTP.

Watch for local announcements.

RAILWAY EXPRESS
AGENCY INC.
NATION-WIDE RAIL-AIR SERVICE

FORUM OF EVENTS

ANNOUNCING A REVOLUTIONARY NEW STORE FRONT SASH BY ZOURI

The new Zouri Spring-Set Store Front Sash with complete new accompanying members, is a notable addition to the Zouri line of rustless-metal Store Front materials. Coming at a time when a widespread revival of store front, modernizing and building activity is under way, it offers many important features to the architect, merchant, and property owner.

In this new construction the self-supporting gutter member and the sash interlock, after glass has been set, and form a stationary unit. Glass is then aligned against the face member from the inside out, and held in place by a strong spring which gives a continuous cushion grip.

Because of this logical construction, installation problems are tremendously simplified. Because glass thickness does not affect the alignment of the face member, perfect miters may be made easily, caps eliminated entirely if desired, and glass in any combination of thicknesses employed on the same front. Zouri Spring-Set Store Front Sash and Bars come in extruded aluminum or bronze, with a full line of companion moldings, awning bars, etc. Zouri has complete equipment for all types of finishes, including aluminizing—gives unusually prompt delivery.

The smart modern design of these new members is a distinct help to the architect in designing attractive store fronts. More simple construction and the more efficient glass holding method mean savings for the merchant or owner in first cost, installation, and reduced chances of glass breakage.

COMPLETE INFORMATION SENT ON REQUEST. Write Zouri for 

- literature on the New Zouri Spring-Set Store Front. 
- Full size architect's details. 
- Illustrated Zouri catalog Number 22 on Safety Key-Set and Screw-Pressure Store Fronts. Just check items desired, write name and address in margin and mail to ZOURI, NILES, MICHIGAN.

ZOURI Spring-Set Store Front construction offers many advanced features which you can incorporate in your next store front design. Get complete information on this and other new Zouri store front products.

OCTOBER • 1935
ON THE IMPORTANCE
OF BEING IN Earnest
ABOUT LUMBER....

THE renaissance of the small home at last creates a long hoped-for architectural opportunity of bringing good design on a large scale to those who need it most. But even a home of excellent design must remain in good condition long enough to justify the investment of the owner.

The part that good lumber plays in the life of that home is far more important than has been heretofore conceded. Good specifications go wrong when the quality of lumber delivered to the job is a matter of indifference to the architect or his builder. Inferior grades accepted or delivered to save a few dollars where the eye cannot see — faulty seasoning or imperfect manufacture — all take their toll in the final reckoning in the life of the house and exact their penalty in loss of prestige to the architect or builder, to say nothing of the increased maintenance cost to the ultimate owner.

There is a difference in lumber, even of the same species and grade, just as between individual architects or individual builders. The differences lie not only in Nature but in the Intention and facilities of the lumber manufacturer.

The Weyerhaeuser affiliated mills with the largest production in the industry, for more than a decade have been improving lumber for better construction and trade-marking it to indicate those qualities which set Weyerhaeuser lumber apart from the industry.

Buying lumber blind is no longer necessary for the uninitiated — ask for Weyerhaeuser 4-Square Lumber and be sure of the structural and finish refinements that make for wood houses of lasting beauty.

Weyerhaeuser 4-Square Lumber is furnished in the 6 major species used in house construction and is available through more than 3,000 lumber dealers.
FORUM OF EVENTS

AEROFIN

HEATING OR
COOLING SURFACE

There is nothing more modern than Aerofin Standardized Light-Weight Fan System Heat Exchange Surface.

For either Cooling or Heating applications, Aerofin is the choice of important architects, engineers and contractors because it gives complete satisfaction and unvarying performance.

Aerofin begins where ordinary surface leaves off. Its exclusive features in design and construction make it the most advanced surface available today. It is furnished in aluminum, copper or other special metals.

The home office in Newark or any branch office will gladly send descriptive literature or render prompt, personal and efficient technical cooperation. Simply write to the address below.


AEROFIN CORPORATION
850 FRELINGHUYSEN AVENUE
NEWARK, N. J.

CHICAGO  DETROIT  NEW YORK  PHILADELPHIA

OCTOBER • 1935
Beautiful Lighting

No name in the field of lighting fixtures stands for more than "Lightolier." It represents the best you can buy in style, construction, and lighting efficiency. Select Lightolier fixtures to give your home the utmost in beautiful, comfortable, and healthful lighting—and experience the real economies of all-around quality. Write for booklet "Correct Lighting" and name of nearest distributor.

Lightolier
11 East 36th Street
NEW YORK

Send for FREE Copy

A new brochure for architects and engineers on GOHI Pure Iron-Copper Alloy Sheet Metal is now available. It contains data of value to everyone engaged in the construction industry, and complete information on wear-, weather- and corrosion resistant GOHI, the longest-lived, low-cost ferrous metal. Send for free copy, also samples of GOHI Pure Iron-Copper Alloy in convenient folder. Give permanence to your sheet metal construction by making GOHI your permanent specification.

GOHI SHEET METAL

Products and Practice (Continued from page 45)

1002. AIR CONDITIONER

The American Radiator Co. has just developed a new unit, the Arco Air Conditioner, Model 101, designed for houses in the $3,000-$8,000 price range. It can be hooked in at any point on the supply line of a radiator heating system and priced so that it can be installed by a heating contractor for about half the price of the average electric refrigerator. In its simplest form the unit is installed on a basement ceiling with an outlet through the floor above, and a register in the floor at a distant point to provide a return of air to the basement. A Sirocco blower, powered by a 1/20th H.P. motor, and using no more electricity than a 60-watt lamp, is provided. Viscojet type replaceable filters of fiber board clean the air. A self-cleansing nozzle spray provides humidification and provides is made for summer cooling and dehumidification if desired.

This new unit represents a development of unusual interest in the field of air conditioning; the low price of the unit itself, the classic design of housing for which it has been designed, its small size, and the simplicity with which it can be incorporated into an existing radiator heating system are all indicative of the trends and probable future developments of the air conditioning industry.

1003. FLAT PAINT

Medusa-Lite, a new flat wall paint with several remarkable qualities claimed for it, has been introduced by the Medusa Products Co. It comes in paste form, using water as a thinner, and can be mixed with dry or oil colors. It can be applied with a brush or sprayed, can be used on almost any surface, is washable, and requires only one coat. There is no odor whatsoever to the paint, and it dries completely in three or four hours. These numerous advantages make it a product of considerable usefulness in the redecorating of homes, as well as the painting of new ones.

1004. LINOLEUM

A new product of particular interest in the small house field, claimed to be the first development of importance in the linoleum industry within the past twenty years, has been announced by the Congoleum-Nairn Co. It is called Adhesive Scalex Linoleum, and its special feature is an adhesive preparation which is applied to the linoleum at the factory, thereby removing the need for laying the material over a felt lining. It is expected that this advantage will stimulate interest among house owners and architects who have avoided using linoleum because of the expense. It is estimated that a room with an area of 14 square yards could be covered in two or three hours with the new material, which would represent a considerable saving in labor costs. In addition to the economy and speed of installation claimed for the product, it is also said to have greater strength, due to the fact that every square inch is tightly held to the underfloor.

(Continued on page 84)
As glass becomes more and more a major material of construction, quality becomes increasingly important. That is why a closed specification for L·O·F products assures complete satisfaction to both architect and client. For your protection, it is advisable to instruct contractors and builders to leave the labels on each light until final inspection has been made. Libbey·Owens·Ford Glass Company . . . Toledo, Ohio.

Libbey·Owens·Ford Quality Glass
AMERICA WELCOMES
A NEW KIND OF BATH

with integral seat

New, but not a novelty—popular, but practical! Plumbing contractors at the N.A.M.P. Convention said right out that the new Kohler Metric is the biggest potential business-getter in the whole plumbing field! See why:

Fits any bathroom: No need to tear down walls to make more space—no need to crowd other fixtures—no need to build extra-large bathrooms. Every bathroom has room for the Kohler Metric!

Exclusive "Integral Seat": Original with Kohler—and the high-spot of the year's plumbing inventions. Bathing is more comfortable, more convenient, safer, especially for children and elderly people. Foot-bathing, a national habit, is now easier and safer too.

Easy to clean: A person of average size can reach entire tub from the front.

Modern design: Straight lines, clean, flat, useful surfaces, recessed panels—styled to harmonize with other Kohler fixtures, to agree with best trends in plumbing design.

No sales resistance: The Metric appeals instantly to all purchasers.

KOHLER OF KOHLER
PLANNED PLUMBING AND HEATING

PRODUCTS AND PRACTICE

(Continued from page 32)

1005. FRAMELESS FLY SCREENS

The latest addition to the numerous types of screens already on the market is known as the "Zip-in" screen, manufactured by the Cincinnati Fly Screen Co. It consists of a length of screen cloth with two rigid metal members at the top and bottom, but with no side frames. Installation is easy, top and bottom members being screwed into place, and sliding pieces in the bottom member used to pull the cloth taut. The screens are of all-bronze rustless construction, cover the entire window opening, and are claimed to cost no more than common wood frame screens. Another advantage besides ease of installation and removal is convenience in washing windows, since the bottom catch can be removed, allowing the screen to swing free. At the end of the season the screen is removed, washed, rolled up and stored in the small fiber carton in which it was shipped; the small amount of storage space required is an important factor in houses where extra space has been reduced to a minimum.

1006. PUMP

The Burks Self-Priming Rock Garden Pump, manufactured by the Decatur Pump Co., was designed for the growing group of home owners who wish to use water for fountains, waterfalls, etc., in their gardens, but find city water costs prohibitive. In such cases this small pump is recommended; it recirculates the water at a low monthly cost, is of all-bronze construction with a stainless steel shaft and ball bearing. The list price of pump, 1/2 H.P. electric motor, and base is $46.

1007. VOCALPHONE

Described by its makers, the Doorman Mfg. Co., as a system of "telephoneless telephoning," the Vocalphone makes possible communication between various rooms of a house or building without the use of a telephone. By pushing a button, for example, a housewife can talk to a caller at the front door while moving about at her work in the kitchen, and decide whether it is necessary to see him or not. Orders can be given from living room to kitchen in an ordinary conversational tone of voice; when a child wakes up in the nursery the fact can be announced in any selected part of the house. The chief advantages claimed for it are that conversations can be carried on without interruption of whatever work is going on at the time, and that the instrument transmits sounds with the greatest fidelity. The system uses four stages of audio amplification and loudspeakers are employed in place of telephones. Two-way communication is controlled by a button. Installation costs are low, it is claimed by the manufacturers, and maintenance, expense is said to be less than that of the average radio.

(Continued on page 67)
"The LITTLE HOME"—Steel Pier, Atlantic City, N. J.


This was the first structure completed under direction of the Federal Housing Administration in its campaign to stimulate home building. A striking example of today's low-cost home-building possibilities, it also constitutes

Significant Recognition of the
FITZGIBBONS OIL-EIGHTY AUTOMATIC

Reasons for selecting the OIL-EIGHTY AUTOMATIC

- Has established a record for efficient, fuel-saving performance in thousands of homes throughout the country. Developed expressly for oil firing, it satisfies every scientific and mechanical requirement of the process.

- Adaptable to all makes of burners—and permits most makes to be entirely enclosed inside the jacket, behind large, removable panels—thus saving space and enhancing appearance.

- Copper-bearing steel construction provides a resilient, sturdy, corrosion-resistant unit, good for the life of the building.

- Offers year 'round INSTANTANEOUS HOT WATER without a storage tank.

- Enameled, chromium-trimmed steel jacket adds the appeal of modern beauty.

- Available in 13 different capacities ranging from 425 to 2680 sq. ft. E. D. R.

- Can be installed in a few hours in any residence, new or old.

- It may be bought under the FITZGIBBONS FHA THREE-YEAR PURCHASE PLAN, which permits immediate installation with 3 years to complete payment.

That an OIL-EIGHTY AUTOMATIC was chosen for this project is more than an honor—it is a tribute to this boiler's sound value, not only in the exceptionally efficient, dependable heating it assures, but also in the extra service it performs in taking care of hot water requirements.

The features of the OIL-EIGHTY AUTOMATIC which decided its selection, are given in the column at the left. Including as they do, everything that could be desired in a boiler for domestic oil heating, they argue compellingly for the selection of this boiler for any home, large or small, be it a new project or one of modernization.

OIL-EIGHTY Catalog AF gives the full details. A copy is yours for the asking.

Fitzgibbons Boiler Company, Inc.
GENERAL OFFICES: 570 SEVENTH AVE., NEW YORK, N. Y.
Works: OSWEGO, N. Y.
BRANCHES AND REPRESENTATIVES IN PRINCIPAL CITIES
Beware the false economy of

"Skin-deep" modernization

"Skin-deep" modernization—modernization without rust-proofing—is an expense, not an investment. Sooner or later, rust will begin to drive away tenants. Maintenance costs will rise; expensive replacements will eat away profit. And income property will slide right back into the red.

Owners, managers and architects must face these facts. "Skin-deep" modernization of essentials defeats its own purpose. NOW is the time and the opportunity to replace rustable metals with rust-proof brass and copper throughout—in roofing, plumbing, heating and lighting.

Did you get your copy of this book?

Chase Brass and Copper Building Products are described and illustrated in the new Chase book, "What to do about Remodeling." It contains complete, practical information for the man in charge of modernization. Also applies to new building. Write for your copy today.

CHASE BRASS & COPPER CO.

Incorporated
Subsidiary of Remington Copper Corporation

Waterbury
Connecticut
METAL WINDOWS

The Campbell Metal Window Corporation has introduced two new products that are suitable for residences and low-cost housing projects. One is a standardized double hung window of steel at a price lower than has ever before been reached in the steel window industry. The window is further detailed in eight standard sizes and is both galvanized and weatherstripped. The other product is a residential casement which can be equipped with a spring and chain adjuster and provides a new and simple means of operation through the frame section of the window, together with a hinged screen which is interchangeable with a hinged inner sash. The inner sash provides an extremely cheap and efficient means of opening double windows and is particularly interesting when considered from the standpoint of savings in heat loss and consumption. It is claimed that the additional cost of the outer storm sash can be amortized in five years by actual savings in fuel.

...Whether the Beauty of your design is
Coloial
English
French
Spanish or
Modern

Local-Made COMMON BRICK is friendly to them all!

ARCHITECTS everywhere know Common Brick, the local-made low-cost brick, offered by makers in every community. They know it for its infinite variety of warm, natural hues and textures, and how aptly it cooperates to satisfy the most exacting architectural requirements for surface effects of genuine distinction.

Not the least of the economies from this most fire-resistant, basic building material arises from the fact that when you buy Common Brick, your building dollars are invested in actual material, not expensive transportation. It's available everywhere.

In a situation confused with the most extravagant claims for substitute materials, Common Brick is today, as always, the modern material favored by the foremost architects and practical builders for its extraordinary adaptability, for its enduring beauty, and for the economy of its local manufacture.

A PACKET OF EDUCATIONAL LITERATURE

• Containing three interesting plan books illustrating over 100 houses; a deluxe booklet of practical Fire Place designs; a complete Builders Manual for brick construction and other useful literature, will be mailed to you postpaid for 50 cents. Simply send this convenient clipping to our National Headquarters with your remittance.

THE BRICK MANUFACTURERS ASSOCIATION OF AMERICA
2121 Guarantee Title Building
CLEVELAND, OHIO
WHEN YOU BUY A RADIO
Remember—THERE CAN BE
ONLY ONE WORLD'S FINEST

OSCANINI—world's greatest symphony conductor—
heard SCOTT All-wave in Genoa, Italy—comes half across the
world to own one! Here is his own word—"Never would I
have believed it possible to obtain such marvelous reproduction!"

England—France—Germany—searching Italy—bewildered
Africans—hear their programs in their own home as only the
SCOTT brings them in—pioneer "All-wave" receiver that holds
all verificated world distance records.

Breath-taking tonal beauty—every delicate shade of interpreta­tion—every silver overtone! Twice the tonal range of any
high fidelity receiver. Unqualifiedly guaranteed to outperform
any radio on earth.

SCOTT—the internationally famous radio owned by
Walter Winchell, Guy Lombardo, Rudy Vallee, Al Jolson, Eddie
Cantor, and hundreds of other celebrities.

Thirty-day trial in U. S. A., Custom-built and sold
direct from the laboratories—with a nationwide installation
service.

You can own a SCOTT for no more than you would
pay for an ordinary radio. Write today for "PROOFS" of its
superior performance. No obligation whatever.

• Architects: SCOTT six times average power makes it
the receiver to specify where speakers are desired in several
rooms of the home. Write for details.

E. H. SCOTT RADIO LABORATORIES
4466 Ravenswood Ave., Dept. 3358
Chicago, Ill.

Zip-in Fly Screens
IN OR OUT IN A JIFFY
Frameless... ALL-BRONZE... Long-Lived
Easily installed from inside. Only four screws and
screw-driver required. All-bronze rustless construc­tion throughout. No painting. To clean, just dip
into tub of soapy water.

Covers Entire Window
Zip-in Screens are full-length, permit­
ting either top or bottom window sash,
both, or to be open—thereby providing
better ventilation. Window washing
is made easier. Packed individually in
3" square container. Requires only
small storage space. Stock sizes to fit
all standard openings.

5200 Zip-in Screens Used in
New Low-Cost Housing Project
At right, Boulevard Gardens, Woodside, L. I., N. Y.—a new low­
cost housing project in which 5200 Zip-in Screens will be used.
Photo below shows one of many rows of Eastman Kodak employees' 
homes in which Zip-in Screens
are used.

See Sweet's Catalog for Details, or Write for Illustrated Folder.
THE CINCINNATI FLY SCREEN CO.
Cincinnati, Ohio

MANUFACTURERS' PUBLICATIONS

AMONG the manufacturers' publications recently received
interest to the architectural profession were the following:

1010. BOILER PROTECTION
From Warren Webster & Co. a new folder dealing with its
facts about boiler breakage and its prevention.

1011. AIR CONDITIONING
From the Edwards Manufacturing Co., a pamphlet
describing their new Hot-Cold Winter Air Conditioning
equipment.

1012. ELEVATORS
From the Sedgwick Machine Works, an illustrated book
showing their complete line of residential elevators.

1013. PLASTIC
From the Continental Diamond Fibre Co., an illustrat­
ted catalogue giving information concerning Dilecto, a n
laminated plastic.

1014. PILES
From the Carnegie Steel Co., a new catalogue giving de
on steel bearing piles.

1015. WOLMAN SALTS
From the American Lumber and Treating Co., a book
describing the applications of this wood preservative with
particular reference to termite control.

1016. STONE FOR HOUSES
From the Indiana Limestone Corp., an illustrated pamphlet
showing the use of their well-known product for homes
of moderate size.

1017. INSTRUMENTS
From Julien P. Friez & Sons, Inc., a new folder describ­ing
their complete line of standard measuring instruments, a
conditioning, and weather instruments.

1018. INSULITE
From the Insulite Co., a new booklet, "Building for the
Future with Insulite," which presents the many forms in
which this product may now be obtained, with much valuab
information about its use.

1019. METAL LATH
From the Penn Metal Co., a new catalogue of the Pennmetal
line, including various forms of metal lath, metal corner bead
and other accessories.

1020. TERMITES
A bulletin from the Copper & Brass Research Association
discussing termites and the use of copper and copper all
shields as protection against them. It notes that literature
on termite control can be obtained from the Department
of Agriculture in Washington (Bulletin 101) and from the
University of California at Berkeley and the University
of Florida at Gainesville.

1021. STEEL
From the Kalman Steel Corporation, a new series of cata
logues describing their lightweight steel joists and reinforced
bars and spacers.

(Continued on page 90)
ARCHITECTS
as professional men are rated
by the Insurance Underwriters at
$50,000.00

PROTECT YOUR REPUTATION!
and your client's pocketbook

Specify — MOTORSTOKOR
AUTOMATIC COAL BURNER

Check ✓ these points:

CONVENIENCE
No coal to shovel.
No grates to shake.
No ashes to shovel.
No dampers to set.

COMFORT
Steady heat with continuous circulation.
The constant firebed eliminates "cold 70°".

SAFETY
Coal is inherently safe.
MOTORSTOKOR cannot explode, leak,
or give off fumes.

CLEANLINESS
No dust.
No smell.
No noise.
No smoke.
No smudge.

ECONOMY
There is no way to buy heat for less money that
with MOTORSTOKOR.

NO OTHER METHOD OF HOME-HEATING SO SATISFACTORY
Motorstokor developed and manufactured
the first fully automatic coal burner. Since
1912 when Motorstokor produced its original
burner, up to now with units operating
in countries throughout the world our
equipment has been identified as "The
finest automatic heat in the world."
Motorstokor's 40 models and sizes are made
to handle all types of central heating plants
—with maximum efficiency. Some to burn
Anthracite (hard coal); some to burn Bituminous. Some are fully automatic bringing
coal from bin to burner and removing ashes,
others are semi-automatic with hoppers.

DEPARTMENT OF COMMERCE
BUREAU OF THE CENSUS
WASHINGTON

MECHANICAL STOKERS
July 1935

Report sales of residential
Size Automatic Coal Burners
from January 1st to July 31

191% OF
1934

HERSHEY-MOTORSTOKOR
CORPORATION
347 MADISON AVENUE, NEW YORK
Factory: MANHEIM, PA.

... IT'S FULLY AUTOMATIC HEAT WITH COAL ...

OCTOBER • 1935
Safety Water-Mixing Valves

For Shower Baths—Powers mixers prevent scalding caused by failure of cold water supply, or by pressure changes due to use of nearby showers, faucets or flush valves. They keep the temperature of the shower where the bather wants it without any "shots" of cold or scalding hot water.

Group and Gang Showers—Powers mixing valves are also used for the control of water temperatures of showers in groups of from 2 to 20 showers. They may be used to establish a maximum temperature in the hot water supply so as to protect the entire group from danger of scalding or to place the entire group of showers under the control of an attendant.

Zone Showers—Where compulsory bathing is required before entering swimming pools, lane showers are divided into four zones, each controlled by a Powers valve. First zone is maintained at 105° F, second at 90° F, third at 75° F, and fourth at 60° F. Because of its efficiency and its hygienic and sanitary advantages, this type of shower is rapidly increasing in popularity.

Hospital Hydrotherapy—In infant baths, continuous flowing baths, control tables, douche baths, arm and leg baths, colonic irrigation apparatus, photographic baths, and hot water line control, Powers mixing valves are indispensable because of their safety features.

The Deluxe In Upward Operating Garage Doors

- The TIP-TOP is composed of sections, to meet individual tastes, which roll up overhead, clearing ice and snow, held in place with strong tracks. A next, positive “Safety Sterilbalance” insures remarkable around operating ease. Various neat features makes it weather-tight and burglar-proof... and an attractive convenient door that will last for years. It’s as modern and efficient as a 1935 automobile.

- Economical—Easily Installed: every one is surprised at the low cost of Kinnear Doors. And their installation is very economical, because their amazing simplicity. Once installed, you would never again be without their luxurious convenience.

- REAL BOON TO RENTAL PROPERTIES... and don’t overlook the FAMOUS KINNEAR STEEL ROLLING AND BIFOLDING DOORS. Private, commercial and industrial buildings equipped with Kinnear Doors save the Landlord of constant repairs, because they’re ruggedly constructed and when new are out of the way. Their initial cost is the last cost.

- Equipped with Kinnear Motor Operators your Kinnear Doors afford ultra convenience... open and close like magic... operate smoothly and swiftly by merely touching a button or turning a key. With various types of control switches placed at convenient points any desired operating hook up can be provided. Kinnear Electrical Equipment is ruggedly, dependably built to withstand years of hard usage... and the small cost of this modern equipment is most pleasing.

KINNEAR MFG. CO. COLUMBUS, OHIO

THE YEAR AROUND
The new Owens-Illinois Insulux Glass Blocks are hollow, partially evacuated, translucent units of water-clear glass, and are laid up by masons using standard mortar joints. They are ideally suited for functional uses as light transmitting walls of high thermal resistance and at the same time offer extremely interesting decorative possibilities. Insulux Glass Blocks possess advantages and properties unique in the field of building materials, and exclusive manufacturing methods make them lower in cost than other glass masonry construction.

The variety of designs impressed on the faces of Insulux Glass Blocks produces a wide range of light transmitting values and diffusing properties resulting in an absence of glare. They have high compressive, lateral and bond strength. Scientific tests, conducted by Purdue University, have proven that the impervious character of the material itself and solid mortar joints makes infiltration losses negligible, that their heat conductivity is low, and that they reduce the effect of solar radiation.

Insulux Glass Blocks are obtainable at present in three standard sizes, each available in a broad variety of prismatic face patterns. Dimensions of these standard sizes and additional data are given on the opposite page. For a complete brochure giving all of the necessary technical data on Insulux Glass Building Blocks, together with architectural details showing a wide range of construction applications, write on your business letterhead to . . .
The architectural rendering reproduced above has taken advantage of both the functional and decorative properties of Glass Masonry. The bulkhead and spannel admit light into the building during daylight hours, or can be lighted from the inside to increase the "eye appeal" of the front.

Glass blocks are light in weight and are of a size that is convenient for the mason to handle. They lay up quickly in the same manner as other masonry units.

The architectural rendering reproduced above has taken advantage of both the functional and decorative properties of Glass Masonry. The bulkhead and spannel admit light into the building during daylight hours, or can be lighted from the inside to increase the "eye appeal" of the front.

Glass blocks are light in weight and are of a size that is convenient for the mason to handle. They lay up quickly in the same manner as other masonry units.

The Owens-Illinois Glass Company has given the building industry the Duraspip Glass Wool Air Filter and Glass Insulating Wool. These products, as well as Insulux Glass Blocks, were introduced only after exhaustive research and comprehensive studies of the problems involved.
Let Chamberlin stop this costly waste of Heat

Cracks around the doors and windows of the average small house let in cold air equivalent to the amount which would pass through a window raised ten inches.

Chamberlin Weather Strips stop drafts. They stop a 20% waste in fuel which, in a few seasons, more than pays for a Chamberlin installation.

The Chamberlin factory-trained representative in your community is equipped to give quick, efficient installation service for homes and buildings of every size and type. Architects, builders, and owners are invited to call him for service.

Mail the coupon below today for an attractive new booklet which fully describes Chamberlin Weather Strips.

CHAMBERLIN WEATHER STRIPS
"SINCE 1893—THE STANDARD"

CHAMBERLIN METAL WEATHER STRIP CO., Inc.
1254 La Brosse St., Detroit, Michigan

☐ Without obligation, please send me your new Chamberlin Weather Strip booklet.
☐ Without obligation, please send me Architectural detail book.

Name
Address
City State

WOLMANIZED LUMBER....
Protected against Decay and Termites

CLEAN — DRY — ODORLESS
ECONOMICAL — PERMANENT
Contractors Prefer It

AMERICAN LUMBER & TREATING CO.
37 W. Van Buren St., Chicago, Ill.

New York St. Louis Los Angeles Boston
San Francisco Shreveport

TREATING PLANTS
Owned and Operated
Crossett, Ark.
Fordyce, Ark.
Franklin, Va.
Washington, Ore.
Wilmington, Cal.

COMMERCIAL PLANTS
Treating With Wolman Salts

Ayer & Lord Tie Co.
Carbondale, Ill.

Wood Preserving Corp.
Green Springs, W. Va.

Carolina Wood Preserving Co.
Charleston, S. C.

National Lumber & Creosoting Co.
Houston, Texas

National Lumber & Creosoting Co.
Texarkana, Texas

American Creosote Wks.
New Orleans, La.

Atlantic Creosoting Co.
Savannah, Ga.

Joslyn Manufacturing & Supply Co.
Franklin Park, Ill.

Standard Fruit & Steamship Co.
La Ceiba, Honduras

Puerto Cabezas, Nicaragua
At Practically the Same Cost as a Good Heating System

Now you can specify residential air conditioning with the knowledge that it costs but little if any more than just a good heating system. And your client gets the benefit of a complete winter conditioning system that filters, humidifies and circulates the air; yet has sufficient capacity to amply cool one or two rooms during the summer. Think of it! These air conditioning features that everyone wants in his home or building now available for every residence where you ordinarily install a steam or hot water system.

The air conditioner is ordinarily used to humidify the entire home during the winter and to heat one or two rooms. The balance of your rooms will be correctly heated with equipment that cuts fuel costs and gives maximum comfort, if you specify TRANE Convection Heaters in one of the various types available to fit with your architectural requirements. Complete detail data will be supplied to you if it is not already in your files.

And if you specify TRANE Vapor Heat as the basic system for supplying the heating medium to the air conditioner and the Convection Heaters you will be doubly sure of client satisfaction. Here is a TRANE product that has been giving excellent satisfaction for more than a score of years in every type of building from bungalows to skyscrapers and still retains its popularity when owners want efficient economical heat.

Send for this free booklet that explains in complete detail the various TRANE Systems and Combinations of Units for heating and air-conditioning residences and small buildings. You will be surprised at the economies that can be secured and how inexpensively you can give your clients air-conditioned buildings.

The TRANE Company
Dept. 3a
La Crosse, Wisconsin

Mail Us Full Details On Trane

<table>
<thead>
<tr>
<th>Air-Conditioners</th>
<th>Convection Heaters</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vapor</td>
<td>Unit Heaters</td>
</tr>
</tbody>
</table>

Firm Name
City
State
The operators of "chain" cafeterias, restaurants and hotels draw heavily upon their cumulative experience when faced with the problems of layout and equipment for every additional unit. The famous S & W Cafeteria, illustrated here, is typical, representing, as it does, the utmost efficiency for the profitable preparation and serving of food. It is significant that the proprietors of the S & W Chain, when planning this restaurant, supplemented their own knowledge and experience by calling upon the

JOHN VAN RANGE
KITCHEN ENGINEERING SERVICE

Small wonder that architects, with whom problems of commercial and institutional food service are relatively infrequent, should avail themselves of the same engineering assistance that is in daily requisition by those whose entire business lives are confined to this field.

For three generations we have rendered this service to the architectural profession, both as a check on preliminary plans and as a source of authoritative assistance in solving problems that have not come within recent experience of the architects. No fees are charged and its acceptance places the architect under no obligation.

Correct kitchen planning is quite as necessary for the small job as for the largest institutional layout; speed and economy of operation must be assured so that food can be prepared and served at a profit.

We therefore invite you to submit plans for all food service floors before construction is begun.

The operators of "chain" cafeterias, restaurants and hotels draw heavily upon their cumulative experience when faced with the problems of layout and equipment for every additional unit. The famous S & W Cafeteria, illustrated here, is typical, representing, as it does, the utmost efficiency for the profitable preparation and serving of food. It is significant that the proprietors of the S & W Chain, when planning this restaurant, supplemented their own knowledge and experience by calling upon the

JOHN VAN RANGE
KITCHEN ENGINEERING SERVICE

Small wonder that architects, with whom problems of commercial and institutional food service are relatively infrequent, should avail themselves of the same engineering assistance that is in daily requisition by those whose entire business lives are confined to this field.

For three generations we have rendered this service to the architectural profession, both as a check on preliminary plans and as a source of authoritative assistance in solving problems that have not come within recent experience of the architects. No fees are charged and its acceptance places the architect under no obligation.

Correct kitchen planning is quite as necessary for the small job as for the largest institutional layout; speed and economy of operation must be assured so that food can be prepared and served at a profit.

We therefore invite you to submit plans for all food service floors before construction is begun.
TAKE THE ADVICE OF YOUR ARCHITECT

INSULATE FOR COMFORT!
With this new thick, fireproof insulation

PAINT FOR LASTING BEAUTY!
With the paint that outlasts all others

Now that the subject of new homes can be discussed again (Heaven be praised!) all parties interested—homeowners, bankers, builders, contractors, realtors, architects—will want the latest available information on such important materials as Insulation and Paint. Read the descriptions below of the new, thick Eagle Home Insulation—and the longest lasting of all paints, Eagle White Lead. Then send coupon for complete information about both products.

EAGLE WHITE LEAD

- This pure lead paint outlasts all others.
- Gives greater protection at lower annual cost.
- Proven best paint in Indiana Community Tests.

Paint failures had been so costly in this community, that its real estate management decided to make an impartial test of high grade paints. The 100 houses were divided into 3 groups. Three different kinds of paint were used under identical conditions. Two of the paints cracked and peeled within two years. Only the third paint gave good service. Houses painted with it did not need repainting until 5 years later. That third paint was Eagle Pure White Lead, choice of good painters since 1843.

Mail the coupon for the full story of this dramatic paint test.

EAGLE HOME INSULATION

- Thick—fireproof—gives summer and winter comfort—pays for itself in fuel savings.

Eagle Home Insulation is a soft, fluffy "wool" made from rock! In ordinary wall thickness it has insulating efficiency of solid concrete 8 feet thick. Gives maximum comfort summer and winter, pays for itself in fuel savings. It comes in two forms:

1. In loose form, it is blown between the joints in the attic floor and between wall studdings by a special pneumatic process. It packs evenly, will not settle, is fireproof.

2. In "Bat" form—especially convenient for new construction. The "bats" are 15" by 18" and 3 5/8" thick. They are easy to fit between wall studdings and attic joists.

THE EAGLE-PICHER LEAD COMPANY, Dept. AF-10 Cincinnati, Ohio

Please send me
□ full information about Eagle Home Insulation.
□ free picture-folder telling the story of the Indiana Community Paint Test.

Name and Occupation:

Address:

City: State:

OCTOBER • 1935
A NEW OIL BURNING boiler joins the
In the new No. 11, the small home now has a small, cast iron, oil burning boiler that is not a makeshift, but was designed specifically to meet the requirements of automatic oil heating.

The No. 11 is a companion to the famous No. 12. It includes all the features of the No. 12, plus new features developed through field work and research. The design of the sections for example is such that the boiler can lose a considerable amount of water before the line will drop appreciably. This overcomes a common cause of trouble in automatic heating where the boiler is rarely looked after.

Likewise, the solution of other practical problems dictated the design of the high arched combustion chamber, the novel arrangement of flue passages, and many of the other features that make the No. 11 virtually a new kind of boiler.

Like all other heating products in the complete line of American Radiator Heating Systems, the No. 11 Oil Burning Boiler is backed by the resources of the world's largest manufacturer of heating equipment. Its performance is assured by the best known name in heating.
Bringing new Beauty to the RCA VICTOR Sound System

This is an announcement of a handsome new walnut Cabinet, housing all controls, including facilities for radio, records, and microphone. Width 42", Height 73", Depth 18½".

Here is the latest addition to the RCA Victor Commercial Sound Systems, bringing into one beautifully finished and compact cabinet all the necessary controls. Cabinet houses two complete world-wide radios, a 2-speed phonograph, a microphone, and a simple switching system by which any room or combination of rooms can be supplied with whatever service may be desired. Standard specifications include provision for control of 80 loudspeakers, and additional switching equipment can be added if desired.

Though primarily designed for use in schools, this Control Cabinet is also suitable for similar purposes in other institutions. It now becomes a vital part of the RCA Victor Commercial Sound Systems, which are suitably flexible to suit the needs of any public or semi-public buildings and areas, such as schools, playgrounds, sports arenas, hospitals, courtrooms, hotels, etc. Wiring for sound is simple, and the cost is well within reach of conservative budgets. Write for information.

RCA VICTOR
COMMERCIAL SOUND SYSTEMS
RCA MANUFACTURING CO., Inc., CAMDEN, N. J.
A RADIO CORPORATION OF AMERICA SUBSIDIARY

What is Ric-wiL Dry-paC?

Ric-wiL Dry-paC Insulation is long film asbestos, processed to insure waterproofing—a pure natural insulation without binder, adhesive or metal staples. Non-sagging—supported all around by conduit, is attached to pipes. Never confuse Dry-paC, a scientifically developed laboratory tested product, with ordinary insulations. It has properties peculiarly its own, and in combination with any type Ric-wiL Control System, forms the ideal protection for underground steam power or heating lines. To learn more about this unique insulation, write for Bulletin 3503.

The Ric-wiL Co., 1562 Union Trust Bldg., Cleveland, O.
New York     San Francisco     Chicago

Agents in principal cities.

It is easy to convince clients of the advantages of automatic oil heat and air conditioning. But, the question of expense is another matter. With the Gar Wood System, guesswork is out . . . for owners, everywhere, say Gar Wood oil heat costs less than coal. Specify a proved method! Specify the Gar Wood Tempered Aire Automatic Oil Furnace and Air Conditioning System. Write now for operating cost figures.

Look for Gar Wood Systems in Sweet's Catalog 20, Section 26

Any house with a Gar Wood System is a better home

THE • ARCHITECTURAL • FORUM
There is a difference in the quality of asphalt shingles — and quality is largely determined by the asphalt with which they are coated.

The Slam-Test coating of Trinidad Lake Asphalt Cement resists the actinic or ultra violet rays of the sun. It is extremely adhesive and holds the mineral granules in place in spite of adverse weather conditions. Genasco Slam-Test Shingles give lasting protection.

The various types of Genasco Shingles illustrated here all have the exclusive Genasco "Slam-Test" feature.

Illustrated folders in colors of each type of Genasco Slam-Test Shingles sent upon request

THERE IS A GENASCO SIDING FOR EVERY PURPOSE. Genasco Double-Dip Tru-Brick Siding and Genasco Brick-Like Siding have the appearance of real, colorful face brick with recessed mortar joints. They are ideal for modernization work. Keep a building warmer in winter... cooler in summer. Save home owners money on fuel bills.

Genasco 4-Point Siding is an inexpensive diamond-shaped siding, also available in attractive colors.

THE BARBER ASPHALT COMPANY

New York Chicago St. Louis

Roof security is FELT with Trinidad

October • 1935
For all types and sizes of storage tanks, range boilers or heavy-duty tanks, leading tank manufacturers are using and recommending Herculoy*, Revere's patented high-strength silicon-bronze alloy. Consider Herculoy's advantages: (1) Strength of steel; (2) Corrosion resistance similar to that of pure copper; (3) Easily drawn and formed; (4) Fabricated by any of the standard welding processes; and (5) Meets Federal Specifications WW-P-541-9 for copper-silicon tanks. The net result: Herculoy tanks are dependable, durable, and last a lifetime.

It is to your client's advantage for you to specify Herculoy tanks whenever copper or brass piping is installed. By this combination of rust-proof materials, a completely permanent plumbing installation is assured.

Herculoy is just one of Revere's many copper, brass, and bronze products. Architects have long known and recommended Revere Copper Water Tube with Streamlined soldered Fittings, Revere Sheet Copper and Lead, Revere Architectural Bronze Panel Sheets and Extruded Shapes ... and now, the new Revere Thru-Wall Flashing or Cheney Flashing. For further details about any of these products, address our Executive Offices, 230 Park Avenue, New York City. *U. S. Patent Nos. 1,868,679 and 2,002,410.

Revere Copper and Brass Incorporated
Executive Offices: 230 Park Avenue, New York City
Mills: Baltimore, Md. • Taunton, Mass.
New Bedford, Mass. • Rome, N. Y. • Detroit, Mich. • Chicago, Ill. • Sales Offices in Principal Cities

The Architectural Forum
Bathroom planning is a problem that pays a dividend for study and careful thought. And in your planning, take advantage of the extra dividends that go with the T/N, the first and finest one-piece water closet. Architects accept the T/N as a great advance in water closet design, permitting an astonishing variety of effective bathroom layouts. The T/N is not attached to the wall, and installations are possible even in corners, under windows, staircases, etc. Wherever quietness is to be considered, the most satisfactory answer is always a T/N. There are many other features, of course . . . non-overflow, powerful cleansing flush, special regulating stop to permit volume regulation of water under all pressures, large bowl opening, and safeguards to prevent any possible water supply contamination. Available in a wide variety of colors. Highly sanitary, acid-resisting, easily cleaned, and though the T/N is a favorite in elaborate bathroom designs, it is moderately priced to fit the budget of even the modest home.

T/N ONE-PIECE WATER CLOSET

Please send me complete descriptive literature and helpful data on the T/N One-Piece Water Closet, both for REMODELING and NEW HOMES.
COVERT FIREPLACE DAMPERS

The large percentage of "COVERT" dampers used in the fine homes shown in this issue, reflects the confidence architects have in our products.

Our attractive booklet on Fireplace Construction will be sent free.

H. W. COVERT CO.
229 East 37th St. • NEW YORK

Get Hot!

Your back copies of THE ARCHITECTURAL FORUM are virtually irreplaceable.

Available now are binders that will preserve them in either sewn or spiral bound form.

Illustrated above is a new binder, covered in natural tan Webtex Studio cloth and stamped with black letters, specially designed to hold the January-June, 1935 issues. The rods which slip through the spiral binding, and the inside back strip are of chrome plate. Complete single issues are easily removed and returned. Price: $2.00, f.o.b. New York City.

Illustrated below is the binder for sewn issues. This is available in any standard color library buckram, with reinforced end papers, heads and library corners. The legend is of 22 carat gold leaf printing. To procure this binder, just send your copies of The Forum express prepaid. Price: $3.50, f.o.b., New York City.

Binders are now available for the January-June and July-December, 1935 issues.

Send check or money order to THE ARCHITECTURAL FORUM 135 East 42nd Street, New York City.

This electric heating data book free by writing now. No obligation. Address:

ELECTRIC AIR HEATER CO.
666 BYRKIT STREET, MISHAWAKA, IND., U. S. A.
The Front appeals to the Eye... But it's the FLOOR that brings in the money!

ONLY too frequently, a building's "front" is emphasized at the expense of its utility... in striving for impressiveness of appearance, utility factors, of equal importance to the building's success, are sometimes slighted. Among these important utility factors, the building's floors play a leading role. They alone produce the building's revenue. They determine the extent and convenience of the electrical facilities offered to tenants. And they largely determine the length of the building's profitable life.

Therefore, floors obviously deserve the most careful consideration from architect, builder, and building owner. And such serious consideration inevitably leads to the newest and most modern method of floor construction... The Robertson Steel Floor System.

Electrically, the Robertson Floor is so completely flexible that it can meet all electrical requirements that the present or the future may demand of it. More than that, this flexibility is such that it is readily available for use without the trouble and expense usually involved in utilizing the partial flexibility of other types of floor construction. Yet this perfect electrical provision is obtained at a cost that is little, if any, higher than that of the ordinary bare floor alone. Expensive underfloor ducts are eliminated and thereby big cost savings result.

The Robertson Steel Floor System, developed after years of study at famous Mellon Institute of Industrial Research, is in reality, a super-strong steel floor which contains, in itself, a complete system of protected wire raceways. These raceways permit of such complete electrification of the floor that electrical outlets can be placed every six inches over the floor area if desired, without the costly tearing up of floor surface which the installation of outlets in ordinary underfloor duct systems entails.

The Robertson Floor is stronger, lighter, more compact. It increases fire safety... lowers accident hazards. And it speeds up large building erection by 20% to 30%!

Every architect, contractor and engineer will find our brochure "New Life for Buildings" and our special technical bulletin on the Robertson Steel Floor System extremely instructive and valuable. Send for your free copies. H. H. Robertson Co., Pittsburgh, Pa.
This house, designed by Oliver Reagen, Architect, New York City, is completely insulated with Reynolds Metallation and Reynolds Metallated Ecod Fabric.

**Insulation by Metallation**

**This bright metal insulation reflects heat just as a mirror reflects light**

Easy to apply in old houses or new; costs 50% less than former methods

For a plaster base and for side-wall insulation—Reynolds Metallated Ecod Fabric

As a base for stucco or brick veneer, Reynolds Ecod requires no sheathing

Many architects have acclaimed Reynolds Metallation primarily because of its lack of bulk. They find it an important savor of space. But some of the greatest advantages of Metallation are derived from this same thinness—as thin as a calling card. Metallation reflects approximately 95% of the radiant heat which strikes its surface—and does not store heat to be given off into the house after nightfall in summer or to increase winter fuel bills. Similarly, it absorbs no moisture; ordinary atmospheric moisture reduces the efficiency of the usual insulating materials). Lastly, Metallation is termite-proof—infestations and vermin can neither attack it, nor breed in it.

Metallation represents the maximum dollar value in insulation—costing approximately 50% less, completely installed than other methods of insulation. It is a fire-safe material—in keeping with the trend toward sound construction and greater building values. It is nailed on in strips right over the rafters, roof joists or studs.

Reynolds Ecod Fabric combines Metallation with an electrically-welded, metal-reinforcing plaster base. Reynolds Ecod is likewise an economical product to use—saving in the amount of plaster used and providing insulation for side-walls and upper floor ceilings, at a cost of only six-tenths of a cent extra per square foot, over the usual plaster bases. As a base for stucco or brick veneer, Reynolds Ecod requires no sheathing. Ecod can be nailed on to the frame members, then covered with a scratch coat of plaster. The brick veneer is then applied and the space between Ecod and bricks is slushed full with mortar so that the brick veneer is an integral part of the wall and the construction absolutely watertight.

These are only two of the many Reynolds Architectural Products which architects are now specifying to give the public better values. We would welcome the opportunity to send you more detailed literature about all of them.

For complete specifications see 1935 Sweets, Catalog 11, Section 15

Reynolds Architectural Products

- Reynolds Metallation
  - Efficient insulation at 50% less cost.
- Reynolds Ecod Fabric
  - The insulated, reinforced Plaster Base.

Reynolds Corporation

19 Rector Street • New York, N. Y.

Offices in Principal Cities
The Allis-Chalmers Mfg. Co. now offers a most important new development in power transmission — the Vari-Pitch Texrope Sheave. In this new sheave, by a simple adjustment which takes but a few moments, the pitch can be altered so as to give a variation in speed of from 15 to 25 per cent per sheave; if both sheaves are of this type, the range of variation will be doubled.

The new Vari-Pitch Sheave permits you to experiment with different speeds to ascertain at just what speed your machinery shows the greatest efficiency; it permits you to take advantage of new higher speed cutting tools; it permits you to make different products, some of which require higher speeds and some lower — and do all this without dismantling and buying new drives, but simply by taking a few moments to make the desired adjustment. Vari-Speed Sheaves are made in two types, manual and automatic. The manual type is recommended for applications that require occasional change of speed. For applications that require frequent changes the entirely automatic type is recommended in which speed can be instantly varied to the full range while the drive is in operation.
The best "medicine" for any "ailing" hot water heating system

"SLUGGISH circulation" is the ailment from which most hot water heating systems are now suffering. Sluggish circulation that results in slow heating, excessive fuel cost, and general dissatisfaction on the part of the user.

The correct remedy is a Penberthy Water Circulator (and whatever other specialties shown here that are required by the particular system.) This has been proved in a large number of cases under a great variety of conditions.

Penberthy Hot Water Heating Specialties are constructed of high grade steam bronze; their design and workmanship are of the same exceptional quality as the materials used. Your jobber will be glad to give you complete information regarding these specialties and to let you see for yourself how superior they are.

PENBERTHY PRESSURE & RELIEF CONTROL

PENBERTHY WATER CIRCULATOR

CONSTRUCTED
OF HIGH GRADE
STEAM BRONZE

OTHER PENBERTHY HOT WATER HEATING SPECIALTIES • •

PENBERTHY REDUCING VALVE
PENBERTHY RELIEF VALVE
IN-LINE TYPE
PENBERTHY RELIEF VALVE
DEAD-END TYPE

PENBERTHY INJECTOR COMPANY

Manufacturers of Quality Products Since 1886
DETROIT, MICHIGAN • WINDSOR, ONTARIO

Printed by
The Schenectady Press, N. Y.