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Announcement of Awards.

AMERICAN GAS ASSOCIATION
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PART I, CLASS I
Houses between 18,000 and 24,000 cubic feet.

PART I, CLASS II
Houses between 24,000 and 32,000 cubic feet.

SELECTED DESIGNS
Taken from both Class I and Class II.

PART II
NEIGHBORHOOD PLANNING
Development plans for an actual or hypothetical site of about 35 acres.

BUILDING MONEY

MONTH IN BUILDING

FORUM OF EVENTS
Mr. Morgenthau Invites . . . Dixie's End . . . Sculpture . . . USSR Fair.

PRODUCTS & PRACTICE
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BOOKS

LETTERS

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VOLUME 69—NUMBER ONE
Continuing the recovery begun in the preceding month, volume of permits issued during April advanced 13 per cent to $130,241,519, but fell 22 per cent shy of the figure reported for April, 1937, when the year’s peak was established. All classifications of permits gained during the month: residential, 9 per cent; non-residential, 17 per cent; additions and repairs, 14 per cent.

Contracts awarded during May presented a still more encouraging picture, pushed 28 per cent above the April volume and 16 per cent above that of May, 1937. Standing at $283,156,000, the May, 1938, figure looks down on all monthly totals as far back as July of last year. Biggest part in the May advance was played by heavy engineering which almost doubled both during the month and in the year. The residential classification showed a month’s gain of 11 per cent, a year’s drop of 1 per cent. Non-residential building was lower by 3 and 17 per cent respectively.

CANADA. That U. S.'s epidemic of pro-housing legislation is contagious was indicated month ago when Canada’s Finance Minister Charles Dunning introduced into the House of Commons a new government housing measure. More liberal than the 1935 Housing Act, Dunning’s Bill would: 1) increase the amount of loans authorized for house construction from $10 million to $20 million, 2) jack the maximum loan- appraised value ratio from 80 per cent up to 90 per cent on houses costing $2,500 or less, 3) offer partial guarantee by the government to lenders against losses on certain loans and 4) authorize $390,000,000 in loans for low-rental projects to be built either by municipal authorities who must put up 10 per cent or by limited dividend corporations who must ante 20 per cent. Under the old act, the Dominion advanced 20 per cent of the value of privately built houses, lending institutions, 60 per cent. Now the Dominion would advance 25 per cent.

CITY PLANS. While New York’s Mayor La Guardia strives through press and radio to encourage a mass renovation of decrepit city tenements (page 82), Planner Tideman would entice his mind. Planner Tideman would entice of decrepit city tenements (page 82), back into the city limits by making lots available to builders free of purchase price but on a rental basis, and by exempting new buildings from taxation. For administrative purposes a non-profit corporation would be formed with loans or grants for capital. It would purchase and demolish run-down properties, lease the land to others, do no actual construction itself.

Unlike New York’s campaign which depends for success upon individual property owners, the Chicago plan stands little chance of progressing beyond the proposal stage. Reasons: 1) purchasing operations of the corporation would boost land prices, 2) tax exemption of property would force the city toward bankruptcy and 3) Planner Tideman will search long and wide before finding a sponsor and the required $80 million. Plan’s soundest aspect is the creation of a non-profit corporation which would function as do the country’s various port, bridge and tunnel authorities.

USHRA AMENDMENTS. Jammed through Congress in the closing hours of its 1938 session were three amendments to the U. S. Housing Act designed to give the administering authority more and broader powers and to speed up the Government’s slum-clearance and low-rent housing program.* Introduced in the House by Representative Steagall as a subdivision of President Roosevelt’s spending-lending “must,” the enacted amendments authorize the USHA to sell $880 million of bonds, the proceeds of which may be used immediately, and to enter into annual-contributions contracts (Federal subsidies) not in excess of $82 million per year. Previously the USHA could sell bonds to the extent of only $850 million and the proceeds were to be used over a three-year period.

A third amendment provides that payments under annual-contributions contracts be pledged as security for any loan obtained by a local authority and that annual contributions be used first to pay interest or principal on loans due the USHA. Purpose is to aid the reselling and marketability of bonds purchased by the USHA from municipal authorities and at the same time better to protect the interests of the U. S. Government.

Prior to enactment of the amendments, annual-contributions contracts were limited to $125 million before July 1, 1939—a limitation which slowed up the earmarking of funds and the making of actual loan contracts because of the practical necessity of making both types of contracts simultaneously. Thus, USHA’s power to make loan contracts before July 1, 1939 had been reduced from $850 million to about $850 million, and on this basis a maximum of only $750 million would be put into circulation during the current year. The authorized expansion

---

*At mid-June, as the new USHA amendments were enacted, Administrator Nathan Strauss had entered into loan contracts involving only $53,403,000. Larger but less significant was the volume of earmarkings (gentlemen’s agreements that loans contracts will be made when and if local projects become fully eligible): $352,788,000 for 93 communities in 33 States and the Territory of Hawaii.
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of annual-contributions contracts to $48 million per year will, however, put the USHA in a position to earmark enough funds in 1938 to make next year's actual loans much larger than this year's. Such was the gist of the theory presented in the amendments' hearings before the House Committee on Banking and Currency during which USHA Administrator Nathan Straus was continually "on the mat."

Also brought out in these hearings was Straus' belief that the USHA was asking too much of local authorities in requesting them to ante 10 per cent of a project's development cost. Pointed out was the fact that every 85 of Federal subsidy must be matched with a $1 local subsidy and further that in actual experience (the first nine contracts approved) local subsidies, which consist largely of tax exemption, amounted to 91.9 per cent of Federal grants. So, Straus stressed for removal of the local authorities' 10 per cent share of the development cost, which would have allowed the USHA to grant 100 per cent loans. The House amended the bill to that effect, the Senate modified the House amendment, the Conference Committee killed it, and then the bill was passed. Thus, local authorities under the amended USHA must still chip in 10 per cent.

RURAL SLUMS. If ramshackle housing, lack of proper sanitation and insufficient incomes make for slum conditions, then one-third of the U.S. farm population is living in slums. But, besides substantiating President Roosevelt's one-third-of-the-nation ratio, the Department of Agriculture report entitled "Disadvantaged Classes in American Agriculture" specifically names four geographical spots as harboring the bulk of rural slum dwellers: 1) the hill-billy sections of the South, 2) the cotton belt extending from Texas to the Carolinas, 3) northern Arizona and New Mexico, and 4) much of northern Michigan, Wisconsin and Minnesota.

Other enlightening facts from the survey:

- More than 500,000 families are farming land so poor that they will starve before they make a living on it.
- Each year some 3,000,000 persons migrate from farms to urban areas and back to farms again in a vain effort to improve their living conditions.
- Farm tenants number 2,565,000, account for a total population of 13,000,000.
- Rural poverty should not be blamed upon Depression, but rather upon falling farm prices, unsound farming practices, mortgage foreclosures, and the rising tide of operating costs and taxes.

The Department of Agriculture report serves to underline the importance of the recently authorized inclusion of farm mortgages in FHA's insurance program.

MODERN MODEL. When Architect Frank Lloyd Wright designed a Usonian type house for Journalist Herbert Jacobs of Madison, Wisc., he did not foresee its use as a model house. But such is the ease.

At two-bits a head, 400

According to Ken magazine, which last month noted that recent publicity of the $3,500 house in other magazines (Time and The Forum and Coronet) had attracted droves of visitors, that Opportunist Jacobs had charged 25 cents a look and had earned enough money to pay off his mortgage.

Informed of the story, Jacobs credited Ken with two hits, one error: visitors have been admitted and at 25 cents a head, but receipts were exaggerated at $20 per day. Commended Journalist Jacobs: "God knows we have had visitors, but not 20,000 of them."

MORTGAGE OUTLET. Since late March the Federal National Mortgage Assn. has been purchasing FHA-insured mortgages on new construction, but has turned up its nose at loans covering existing construction. To provide a market outlet for the latter type of security, therefore, the RFC Mortgage Company last month announced a change in its regulations, informed mortgagees that henceforth it could purchase loans covering properties on which construction was completed even before the National Housing Act was established in 1934.

By virtue of this change in policy, practically all types of FHA-insured mortgages are provided with a market by Government agencies. But, since the Mortgage Company and Mortgage Association (also an RFC affiliate) may not compete with one another, purchases by the Company are limited to those which the Association will not consider. Example: the Company will not buy mortgages covering construction begun on or after January 1, 1936 and insured on or after January 1, 1937. The Association will. Importance of the Company's operations is reflected in the fact that of the net amount of mortgages accepted for insurance through April 30, 1938, $840 million represented existing construction while 6830 million represented new homes.

Terms of purchase by the Company are similar to those followed by the Association: price, par and accrued interest; mortgagee's fee, 1/2 of 1 per cent on the decreasing principal balance if service charge is paid by mortgagee, 1/2 of 1 per cent if this charge is paid by mortgagee.

HOUSING LABOR. In past issues The Forum has suggested that one of the biggest pushes that could be given the slow-moving USHA program should come from Labor. First step in this direction was outlined last month when AFL Building and Trades Councils in four cities lined up behind a two-point agreement outlawing wage increases and stoppage of work during construction of projects. (Arch. Forum, June 1938, p. 2.)

By mid-June this list had expanded to 25. And, when Labor realizes that ten of these 25 cities have obtained USHA loan contracts, many other Local Building and Trades Councils will likely discard their high horses in favor of the housing bandwagon.

EARNINGS. Of the ten building material and equipment companies who issued first quarter reports last month, only one made money. Allis-Chalmers alone could boast of its record—a paltry $100,000 behind last year's and best on the list. Other money-makers, including Anaconda Copper, showed earnings that were from 15 to 30 per cent of those of the initial 1937 quarter.

Quarter ending March 31 1938 1937
Allegheny Stee! ..... 194,394* 551,034
Allis-Chalmers Mfg. 1,403,649 1,564,897
Anaconda Copper . 2,385,516 8,537,100
Briggs Mfg. ..... 317,006 2,474,899
Detroit Steel ..... 48,806* 211,140
Formica Insulation 11,956* 41,178
Holland Furnace ..... 196,412* 176,961*
Reliance Mfg. ..... 173,377* 190,742
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Thompson-Starrett 197,088* 275,290*
† = quarter ending April 2. *= Net loss.
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These floors of resilient reinforced rubber tend to cushion shocks and reduce noise.

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You may have seen it—a writer on economics said recently: "...small construction on a nation-wide scale may this year again, as in 1920, prove to be 'the Moses' to lead business out of hard times."

When this building of moderate-cost houses develops, you can make the homes you plan more livable and more salable by specifying Formed Metal Plumbing Ware—sinks, laundry tubs, bathroom fixtures.

In this ultra-modern ware the useless bulk of conventional fixtures has been thrust aside for strong, graceful design. The monotony of dead white has given place to color—in solid tones or combinations of harmonious tints in gleaming, acid-resisting porcelain enamel.

And you and your clients will be glad to know this—the lasting beauty of Formed Metal Plumbing Ware is assured. Under the satiny finish is Armco Enameling Iron, the base-metal that has long been used for the finest porcelain enameled appliances. The well-known Armco trademark is attached to every piece. Do your files contain complete information on Formed Metal Plumbing Ware? If not, write us for it. The American Rolling Mill Company, 1931 Curtis Street, Middletown, Ohio.
These nine old men of architecture will judge competitions for U. S. Government buildings: Bruce, Clarke, Cret, Embury, Klauder, Maher, Neutra, Shepley and Professional Adviser Simon.

**MR. MORGENTHAU INVITES...**

(Adv.) **A PREMIUM**

of a lot in the city to be designated by impartial judges, and $500, or a medal of that value, at the option of the party, will be given by the Commissioners of Federal Building to persons who, before the 15th day of July, 1792, shall produce them the most approved plan, if adopted by them, for a Capitol to be erected in the City, and $250 or a medal for the plan deemed next in merit to the one they shall adopt...

Thos. Johnson, Dd. Stuart, Donl. Carroll, Commissioners

**FAMOUS COMPETITIONS AND THEIR WINNERS**

Thus did the Federal Building Commission inaugurate the first architectural competition in this country for the design of a Government building. By this and later competitions were Thornton, Hoban, Mills and others "discovered," given the opportunity of long lives of service. The design of those early Government buildings set standards not since surpassed, rarely equaled.

Not forever was the competitive method to prevail. By Act, approved in March 1864, the appointment of a supervising architect in the construction branch of the Treasury Department was authorized, "the same to be employed and continued only during the rebellion (Civil War) and for one year after its close." After this period the office was recognized as permanent and a regular annual appropriation made.

At first a designer, the Supervising Architect rapidly became an administrator; all Government work was absorbed, competitions stopped. This system prevailed until the Tarsney Act of 1893 authorizing the Secretary of the Treasury in his discretion to obtain plans for the erection of public buildings by competition. Revived hopes were short lived. Charges of "trust" prices for the expensive character of Government work caused repeal of the Act in 1912.

Came the New Deal and a vast public works program. Hopes were again revived but action checkmated. Meanwhile, the Treasury Department by means of competitions attempted to bring new freshness and vigor into paintings and sculpture for Federal buildings. Results proving satisfactory, Secretary of the Treasury Morgenthau surprised even the most enthusiastic competition backers with the announcement last month: "The Treasury Department will award $1,000 each for ten designs for small Post Office buildings costing approximately $50,000 each. For somewhat more experienced architects we are offering $9,000 for designs, consulting work and other services for a $450,000 Post Office and Court House building at Covington, Kentucky. Working drawings and specifications will be prepared in the office of the Supervising Architect."

**SECRETARY OF THE TREASURY HENRY MORGENTHAU:** "It has long been difficult for the young architect without a large staff to participate equitably in any but theoretical competitions. The Government and the general public have been well satisfied with the results of the Procurement Division's competitions for painting and sculpture. In many of these undertakings, unrecognized artists of genuine talent have been discovered. After a thorough study we have now been able to adopt our technique for competitions to include designs for Federal buildings. Should these two competitions prove successful, we hope to extend this method to larger buildings in the Government's construction program and ultimately to use it for all Federal building design."

**ARTHUR LOOMIS HARMON:** "Competitions enrich the profession and foster it as an art. Their use is a declaration that the right solution of a building problem is more than the proper answer to questions of economy, efficiency, organization and administration. They ask also that these be combined with imagination and animated with beauty."

**HENRY S. CHURCHILL:** "The action of the Treasury Department is a great step forward, both for the quality of public architecture and the standing of the profession. The next essential step is to continue such programs on a regional basis; and then to establish competitions in which painting and sculpture will be included and will be integral parts of the program."

**EDGAR I. WILLIAMS:** "The competitions recognize the fairness of this method of selection. It should help to increase the public interest in our national architecture; it will heating many an ambitious young architect; it is in line with the competitive struggle that has done well by America up to now."

(Continued on page 12)
The beauty of the plastered interior walls of Midtown Homes, Inc., Queens, New York is protected with Steelcrete Jumbo Expanded Metal Lath.

Steelcrete Jumbo Lath is made of 22-gage sheets, expanded with large diamond openings—approximately 1 inch by 2 inches—with waterproof paper or Kraft paper backing. It is made in two styles—perforated (as shown at top) for tying on, or unperforated for nail on work. Each sheet 27 inches by 96 inches, 10 sheets per bundle of 20 square yards.

Fire Safe Low-Cost Construction

- Steelcrete Jumbo Expanded Metal Lath costs no more than plastering bases which lack its rigidity, fire safety and superior plaster keying qualities. Its economy makes Jumbo Lath practical for apartments and residences. It can be easily formed to any architectural shape such as in arched ceilings and doorways. Its paper backing eliminates plaster waste and deadens sound. Of heavy gauge steel, it will not warp and cause shrinkage cracks in the plaster. Complete facts upon request.

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FORUM OF EVENTS

(Continued from page 10)

WAR AND PEACE won the sixth Lindsey Morris Memorial Prize of $300 for New York Sculptor Chester Beach. Inscribed "In Peace Sons Bury Their Fathers" and "In War the Fathers Bury Their Sons," the prize-winning bronze medal was selected at National Sculpture Society's annual bas-relief exhibition at New York's Architectural League.

DIXIE'S END

Irs starting point at Calais, Me., approximately 2100 miles away, the last 175 miles of U. S. 1 were formally dedicated July Fourth, Key West once more connected by land to continental America. Over the roadbed of Florida East Coast Railway moved not steam trains but gasoline driven automobiles. Steel beams had replaced wooden railroad ties, concrete slabs steel rails.

The new Overseas Highway boasts a seven-mile bridge, longest in the world over water, one of eleven which cover eighty miles in all. Aware of the suddenness and fury of previous hurricanes, FERA and the Red Cross have built concrete storm shelters along the exposed $3,600,000 PWA project, supplied each with emergency fresh water.

UNITY (left) won the year's biggest sculpture prize for Harry Posie Camden of Parkersburg, W. Va. Winner of the Federal Government's $10,000 competition for two statues to adorn the Federal Building at New York's World's Fair, Mr. Camden received $5,000 for "Unity," was commissioned to execute another symbolizing "Peace" for an additional $5,000. "Lincoln" (right) won special commendation for New York Sculptor Louis Slobodkin.

A FAR CRY from the "rubber-necks" of former days, this new long distance sight-seeing train with the collapsible top permits views in all directions, is one of a fleet now in operation in Germany.

HUNG from raised springs, principles of monorail travel are incorporated in this "pendulum" type car built for the Atchison, Topeka & Santa Fe R. R. Vibration is overcome, side sway permitted.

CIRCUS by Painter Louis Schanker was part of Federal Art Project's exhibit Murals for the Community, will soon hang in the children's dining room of Naponet Beach Hospital, New York, N. Y.

(Continued on page 14)
How to get more for your money...

Build with Concrete

Sears, Roebuck and Company’s new building at Highland Park, Michigan. Nimmons, Carr & Wright of Chicago were the architects; Patterson Engineering Co., Detroit, contractors. Other Architectural Concrete buildings for Sears are under construction or have recently been completed at Baltimore, Chicago, and Glendale, California.

Why are hundreds of stores, theaters, factories, warehouses, offices and other business buildings being built of Architectural Concrete? The reasons are both simple and compelling.

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Ask your architect or engineer to show you how concrete can be used efficiently for the building you have in mind. There are no limitations on the size, style or type of structure. Ask one of our engineers to call, or write for booklet just off the press, "The NEW Beauty in Walls of Architectural Concrete"—showing photos of splendid buildings, interesting details and characteristic textures.

(This Association does not furnish plans or designs; that is the function of the architect or engineer, whom we are glad to assist when requested.)

PORTLAND CEMENT ASSOCIATION
Dept. A7-7, 33 West Grand Avenue, Chicago, Ill.
A National Organization to Improve and Extend the Uses of Concrete
U.S.S.R. FAIR—1938

Neither a "Golden Gate Fantasy" nor a "World of Tomorrow," Moscow's All-Union Agricultural Exposition draws its inspiration from glories of the past, paradoxical propaganda of the cultural advancement of its peoples engaged in agriculture. Exhibits, which include hybrids of zebras and donkeys, roosters and peacocks, wild deer and mountain goats, will be housed in over 100 pavilions, cover 350 acres, open August 1.

Unlike Italy, Soviet Russia's "liberal" government does not sponsor "liberal" architecture for its citizens.

PAVILION PROJECT

Required to design a pavilion for the World's Fair, New York University Student J. H. Callender selected the armaments industry, jibed in his program: "... the authorities appear to have overlooked one of the biggest and most powerful of all." More serious was the requirement: "Suitable landscaping of the plot," ominously handled at the rear of the pavilion.

(Continued on page 52)
How you get 4 Major Advantages from ONE Medium

PC Glass Blocks bring New Versatility to Building Design

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We urge you to send for our free booklet which contains helpful data about PC Blocks as well as numerous interesting photographs of glass block installations both here and abroad. Merely sign and mail the coupon. And should you desire information concerning the application of structural glass to building construction, the Pittsburgh Corning Corporation will gladly supply it upon request. PC Glass Blocks are manufactured by Pittsburgh Corning Corporation.

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and by W. P. Fuller & Co. on the Pacific Coast

July 1938
Albert Kahn has for years designed industrial buildings for Ford, General Motors and for a large list of other famed clients throughout the world, has played a leading part in developing the new approach to industrial architecture. His recent work for these clients is presented in the August FORUM.

THE ARCHITECTURAL FORUM announces for August a Reference Number devoted to the new Industrial Architecture of Albert Kahn.

This exclusive presentation includes detailed photographic studies by Kenneth Hedrich and Robert Damora. For the first time many of the methods originated and perfected by Albert Kahn are publicly disclosed in special data and drawings prepared by the firm’s technicians.

THE FORUM will also publish in August the fifteen premiated entries in the Wheaton College Art Center Competition together with the report of the Jury. This competition has recently been compared in importance to the Chicago Tribune Tower competition.

To enter your subscription to include the August FORUM simply fill out and mail the order card enclosed with this issue.
Strength - Durability - Beauty
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Architectural concrete made with Universal Atlas Cement was used in the Montgomery Ward & Co. building, Menands, N. Y. Original unit designed by the Construction and Equipment Dept. of Montgomery Ward & Co., and constructed by Wells Brothers, Chicago. The addition was both designed and constructed by the Construction and Equipment Dept.

With architectural concrete made with Universal Atlas Cement, concrete structural parts and ornamentation are cast as a unit. Industrial construction dresses up! Drabness gives way to striking new beauty — usually at a saving in cost. Architectural concrete makes this possible. With architectural concrete the concrete structural parts and ornamentations are cast as a unit. Thus to the strength, durability and fire safety of concrete is added a new element of beauty which opens interesting new possibilities in the field of construction.

MAIL COUPON which will bring you further facts on this important new development, and examples showing its use. Universal Atlas Cement Co. (United States Steel Corporation Subsidiary), 208 South La Salle St., Chicago.

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Please send me further information on Architectural Concrete.

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**STEEL FRAME HOUSES**

The commercially practicable steel frame house was long in coming. For fifty years men have been dreaming of houses of steel and building mostly houses of wood. Inspired by the airy grace of other steel structures, and attracted by steel’s many advantages, building innovators tried to broaden the use of steel in house construction, but until comparatively recently their efforts were poorly rewarded. Between 1890—when the first steel house in America was built by one Neil Poulson, a Brooklyn ornamental iron worker—and as lately as the end of the last decade, hundreds of experimental houses were erected, but they found few imitators. However ingeniously worked out, this method of building proved always either too costly, too difficult for ordinary workmen and tools, the material too hard to obtain, or for some other reason failed to attract the average home builder.

Thus matters stood when Depression-sharpened appetites caused steel manufacturers to cast hungry eyes at the three-billion-dollar home building industry. Despite heretofore limited research facilities, the purely technical problem of the application of steel to housing had already been largely solved. Still very much unsolved, however, were the equally important questions of distribution and sales-promotion: the task of selling and servicing steel house construction.

This was the task undertaken by most of the leading steel companies five or six years ago. To it they brought tremendous facilities and a determination to succeed. In their favor they had a product with manifest superiorities: it was fire safe, shrink proof, termite proof, and permanent. Against them there was the inertia of the building industry, its inordinately low level of activity, its miniscule scale of operations and complicated methods, steel’s high relative cost. Their approach lay along two general lines: prefabricated or panel construction and the steel frame house.

Today, with more than 500 panel houses and several thousand steel frame structures built and more going up, these difficulties have definitely been surmounted. Prefabricated panel houses have already been described in this Forum’s February issue. Less sensational, but currently a greater commercial success are the several systems of steel framing now available almost everywhere. Of these, two—Bethlehem Light-Load Framing and the Stran-Steel Frame—are framing systems only, replacing the wood frame used in ordinary construction. Two more—the Ferrocon system and the Lea Steel Home—verge on the prefabricated panel type. The fifth—the Jones & Laughlin Junior Beam Floor—applies to floors only, makes no provision for framing side-walls. All are somewhat more costly than ordinary wood

(Continued on page 20)
"CORROSION STUDY"
Correctly Chooses Places for
WROUGHT IRON

Examples by GRANGER & BOLLENBACHER, Chicago Architects

A Wrought iron pipe for hot and cold water lines, vents (where not exposed), drains, fire lines, and gas piping, in the Chicago Club, Chicago, Illinois.

B Wrought iron pipe for all heating returns, cold water supply and drinking water lines, in Winnebago County Courthouse, Oshkosh, Wis. Neiler, Rich and Co., Mechanical Engineers.

C Wrought iron pipe for hot and cold water lines, vents (where not exposed), drains, fire lines, and gas piping, in University of Illinois Medical and Dental Building, Unit No.1, Chicago.

Leading architects and engineers tell us that selecting the right pipe materials is no problem when they use this quick, accurate engineering procedure. It consists of two simple questions: "What corrosive conditions are likely to be encountered in this structure?"—and "What material has given the best service under similar conditions?" We are helping many of your colleagues answer these questions.

Based on the facts found in this procedure, Granger & Bollenbacher, Chicago Architects, used wrought iron for the services indicated, in the buildings illustrated above.

On which of your active projects can we assist you in making a corrosion study? Tell the location and give a brief description to our Engineering Service Department at Pittsburgh. Also ask for our new, illustrated booklet, "Wrought Iron for Piping Systems," which contains many examples of wrought iron's long life and economy, and other helpful information on pipe selection. A.M. Byers Company. Established 1864. Pittsburgh, Boston, New York, Philadelphia, Washington, Chicago, St. Louis, Houston, Seattle, San Francisco.

Specify Byers Genuine Wrought Iron Pipe for corrosive services and Byers Steel Pipe for your other requirements

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GENUINE
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Tubular and Flat Rolled Products
PRODUCTS AND PRACTICE


Stran-Steel Frame

Basis of the Stran-Steel system, product of the Stran-Steel Division of the Great Lakes Steel Corp., Detroit, Mich., is a patented nailing groove, furnished in both joists and studs, which greatly facilitates the attachment of other materials to the frame. Framing members consist of a standard 3½ in. stud and plate, 6, 8, and 9 in. joists, a narrow stud and plate, 2½ in., half studs, and rafters with hinge connectors. Members are punched for connections, pipe, and conduit, and are fastened together with self-threading screws.

Lea Steel framing and metal clad sheathing. Members are bolted together and sheathing bolted on, metal lath secured by stamped prongs.

STRAN-STEEL FRAME

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Joists and studs may be obtained cut to length or in standard sizes. In either case, little cutting is required on the job, and this may be done with a hack saw or power saw. Members are usually placed 24 in. on center. A variety of corner and angle brackets, collars, clips, joist hangers, bridging, etc., are available for use as required.

Greatest advantages of the Stran-Steel frame are its adaptability to conventional construction, particularly roof framing, the simplicity of the tools and workmanship required for its assembly, and the ease in which regular finish materials, insulating board, lath, and wood flooring can be attached to the steel frame. Nails are driven into the nailing groove exactly as into wood members, where they hold with 2½ per cent more grip. The Stran-Steel frame can be erected by ordinary workmen using ordinary tools, and when complete is ready to receive ordinary finishes, windows, and doors, in the regular manner. Either wood or fireproof sub-floors may be used, and wood sheathing with shingles or clapboards, or brick or stone veneer exterior walls.
LEA STEEL FRAMING
The Lea system, made by Lea Steel Homes, Los Angeles, Calif., consists of channel joist and stud members which are bolted together on the job. Members are punched and threaded to receive bolts, and studs and joists have a special lancing to secure metal lath. Bridging, clips, connectors, diagonal bracing, etc., are available to complete the frame. Studs are 3 1/2 in. wide and joists 5 and 6 1/2 in. in depth.

Special feature of the Lea system is a prefabricated exterior sheathing consisting of metal-clad insulating board, and a similar material used for roofing. Sidewall panels are joined with an ingenious lap connection forming decorative vertical grooves, are 12 in. wide and one story high, made of 24 gauge galvanized steel backed with 3/8 in. fiber board insulation. Ribbed metal lath and poured concrete floors are used, making the construction entirely non-combustible.

J & L JUNIOR BEAM FLOORS
Pioneers in steel construction for residences, the Jones & Laughlin Steel Corp., Pittsburgh, Pa., makes light-weight floor joists and connectors, has no system of construction for exterior walls and partitions. J & L Junior Floor Joists are hot rolled, similar in section to regular I-beams, come in sizes stepped by even inches from 6 to 12. Standard stirrup hangers, adjustable angle hangers, single and double, and clips for sleepers, reinforcing bars, and furring are available. Flat concrete slabs with wood sleepers to receive flooring are generally used with the J & L joists.

FERROCON
The Ferrocon system, manufactured by the Ferrocon Corp., Philadelphia, Pa., differs from all of those described above in the fact that panel-like framing units, rather than framing members form its basis. These consist of two-sided, light-weight metal

(Continued on next page)
Bethlehem Light-Load Framing. Expanded, open-web members are job cut with an acetylene torch, electric arc welded. Extremely light weight and low thermal conductivity are the features of this system.

Ferrocon door units consist of cold rolled steel sides, spaced with metal lath panels, come 10 to 21 in. in width, 3½ in. deep, any desired length. Concrete poured over the upper side of the units forms the rough floor, which may be given any finish desired, and plaster is applied directly to the underside. Exterior wall and partition units are similar in construction, 3½ in. thick, and are finished with plaster and stucco. Insulation in both wall and floor units is optional. Special sill, girt, and corner members and roof panels are available.

Advantages claimed for the Ferrocon system include speedy erection, maximum shop fabrication, and the features of steel framing generally. Units are made up to size in the shop from the house plans, simply keyed together at the site, and the rolled lip of each forms, with that of the adjoining unit, a continuous groove to receive a patent key for connecting other materials. Exteriors may be stucco or brick or stone veneer, and design conventional or modern. Lowered cost is said to result from time and field labor saved by the ease and rapidity of its erection.

Bethlehem Light-Load Framing

First to enter the residential construction field with a completely integrated system of steel framing, the Bethlehem Steel Co., of Bethlehem, Pa., offers open-web joists and studs made by the Kalnum process and assembled in the field by electric arc welding. Members are formed by slitting and expanding special I-beam blanks while in a hot condition, producing an open web of the lattice type from one piece of metal. This greatly increases the flexural strength of the member and thereby reduces the weight to strength ratio. A 3½ in. blank expanded in this way to a 12 in. open-web member has about 3½ times the strength of the original shape, is somewhat heavier per lineal foot than a wood joist of the same depth, but since the steel joists can be spaced on 24 in. or 30 in. centers in spans which would require 16 in. spacing for wood joists, the total weight of a frame of this type is said to be no more than that of ordinary wood framing.

Steel is delivered to the site in standard lengths and cut to required size with an acetylene torch. Frames are erected by welders supervised by a man experienced in laying out ordinary framing.

The open web construction of the joists and studs makes installation of piping and electric conduit a simple matter, while the wide spacing facilitates ductwork, which may also be run crosswise by cutting out web members and reinforcing with welded plates. Open web design has the additional advantage of reducing thermal conductivity, rendering the conductivity of the wider-spaced steel members substantially the same in the completed structure as that of more closely spaced wood members. In order to provide an even footing for the ground floor joists, a continuous 4½ in. by ¾ in. sill plate, grouted in, and bolted at 4 ft. intervals to the masonry foundation is used. Joists, 10 in. deep for most residential work, are welded to this plate, with 4 in. studs alongside. Where extra loads are involved, the members may be spaced more closely or heavier solid-web members substituted, and double or triple members used to receive concentrated loads, as in wood framing.

Steel frames for windows, or steel sash are secured to the studs with welded straps, and steel door frames assembled in the wall by welding directly to the studs. Wood windows and doors may be used instead if desired. Base boards are nailed to wooden or metal nailing cleats, clipped or welded to the studs.

The added cost of this construction, including the cost of fireproof sub-floors and metal lath, is said to be but 5 to 10 per cent more than for a similar house of wood frame.
A WEALTH OF IDEAS ON BATHROOMS

for the Architect

WHEN you are planning bathrooms and are looking for something new—a little different—you will find a storehouse full of ideas in the new Crane Planner from which the above illustration is reproduced. This Planner has been designed to offer to the architect practical, usable ideas on bathrooms for the modest home as well as for the larger one.

All the basic types of bathrooms were actually built and photographed in color. These photographs together with many variations of the same bathrooms in architectural renderings are reproduced in the Planner in their actual colors. Complete specifications of all materials used in these rooms are given, together with the manufacturer’s name and color or pattern number, making the whole service a valuable aid in planning. The Planner contains ideas and suggestions that will be of assistance to you. You are cordially invited to drop into the nearest Crane branch any time and see the Bathroom Planner—bring your clients, too—you will find that the Planner will help them make up their minds.

CRANE

CRANE CO., GENERAL OFFICES: 836 SOUTH MICHIGAN AVENUE, CHICAGO
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from a one-piece enclosing globe!

**WHY THESE MACBETH GALAX BRAND GLOBES GIVE MORE USEFUL LIGHT**

Here is a type of enclosed globe that has semi-indirect lighting built right into it!

The lower portion of these Galax globes is semi-opaque, with a highly reflecting surface. Upper portion has high light transmission and diffuses light enough to eliminate "ceiling patterns". Entire globe is made in one piece for added strength and greater permanence of reflecting and diffusing qualities.

Light measurements show these globes to be superior for two reasons: first, the high efficiency is maintained by the enclosed semi-indirect construction which does not allow dirt to collect; second, the low brightness towards the eyes gives better seeing.

Send today for your free copy of "The Effective Use of Illuminating Glass", a comprehensive manual compiled by Corning engineers. Address Illuminating & Optical Division, Department F-7, Corning Glass Works, Corning, New York.

These Macbeth Galax Globes use standard fitters—they can be installed without expense or delay. Romanesque and Hallstadt models are stocked in plain white and can be furnished with various applied decorative treatments. Available in wide range of sizes. Silvax model is decorated with aluminum bands and cup.

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On the southern Caribbean Island of Trinidad the famous asphalt lake has been exposed for generations to a year-round summer sun. It has felt the fury of countless tropical tempests. Today this very same asphalt is shipped directly to the United States where it is used in manufacturing and building Barber Genasco Roofings.

Specimens of The Vital Element, taken from the lake at depths as great as 250 feet, show a uniformity of characteristics that is a definite asset in manufacturing and building fine-quality roofings. Analysis shows that it contains a wear-resistant mineral filler colloidalily dispersed in a manner not yet duplicated commercially in any other asphalt. Roofing asphalts containing The Vital Element show by frequent tests, including both service and the Weatherometer, superior weather-resisting properties.

Specify Barber Genasco Bonded and other types of Built-up Roofings for your clients. They'll appreciate the superb weather-resistance of roofings containing The Vital Element. And when questions regarding asphalt uses arise, submit them to Barber for an authentic answer.

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The Hotel Statler in Buffalo, N. Y., is one of many outstanding buildings in the United States roofed with a Barber Genasco Standard Trinidad Built-up Roof.

Nationally advertised Barber Genasco Products, containing The Vital Element, include; BONDED AND OTHER TYPES OF BUILT-UP ROOFINGS, MAS-TIC FLOORINGS, SHINGLES. & Other Barber Asphalt Products include: Waterproofing Asphalts and Fairpries, Dumproofing Asphalts, Restaurator, Restoracer, Asphalt Protective Products (Plastics and Liquids), Span-drel Beam Waterproofing (Span-drel Cloth and Cement)

JULY 1938

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“A master plan is nothing more than the easily changed instrumentality which will show a commission from day to day the progress it has made. Planning with the help of such a plan will prevent clashes between the public improvements made in different years and will serve to avoid duplication and rebuilding.”

Mr. Bassett is well-known for his work on zoning and the legal aspects of planning in general. In this brief treatise he takes particular pains to define the master plan, explaining its difference from an official map and outlining its functions and limitations. Because widespread misconceptions apparently exist on this score, the book is a valuable addition to planning literature.

There are seven elements of community land planning: streets, parks and parkways, public building sites, public reservations (airports, parking spaces, etc.), zoning districts, routes for public utilities, and pier and bulkhead lines. These are the elements which go to make up the master plan. Unlike the official map, it does not show buildings, private streets, or other minor and temporary elements of a community. Its chief function is to guide and coordinate community development, and its greatest asset is flexibility. Consequently the author insists that no master plan should be passed by a legislature, or adopted by any official body other than a planning commission. The latter part of the book—some 70 pages—is given over to specific consideration of various planning acts now in force.

**Simplified Engineering for Architects and Builders,** by Harry Parker. John Wiley & Sons, Inc., New York. 214 pp. 5 1/2 x 8. $2.75.

A brief, pocket-size textbook dealing with elementary engineering principles and the standard methods of solving common problems. It covers the principles of mechanics, construction in timber, steel, and reinforced concrete, and the design of roof trusses. Derivations of formulas are explained in a manner which requires no knowledge of advanced mathematics, and the method of presentation is sufficiently clear to permit the use of the book for self-instruction. It should be of value where simple structural members are designed by the architect's office, and in preparation for State license examinations.

**Die Schmiedearbeiten,** by Hans Scheid, Julius Hoffman, Stuttgart. 104 pp., 217 illustrations. 9 x 12.

While the art of architectural ironworking has suffered a temporary eclipse in this country, due largely to its association with styles which have lost their former popularity, this book is by no means without interest. A study of ironworking techniques, it is so well organized and so comprehensively illustrated that the designer without a knowledge of German can still get from it an excellent idea of the material, its nature and possibilities. Considered from the point of view of technique of presentation, the book is one which might well serve as a model for similar publications in this country. Supplementing the technical information is a small portfolio of old and contemporary German ironwork. The modern examples are chiefly interesting as illustrations of the flexibility of the material, which can be used very appropriately with non-traditional buildings.

**Decorative Art 1938,** edited by C. G. Holme. The Studio Publications, Inc., New York. 144 pp., illustrated with photographs, plans, and color plates. 8 1/2 x 11 1/2. $4.50.

In his preface to the thirty-third issue of this valuable year book, the editor notes a change from the severity which has previously been a salient characteristic of modern interior design, and the illustrative material bears out the observation. Part of this trend toward greater richness and variety can be attributed to the appearance of well-designed fabrics and rugs in increasing quantities; in the main, however, the change is probably due to a growing dissatisfaction with the excessive bareness of the conventional modern room. The bulk of the work shown is of foreign design, but American examples are more numerous than in previous issues. A convenient method of presentation is followed, with material divided according to room function, and there are separate sections on furniture, textiles, silver, china, and lighting. About 25 pages are devoted to house plans and exteriors.


As in previous issues of this yearbook, the contents are divided into articles and advertisements. The latter, which form by far the larger part of the book, cover products used for the construction, equipment, and maintenance of educational buildings, and as such form a convenient reference. The articles range from general discussions of various types of school-building programs to fairly specialized studies on technical problems of construction and planning. Subjects include ventilation, landscaping, lighting, planning as reflected in costs, maintenance and rehabilitation, play areas, visual instruction, shop and laboratory design. Reference lists include names of architects, school superintendents, private school and college heads.


With the growing scope of public building programs, whether municipal, State, or Federal, the subject of condemnation appraising takes on new importance. This book, claimed by the author to be a pioneer in its field, was written to explain the general procedure that has the sanction of both legal and economic doctrine. Its contents describe the valuation process, causes and estimating of depreciation, and the various aspects of condemnation proceedings. There is an appendix with interest discount and other tables. (Continued on page 54)
Concrete floors, unless specially hardened, will not hold their surface under grinding use. They wear down or crumble. They become dusty, dangerous to health, machinery and merchandise.

LAPIDOLITH, the original concrete floor hardener, will make your floors wearproof, waterproof, dustproof. It is a liquid, chemical compound that penetrates the pores of cement and makes floors granite-hard for a lifetime.

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Modern designing and improved structural features give steel windows increasing popularity. Now, with the aid of scientific methods, the Detroit Steel Products Company is giving Fenestra windows a new finish permanence that will increase their acceptance and assure more satisfaction in the use of this substantial building unit.

No longer is finish maintenance the sole problem of the building owner. Now steel window manufacturers give their products rust inhibiting and paint holding qualities that greatly extend their appearance life and widen the gap between reconditioning periods. With Bonderizing applied in the factory, before the baked paint primer is applied, the finish is given a secure foothold on the metal and provides substantial protection from corrosion. It seals the metal from moisture that may penetrate the paint film.

Bonderizing provides an adequate foundation for the finish that assures economy in maintenance and greater finish stability than can be secured in any other way.

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Send for this Book
It deals specifically with rust inhibiting finishing methods on many types of architectural iron and steel products and indicates a solution of the finishing problem on galvanized units. Write today for your copy.
More and more architects are finding it pays to insist on adequate wiring in their building designs. It's a service they owe their clients; it enhances their own reputations. The logical first step toward adequate wiring is the Square D Multi-breaker. It provides circuit breaker protection and branch circuit switching up to 50 amperes. It eliminates the inconvenience of blown fuses. It is neatly, compactly designed—can be installed in any convenient wall.

The cost of Square D Multi-breaker installations over conventional switch and fuse equipment is negligible. It is well within the means of any client. Ask any good electrical contractor for the complete Multi-breaker story. Or write for Bulletin 543-A.
Competition Canceled
Forum:
Two hundred and forty-three doctors entered a competition to remove a splinter from Charlie McCarthy’s head! The winner of this national competition will be awarded the main prize, namely, working on the heads of architects as a whole.

It seemed fantastic to me that professional men, who are supposed to be business leaders, should become involved in one of the most unbalanced financial setups to date. No wonder cash customers look down on this profession—get us to trade against each other and in most cases get free advice and sketches! I feel that this is due to the gay and competitive spirit of the colleagues who have not gotten over their school-boy practices.

The Wheaton College competition was a $500,000 job. Two hundred and forty-three architects competed and I think it is fair to say that the amount of time, expense and effort put in by any one of these men certainly should have been valued at $1,000. That would mean that $849,000 or half the cost of the building was spent by the profession as a whole. Of course you can drop this figure to $500 per man or you can push it up to $2,500 according to how it was handled, but surely we must admit that this basically is wrong.

Ideas and competitions should be paid for. Of course we have the other side of the picture, that is, the younger man in the profession will have a chance to establish himself. However, in these “Irish Sweepstakes” the odds are terrific—for every young man or unknown that is established thousands upon thousands in the drafting rooms feel the effect due to the lowering of wages, for we dare not call them salaries, which is caused by this general gambling spirit.

What I am getting at is this—the general public, as a whole, even to the fellow who is building a $10,000 house, realizes that he can get free competitive or professional services.

Of course I realize in writing this, if it should go further than you, that the first reaction would be—“it is easy for him, he had the breaks through the bad years.” No one is more conscious of that than I am, but I am thinking a little further—I am thinking how far this will lead to the destruction of the leadership that our profession should hold say ten or fifteen years from now, for unless one is totally blind—with all these government competitions and programs establishing the way for the mind of the general public, I am really worried about the men who will pick up our shoes and carry on in the future.

Please forgive me for this outburst but it has been a wall that I have batted my head against for years and this Wheaton College competition brought on this final hemorrhage.

L. ANDREW REINHARD
New York, N. Y.

To Architect Reinhard, The Forum’s thanks for so ably representing the opposition. Forum editors suggest that (1) no architect is under any compulsion to enter a competition, (2) that if the profession is plagued by free sketches and other irregular practices, let it seek out the real causes and do something about them, such as cease blaming such easy scapegoats as the competition system, which has always been notoriously weak in this country. As we go to press, word comes that protestant Reinhard has been designated for the Jury to judge designs for Bronze Doors for the new Associated Press Building, Rockefeller Center—Ed.

Lost and Found
Forum:
It was with mingled feelings, as they say, that I opened my copy of the June Forum to find that my favorite editorial fence-sitters had finally taken a deep breath and plumped for modern—now that it is safe to do so. Or have you plumped? And was it by accident or design that “Where is Modern Now?” was neatly sandwiched between the latest Lescaze opus and ranch house by the second, and slightly diluted, generation of Wrights? Today’s dream, we are told, is a reality. What is this reality? Taking the June issue, would it be the stiff rehash of the 1924 Le Corbusier models which CBS bought for itself—or the adequate ranch house with “organic” trimmings—or Mr. Wurster’s pleasant little abstraction in redwood—or the oh-so-studiedly-simple post office for the Bronx, or what? Perhaps you would say that this modern reality is the sum total of all of these, something like that composite picture of the seven most box-office movie queens. And perhaps you would be right. But my own private little guess is that your “modern reality” was a very neat way of avoiding the harder question, “What is Modern?” I’d like to bet my shiny new T-square against a year’s subscription that you can’t answer that one—at least not in terms that would cover everything you publish and call modern.

The story goes on to claim that “the only way to tame an uncompromising functionalist is to give him buildings to build.” If you would call the Brooklyn Bridge, Karunak, Amiens, Santa Sophia tame, O.K. It would be nice to have some more tame architecture around these parts. Up our way, most of the architects I’ve worked for do Colonial houses when they have any houses at all to do, and some of them are mighty functional. I mean functional in a broad sense, too, not merely adequately organized shelter. And while they are dull as dishwater, I can’t see that the little stucco boxes some darling souls are putting up any better. They are certainly less “functional,” if one considers what one winter does to their outsides.

If you’ve got to ask questions, try asking yourselves the one you sidestepped. And try this one, too—it’s a lot more to the point:—“Where is Architecture Now?” And don’t worry about taming functionalists, because if and when we ever get another good architect, he’ll tame all the functions you can hand him.

I think it is fine that you’ve really come out for modern. But take it easy. Folks around here tell me that Dr. Gropius just loves Colonial!

L. J. BROOKS
Boston, Mass.

Forum: You will undoubtedly receive many letters of comment, both pro and con, on the article “Where is Modern Now?” in the June issue. Let me be among the first to cast my vote, emphatically on the pro side. Your point of view seems to me soberly thought out, clearly expressed, and fortunately free from the dogmatic prejudice so often associated with the subject of architectural design.

As an old-time Forum subscriber it is satisfying to view the forward strides which architecture in this country has made in the past few years, gratifying to find the Forum keeping pace. Let us have more, concise, pithy articles of this type and on this important subject; after all, mortgages and government housing are not everything. Your comment on the various jobs published each month is always pertinent, interesting, and occasionally brilliant, but it is good to have a peek behind the scenes every now and then and discover more fully what the editors are thinking.

THOMAS WILSON, JR.
Chicago, Ill.

Do other Forum readers second old-time Subscriber Wilson’s suggestion?—Ed.

Errata
To architects for Fairfield Court, Stamford, Conn. (ARCH. FORUM, May, 1938, pp. 368, 369) an apology for twisting titles. Correctly they stand: Chief, William J. Pedersen; Assistant Chief, David C. Sanford, Jr.; Associate, Nelson E. Emmens; Consultant, William F. Pedersen.—Ed.
The sales record established by these Penberthy Products is probably the best evidence of their outstanding quality. Architects, engineers, plumbing and heating contractors... all have expressed a preference for a Penberthy Automatic Electric Sump Pump or Automatic Cellar Drainer wherever seepage water accumulates. The many advantages and economies of hot water heating plant modernization with these Penberthy Specialties are also appreciated.

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JULY - 1938
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Specially enthusiastic are comments on this paint's washability. That's important. As you've probably observed, many an interior paint job is "all washed up" simply because it isn't washable. It needs repainting, not because the paint has worn out but because dirt can't be washed out.

A Real Clean-Up

Saying that this paint is really washable means two things: (1) Its beauty is not destroyed by hard scrubblings. (2) Those scrubblings actually get you somewhere. Test panel at right shows how stubborn stains and dirt really do "come out in the wash." That explains why paint made with this Dutch Boy combination saves money formerly spent for over-frequent repaintings.

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This test panel is a 2' x 3' piece of wallboard, painted with Dutch Boy White-Lead and Lead Mixing Oil. For a solid week, this panel lay in a busy corridor. It was walked on by hundreds of people daily. Horizontal streaks show how it was then defaced with grease, ink, pencil, crayon, shoe blacking, lipstick, etc. Swatch shows marks completely removed by washing with soap and water.
A point worth bringing up about
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RUBBER FLOORING

ONE reason — and an important one — why Goodyear Rubber Flooring wears better, lasts longer and doesn’t stretch or buckle is that it has a fabric insert in every piece.

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It *diffuses* furniture weight over a larger area.

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It *protects* the underlying adhesive — prevents creeping — helps resist any force tending to push the flooring out of position.

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What it *doesn’t* show is that the "breaker strip" is approximately 2/64 of an inch from the bottom side of the flooring — the ideal placement for all gauges as proved by exhaustive performance tests.

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PRIZE: RICHARD BENNETT (above right) and CALEB HORNBOSTEL, New York City.

PLACED THIRD: PAUL WIENER, JOHN W. STEDMAN, PIERRE BEZY, New York City.
PLACED FOURTH: ALEXIS DUKELSKI, New York City.
PLACED FIFTH: PERCIVAL GOODMAN, New York City.
LYNDON AND SMITH, Detroit, Mich.
EERO SAARINEN, Bloomfield Hills, Mich.

MENTION:
ROBERT GREEN and GORDON BUNSHAFT, New York City.
ROBERT T. HANDREN, New York City.
CARTER EDMUND HEWITT, Peoria, Ill.
GEORGE HOWE, Philadelphia.
RICHARD J. NEUTRA, Los Angeles.
C. HOLMES PERKINS and FRANCES W. HARTWELL, Boston.
JOHN B. RODGERS, WILLIAM T. PRIESTLEY, JR., and CARL F. BRAUER, New York City.

The report of the Jury, biographies of successful competitors, and the premiated designs will be published in the AUGUST issue of THE ARCHITECTURAL FORUM.
THE JURY:  
CHAIRMAN: H. ROY KELLEY, Los Angeles, Calif.  
HOME DEVELOPERS: WALTER J. COLLET, Scarsdale, N. Y.; HUGH POTTER, Houston, Texas; and WAVERLY TAYLOR, Washington, D. C.  
TOWN PLANNER: CLARENCE S. STEIN, New York, N. Y.  

THE WINNERS:  

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CLARENCE W. JAHN, EDWIN A. WAGNER, Milwaukee, Wis.  
JOHN STENKEN, Leonia, N. J.  

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HERBERT STRUPPMANN, Woodhaven, N. Y.; and HERBERT NEUMANN, Jamaica, N. Y.  

$200 PRIZES  
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HAYS, SIMPSON and HUNSICKER, Cleveland, Ohio  
TALLIE B. MAULE, Sand Springs, Okla.; and GEORGE W. EDWARDS, Oklahoma City, Okla.  

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HAYS, SIMPSON and HUNSICKER, Cleveland, Ohio  
TALLIE B. MAULE, Sand Springs, Okla.; and GEORGE W. EDWARDS, Oklahoma City, Okla.  

NEIGHBORHOOD PLANNING COMPETITION  

$1,000 PRIZE  
W. STUART THOMPSON, DONALD MCLAUGHLIN and JOSEPH WHITNEY, New York City  

$500 PRIZE  

$200 PRIZE  
JAMES M. BERKEY, Spokane, Wash.  

HONORABLE MENTIONS:  
W. J. POLLOCK and A. A. SCOTT, Roseburg, Ore.  
HAYS, SIMPSON AND HUNSICKER, Cleveland, Ohio
Getting the competitor's point of view: Jury Chairman H. Roy Kelley, an official of the American Gas Association, and Otto Teegen (in the background), examine a brief.

Otto Teegen records Dean Hudnut's vote: the verdict is apparently unanimous.

Clarence Stein checks what a neighborhood planning competitor has written against what he drew.

Competition drawings filled the great hall of the Business Administration Building at the New York World's Fair. The Jury is taking a final vote on submissions in Class I.

By afternoon the Jury takes to its chairs. From left to right: Richard Koch, Dean Hudnut, Major Haldenby, Waverly Taylor, Alfred Shaw (standing), Hugh Potter, Walter J. Collett, H. Roy Kelley and Clarence Stein.

The first day ends: Walter J. Collett, Dean Hudnut, ready to leave, Major Haldenby; at the table, Alfred Shaw and Chairman Kelley.
THE REPORT OF THE JURY

Competitive programs are usually of two types—either very explicit in stating definite and somewhat special conditions, or so general that the competitor has a vast latitude. The first kind is often criticized because it limits the imagination and ingenuity of the competitor by holding him down to a concrete problem, and the second can also be attacked because it means the competitor must write his own program. That, in itself, is not so difficult provided he has definite points of view, but usually with so much freedom he is confronted with such a variety of approaches that he has difficulty in deciding which to choose.

To solve a program such as stated in this competition is almost as if a client came to your office and commissioned you to design a house incorporating all the good ideas you ever had. The usual questions one generally asks a client regarding site, exposure, topography or special requirements of plan that might be necessary to satisfy the living habits of the family, are not forthcoming. He refuses to give you any information except that he is married, has two or three children and does not wish the house to exceed more than a certain cube. He will not state a preference for a one-story or two-story structure, you do not know whether he is an outdoors man who would like his house to open out onto terraces and gardens, or whether he prefers the quiet seclusion of a sheltered indoors life. You do not know whether he has one car or two, whether he has a maid who lives in the house or one who comes in by the day. In fact, gentlemen, you would have a tough customer on your hands. His excuse for not giving you more detailed information might be that he does not want to restrict your imagination or inhibit your own preferences because he wants the best that you, to whom he looks for professional advice as he would his doctor for medical attention, can give him.

You may not like this kind of client but times are bad and you take him on. You decide that by some hook or crook, you will be able to gather some information about him from those who know him around town or by looking up the records, but upon investigation you find that he is a newcomer, knows no one and there is no data concerning him. And so you either take the bull by the horns and decide to give him a house that you, who know nothing about him, think he would be happy to live in, or you decide to drop him and wait for someone else to ring your office bell. You and six hundred others decided to tackle him and your solutions under the circumstances are most commendable.

The members of the Jury were fully aware of your difficulties, for they, too, were in the position of deciding which of several approaches were the best. Because of the lack of specific requirements the Jury had, in fact, as did the competitor, to write its own program. It arrived at it, however, in a different manner, because it had an opportunity of surveying all the entries and taking the best suggestions from each to make up a composite whole. The result of such a correlation resulted in a fairly high standard which was not easy of attainment but which many of the competitors achieved. The Jury did not base its judgment on preconceived ideas but evaluated the good points of each design and criticized those details which it believed would be inherently bad in all small houses of this size.

Since practically all the competitors placed the house with the entrance on the north, and the living quarters and bedrooms to the south, the matter of orientation did not become a feature of the judgment. Nor did the choice between one or two story houses arouse much discussion. Both had their good features, the one story plans allowing a greater flexibility of room arrangement but running the risk of losing cube to other purposes than livable area, while the two story houses found the disposition of the elements slightly more limited but were able to use cube more economically and thus obtain larger rooms.

In Class II it was generally conceded that a competitor who showed a two-car garage as well as a maid's room and bath had come nearer a solution than one who had not provided them. A one-car garage for the Class I house was considered adequate although some questioned if in these days of motor necessity a family of four or five occupying a house of only 2,400 cubic feet would not require space for two cars.

Because of the low amount of cubicage used by some entrants in Class II who also provided a one-car garage only and no maid's room and bath had come nearer a solution than one who had not provided them. A one-car garage for the Class I house was considered adequate although some questioned if in these days of motor necessity a family of four or five occupying a house of only 2,400 cubic feet would not require space for two cars.

Some on the Jury searched hard for good traditional houses amongst the many modern designs submitted, but apparently few of the competitors wished to solve their problems in the traditional manner and those few usually showed bad taste.

The Jury was of the opinion generally that the garage placed adjacent to the service area of the house where the housewife could drive up with her market purchases and get them into the kitchen directly was better than having the garage far removed from the service wing necessitating an approach to the kitchen through the body of the house.

There was no objection to placing the heating apparatus in the basement, but it was considered best to have the laundry on the first floor adjacent to the kitchen. As a

matter of fact, most of the competitors placed it there. Cross ventilation of bedrooms was commended, and it was surprising to find numbers of inside rooms where although there was plenty of glass on one side no cross ventilation would have been possible except by opening a door into the hall.

Despite the fact that houses of 24,000 or 32,000 cu. ft. are still in the category of small houses, the rooms in them should be fairly ample. Had some of the competitors been better acquainted with actual building, they would have realized that owners are interested in getting as large rooms as possible for their money—and that they will accept luxuries involving waste space only after their basic requirements have been satisfied. Too many competitors used so much cube in porches, wide halls, or corridors necessary for circulation that they had to cut the bedrooms to a minimum. There were very few submissions where one could find really adequate rooms. Average master's rooms were about 10 x 12 ft. while some of the children's rooms got down as low as 8 x 10 ft. Even though a bedroom may only be a place in which to sleep, more area than those just stated is required for adequate living.

The kitchen and utility spaces were invariably studied to perfection. In fact, it seemed that many competitors spent much more time on this part of their work than on the solution of the problem proper. It was obvious from the sponsorship of the competition that these areas were significant, but these features were, after all, only a part of the problem and contingent on the real problem which was the design of the house itself. The Jury gave due regard to these service areas, but gave no particular credit to one who had a good kitchen and utility layout but could not give a convincing plan of the house itself.

The usual difficulties, arising in any house design, of reconciling second floor areas with the layout determined for the first floor were present, resulting in an abundance of second floor deck space, sometimes usable but very often not. Such decks were usually an admission of bad planning, particularly when placed over living room areas.

The plans submitted were on the whole much better than the elevations. Many competitors who showed a distinct talent in the organization of the plan had little conception of the organization of the volumes growing out of that plan. Cantilevered roofs, lally columns and many so-called "modern" details were often used with as little reason as the traditionalist uses classic columns and pilasters.

Lack of consideration of the placing of furniture was obvious in many of these plans in living as well as in bedrooms. It may interest some to know it is not convenient to sleep directly under a bank of windows, neither from a health point of view nor one of light. Big area alone does not make a good living room. That depends on a good arrangement of furniture, the usability, as it were, of that area. Some essential pieces of furniture call for a blank wall and many competitors by breaking up the room with open-ings, fireplaces, and as much glass as possible provided for not one adequate surface to take care of these needs. With all our attempts to tackle the problem of the small house, we will never arrive at a solution until the profession, and those who hope to be a part of it, take into consideration this vital factor of making the interior furnishable.

It is unfortunate that with all the latitude in the world in the choice of site, surroundings, etc., many competitors did not give themselves a fair break, and assumed conditions that always have been and always will be practically impossible to solve. Those who used common sense and assumed conditions that were helpful to a good solution arrived at something better and deserve credit for their intelligence.

It is also unfortunate that instead of correlating their own thoughts and attempting to give the client a new house with a view of their own ideas, some competitors merely went to the filing cabinet, pulled out an old drawing that seemed to fill the bill, dolled it up and sent it out as a "new" work. Others forgot their professional pride even more by going to magazines and practically copying plans and elevations of actual work or past competitions, making only enough minor changes to prevent suit. The Jury at the time of the judgment had no documents to consult and, therefore, should not be held responsible for having chosen some plans which they found out later had obtained their inspiration from a careful study of past prize winners. The most that can be said to the credit of anyone who would take a scheme conceived by someone else is that he recognized a workable plan; and the fact that the Jury again found such schemes good would indicate that they must contain some degree of workability and merit. Such distinction however would hardly seem to be worth while by one who calls himself an architect.

In conclusion, however, it should be said that all competitors deserve recognition for having bravely attacked one of the most difficult problems in architecture, the plan and design of the small house. It is through competitions of this sort that new ideas are promulgated, and it is interesting to observe through the years what influence competition ideas have had on the trend and development of architectural design. Credit belongs to those who bring new ideas to a world needing them, and even though the world may not accept all of them, they are new, nevertheless, a matter of record. And, to those who feel a desire to make their small contribution to architectural progress, this should be a matter of some satisfaction.

About 550 competitors submitted drawings in this competition; 320 entered in Class I, 188 entered in Class II. Of these, ten were not included in the judgment because they exceeded the cubage limited by the program. The Jury convened at noon Wednesday, June eighth and finished its work at noon Saturday, June eleventh. The judgment was held in the Business Administration Building, New York World's Fair, Flushing, New York.

For the Jury by Otto Teegen

NOTE: Captions on the premiated designs are by Mr. Teegen. Those on the selected designs are taken from the competitors' briefs.
THE WINNERS

CLARENCE W. JAHN (left) and EDWIN A. WAGNER (right), Milwaukee architects. Double Winners, Class I and II, $1,000 Prizes.

W. D. HOUTZ, ARTHUR D. McVOY and LEONARD WAYMAN (left to right)—civic design students at Cranbrook Academy of Art engaged in planning research. Class I, $1,000 Prize.

ALDEN BECKER, student, University of Southern California. Class I, $1,000 Prize.

JOHN STENKEN, Leonia, New Jersey architect, employed in office of H. T. Lindeberg. Class I, $1,000 Prize.


HENRY P. POLI and JAMES J. STEVENSON, architectural students at Carnegie Institute of Technology. Poli, a native Pittsburgher, son of an Italian ecclesiastical art worker; Stevenson from New Castle, Pa. Class I, $300 Prize.

FRANK DOUGHERTY, Wilmington, Delaware designer, office of Brown & Whiteside. Class I, $300 Prize.

HERBERT WM. NEUMANN (left) and HERBERT STRUPPMANN (right), Pratt Institute graduates engaged in rendering and free-lancing. Class I, $300 Prize.


J. HERSCHEL FISHER, Austin, Texas draftsman. Class I, $200 Prize.

BYRON HUNSICKER (left), J. BYERS HAYS (center) and RUSSELL SIMPSON (right). Class II, $1,000 Prize, Class I, $200 Prize.

JOSEPH SHILOWITZ, Jersey City architect. Class II, $1,000 Prize.

HUGH STUBBINS (left) and MARC PETER, JR. (right), Boston architects. Stubbins work chiefly residential; Peter's, interiors and teaching. Class II, $1,000 Prize.

STEPHEN J. ALLING, New York architect. Class II, $300 Prize.

JOHN HIRONIMUS, New York architect. Class II, $300 Prize.

RAY C. LEVANAS, Los Angeles designer. Work chiefly houses. Class II, $300 Prize.


STEPHEN J. ALLING, New York architect. Class II, $300 Prize.

RAY C. LEVANAS,Los Angeles designer. Work chiefly houses. Class II, $300 Prize.


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RAY C. LEVANAS, Los Angeles designer. Work chiefly houses. Class II, $300 Prize.


JOHN HIRONIMUS, New York architect. Class II, $300 Prize.
The only prize award receiving the unanimous vote of the jury for making the most of a good and thoroughly workable scheme in a minimum area. Since there was area to spare an improvement could easily be made to use this additional area to increase size of living and bedrooms. For compactness, relation of rooms and proportional size of each, this design is worthy of close study.

Elevations are simple and expressive of the mode of living suggested on the plan.
SERVICE EQUIPMENT

RANGE: Magic Chef Model 1301-O—American Stove Co.
REFRIGERATOR: Electrolux Model J-500A—Servel, Inc.
WASHER: Thor Model 28  Hurley Machine Co. Div.,
DRYER: Thor Model 110-CL  Electric Household Utilities
IRONER: Thor Model 99  Corp.
WATER HEATER: Model 30-C—American Gas Products
Corp.
HEATING UNIT: Model 2-FE-5-80—American Gas Products
Corp.

JULY 1938
Not as direct a solution as the preceding design but with some very good features. A two-car garage is provided, an exception in this class. The staircase was criticized, particularly where it makes a rather unpleasant form in the living-dining room. The plan is tight at this point, but living room would furnish well. The large terrace would provide ample outdoor living.

The balcony on the second floor is restricted to use from the master's room only, and with the ample size of this room this end of the house makes a fine suite. It is, however, achieved perhaps at the expense of the children's rooms, the girl's room particularly being too small.

Although the rear elevation appears too cut up, the others are effective.
SERVICE EQUIPMENT

RANGE: Magic Chef Model 3914—American Stove Co.
REFRIGERATOR: Electrolux Model J-600—Servel, Inc.
WASHER: Thor Model 106 AYX—Hurley Machine Co. Div.,
DRYER: Thor Model 110-CC Electric Household Utilities
IRONER: Thor Model 99 Corp.
WATER HEATER: AGP Dictator Model 402-C—American Gas Products Corp.
HEATING UNIT: Forced Air Unit Model 135 FAU—Payne Furnace and Supply Co.

JULY 1938
A simple direct plan, garage, utility room and kitchen in good relation to each other and adjoining rooms. The playroom is an interesting feature and placed where it can receive close supervision. Entrance hall would look narrow and would be underlighted. Living-dining areas large for this size house and open out well on to the garden. Sofa in front of fireplace unfortunate in appearing to block entrance to room.

Second floor well arranged although master's room is too small and without good cross circulation. Three large rooms would have been better than four small.

Exterior somewhat spotty, garage obviously stuck on. Window on second floor of northeast corner of east elevation unfortunate, but balcony on rear a commendable feature.
SERVICE EQUIPMENT

RANGE: Magic Chef Model 3914—American Stove Co.
REFRIGERATOR: Electrolux Model J-500A—Servel, Inc.
IRONER: Thor Model 99
DRYER: Wesco Cabinet Model—Charles Wescly Co.
HEATING UNIT: Janitrol Air Conditioner Model CF-120-37—Surface Combustion Corp.
BATHROOM HEATER: "C Series"—Armstrong Products Corp.

JULY 1938
The living-dining area is spacious and the terraces adjoining are more than ample for comfortable outdoor living. The rear entrance is more satisfactory than in the drawing just described and the omission of one room on the second floor provides larger rooms for the three remaining. Adequate closet space for the children's rooms is lacking.
SERVICE EQUIPMENT

RANGE: Magic Chef Model 4000—American Stove Co.
REFRIGERATOR: Electrolux Model J-500—Servel, Inc.
DRYER: Chicago-Francis Model SC-296—Chicago Dryer Co.
WATER HEATER: AGP Model 30-C—American Gas Products Corp.
HEATING UNIT: Lennox Gas Aire-Flo Model J1-100—Lennox Furnace Co.

JOHN STENKEN, LEONIA, N. J.
This plan does not appear so open and spacious as those plans awarded first prizes, but the areas have been handled with the utmost usefulness and economy. The jury did not like the tunnelled entrance hall, nor the wall separating the dining from the living space which disallows flexibility and expansion. The heater is well placed as far as a central location in the house is concerned. In general the jury was of the opinion the garage is better placed when contiguous to the service portion of the house. The second floor has excellent closet spaces, but seems cut up and provides a very small room for the boy. It is also unfortunate that the master should have to cross the stair hall to reach his bath.

**SERVICE EQUIPMENT**

- RANGE: Magic Chef Model 1301-O—American Stove Co.
- REFRIGERATOR: Electrolux Model J-600—Servel, Inc.
- WASHER: Home Laundry—Bendix Home Appliances Co.
- DRYER: Chicago-Francis Cabinet Model—Chicago Dryer Co. (Hurley Machine Co. Div.)
- IRONER: Thor Model 99—Electric Household Utilities Corp.
- WATER HEATER: Model 402-C—American Gas Products Corp.
- HEATING UNIT: Model GA-0—Delco-Frigidaire Conditioning Corp.
There are several significant details in this house that placed it high among the awards. Not only do the plans read simply, but certain aspects of the exterior suggest a novel point of view. The entrance hall is reduced to a minimum and the living room made adequate. This would be a very livable and pleasant room, easily opened out to and made a part of the garden. The storage closets in the garage are a serviceable adjunct, but it would have been a little more convenient for the housewife coming from the market with her bundles to have had a more direct access from the garage to the kitchen than is afforded.

The porch off the children's room is an excellent idea but to service three bedrooms with one bath­room, and one placed where it is farthest removed from the children's room, would seem to be unfor­tunate. Closet space, too, is rather meagre.

The jury appreciated the attempt of the designer to tie in the garage with the rest of the house by accenting the horizontal at the second floor level, and also by suggesting a difference of material for the two floors. Some were of the opinion that the roof over the play porch was not well handled since its appearance prompts the question whether the chimney supports it or it supports the chimney.

**SERVICE EQUIPMENT**

- RANGE: Mayfair Model 1800—George D. Roper Corp.
- REFRIGERATOR: Electrolux Model J-800—Servel, Inc.
- IRONER: Thor Model 99—Utilities Corp.
- DRYER: Model D-2060—Chicago Dryer Co.
- HEATING UNIT: Janitrol Model CF 90-37—Surface Combustion Co.
Kitchen and utility rooms are well planned and spacious enough, but the living-dining room is cramped, particularly the dining area. The second floor arrangement is fairly good with a well-planned master's suite. Since there was area to spare, this entrant might well have given a larger den on the first floor and son's room on the second. The entrance to this house would be interesting but the tie of the canopy over it with the house is not strong. The placing of the windows in general is good.

SERVICE EQUIPMENT

RANGE: Magic Chef Model 4100—American Stove Co.
REFRIGERATOR: Electrolux Model J-410—Servel, Inc.
IRONER: Thor Model 99 Electric Household Utili-
DRYER: Thor Model 110-CL—N. E. Lines Corp.
HEATING UNIT: Gas-fired Air Conditioner—American Gas Products Corp.
The first floor works very well and is spacious. Placing the heater in the basement rather than on the first floor enabled the competitors to devote greater area to what they deemed the requisites of the first floor. Since the program asked for two or three children, the competitors assumed only two and, by so doing, were able to give a large master's bedroom and dressing room. The jury found interesting the idea of keeping the actual sleeping space separate and minimum while making the rooms usually filled with the beds into actual living or study areas.

The elevations are, unfortunately, not impressive.

SERVICE EQUIPMENT

RANGE: Magic Chef Model 4000—American Stove Co.
REFRIGERATOR: Electrolux Model J-800—Servel, Inc.
LAUNDRY MACHINE: Home Laundry—Bendix Home Appliances Co.
WATER HEATER: Model 302-C—American Gas Products Corp.
HEATING UNIT: Model 2-Fe—American Gas Products Corp.
Although having a spacious living-dining area and a good kitchen laundry and garage arrangement, the intended entrance court and the long hall connecting the bedrooms to the living portion of the house were criticized. Ventilating the small lavatory from a window near the ceiling also did not appeal to the jury.

The masses of the elevations are not well organized but this house would, in its informal way, be a pleasant place in which to live.

**SERVICE EQUIPMENT**

RANGE: Magic Chef Model 4000—American Stove Co.

REFRIGERATOR: Electrolux Model 4-800—Servel, Inc.

WASHER: Thor Model 106AYX

IRONER: Thor Model 99

WATER HEATER: "Dictator" Model 402S—American Gas Products Corp.

HEATING UNIT: Model 90FAU—Payne Furnace and Supply Co.
This drawing provoked much discussion because it had some interesting ideas. The competitor described the system of steel framing, single plumbing stack, etc., which bear close inspection since the design of the house is approached from an engineering point of view rather than esthetic, as was apparent with too many of the submissions. Comfortable and functional will best describe the results. With actually no more stairs than one would have in any two-story house with a basement, this house would provide all the essentials of living within it. It does not, however, appear to open itself out to any garden, and in that sense is more self-contained than most of the solutions submitted. If building houses in the future comes down to a matter of modules and absolute economy, this type of house will be well in line.

**SERVICE EQUIPMENT**

RANGE: "Ambassador"—George D. Roper Corp.
REFRIGERATOR: Electrolux Model J-500A—Servel, Inc.
DRYER: Model 6-2060—Chicago Dryer Co.
HEATING UNIT: Model S9F—Carrier Corporation
An original bit of thinking—a little bit of sunshine coming along after the jury had seen a good many stupid approaches to this problem—made the jury study this. Although not knowing why there should be two stacks on the west elevation, the jury agreed they must have some purpose other than arresting appeal to the eye and accepted them. The plan is simple and straightforward with larger rooms than on most submissions. Again it would appear a little inconvenient for the housewife to get from her car to the kitchen. The lean-to garage tacked on did not appeal, nor did the one-story service wing help the massing of the various volumes of this house.

**SERVICE EQUIPMENT**

- RANGE: Jewel Model 6872-A—Detroit Vapor Stove Co.
- REFRIGERATOR: Electrolux Model J-800—Servel, Inc.
- DRYER: Model 902460—Chicago Dryer Co.
- WATER HEATER: Model 630-R—The Cleveland Heater Co.
- HEATING UNIT: Janitrol Model CA150-37—Surface Combustion Corp.
- COOLING UNIT: Servel, Inc.
Again assuming a long narrow lot, with the street on the west end rather than the north, these competitors preferred to think of the garden on the side rather than at the rear, and the jury considered this in their judgment. To be so far removed from the sleeping quarters might indeed make the guest room a paradise for the visiting fireman since he would have such privacy, but when there was no guest this room would seem a bit isolated. With so much area to spare, it is a fault of the plan to relegate the laundry to the basement when it would be so much more convenient on the first floor.

The living-dining area is novel but the jury was of the opinion that when the curtains indicated along the passage were closed this area would be rather cramped, and even when open, although certainly increasing the apparent size of the room the passage would still be only that and not very useful for the placing of furniture. In that case, too, it would be impossible for any one to enter the bedrooms without disturbing the privacy of the living room and this was considered objectionable. It would seem that three bedrooms should rate more than one bathroom in the light of such splendid quarters for the guest.

The elevations with their low lines are simple and extremely interesting.

**SERVICE EQUIPMENT**

RANGE: Magic Chef Model 3914—American Stove Co.
REFRIGERATOR: Electrolux Model -410—Servel, Inc.
DRYER: Thor Model 110-CC—Electric Household Utilities Corp.
IRONER: Thor Model 99
WATER HEATER: "Dictator"—American Gas Products Corp.
HEATING UNIT: Model 1-CA-E—American Gas Products Corp.
This drawing appealed to the jury because of its unusual plan, its simplicity, its character, and directness of presentation. Although there are waste spaces, particularly in the hallways, the rooms are of ample size and well related. Because of its attenuated form, the kitchen seems far removed from the dining room, but would not be actually. It is questionable how well this wing, containing only the kitchen and laundry, would look attached to the main body of the house.

The second floor loses considerable space in the halls, but all the bedrooms have cross circulation and adequate closets.

The elevations are interesting and the perspective view very agreeable. The south elevation would be especially pleasant.
PART I
THE HOUSE
COMPETITION
CLASS II

SERVICE EQUIPMENT

RANGE: Model 156—Tappan Stove Co.
REFRIGERATOR: Electrolux Model J-1100—Servel, Inc.
DRYER: Model 9-2680—Chicago Dryer Co.
IRONER: Super Simplex Model 40—Barlow and Seeig Mfg. Co.
WATER HEATER: Model 75-C—American Gas Products Corp.
HEATING UNIT: Model 220-94-D—Niagara Blower Co.
COOLING UNIT: Servel, Inc.
INCINERATOR: Pittsburgh San-a-tor Model 402—Pittsburgh Incinerator Co.

JULY 1938
Although the stairs appear to project a little too much in the direction of the living room, this room and its contributing service shape up very well. There is excellent communication from the garage to the main entrance hall and the utility room and kitchen. The play area, however, would seem to be set to one side and rather out of the picture, having little relation to the living area.

The second floor with its four bedrooms and three baths, although one bedroom is very small, is well arranged. The feature of the study or quiet area which could be a fine place for the elders to retire when the young were entertaining downstairs, or vice versa, was highly commended.

The elevations did not elicit much enthusiasm but the proportions are not bad and the fenestration is honest.
SERVICE EQUIPMENT

RANGE: Magic Chef Model 3914—American Stove Co.
REFRIGERATOR: Electrolux Model J-800—Servel, Inc.
DRYER: Thor Model 110-CL—Electric Household Utilities Corp.
IRONER: Thor Model 99—Electric Household Utilities Corp.
HEATING UNIT: Janitrol Model CF-180-37—Surface Combustion Corp.
BATHROOM HEATERS: "C Series"—Armstrong Products Corp.

JULY 1938
This plan was considered the best of the one floor solutions submitted in Class II. It has all of the elements the jury considered essential in a house of this cube, including a two-car garage and maid's room. The living room could well be larger, and there was some question of the location of the fireplace, but, on the whole, the disposition of the living and service parts of the house was excellent. The sleeping quarters, too, were well arranged with easy access to the court as well as to the living room. The two smaller bedrooms seem a bit cramped.

The exterior is quite broken up, but being low and with plenty of doors and windows it would be very open and cheerful. This house opens itself out to the south for outdoor living perhaps more than any other in this class.
SERVICE EQUIPMENT

RANGE: Magic Chef Model 3914—American Stove Co.
REFRIGERATOR: Electrolux Model J-800—Servel, Inc.
DRYER: Judelson Model—Domestic Dryer Corp.
WATER HEATER: "Dictator" Model 302-C—American Gas Products Corp.
HEATING UNIT: Model 2-FE-6-80—American Gas Products Corp.
Although the significance of the canted entrance wall was left undetermined by the jury, the rest of this plan needed no explanation. There were features, such as the relatively cramped position of the dining space, and the smallness of the living quarters which were questioned, but the disposition of the areas was deemed good. The hall on the second floor would be extremely pleasant, but the one bath serving possibly three bedrooms is not too well placed.

The mass of the building and the fenestration are excellent. The bedrooms opening out on the rear yard, with access through the guest room or playroom to the open air porch, arranged so it can be opened to the sky and sheltered by an awning, make this second floor very livable. When one considers the small cube required to achieve all these conveniences, one is doubly impressed by its compactness. A criticism, however, is that the second floor plan controlled the first floor area too much and to the detriment of the latter, for not only did it result in cramping the living-dining quarters, but provided for only one car.
SERVICE EQUIPMENT

RANGE: Magic Chef—American Stove Co.
REFRIGERATOR: Electrolux Model J-800—Servel, Inc.
WASHER: Home Laundry—Bendix Home Appliances, Inc.
DRYER: Cabinet Model G-2460—Chicago Dryer Co.
WATER HEATER "Dictator"—American Gas Products Corp.
HEATING UNIT: Model 180 FAU—Payne Furnace and Supply Co.

JULY 1938
The directness of this plan and the amplitude of its living and library quarters commended this submission to the jury. The curved wall of the dining space seems forced, but the author stated he wished to focus the attention of those dining to the garden at the east and that was his privilege. The library with its small terrace would be a very quiet spot.
The upstairs provides three rather small bedrooms and good closets.
The garden perspective is interesting but it is doubtful that perspective taken toward the garage would be convincing since that element is fastened onto the plan very loosely.

SERVICE EQUIPMENT
RANGE: Magic Chef Model 1301-D—American Stove Co.
REFRIGERATOR: Electrolux Model J-1100—Servel, Inc.
WASHER: Home Laundry—Bendix Home Appliances, Inc.
DRYER: “Snow-White” Senior Model—Williamson Heater Co.
WATER HEATER: ACP Model 408—American Gas Products Corp.
HEATING UNIT: Model 1G 9E—American Gas Products Corp.
A simple and direct approach to living which is convincing. Its proportions throughout are ample, the heater room is located centrally, and the guest is placed where he could have privacy. Relegating the maid's room to the rear where she must go out into the open to get to the kitchen has its faults as well as its merits.

The second floor hallway is fortunately large enough to be used as a sitting space or it could be condemned as wasteful, and it helps to give this floor a sense of openness. On the other hand, the middle bedroom lacks cross circulation, which, although not absolutely necessary, is highly desirable.

The elevations are not very interesting.

**SERVICE EQUIPMENT**

RANGE: Model 19—Tappan Stove Co.
REFRIGERATOR: Electrolux Model J-600—Servel, Inc.
IRONER: Thor Model 99—Electric Household Utili-
WATER HEATER: AGP Clipper—American Gas Products Corp.
HEATING UNIT: Model 2-FE-8-80—American Gas Products Corp.
Although perhaps adequate, the kitchen of this house would have been benefited by the omission of the nook which appears to take up too much room for its worth. On the other hand it is conceivable that some families would find this adequate for ordinary dining purposes. There seemed to be little wall space in the living room against which to place furniture and the corner fireplace, if such it is, seems of doubtful merit. The bedrooms are small when one considers this competitor had plenty to spare in his cube. The elevations are interesting, although a bit broken up and a little confusing.

**SERVICE EQUIPMENT**

- RANGE: Magic Chef Model 1301-O—American Stove Co.
- REFRIGERATOR: Electrolux Model J-800—Servel, Inc.
- DRYER: Thor Model 110-CL—Electric Household Utili-
- IRONER: Thor Model 99—ites Corp.
- HEATING UNIT: Beverlyair Model 133-WAC—Payne Furnace and Supply Co.
This plan fails to provide for a maid, and simplified itself thereby, but the omission counted against it. The garage, frankly set to one side, is a commendable feature and actually does not appear stuck on. Communication between the kitchen and the front door is not only distant but must be by way of the dining room, another bad feature. This is one of the few submissions, however, that did keep the dining room a separate entity, quite apart from the living room.

The hallway and master's room opening out on the covered porch are a good feature of the second floor. The bedrooms are small but closet space is adequate and access to the bathrooms very satisfactory.

**SERVICE EQUIPMENT**

RANGE: Magic Chef Model 3914—American Stove Co.
REFRIGERATOR: Electrolux Model J-800—Servel, Inc.
DRYER: Chicago Dryer Co.
WATER HEATER: Ruud Mfg. Co.
Despite its compact plan this house gave the impression of a much larger establishment. The jury was glad to find at least one house that was traditional in character and yet satisfied the requirements assumed. This one, however, seemed a little too pretentious and formal for its size. The dining room for example is really a small room, and perhaps a little removed from the living room. The mass of the garage too did not tie in well with the main block of the house, although the long expanse of portico was meant to help. Beyond the entrance this portico had no function except as decoration.

**SERVICE EQUIPMENT**

- RANGE: Magic Chef Model 4000—American Stove Co.
- REFRIGERATOR: Electrolux Model J-800—Servel, Inc.
- DRYER: Chicago-Francis Model SC-296-G—Chicago Dryer Co.
- WATER HEATER: “Trojan” Model 50—General Water Heater Co.
- HEATING UNIT: “WAC” Beverlyair Model 133—Payne Furnace and Supply Co.
This interesting plan has several good features. All of the essential elements are there, and well placed too. The living room is far removed from the stairs to the second floor but this is often desirable. The function of the patio was not clear since the living room backed up to it with a blank wall and opened out to the garden. A good deal of space was lost also by the passage necessitated for access from the front door to the living room. The study-guest room is not only isolated but small. The second floor sleeping quarters are compact, with an especially fine suite for the owner. The elevations show an insistence on glass areas that would indicate the house would have plenty of light, perhaps too much in the case of the boy's room where two sides are completely open.

**SERVICE EQUIPMENT**

RANGE: Divided Top Model—The Tappan Stove Co.
REFRIGERATOR: Electrolux—Servel, Inc.
WATER HEATER: American Gas Products Corp.
HEATING UNIT: Forced hot air system—Payne Furnace and Supply Co.
MAXWELL ARDEN NORCROSS
CLEVELAND, OHIO

Since the utility and heater room was placed in the basement, this competitor was able to get ample areas for the rooms on his first and second floor. The entrance hall seems almost too spacious for this size house, but the area has not been taken to the detriment of the living and dining room. The long hall connecting the service entrance with the stairs to the basement seems unfortunate since it might have been possible to throw this area into the kitchen and breakfast room.

The second floor hall again is large but the bedrooms are of reasonable size. The elevations have an interesting character, although the break in the wall of the second floor front forming the main wall of the hall, placing this over interior partitions and forming a deck, seems a little forced. Otherwise the composition with its horizontal band at the second floor is excellent.

SERVICE EQUIPMENT

RANGE: Magic Chef Model 3914—American Stove Co.
REFRIGERATOR: Electrolux Model J-1800—Servel, Inc.
WASHER: Thor Model 106AYX
IRONER: Thor Model 99—Hurley Machine Co. Div.,
Electric Household Utilities Corp.
DRYER: Cleveland Dryer Co.
WATER HEATER: "Dictator"—American Gas Products Corp.
HEATING UNIT: Counter-Flow air conditioner Model 2FE—American Gas Products Corp.
This house would seem to have been designed for a particular site, an assumption certainly within the author's rights. The plan is quite broken up, and considerable area is wasted in circulation. It is a long way from the garage to the real entrance to the house, and, unless one preferred to go through the utility room, no access is possible to the bedrooms except through the living room. The latter is long but narrow and with very little wall space for placing furniture. It seems too bad with the large terrace and suggested view therefrom that the dining room should be tucked in toward the center of the house where it would get the least desirable view.

The elevations have a good character particularly suited to the surroundings suggested.

**SERVICE EQUIPMENT**

RANGE: Magic Chef Model 1301-O—American Stove Co.

REFRIGERATOR: Electrolux Model J-800—Servel, Inc.

WASHER: Home Laundry—Bondix Home Appliances, Inc.

DRYER: Chicago-Francis Model 2460—Chicago Dryer Co.


WATER HEATER: Cabinet Model 18:30c—Ruud Mfg. Co.

HEATING UNIT: Model 59F2—Carrier Corp.
"'ALL OVER GROUND' permits and fully utilizes exterior openings in the house shell to obtain for the family the exhilaration and biological stimulus of outdoor health factors. Natural light radiation is ample but largely indirect and diffused by shading overhangs and reflecting soffits. The master bedroom downstairs has its own outdoor space as do the children's bedrooms upstairs. 'ALL OVER GROUND' is a compact middle-class home without cramping restrictions and with the prestige of contemporary feeling and attitude."

**SERVICE EQUIPMENT**

RANGE: Jewel Model—Detroit Vapor Stove Co.
REFRIGERATOR: Electrolux—Servel, Inc.
WATER HEATER: Crane Co.
HEATING UNIT: Forced Air Unit—Payne Furnace and Supply Co.
"The plan presented would be attractive in any setting, but it particularly suggests a way in which modern homes could work their way back into neighborhoods threatened with desertion, creating their own wholly attractive individual or group surroundings. The extent to which this can be accomplished may determine the possibility of preserving or reclaiming investments in water lines and other utilities whose practical value is being steadily undermined. The intent of the designers is to present a solution for housing in such areas. A direct, easily supervised street approach, without sacrificing the separation of living and service entrances. A flexible internal living space merging with external living patio. An economical, low-maintenance, modern structure in harmony with the modern equipment which it houses."

**SERVICE EQUIPMENT**

**RANGE:** Magic Chef Model 3914—American Stove Co.

**REFRIGERATOR:** Electrolux Model J-800—Servel, Inc.

**DRYER:** Model 9-2460—Chicago Dryer Co.

**IRONER:** Super Simplex Model 30—Barlow and Seelig Mfg. Co.

**WATER HEATER:** Model 18-30-6—Ruud Mfg. Co.

**HEATING UNIT:** Janitrol Model C.A.150-37—Surface Combustion Corp.

**COOLING UNIT:** Electrolux—Servel, Inc.

**INCINERATOR:** Ewing Incinerator Co.
"This house is designed with a feeling for space and freedom, for children's play and adults' recreation. The living room is designed for maximum sunlight and spaciousness, with a partially roofed terrace area to the west. Part of this area may be closed off from the outside by means of folding glass doors. In order to insure good natural illumination, skylights have been placed in the reinforced concrete slab."

**SERVICE EQUIPMENT**

**RANGE:** Magic Chef Model 3914—American Stove Co.
**REFRIGERATOR:** Electrolux Model J-800—Servel, Inc.
**WASHER:** Thor Model 106AYX—Hurley Machine Co. Div.,
**DRYER:** Thor Model 110-CL—Electric Household Utilities Corp.
**IRONER:** Thor Model 99—Electric Household Utilities Corp.
**WATER HEATER:** Dictator—American Gas Products Corp.
**HEATING UNIT:** Model 2FE—American Gas Products Corp.
**RADIANT HEATER:** Model 90-A—Armstrong Products Corp.
The plot is assumed to be of the city type, 50 by 120 ft., with north-south orientation. The design, capable of prefabrication, is based on a 4-foot module. All mechanical equipment is centrally located. Should this house be constructed in a northern climate, a full garage would replace the car port, the resulting cubage still falling under 24,000 cubic feet.

SERVICE EQUIPMENT

RANGE: Model 8—Tappan Stove Co.
REFRIGERATOR: Electrolux Model 1-110—Servel, Inc.
WASHER: Thor Model 106AYX—Hurley Machine Co. Div.,
IRONER: Thor Model 99—Electric Household Utili-
DRYER: Thor Model 110-CL—Electric Household Utili-
PLATE WARMER: Gas equipped Model N17-1/2PW—Art
WATER HEATER: Model 59F—Carrier Corp.
HEATING UNIT: Model 59H—Carrier Corp.
COOLING UNIT: Brunswick Model 7H1-14—Carrier Corp.
"Economy is achieved through a square plan, simple construction, central chimney, concentrated plumbing and central gas connections. The basement was considered advisable as it saves valuable land space for outdoor living purposes. A sunken garden terrace gives sunlight to the basement playroom."

**SERVICE EQUIPMENT**

**RANGE:** Model 19—Tappan Stove Co.  
**REFRIGERATOR:** Electrolux Model J-500A—Servel, Inc.  
**WASHER:** Thor Model 106AYX Hurley Machine Div.  
**DRYER:** Thor Model 110-CL Electric Household Utili-  
**IRONER:** Thor Model 99 ties Corp.  
**WATER HEATER:** Clipper Model 253-S—American Gas  
**HEATING UNIT:** Model 2CA-6E—American Gas Products  
Corporation.
"A design for the Southern States with two major outdoor living areas. The main rooms are oriented east and west. The bathroom, utility room and kitchen are centered for maximum economy and a small lavatory is provided in conjunction with the study-guest room. The exterior has been treated with the greatest possible simplicity."

**SERVICE EQUIPMENT**

- RANGE: Yorkshire Model 9000—George D. Roper Corp.
- REFRIGERATOR: Princess Model J-500—Servel, Inc.
- DRYER: Thor Model 110-CL—Electric Household Utilities Corp.
- IRONER: Thor Model 99
- WATER HEATER: Dictator Model—American Gas Products Corp.
- HEATING UNIT: Model 180FAU—Payne Furnace and Supply Co.
"The house offers a possible solution to certain constant problems; it provides for a logical sequence of functions for everyday living, entertaining, etc., maximum freedom of access in minimum space, with very low ratio of gross area to net areas."

**SERVICE EQUIPMENT**

- RANGE: Essex Model 1300—George D. Roper Corp.
- REFRIGERATOR: Electrolux Model J-600—Servel, Inc.
- DRYER: Model G2060—Chicago Dryer Co.
- WATER HEATER: Model 4035—American Gas Products Corp.
- HEATING UNIT: Air Conditioner Model 132-AC-78—Bryant Heater Co.
"The house is primarily oriented for a southern exposure. The lot required would be 60 ft. wide by 100 ft. to 150 ft. deep. It is planned on a 1 ft. 4 in. module, the center bearing wall running up the full two stories for simplicity of construction."

**SERVICE EQUIPMENT**

- **RANGE**: Model 19—Tappan Stove Co.
- **REFRIGERATOR**: Electrolux Model J-600—Servel, Inc.
- **IRONER**: Thor Model 99—Domestic Dryer Corp.
- **DRYER**: Jutelson Model—Domestic Dryer Corp.
- **WATER HEATER**: Model 40C—American Gas Products Corp.
- **HEATING UNIT**: Forced Air Model 135FAU—Payne Furnace and Supply Co.
"Placed in one centrally located space which provides immediate access to dining, service yard and front entrances, the work area is efficiently located to make the most of its labor saving equipment. Convenience of delivery and storage is accomplished by the placing of the service entrance. Besides other light sources the working area and bath are lighted by a clerestory. The house is small and efficient, yet large in the sense that it is flexible and open."

**SERVICE EQUIPMENT**

- **RANGE**: Magic Chef Model 3914—American Stove Co.
- **REFRIGERATOR**: Electrolux Model J-600—Servel, Inc.
- **DRYER**: Snowhite—Williamson Heater Co.
- **WATER HEATER**: Model 25C—American Gas Products Co.
- **HEATING UNIT**: Model BF850C—3rvant Heater Co.
"Not theoretical—actual—to meet existing conditions. Simple construction. Concentrated circulation. Bedroom unit giving sense of security and privacy. Living areas in direct relationship with garden."

**SERVICE EQUIPMENT**

**RANGE:** Magic Chef Model 1301-O—American Stove Co.
**REFRIGERATOR:** Electrolux Model J410—Servel, Inc.
**WASHER:** Thor Model 105AYX—Hurley Machine Co., Div.
**IRONER:** Thor Model 99—Electric Household Utilities Corp.
**DRYER:** Chicago Dryer Co.
**WATER HEATER:** Model 33-20—Ruud Mfg. Co.
**HEATING UNIT:** Model 59F4—Carrier Corp.
"The southern location of this house permits a maximum of outdoor living where the interior is interlocked with the gardens as is noted in the plan. The house is designed for four occupants. The daughter, being the younger of the two children, is placed nearer the parents. The living room and dining room may be combined or separated as desired. Windows in the living room, dining room, daughter's room and master's bedroom are in reality doors which open on to the terrace."

**SERVICE EQUIPMENT**

- RANGE: Detroit Michigan Stove Co.
- REFRIGERATOR: Electrolux Model I-800—Servel, Inc.
- WATER HEATER: Clipper Model 303-S—American Gas Products Corp.
- HEATING UNIT: Model 90FAS—Payne Furnace and Supply Co.
"A lot facing north was chosen and the designer has attempted to make the most of the southern exposure. A residence of this type naturally is not suited to small building sites, but it must be borne in mind that lots are relatively cheap in the Southwest."

SERVICES EQUIPMENT

RANGE: Magic Chef Model 4000—American Stove Co.
REFRIGERATOR: Electrolux Model J-600—Servel, Inc.
DRYER: Thor Model 110-CL—Electric Household Utilities Corp.
IRONER: Thor Model 99
HEATING UNIT: Payne Furnace and Supply Co.
WALL HEATER: Fraser
"This home is designed for year-round living in a Western desert community. Each room opens on its own private terrace through large sliding glass panels. The plan is arranged for the best traffic and air circulation possible."

**SERVICE EQUIPMENT**

- RANGE: Magic Chef Model 4100—American Stove Co.
- REFRIGERATOR: Electrolux Model 1-500—Servel, Inc.
- WASHER: Thor
- WATER HEATER: Model 30-C—American Gas Products Corp.
- HEATING UNIT: Model U-38-B—Marvelaire Corp.
"Designed for an average interior city lot. It was assumed that an alley was at the rear of the property. The garage could be placed at the front of the lot. Placing the kitchen on the north would keep it reasonably cool and also provide easy access to the main entrance. The study has been designed for use as a guest room, den, serving room, or child's room."

SERVICE EQUIPMENT

RANGE: Mayflower Model 529-38—Estate Stove Co.
REFRIGERATOR: Electrolux Model J-600—Servel, Inc.
WATER HEATER: Janitrol Thrift 45 gal.—Surface Construction Corp.
HEATING UNIT: Forced air Model 135FAU—Payne Furnace & Supply Co.
"The living, sleeping and service portions of the house are all separate, but access to all is convenient from the front entrance. The direct open one-floor plan makes for convenient and easy living. The use of similar materials throughout the house simplifies the construction and unifies the whole."

**SERVICE EQUIPMENT**

- **RANGE**: Magic Chef Model 3914—American Stove Co.
- **REFRIGERATOR**: Electrolux Model 1-000—Servel, Inc.
- **DRYER**: Thor Model 110-CL—Electric Household Utilities Corp.
- **IRONER**: Thor Model 99—Electric Household Utilities Corp.
- **WATER HEATER**: Dictator Model 302-C—American Gas Products Corp.
- **HEATING UNIT**: Model 2-Fe-5-100—American Gas Products Corp.
The house was designed to give the owner the advantages of modern planning with an exterior character which most easily harmonizes with the average community. A safe and simple type of construction. With insulated roofs advantage can be taken of the slope to provide additional height in the main rooms without added cost. A one-story house, properly planned, has a decided advantage when it is to be used as a demonstration or model house as the program indicates.

SERVICE EQUIPMENT
RANGE: Model TK-11—Taopen Stove Co.
REFRIGERATOR: Electrolux Model J-800—Servel, Inc.
IRONER: Thor Model 99
WATER HEATER: Cabinet Model 35—Crane Co.
HEATING UNIT: Model 25-W-4—Bastian-Morley Co.
"A one-story design from California with combined flat and pitched roof. A sun deck at the rear approached by an outside stair was considered feasible due to the favorable climate. The children's bedrooms are provided with folding walls so that they may be closed off or opened through to the patio as desired."

**SERVICE EQUIPMENT**

- **RANGE:** Model 1800—George D. Roper Corp.
- **REFRIGERATOR:** Electrolux Model J-800—Servel, Inc.
- **DRYER:** Thor—Hurley Machine Co. Div., Electric House­hold Utilities Corp.
- **WATER HEATER:** Janitrol—Surface Combustion Corp.
- **HEATING UNIT:** Payne Furnace and Supply Co.
The kitchen, being the center of activity for the housewife, takes its position between the front and service entrances. The four-use room is a self-contained unit, used for play, maid, guest, or study. The terrace running along the entire south side of the house is ideal for dining and recreation. All bedrooms have southern exposure and good ventilation.

**SERVICE EQUIPMENT**

RANGE: Magic Chef Model 4100—American Stove Co.
REFRIGERATOR: Electrolux Model J-600—Servel, Inc.
WASHER: Thor Model 106AYX—Hurley Machine Co. Div.,
DRYER: Thor Model 110-CL—Electric Household Utili
IRONER: Thor Model 99—Hets Corp.
WATER HEATER: Dictator Model—American Gas Products Corp.
HEATING UNIT: American Gas Products Corp.
"This home is designed for climatic conditions similar to those of our Southern States and possibly Florida. The plan and elevations are modern in type though not adhering to the iron pipe school of modernism.

"Circulation throughout is definite and convenient. The study may be converted into an emergency guest room. The play area on the second floor is safer for small children."

SERVICE EQUIPMENT

RANGE: Lyndon Model 954—Estate Stove Co.
REFRIGERATOR: Electrolux Peerless Model—Servel, Inc.
DRYER: Thor—Electric Household Utilities Corp.
IRONER: Thor
WATER HEATER: Crane Co.
HEATING UNIT: Forced Air Model—Payne Furnace and Supply Co.
Living space has south and west exposures, dining has south and east. The kitchen and laundry as planned together save many steps. Cabinets are kept below the ceiling to take advantage of the cross ventilation afforded by the location of the windows. The walls around the plot as shown give privacy to outdoor living.

**SERVICE EQUIPMENT**

RANGE: Magic Chef Model 1301-0—American Stove Co.

REFRIGERATOR: Electrolux Model J-890—Servel, Inc.

WASHER: Thor Model 106AYX

IRONER: Thor Model 99

DRYER: Judelson—Domestic Dryer Corp.

WATER HEATER: Model 40c—American Gas Products Corp.

HEATING UNIT: Model 59F2—Carrier Corp.
The most conspicuous element of this design is its emphasis upon utilitarian advantages, for the American home has always typified the union of comfort and the esthetic. The facilities are arranged to minimize the number of steps essential to the usual operations. The design of the utility room and the arrangement of its services are also inspired by the same purpose, to transform the duties of the household into a source of pleasure.

**SERVICE EQUIPMENT**

- **RANGE:** Magic Chef Model 1301-O—American Stove Co.
- **REFRIGERATOR:** Electrolux Model J-410—Servel, Inc.
- **WASHER:** Thor Household Utilities Corp.
- **DRYER:** Thor Household Utilities Corp.
- **IRONER:** Thor Household Utilities Corp.
- **WATER HEATER:** Carrier Corp.
- **HEATING UNIT:** Carrier Corp.
"The desert towns in southern California or the prairie towns in Kansas would do as a setting for this house. Keeping in mind the fact that an abundance of air would be a good thing, the living portions of the house are given high ceilings, with top windows that may be opened during the warm seasons. The floor layout is one giving the maximum amount of privacy to the family, yet not shutting the passerby completely out. What might have been the second story living quarters have been placed below ground with a private sunken garden to the side."

**SERVICE EQUIPMENT**

**RANGE:** Magic Chef Model 1301-O—American Stove Co.  
**REFRIGERATOR:** Electrolux Model J-800—Servel, Inc.  
**WASHER:** Thor Model 10GAYX—Hurlay Machine Co., Div.  
**IRONER:** Thor Model 99—Electric Household Utilities Corp.  
**DRYER:** Chicago-Francis Model G2060—Chicago Dryer Co.  
**WATER HEATER:** Cabinet Model 18-30-C—Ruud Mfg. Co.  
**HEATING UNIT:** Forced air Model FAU135—Payne Furnace & Supply Co.
The use of gas for heating, cooking, refrigeration and hot water is largely responsible for the resulting design. Gas heating requires no space for fuel storage and eliminates the need for a basement. By keeping work space and sleeping quarters at a minimum, it was possible to increase the size of those portions of the house which are in constant use.

**SERVICE EQUIPMENT**

**RANGE:** Magic Chef Model 39—American Stove Co.

**REFRIGERATOR:** Electrolux Model J-800—Servel, Inc.

**IRONER:** Thor Model 99—Hurley Machine Co. Div., Electric Household Utilities Corp.

**DRYER:** "Snow-White" Model—Williamson Heater Co.

**WATER HEATER:** Premier Model—Crane Co.

**HEATING UNIT:** Forced air Model VB-8—Bryant Heater Co.
The house, gardens and furnishings have been considered as a unit to provide for genial hospitality. In plan the area permits full use of the property for privacy, gardens and the necessary service facilities. The kitchen and laundry have been designed for maximum efficiency. The kitchen is U-shaped in plan, the working area surrounded with windows and flanked on each side with the gas refrigerator and range.

SERVICE EQUIPMENT

RANGE: Model 265—Estate Stove Co
REFRIGERATOR: Electrolux Model J-1100—Servel, Inc.
WASHER: Kenmore
DRYER: Model G-2060—Chicago Dryer Co.
WATER HEATER: Model 40—General Water Heater Corp.
HEATING UNIT: Model 5-38-C—Marvelaire Corp.
CLASS II. AGA COMPETITION

THOMAS FRANKLIN HOLIFIELD
BIG SPRING, TEXAS

"The plan affords plenty of sunlight, with all rooms on the south side. Kitchen is close to both entrance doors and the children may be supervised from this room. There is ample opportunity for outdoor living. One useful feature is the use of the bedroom halls for storage, sewing and study."

SERVICE EQUIPMENT

RANGE: Magic Chef Model 1301-D—American Stove Co.
REFRIGERATOR: Electrolux Model J-500—Servel, Inc.
DRYER: Thor Model 110-CL—Electric Household Utilities Corp.
IRONER: Thor Model 99—Electric Household Utilities Corp.
WATER HEATER: Premier—Crane Co.
HEATING UNIT: Sun Beam Model O-3—The Fox Furnace Co.
GAS LOGS: Armstrong Products Corp.
"In analyzing the needs of this house I divided it into separate units, each isolated but in logical sequence. The living portion is on the south, whereas the service faces the north. Provision for outdoor living has been made. The kitchen is unusually large and it contains a practical breakfast nook, a planning desk and large food storage space next to the refrigerator."

**SERVICE EQUIPMENT**

- **RANGE**: Magic Chef Model 1301-O—American Stove Co.
- **REFRIGERATOR**: Electrolux Model J-1100—Servel, Inc.
- **DRYER**: Chicago Dryer Co.
- **WATER HEATER**: Model 402-C—American Gas Products Corp.
- **HEATING UNIT**: Model 2-FE-8-100—American Gas Products Corp.
JURY REPORT ON NEIGHBORHOOD PLANNING COMPETITION

The planning of a neighborhood for those of limited incomes is governed by three essential factors. There is first, the requirement of good, convenient, and spacious living. There is next, the need of keeping costs within the spending power of those who are to be housed. Finally, as a means to producing good environment, economically, the conservation of the site is of dominant importance.

The program called for the development of approximately 35 acres for a diverse group of families with incomes ranging from $2,000 to $7,000. The incomes are important. A family with only $2,000 a year not only cannot buy much in the way of a new house, but is quite as limited in the amount of land and land improvements it can afford.

ECONOMICAL LAND PLANNING
Compact, economical site, road, and utilities planning are essential for those in the lower income brackets. Few of the competitors gave proper consideration to this requirement of the program. Even the families of the wealthier groups—those of $7,000 annual income, require economical land planning. They should not pay over one-fifth of their annual income, or $1,400 for shelter exclusive of heat. It is generally estimated that rent should equal about one-tenth of cost. In other words, the most expensive houses, including land and land improvement, should not cost more than $14,000, and the cheaper house, for those of $2,000 incomes, should not cost more than $4,000.

There are two ways to secure an adequate return from the economical use of land. The first is to house more families on it. The program does not limit the number of families excepting that it states that there shall not be less than 85. The Jury has considered that the competitors who provided homes for a greater number without loss of living advantages showed common sense.

The second method of economical use of land, however, is more important: that is to say, its economical development. Raw land can be purchased at a very low cost. The actual cost of the use of land comes from its development and operation for living. Therefore, the Jury has given particular attention to the relation between the number of dwellings and the length of roads, paths, sewers, water, and other utilities, and their arrangement as facilitating ease and economy of operation and maintenance. This applies equally to the matter of parks and recreational facilities. Large open spaces can be maintained at a low cost if they are left more or less in their natural conditions. On the other hand, parks with innumerable paths, broken up lawns and many structures would be beyond the means of the community considered.

COMMUNITY HOUSE
The size and income of the community will affect its ability to support a community (or club) house or stores. Most of the competitors who used the hypothetical site have conserved the existing manor house and converted it into a community house. Some few of the competitors have called attention in their memoranda to the fact that a small community of limited means could not support a community club house. This would depend on the economical management and the amount of volunteer personnel service given by the members of the community. The Jury has left it to the competitors to decide whether or not they would suggest a community house. It has judged their presentation on the basis of the treatment of the surroundings of the community house and more particularly on the facility with which the members of the community might reach it safely and easily.

NEIGHBORHOOD STORES
The spending power of a community is the determining factor in deciding whether it can support stores and, if so, how many. A community of 85 families of average incomes of about $5,000 could not support a group of stores. Where the site is developed for a larger number of families, stores naturally would have a better chance of success.

DETERMINING FACTORS
The Jury in its judgment has given particular consideration to the following:

A. Conservation and use of the advantages of site. This applies particularly to the competitors who utilized the hypothetical site (most of the competitors did). The plan of this indicated—

1. A stream with surrounding wooded land. Because of its location on the lowest portion of the land, this would probably be least desirable for housing. It would make a most attractive place for a park.

2. Large groups of trees. These present possibilities of conservation for community use as parks in the center of blocks or as a protective green belt on part of the western and southern borders of the property. If judiciously handled, they might be used in part to increase the value of certain of the lots.

3. The view, direction of which was marked on the site plan. This should be kept open for as large a portion of the community as possible.

4. The manor house is well located for use as a club or community house. It is in the approximate center of the property on a high point with an excellent view.

B. Safety of pedestrian.

The principle developed at Radburn of complete separation of pedestrian and vehicular traffic, is now generally accepted as a primary requirement of modern American residential street planning.

C. Convenience and safety of vehicular traffic.

This requires different treatment of streets for local service and those serving as connection with the outside world.

The use of cul-de-sacs or dead-end lanes, is one means of preventing a residential street from becoming a thoroughfare. Other types of street layout in which the local street offers no short cut to other parts of the neighborhood may serve the same purpose, but without equal safety. On the other hand, a cul-de-sac can become a nuisance and a questionable fire hazard if it is too deep or if there is insufficient space for turning an auto at convenient locations.

The vehicular accesses from local service roads should be easy and convenient. There should be little or no entrance to private properties or garages from main thoroughfare. It goes without saying that it is undesirable to cut through a neighborhood with a road connecting two outside points. The houses, as far as possible, should be isolated from the dangers, noises, and other nuisances of a main highway by trees or other means.

D. Highway economy.

There should be no more road than is needed for the convenience of the community. Waste in length of roads means not only unnecessary original cost, but increased maintenance expense. It also means unnecessary use of space that might otherwise be conserved for parks or gardens.

E. Differentiation in treatment of houses to care for the varied income groups. Families having only $2,000 to $4,000 can probably be taken care of most economically in row or attached houses.

F. Orientation.

The Jury's judgment has been affected by all these. But it has been guided above all, by the extent to which these and the architects' sense of beauty has been used to develop from the land a place for good and gracious living.

For the Jury by Clarence S. Stein
This is a spacious, open plan. The skeleton road system is simple, straightforward and economical. The parks are well located and organized so that a great part of the houses, as well as the club, have broad vistas across them.

The advantages of the site are to a large extent conserved. The banks of the stream are connected to the hillside on which the club (formerly the manor house) is located, to form the main central park. Streets and houses have been placed so as to preserve a large part of the tree groups. Although full advantage has not been taken of the view indicated on the site plan, a great part of the houses and the club would have extensive outlooks.

Complete separation of pedestrian and vehicular traffic is not possible in this plan. Access to the main park is direct from many of the houses and from the other only one street need be crossed. It would be a simple matter to connect most of the properties with a safe public path along the east and west borders of the property as was done by the Second Prize winner.

Although the length of the main public roads has been minimized, the length of many of the private roads seems excessive. The skeleton system of roads is the simplest possible: a short road with access at both ends from the main highway and two main cul-de-sacs. The one of these is excessively long, but there is apparently plenty of space for turning in the parking area near the tennis courts. There is no vehicular entrance to houses from the main highway. The autos of the cheaper units are cared for in group garages from which pedestrians' access to the houses is a simple, straightforward matter. There is no indication of parking space for visitors' cars.

The varied income groups are taken care of by a gradation from the economical group houses near the main road, through the small freestanding houses, and on to the large villas at the south overlooking the park and the main view.

Parks form the backbone of this plan. Even the main cul-de-sacs are treated as parkways with a broad belt of public planted area. If the upkeep of this is not too great an expense for the community, this should add to the attraction of the development. The spacious character has been enhanced by the studied care with which the house has been placed in relation to its neighbors, as well as the public open spaces.

The authors of this plan wisely decided that the community was too small to warrant the erection of a shopping center.
Complete separation of vehicular and pedestrian traffic is secured by use of cul-de-sacs and a single overpass. The two cul-de-sacs leading to the community house may be joined in case of emergencies such as fires. Paths leading from all lots by public parkways make a complete circuit of the parks without passing through private property or crossing any auto road. The parks are well distributed using the two sides of the stream and the hillside behind the community house. Site conditions are used or conserved in—

1. The location of roads. 2. The preservation of the surroundings of the stream as a natural park. 3. The use of the manor house.

Possible advantages have been sacrificed in—

1. Not keeping open the view either from the community building or enough of the houses. 2. Not preserving the larger groups of trees.

The road plan is economical. Both frontages are very fully used, 136 residences are provided instead of the 85 minimum required. This is only four to the acre or about three and one-half for the free-standing or attached houses. It should not be crowded. (Radburn is seven to the gross acre). However, the houses fit tightly to the lots. The row houses are particularly cramped. In spite of the good distribution of parks, views from most of the houses do not seem spacious.

Vehicular access to houses is convenient. The cul-de-sacs are short. Although the row houses are served economically by a group garage compound, auto roads are convenient to these houses. There is no access to private houses from the main highway. Because of the increased number of houses, there is more reason for a store group in this plan. However, the number of stores seems excessive.

The location of the stores is excellent. It is next to the main entrance, but isolated from the main highway by an island and parking area. Parking is adequate. However, stores are on an island completely surrounded by roads. It is regrettable that the opportunity of connecting the store group with the park was not taken advantage of so that members of the community might shop with the same safety that they would be able to visit any of their neighbors, go to the community house, all the parks, and the bus station.
The plan is beautifully molded to the natural conditions. The large masses of trees are preserved almost in their entirety. They are used as block centers or as protection against the neighboring properties. Those at the further side of the stream are to be made into a Wild Park. The view is opened to the club and the high ground behind it, as well as to a large number of houses.

There is no complete connection of parkways by paths insulated from auto danger, but there are underpasses between the parks surrounding the community house and the bridges across the stream.

The roads are well located in regard to contours and access to houses. They are, with the exception of one dead-end lane, used fully on both sides. The cul-de-sacs are well laid out excepting for lack of adequate turnaround at the end. There is economy in the direct access to garages from road with a minimum setback. However, there is an excessive regimentation of the buildings which is apparent when one compares this plan with the winning design.

The main defect of this attractive plan is the large number of service roads opening on the main highway to the north of the property. This would be dangerous for the occupants of the two-family houses and a nuisance to the automobiles using the highway.

The houses are graded from the twin-houses on the north, to the larger villas with private gardens on the stream overlooking the Wild Park. There is even a small apartment house. All of the houses have garages attached. It is questionable whether any of them could be afforded by families of $2,000 incomes.

The orientation of the houses has been studied so as to place the garages to the north.
A beautiful plan which shows a real feeling for the land and the possibility of relating human habitation to it so as to secure gracious living. In this plan, to a greater degree than in any of the others, the advantages of the site are conserved and utilized. The large tree groups are almost entirely preserved. Although a large portion of the banks of the stream are not retained for public use, but cut up into attractive private estates, the community is given a lake in the midst of a large public recreation area.

This is to be made in the lower portion of the land by damming the stream. A great number of the houses, practically all those for the wealthier part of the community, are to have a broad outlook over this park and lake, and in the direction of the view indicated on the site plan. Each house is carefully placed in relation to neighboring buildings, the contours, and the outlook. There is excellent variation in the accommodations for those of different income groups. The row houses and the smaller free-standing units, in the block to the north, are economical in arrangement and relation to roads. In fact, this portion of the plan might have been given a small central park of its own for the apartments or row houses without any, or much, additional cost. On the other hand, the remainder of the residential portion of the plan is anything but economical in its use of roads and private land. It is difficult to see how families with incomes of $7,000 or less, could support these. This is the outstanding limitation of the design as a solution of the program.

Community buildings have been omitted as being impractical of administration in so small an area with such varied ownership. Stores have been left out of the plan for similar reasons.
This is an open plan with a great deal of space for outdoor living. The block centers have been developed for common use and studied so as to allow for play areas in the center of each superblock. However, the various open spaces are separated from each other by the roads. Access to the community park for walkers is not direct and would probably be dangerous. The community is well guarded from dangers or annoyances from the main highway. There is no direct entrance to the houses from it. The road system seems unnecessarily long and tortuous. The single entrance from the main road is well located at the point nearest to the city center and school.
This and the following plan, which used actual rather than hypothetical sites, were considered by the jury to have unusual merit.

This plan carries out fully the theory of separation of pedestrian and auto traffic. The superblock developed forms part of a complete neighborhood center indicated in the key plan. The well-proportioned park system forms the backbone of the plan, tying the superblocks together and connecting them with the community center. The technical handling of roads, dead-end lanes, and paths and parks is admirable. The plan, however, does not offer any new suggestions in the development of the Radburn idea.

The shopping center is unusually well planned in its arrangement for parking and particularly in its relation to the park so as to facilitate safe and convenient shopping by pedestrians. However, it is questionable whether with a local business center in the next block this shopping center would be needed.
This is the plot plan by the authors of the house that won a first prize. It is an admirable study of the relation of the various elements of community planning: the house in relation to block plan and park, to neighborhood life focusing on school, church, and community building, and finally, in relation to the working places of the members of the community. The neighborhood plan would have been improved if it had been intersected by fewer roads.
The parks are well located on both sides of the stream and in the centers of the blocks. The view is open to a large number of the houses and to the high point of the park where the manor stood. In spite of the spaciousness of the open parkland, the houses appear cramped. This is largely because they are lined up on lots not much wider than themselves with the same setback as their neighbors. The street system is, as a whole, simple, though slightly complicated by division into two roads in the southwest section. If one or even better, both, of the cross (east-west) roads in the northern end had been dead-ended, the plan would have been greatly improved. The parks could thus have been connected for pedestrians without great loss of convenience or time for vehicles. Shops as well as houses are isolated from the traffic of the main highways. Entrance to the parking area in front of the stores might have been more direct for the inhabitants of the community.
MILESTONES IN MORTGAGE INSURANCE

are FHA's fourth birthday, Administrator McDonald's reappointment.

A look at the man and his $2.5 billion business.

A BIRTHDAY, a week's business, and a man's reappointment last month occasioned a tripartite celebration by the Federal Housing Administration. Thus, as Government's No. 1 insurance agency entered its fifth year, adding machines on June eleven labored to calculate the week's commitments for mortgage insurance, finally produced a record-breaking total of $17 million. Loudest celebration, however, burst forth at mid-month when announcement came from Capitol Hill that FHA Administrator Stewart McDonald, whose term was to expire with June, had been appointed to succeed himself.

And well might Administrator McDonald's appointment provoke public approval. Under his supervision two million mortgagees the country over have benefited by FHA's two billion dollar volume of insured loans. Also under his guidance, FHA has become practically self-supporting—a taxpayer-pleasing status yet to be attained by most of the New Deal's far-flogging agencies.

En Route. It all began shortly after Oilman James A. Moffett became the Authority's first administrator in June, 1934. Hurriedly he called Friend McDonald to his side, secured him there as Special Assistant to the Administrator. As McDonald rapidly rose through nebulous rankings to become Assistant to the Administrator, then Assistant Administrator, he was to an increasing extent relied upon to keep his eagle eyes on the Administration's personnel and operation details.

Although not designed primarily as a crusading agency, FHA was peopled in the beginning with the usual contingent of reformers, set in this case on browbeating Building's components into solving the mortgage problem overnight. On the other hand there was a group of hard-headed business men, who considered as secondary the FHA's mild reform aims for mortgage and appraisal practice. To them, reforms were merely sales talk for swelling up their insurance business. More of a promoter than an administrator, Moffett expended little energy in keeping his reformers and go-getters under thumb, leaned heavily on McDonald to do the actual administering.

The Man. When Moffett relinquished his post in May, 1935, to cruise the world and return to the Standard Oil Co., it was logical for him to suggest to the President that First Lieutenant McDonald could best fill his shoes. Moffett's suggestion, which Roosevelt followed, has underlined McDonald's skill in picking and handling executive personnel. To Babcock, Colean, Fisher, Flanders, McGhee, Powell, and others, the Administrator gives great credit for carrying forward the programs which FHA has sponsored.

A ruddy-complexioned, conservative Scot, Administrator McDonald was born in Minnesota some indeterminate 50 years ago. Educated at Notre Dame and Cornell (engineering degree), he has since navigated nearly a dozen business channels. He gleaned experience as a director of two banks, five industrial companies
On mat, before Senate and House committees, FHA Administrator McDonald holds his own. Results: FHA's 1935, 1936 and 1938 amendments.

On air, second-rate-speechmaker McDonald wisely makes few orations. More prolific in news-writing, he dots newspapers with promotional blurbs.

On horse, dapper McDonald canters away spare time before Washington's Riding and Hunt Club. Horse: Sailfish by Finn out of Pasquita.

On deck, voyager McDonald moons about his automobile company—once-time producer of Moons, Dianas and $4,000,000.

**LOANS ACCEPTED FOR FHA INSURANCE**

<table>
<thead>
<tr>
<th>YEAR</th>
<th>HUNDREDS OF MILLIONS OF DOLLARS</th>
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<tbody>
<tr>
<td>1935</td>
<td>1.795,000</td>
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<tr>
<td>1936</td>
<td>2.670,000</td>
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<tr>
<td>1937</td>
<td></td>
</tr>
<tr>
<td>1938</td>
<td>MARCH THRU MAY</td>
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<tr>
<td></td>
<td>Modernization &amp; Repair</td>
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FHA Insurance of modernization and repair notes commenced in August, 1934, amounted to $30,450,583 that year (not shown above). Insurance of other loans began in 1935. Title I expired in April, 1937; was revived in February, 1938.

and as police commissioner of St. Louis, Mo. He gleaned a little more than experience as head of the Moon Motor Co., which he developed from a bankrupt carriage concern, sold for $4 million in 1927.

His job. When appointed Administrator in 1933, FHA's Title I, covering modernization and repair loans, was going full tilt, Title II was barely moving. And since the latter was to provide the Authority's bread and butter, McDonald immediately turned on his promotional faucets, worked hard to make home mortgage insurance possible and popular. Of the several fronts on which FHA has attacked, two have been of the greatest importance. First is the long-term, amortized, insured mortgage, now universally accepted; second is the fostering of large scale, rental housing projects through insurance of their mortgages. While the latter type of operation has as yet been comparatively small in dollar volume, it promises eventually to have enormous influence on planning and building procedure.

The Record. That McDonald's promotion and administration have borne fruits is indicated in an inventory of achievements to date. The FHA has done a gross business of $2.5 billion—$800 million under Title I and, under Title II, $81.8 billion in home mortgage insurance and $869 million under the large-scale housing section. Gross business includes applications for insurance as well as mortgages accepted, is therefore in excess of the actual amount of insurance in force. While applications are not always accepted, they provide FHA with welcome appraisal fees. A look at the profit and loss sheet speaks equally well for the Administrator. When FHA began its operations, Congress provided a Mutual Insurance Fund of $10 million nest egg. By salting away insurance premiums and appraisal fees this fund has more than doubled in size. Losses under Title II have been negligibly small—$84,000—and only a dozen or so houses have been acquired through default. Title I losses have been larger, today net about $7.5 million. However, since most of these Title I losses have been suffered in connection with the sale of acquired equipment, Administrator McDonald, never very keen about the first section of the Act, has tightened succeeding amendments.

Just as the February amendments clamped down on Title I, they liberalized Title II and flooded the FHA with new business. To wit: the weekly volume of home mortgages selected for appraisal averaged $24 million during March, April and May, a 50 per cent increase over the corresponding months of 1937. Mortgages accepted for insurance are also up: the record June week was prefaced in May by a $62 million volume—38 per cent above May, 1937.

The FHA is presenting the interesting paradox of doing more business while the country at large does less. While this state of affairs might indicate that the long-awaited building boom is already under way, inevitable explanation is that, by virtue of its increased attractiveness, the FHA is obtaining a larger percentage of the total mortgage business. As yet no boom-producer, this increased business has helped the building industry, and also helped the FHA. For during April and May insurance premiums and appraisal fees ran $850,000 per month—enough to operate the Washington office and its 67 insuring branches with some left over to cover unproductive Title I and the farm mortgage program.
AN EXPERIMENT IN LOW-COST HOUSES

is Lumber's bid for business. NLMA builds a laboratory community, helps dealers boost sales with eight demonstration homes.

Next to boxes and crates, Building has long ranked as Lumber's top-flight customer. In 1928 it consumed 21 billion feet of lumber—or, for those who prefer their statistics in a laid-end-to-end analogy, enough to encircle the earth 160 times with one-foot duckboard. Coinciding with the business cycle, however, Building's use of lumber dropped to 8.4 billion feet in 1933, or only 64 loops about the earth, then bounced back to 15 billion feet, 115 loops, in 1937. And, Lumber is far from pleased with current statistics. Now sawing and planing a total of 180 million feet per week, the country's mills are running 40 per cent behind last year, and the New York Times' adjusted index of production is see-sawing around 60 per cent of the 1929-31 average.

Lumber's unhappy trends and statistics are not news. What makes news are Lumber's efforts to better them. To stimulate the disorganized business of boxing and crating would involve a shot in the arm for practically every type of manufacturer—a task too large and too complex even to be considered by Lumber. Next logical step in an attempt to up Lumber would be to up Building. And that is what Lumber is trying to do in its 1938 program incorporated under the name "The National Small Homes Demonstration." Basis for this program is a basic designs for houses estimated to cost less than 10,000 houses, a lumber order of less than $87 million.

NLMA. Logical agency for promoting such a campaign was the National Lumber Manufacturers Assn. Founded in 1902 with the standard trade association purpose of coordinating and promoting the activities of its industry, the NLMA is a federation of fifteen regional associations of lumber manufacturers representing 65 per cent of all U. S. lumber production. These member associations pay dues at the rate of 2% pennies per 1,000 ft. of lumber cut by constituent mills, hope to get their money back in the form of research and promotional publicity.

Despite its bevy of honorary officials, biggest wig in the parent association is Secretary-Manager Wilson Compton, one-time Federal Trade Commission economist and assistant professor of economics at Dartmouth, now and for the past twenty years head of NLMA's administrative department and its staff of 40 employees. Brother of M.I.T.'s President Karl Taylor and of Chicago University's Nobel prize-winning physicist Arthur H., 48-year-old Dr. (Ph.D.) Wilson Compton devotes his time to guiding the lumber industry from NLMA's Washington headquarters, to serving as an attorney, and, in his spare time, to farming a 1,000 acre tract on the banks of the Potomac.

Experiment. It was early in 1936 that Dr. Compton and colleagues decided to boost Lumber via the building industry. First test step came after the Federal Housing Administration that year published several basic designs for houses estimated to cost between $1,650 and $8,900. For their own information and satisfaction, the NLMA, together with the National Retail Lumber Dealers Association, built three of these houses in Bethesda, Md. with the utmost economy to see if the FHA's estimates could be reproduced. Surprised to find that the combined cost of the three houses was less than predicted, the NLMA saw in the experiment possibilities of nation-wide reproduction of the designs by lumber dealers and builders. Thus the 1937 home demonstration program was born.

Complete plans, specifications and cost break-downs of the three FHA houses were prepared and distributed to 6,000 lumber dealers and other persons who vouched that they would do some kind of promotional activity for the demonstration program—actual building or otherwise. But recession set in, and at year's end a survey by F. W. Dodge Corp. indicated that only 2,080 dealers in half as many communities had built some form of finished, low-cost demonstration home. In recogni-

Proving ground for NLMA's battery of eight houses is Fairway Hills, a subdivision near Washington, D. C. Here lumbermen view the semi-finished laboratory where labor- and material-saving methods will pare costs to $2,161 for a three-room bungalow, to $3,742 for a seven-room house with garage. When the community is completed, the public will be invited to look and buy.
tion, the American Trade Assn., in meeting at French Lick Springs last fall, solemnly awarded to NLMA its first prize for the year's most outstanding achievement among trade associations.

**Laboratory.** Conceived as a sideshow, NLMA's 1938 laboratory community is today the whole show and will continue as such until the predicted thousands of houses are completed in outlying localities. For its laboratory the NLMA purchased at $4,229 (allowance for construction of the community is $80,000) eight lots from Bannockburn Heights Improvement Co. This important Philadelphia and Washington landowner has since dedicated the 43-acre tract exclusively to the construction of under-$3,000 houses, named it Fairway Hills in honor of an adjacent golf course. The property, situated in Maryland six and a half miles up the Potomac River from the Capital, was undeveloped prior to NLMA's purchase. Now it has one street, bearing the name of Housing's congressional champion—Robert Ferdinand Wagner. And, on Wagner Lane, in various stages of construction are the Lumber Association's 1938 models.

Much as each year's automobiles are better than preceding models, NLMA's 1938 houses surpass last year's—if not in architectural appearance, then in planning and construction. Design was in the hands of Architect Lawrence W. Stevens, a quiet, studious youth of 25, fresh from the University of Virginia School of Architecture, and 41-year-old R. G. Kimbell, an NLMA veteran who for eighteen years has held the title of Technical Director. Theirs was the task of producing a group of low-cost houses that would 1) be rectangular, 2) have the fewest possible partitions, 3) have all floor joists and roof rafters of standard length lumber, 4) permit the use of standard stock materials available in all localities, 5) provide for future expansion and a variation of exterior treatments, and 6) include, of course, as much lumber as reasonably possible. In addition, it was required that the houses as a group represent a progression in accommodations, running from a minimum space for two persons to a maximum space for a family with three children. A budget was applied to each phase of construction and gave, for instance, a hardware allotment of not more than 85 cents to each door.

From a batch of 26 sets of plans were selected eight which most nearly toed the mark. Although each of the selected houses has four exterior variations, architectural design was considered secondary to the necessity that each house contribute something to the low cost field. Meeting of all these requirements is NLMA's laboratory community with its eight houses for which ground was broken in mid-April. All vary in one construction phase or another, will therefore furnish some interesting cost relationships upon completion.

Most noteworthy feature of each house is its cost, attributable for the most part to use of stock materials in standard sizes.

Further cost reduction was obtained by using, in certain houses, plank flooring atop joists 6 ft. apart, plywood, overhanging second floors, plank wall construction low grade finish flooring in short lengths (common oak shots at 83¢ per thousand) and by preparing framing members and sheathing with a power saw. A saw crew cut all such members before an erection crew placed them in position, thus made it possible for four men to frame House No. 7, the largest, in a day and a half. However, since mechanical sawing was not used on all of the houses, the NLMA will upon completion of the group be able to tell the world just how much money this phase of prefabrication saves.

**Demonstration.** Also upon completion of the group, Washington residents will be invited to visit Fairway Hills, NLMA's conception of the ideal low-cost subdivision. All houses will be completely finished inside, yards will be sodded, and a minimum amount of shrubbery will be spreading. All will be equipped with a complete factory-made kitchen outfit, including sink cabinets, stove and mechanical refrigerator.

Despite the fact that to date only lumbermen and others interested in building from a business standpoint have been encouraged to inspect construction, layman attendance has been large. So large, in fact, that the NLMA now has a list of 40 homemakers who have said that they (Continued on page 80)
House No. 3 will pacify lumber dealers who sell half-logs to people wishing their summer cottages to look like log cabins. Such "logs" are specified for artificial shutters and corner decorations. More important, being the same size as house No. 2, its $2,782 cost indicates that $200 is the additional price of a basement.

House No. 4 has the same width as No. 3, but to its length has been added a volume equal in cost to No. 3's basement. Results are an extra bedroom, a utility room, a larger living room and a comparison of the expenses of under-ground and above-ground construction.

House No. 5 is the most modern-looking one in the group of eight. Described as a building whose basement is "built of wood . . . (and) . . . brought up out of the ground," it features a combination porch-garage whose hinged plywood panels make it readily convertible into either.

House No. 6, to economize on excavation and foundation costs, was designed with a small first floor and a larger second floor which over-hangs 2 ft. in front and rear. Planning is such that the house may situated upon the site in any of three directions, still have a living room door to the street.
(Continued from page 78)

would like to buy one of the unfinished houses. This list will be used about August 1, when the eight houses will have been open to the public for 30 days and will then be dumped upon the market. NLMA wants no profit from the sales, will charge only cost plus land plus 10 per cent for the contractor plus 5 per cent for the realtor. While these prices will not be divulged, good guess is that they will range from $2,900 for House No. 1 to $4,900 for No. 7.

Besides being a laboratory community, Fairway Mills serves another purpose. It is an example of what the NLMA hopes the Nation's lumber dealers will establish in their localities. While but few could swing a group of eight houses, it is hoped that at least one demonstration home will be sponsored in each city and town and that a goodly smattering will crop up in rural sections.

Mechanics. To start the ball rolling, the NLMA this year sent a folder to 20,000 leading lumber dealers, builders and realtors telling them that the way to sell houses is with demonstrators, after the fashion of the automobile salesman. Included in the folder: sketches and cost estimates of the eight houses and a declaration that further information and the larger 1938 Demonstration Manual could be obtained free of charge. Back to the NLMA came requests for 5,876 Manuals.

They in turn prompted requests for a total of 7,583 sets of working drawings, materials lists and specifications for one or another of the eight houses. Offered for publicity purposes were canned newspaper stories, free mats for newspaper reproduction and, at nominal costs, silk banners and colored posters of individual houses.

Once the local lumber dealer is supplied with all the paraphernalia NLMA can offer, he is on his own. Next step is to line up a realtor or an operative builder and sell him on the mutual advantages of a demonstration home. Chances are that other building material dealers in town have been informed as to the program by their trade associations or by leading manufacturers in their field. Twenty-nine such agencies are listed as cooperating with the NLMA. Several, including Flintkote, Lucas Paints, American Radiator, and Bryant Heater, have prepared home demonstration promotional booklets for general dealer-distribution and for "interested" parties whose names are supplied them by the NLMA. These non-lumber dealers will probably make concessions to their lumber allies in return for free publicity.

Results. To sample the reaction to NLMA's program, THE ARCHITECTURAL FORUM at mid-June questioned fifteen dealers the country over who had indicated an interest in the demonstration home idea. They were asked what they were planning to do and to comment. Results of the survey show that houses are being built—some in groups of a hundred. Unfortunately, however, only a handful has been completed.

To the impartial observer, it appears that the NLMA may have missed the boat, for demonstration homes, to accomplish their purpose, at best should be completed and ready for public inspection at the advent of the home building season. Completion of 10,000 demonstrators in early spring might well foster the construction of another ten thousand or two; but completion of 10,000 demonstrators in mid-summer has smaller future significance. Since Lumber has adopted one of the Automobile's methods of salesmanship, perhaps next year it will follow another Automobile precept—that of unleashing its new models and propaganda well in advance of seasonal demand.

Despite the tardy appearance of its fruits, NLMA's 1938 National Small Home Demonstration may yet produce significant results for Lumber and Building. If current interest on the part of cooperating manufacturers and dealers survives the fall and winter months, and chances are that it will, 1938 promotional activities will make themselves felt to an increasing extent in 1939. And, in the meantime, many pertinent facts and figures for Building will come from NLMA's laboratory community in Washington.
BUILDING'S UNEMPLOYED

three-quarter million strong, the second largest idle troupe. Administrator Biggers writes census finale.

If all the unemployed registrants in the November, 1937, National Unemployment Census stood shoulder to shoulder, 2 ft. of space for each, they would make an unbroken line from Washington, D. C. to Los Angeles, Calif. Thus, in the fastest nationwide registration since the World War, 7,842,016 persons (revised) or more than one-twelfth the entire population of the U. S. between the ages of fifteen and 71, were tallied as being totally without work or as emergency workers.

By Fosterfathers Roosevelt and Hopkins, the task of obtaining and tabulating these statistics was given to Energetic John D. Biggers, president of Libbey-Owens-Ford Glass Co. and rumored candidate for the job of Secretary of Commerce. Biggers was also given $800,000 (two-fifths of which was used) to do the job that the Census Bureau had turned down because it would cost $20,000. That task had cost him but $1,086,565.16, that the rest of the five million would be returned to the Treasury.

Largest number of unemployed persons in any one industry was the 910,855 recorded under Agriculture. Among the general or combined industry groups, Manufacturing and Mechanical Industries led with a total of 2,468,479 registrants. Largest sub-total in this field, and second largest single entry, was building labor: 763,588 unemployed. This statistic breaks down into 488,233 totally without work, 275,305 emergency workers; excludes persons in related or dependent industries whose unemployment might treble this total. The ratio of this army to the men of their rank who were gainfully employed in 1930, according to the Census at that time, 190 men per thousand. Shown in the following tabulation are Unemployment Census data for the building industry and all industries, State by State.

PERSONS WHOLLY UNEMPLOYED—All Industries and the Building Industry

| State      | All Industries | Building Industry |
|------------|----------------|-------------------|                  |
| ALABAMA    | 133,772        | 8,302             |                  |
| ARIZONA    | 11,854         | 1,494             |                  |
| ARKANSAS   | 82,678         | 4,496             |                  |
| CALIFORNIA | 238,607        | 27,420            |                  |
| COLORADO   | 39,496         | 3,526             |                  |
| CONNECTICUT| 60,859         | 5,713             |                  |
| DELAWARE   | 8,044          | 950               |                  |
| DIST. OF COL.| 33,969 | 3,253             |                  |
| FLORIDA    | 67,243         | 6,955             |                  |
| GEORGIA    | 116,295        | 8,972             |                  |
| IDAHO      | 16,578         | 1,743             |                  |
| ILLINOIS   | 298,580        | 30,201            |                  |
| INDIANA    | 117,059        | 10,577            |                  |
| IOWA       | 53,402         | 6,057             |                  |
| KANSAS     | 55,790         | 5,561             |                  |
| KENTUCKY   | 117,202        | 9,315             |                  |
| LOUISIANA  | 86,456         | 5,819             |                  |
| MAINE      | 33,373         | 3,065             |                  |
| MARYLAND   | 51,850         | 5,554             |                  |
| MASSACHUSETTS | 214,615 | 19,254            |                  |
| MICHIGAN   | 170,477        | 16,460            |                  |
| MINNESOTA  | 85,245         | 9,881             |                  |
| MISSISSIPPI| 78,167         | 4,862             |                  |
| MISSOURI   | 168,913        | 14,457            |                  |
| MONTANA    | 24,996         | 2,630             |                  |

* denotes first place, † denotes second place in the comparison of Building's unemployed with the unemployed of any other single industry within the State.

Census-taker John D. Biggers

JULY 1938 BUILDING MONEY 31
LESSONS IN RENOVATION

taught by 200 volunteers. Banking and Building team up, push reconstruction of New York's tenements.

Five thousand eight hundred and forty-three buildings in New York City are boarded up—not because their tenants are away on vacation but because they have no tenants. Those that could wisely be renovated and reopened would house close to 40,000 low-income families, twice as many as the Metropolitan Life Insurance Co. will tenant in its vast Bronx project and at a fraction of the cost. But, despite what municipal and Federal Governments have done to make remodeling easier, most owners of these boarded-up buildings and others sadly in need of renovation have been content to let them continue as until demolition or collapse.

Mindful of the situation and of the fact that U. S. Housing Authority earmarkings for New York City will barely dent the surface of the local low-rent dwelling shortage, Fiorello H. LaGuardia, U. S.'s most housing-conscious mayor, on March 8 conceived his Committee on Property Improvement. Named as city chairman was Banker Bernard F. Hogan, president of the Greater New York Savings Bank; as borough and sub-committee chairmen, six other prominent bankers, an architect, a realtor and a builder; as secretary and promotor, reality-wise Joseph Platzer of the East Side Chamber of Commerce.

Forthwith this committee of volunteers set up offices on Park Avenue in space donated by the Bowery Savings Bank whose New York tenement holdings are notoriously vast. Reviewing past records, it was found that 1,659 property owners, who in 1936 filed plans for renovating, had done nothing since. To this group went questionnaires to determine why work had been delayed, whether or not the indicated $6,000,000 involved would be spent this year. The Committee also hopes to uncover through this questioning violators of the Multiple Dwelling Law who filed plans merely to escape litigation, not because they planned actual improvements. Circulated, too, were the owners of 5,845 boarded-up buildings (2,733 in Manhattan, 2,033 in Brooklyn, 477 in the three other boroughs) who were asked if they planned to improve, modernize or demolish their holdings. And all property owners, large and small, have been invited through the press and radio to bring their troubles to the Committee.

Primary assignment, however, is to acquaint individual owners with three financial aids to renovation.

Exemption Law. In January, 1937, the Mayor approved Local Law No. 64 exempting from city taxation for five years all improvements not in excess of a building's current value and not increasing the building's cubeage. Just as the Committee's educational program has begun to interest many hitherto ignorant owners in the advantages of the exemption legislation, the privilege of tax exemption is about to expire. To benefit by Local Law No. 64 renovation must be completed prior to September 30, 1938. Since the conditions which prompted the original legislation still prevail, the Committee on Property Improvement, as one of its first moves, petitioned the Mayor to extend the law for at least another year, subject to approval by the State Legislature.

Prior Lien Law. Another attempt to obtain compliance with the Multiple Dwelling Law came last year with the passage of the Tenement House Repair Law permitting the city to correct violations itself, to charge cost of alterations as a prior lien against the building. Held unconstitutional by many, the law is put in force only with consent of the building's owner and mortgagee. In effect, therefore, the $500,000 revolving fund established to service this so-called Prior Lien Law is tapped only at the wishes of the owner, and the fund becomes more important than the law.

Failure of the Prior Lien Law, now approaching its first birthday, to produce increased renovation has been due to something other than size of the revolving fund. To wit: only 400 property owners have taken advantage of the $500,000 of the original allotment remains untouched.

NHA's Title I. The Mayor's Committee is doing more than instructing the public as to advantages of the recently revived Title I of the National Housing Act, under which insured loans up to $10,000 may be obtained for modernization. It is stumpin for an important change in procedure. Title I loans in excess of $2,500 must be approved by an FHA board of review in Washington, D. C., a red-tape formality which has caused many contemplated renovation to die by the wayside. To expedite matters, the Committee proposes that local FHA officials be empowered to pass on the large projects or that the work be done by lending institutions themselves.

In addition to publicizing these three boons to renovation, Banker Hogan's Committee serves in an advisory capacity. Already 3,500 New Yorkers have asked for information on renovation. First they are told whether or not it is prudent to remodel their properties, and next, if remodeling is decided upon, how to do it. Obviously, some buildings do not warrant reconstruction. They include structures which are too far gone or are in a "demolition area."

Progress of the Committee has been frequently bucked by such problems as the owner of one tenement in need of renovation hesitating to start work unless he gets assurance that his neighbor-landlords will also improve their tenements. To solve the problem of block remodeling, the Committee calls neighborhood meetings in its auditorium-office where groups of 300 to 1,000 property owners are lectured on the advantages and methods of mass-renovation.

Problems of individual owners whose properties are worth remodeling are objectively analyzed by an architect and a banker chosen at random from the 200 who actively but without fee cooperate with the Committee. Their recommendations are outlined and returned to the Committee which passes along the data to the owners. The rest is up to them, but it is logical for these owners to turn to the consulting architects and bankers for furtherance of their renovation.

Just how great an advance in the dollar volume of permits for alterations, additions and repairs will be provided by the Committee's efforts is hard to tell. It is known, however, that owners of several large properties are preparing plans for renovation which will be filed later in the summer. It is also known that there has been a revival in the purchasing of rundown properties for the specific purpose of rehabilitation. Most important, New York City is becoming renovation-conscious.

* * *
NEW CHARTER ADOPTED
by 1,174 Federals presages saner Savings and Loans.

With an annual loan business in excess of $880 million, the army of 10,000 building and loan associations has rightly been decorated as the Nation’s No. 1 home-financier. But it has been the regiment of Federal Savings and Loan Associations, 1,346 strong, and with a yearly loan volume of $833 million, that has left of late been singled out for publicity. Thus, the Federal Home Loan Bank Board, governor of the Federals, recently surveyed its wards, announced that 1,174, or 87 per cent, of them are now operating under Charter K, a simplified, more efficient code than embodied in the largely abandoned Charter E.

Approved by the FHLBB some 20 months ago, Charter K is the joint product of officers of the twelve Federal Home Loan Banks, the U. S. Building and Loan League and the FHLBB itself. It was

* Except in name, savings and loan and building and loan associations are essentially alike. Therefore, reference to both types is made on this page by the term “savings and loan association.” It is to be noted, however, that all Federal associations are required to include “savings and loan” in their titles.

necessitated by the many faults uncovered in the original charter written in 1933 when the Home Owners Loan Act was passed to melt the vast frozen assets of the country’s savings and loan associations and to create the Federals.

Charter K’s major contributions to the savings and loan business are the elimination of several puzzling types of share investments and the creation of the share account. Absent from the new code are installment thrift, full-paid income, optional savings, prepaid and preferred shares. Present, instead: investment shares and savings shares—the former for a person who wishes to invest a lump sum, the latter for the regular or occasional investor.

Other highlights of Charter K:

- Penalty through the retention of dividends due an investor who desires to withdraw has been outlawed. In its place: the bonus, a more ethical form of encouraging long-term, regular savings whereby the investor receives a premium of 1/2 of 1 per cent in addition to dividends. Also outlawed are membership, repurchase and withdrawal fees; fines, forfeitures, and assessments.

- The limiting percentage, limited in the old charter to 75 per cent of the appraisal value of a building, may now be upwardly indeterminate to the point of discretion with the approval of the share holders and the FHLBB. Thus FHA mortgage insurance may be used to better advantage. Hard to find, nevertheless, is a Federal that will touch the new 90 per cent FHA mortgage.

- All real estate loans, except those maturing within five years, must be amortized and retired within 20 years.

- Investment provisions are liberalized, permit purchase by associations of bonds other than “U. S. government-guaranteed.” Significance of this authorization is rendered by the fact that before such investments are made consent must be obtained from the FHLBB and that the Board will think twice before permitting investment even in “municipals.”

Effect of Charter K on the Federals should be a healthy one. In the first place, it can be readily fathomed by the average investor. Lack of this quality in its predecessor made for tiresome explanation and increased sales resistance. Further, it should attract more marketable money to the associations and at the same time better protect the interests of investors and borrowers alike.

To regain lost ground, the Federals and their State-chartered colleagues sorely need such stimulus. Evidence is the 1930-1936 record; while depositors in mutual savings banks increased 11 per cent to 13.2 million, savings and loan depositors who totaled 12.4 million in their peak year of 1930 have since fallen off at the rate of a million a year.

FHLBB COST INDEX

The House on Which Costs Are Reported is a detached 3-room house of 24,000 cubic feet volume. Living room, dining room, kitchen, and lavatory on first floor; 3 bedrooms and bath on second floor. Exterior is wide-board siding with brick and stucco as features of design.

The house is not completed ready for occupancy. It includes all fundamental structural elements, an attached 1-car garage, an unfinished cellar, an unfinished attic, a fireplace, essential heating, plumbing, and electric wiring equipment, and complete insulation. It does not include wall-paper nor other wall nor ceiling finish on interior plastered surfaces, lighting fixtures, refrigerators, water heaters, ranges, screens, weather stripping, nor shades.

Reported costs include, in addition to material and labor costs, compensation insurance, an allowance for contractor’s overhead and transportation of materials, plus 10 per cent for builder’s profit.

Reported costs do not include the cost of land nor of surveying the land, the cost of planting the lot, nor of providing walks and driveways; they do not include architect’s fee, cost of building permit, financing charges, nor sales costs.

In figuring costs, current prices on the same building materials list are obtained from the same contractors and builders.

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Since September 1937, the comparatively steady trend of labor wages has been outweighed by the decreasing trend of material costs, and the Federal Home Loan Bank Board’s monthly small house cost index has taken eight consecutive downward steps. Last step was based on the survey for May, 1938 which covered the FHLBB’s Pittsburgh, Cincinnati, Little Rock and Los Angeles Districts, revealed that cost of the base house was lower in thirteen of the reporting cities, higher in five, unchanged in three.

Notable for having experienced the greatest percentage increase in building costs since inception of the index in February, 1936, the Pittsburgh District was further spotlighted by the erratic cost trend shown in the May sampling. Thus, biggest drop, 5 per cent, occurred at Charleston, W. Va., where cost per cubic foot decreased 13 mills to 26.1 cents. And three Pennsylvania cities (Harrisburg, Philadelphia, and Pittsburgh) bolted from the general trend, reported increased costs. None of these advances, however, was greater than 7 mills, or 8 per cent.
FANFARE MAKES A SUBDIVISION

in Seattle, excites construction of 42 owner-built houses.
Two radio announcers turn realtors, sell lots.

Some subdivisions have flourished unheralded because their prices have been especially attractive, their plots advantageous located or merely because they rode the wave of a building boom. View Ridge, a middle-priced subdivision seven miles from the heart of Seattle, bases its success on none of these naturals, but rather upon the continuous, exciting fanfare that has accompanied its development.

View Ridge was hatched in the depression darkened year of 1934 when Radio Announcers Albert Balch and Robert P. Jones set out in search of a likely place to build homes for their families. Idea of a subdivision came only after they discovered that 40 acres atop a foothill near Lake Washington could be purchased for $25 in all—they obtained an option from Landowner August Mchllborn who was deep in downtown business properties and anxious to part with this undeveloped tract just outside the city’s northern limits.

Neither of the 34-year-old subdividers had had any real estate experience. Both had graduated from the University of Washington. Prior to joining radio station KOMO-KJR, Balch had been with a Seattle investment house, Jones with a small-town (Ellensburg, Wash.) newspaper. But somewhere these new-born realtors had picked up a batch of ideas that figured prominently in the development of their project. Before the 30-day option expired, they had subdivided and sold enough lots to make the necessary down payment on their 40-acre purchase. (The balance was paid before it came due with cash from the sale of other lots. Since then 20 more acres have been bought, an option obtained on an additional 60.)

Record. Last month the View Ridge foster-fathers beamed upon the following record: 46 houses built, 18 under construction and 30 more in the blueprint stage. Of those completed, all but four have been owner-built, all have been sold. All houses under construction are also owner-built. Noteworthy in so large a subdivision is the fact that owner-built houses account for 94 per cent of the total. Reason for this unusual ratio is that the subdividers have confined themselves to selling lots (sales in April and May alone amounted to 39, brought the total of lots sold, but as yet vacant, to 199) and promoting the subdivision as a whole, have let contractors assume the risks for what little speculative building has been done.

Land. Platting of View Ridge was unimaginative, reflecting perhaps the hasty development. Although some curved avenues were made to follow contours, bulk of the property was divided with a gridiron pattern. Most of the lots, however, were afforded a view of the lake and nearby mountains by virtue of the sloping terrain. Neither a shopping center nor a community center was provided, but two acres were set aside as a playground. Adjacent to the north is the semi-exclusive Sand Point Golf and Country Club; to the east, separating View Ridge from Lake Washington, is the Sand Point Naval Air Station whose zooming seaplanes are advertised as more of an attraction than a nuisance.

Few and flexible building restrictions were placed upon the subdivision. Houses in the lower portion, where lots sell for $850 to $865, must cost at least $4,500; in the upper section, where lots range from $860 to $890, the minimum cost limit was set at $86,000. Location of a house on a lot, its plan, design and size are all subject to the approval of Messrs. Balch and Jones who at last gave up their careers in radio to become full-fledged realtors.

Costs of View Ridge houses have varied between $3,950 and $19,000 (including lots), have been financed largely by mortgagees representing such prominent insurance companies at the New York Life, Prudential, Occidental, and Travelers, and by several local banks and savings and loan associations. Majority of mortgages bear interest at 5 per cent, run for fifteen or sixteen years and carry FHA insurance.

(Continued on page 86)

Most expensive and one of the first to be erected in View Ridge is the house of Subdivider Balch. Designed by Architects George Wellington Stoddard, Harrison John Over-turf and DeWitt Griffin, it cost $15,500 exclusive of the lot (125 x 178 ft.) valued at $4,500. Its 35,000 cu. ft. cost about 43 cents each. Note the large areas of hand-split shingles which blend with the woody entourage.
CONSTRUCTION OUTLINE

FOUNDATION: Walls—poured, reenforced concrete. Waterproofing—hot tar on outside foundation walls; Armor coat on interior concrete walls, Armor Laboratories, Inc.


ROOF: Covered with hand-split cedar shakes, Drake Forest Products Co. All lumber from Weyerhaeuser Timber Co.

SHEET METAL WORK: Flashing, gutters and leaders—16 gauge copper, Chase Brass & Copper Co.

INSULATION: Outside walls (see structure). All ceilings—Fir-tex plaster base, Fir-tex Insulating Board Co. Attic floor—Uni-Fil poured on top, Abestos Supply Co.; rock wool used in all spaces where fill insulation could not be used. Roof—Fir-tex board, Weatherstripping and thresholds—Chamberlin Metal Weather Strip Co.


WOODWORK: Trim, shelving and doors—select fir. Garage doors—Overhead Door Corp.


ELECTRICAL INSTALLATION: Wiring system—knob and tube. Switch—Harvey Hubbell, Inc.; Edwards & Co., Inc. chimes for front and rear doors.

KITCHEN EQUIPMENT: Range, refrigerator, garbage disposal, sink, dishwasher, cabinet, washing machine and drier—General Electric Co. Ventilators—West Wind fan, Western Blower Corp.

BATHROOM EQUIPMENT: All fixtures by Standard Sanitary Mfg. Co.

PLUMBING: Water pipes—Chase Brass & Copper Co. Soil pipes—cast iron.

(Continued from page 84)  

Although most of the lots have been sold for 20 to 33% per cent down with the balance due in twelve to eighteen months, Balch and Jones are currently accepting smaller initial payments.

**Publicity.** Mainstay of the signal success of View Ridge is its effective, yet comparatively inexpensive publicity. Subdividers Balch and Jones have always and obviously been enthusiastic about their venture. They boost their project among their many friends, thus try to make View Ridge a topic of Seattle conversation. Such promotion had to serve as an initial interest-rouser until the partners could afford paid advertising. But, once the ball began to roll and the first lots were sold, they entered the newspapers, wherein the knack of getting free publicity on pages that held the society news played as important a part as regular advertising. Smartest program of the latter type was that undertaken in January, 1937 when a heavy snow fall prompted other Seattle realtors to reduce their advertising space. For several days View Ridge dominated real estate pages. Result: seven lots were sold while other realtors rested. Claim is that one of the seven was purchased by an energetic young couple who mushed out to the subdivision on skis.

The much-flaunted model home has had a tiresome reappearance at View Ridge, and the homes of Balch and Jones are always open to the public. Other more novel stunts: free picnics on the premises; payment of real estate board dues with a check written on a large cedar shingle; the mailing of plywood postal cards.

Motorists are directed to View Ridge by 130 small road signs posted by the Automobile Club of Washington along with its own.

Widely used has been a publicity folder, usually a reprint of an article blandly indicating that "now is the time to build" and, of course, it was tucked on that View Ridge is the place in which to build. The promoters were quick to reproduce from the Reader’s Digest, and send to their mailing list, Roy Wenzlick’s "The Coming Boom in Real Estate," were equally quick to send out several bullish building reports by Economist Roger Babson. In all, some 75,000 folders have been showered upon Seattle’s potential home owners and there is no indication that this storm of publicity is over.

Reward for this aggressive publicity campaign is the position that View Ridge has attained among local developments. During 1937 a total of 41 houses was completed and sold—more than any other Seattle subdivision could boast. And, the $100,000 of construction now under way indicates that again this year View Ridge may head the list.

There is an architectural smartness to "Outside" LUMINALL—the new exterior masonry paint with the synthetic resin and casein binder. The white is so white! The colors are so effective! Then the practical advantages ... a film that keeps its life and does not flake or peel ... may be applied on new or previously painted surfaces ... one-coat coverage in most cases ... excellent coverage per paste gallon ... no wetting down walls before or curing after application.

"Outside" LUMINALL is made by the makers of "LUMINALL," which is the world's largest selling paste casein paint for interiors. Literature and generous samples are free to architects on request.

ROBINSON Lap-Lok Wall Coping
made of imperishable vitrified clay
An attractive and lasting coping for all brick, concrete, or stucco parapet walls. The reason for its distinctive appearance and durability is found in the ingenious end lap and side lock, available only in Robinson Lap-Lok Wall Coping.

Through its exclusive design, Lap-Lok eliminates the unsightly raised joints of ordinary wall coping. Made of vitrified, hard burned clay, it prevents erosion and disintegration of the joint, coping and wall, and at the same time enhances the beauty of homes, apartments, or business buildings of any design.

ROBINSON Chimney Pots
made in new and exclusive designs
These attractive chimney pots give that finished appearance to modern or period homes. They outmode the ordinary, obsolete types of chimney pots and provide a roof line in harmony with the rest of the house.

Robinson Chimney Pots are available in a variety of exclusive styles. All are made of selected clays ... built to withstand excessive heat and wide changes in temperature. They fit over standard flue linings and materially improve the draft of the chimney.

USE the Coupon
Complete information is contained in two fully-illustrated folders describing Robinson Lap-Lok Wall Coping and Robinson Chimney Pots. Prepared especially for architects' files, they contain valuable installation data, and will be sent without cost or obligation.

The Robinson Clay Product Company, Akron, O.
WINNER


A FAVORITE with leading architects for more than fifty years, Cabot’s Stains—today as always—are adding their share of beauty to prize winning houses. . . . In addition to Cabot’s Creosote Stains, we now offer a new line of Heavy-Bodied Stains for use where a more opaque, uniform appearance is desired. The new stains are especially valuable on old or weathered shingles. Write today for new booklet, Stained Houses. Samuel Cabot, Inc., 1274 Oliver Building, Boston, Mass.

Cabot’s Shingle Stains

Creosote Heavy-Bodied

MEZZANINE HOUSE

minimizes costs via elevated basement, living room.

Most mental solutions to the lower-cost housing problem have been predicated upon reduced labor costs or savings through variations of mass production. Newsworthy, therefore, is the experiment in Monroe, Michigan, where the problem has been tackled from the design angle. The result: a so-called “mezzanine house,” whose cost of $5,148 is claimed to be nearly $1,000 less than that of a comparable house of conventional design.

Mezzanine in this case means that due to an elevated cellar, the living room directly above occupies a half-way position with respect to the dining and bedroom floors. The idea belongs to Realtor-Contractor David E. Winkworth, for fifteen years a nurseryman in horticulturally famous Monroe. Forced into real estate when the growth of the city infringed upon his farm, he has latterly devoted himself to the construction of small houses. Year ago, as recovery began to recede, Builder Winkworth was forced to consider the cause of Building’s letdown, what to do about it.

Unique solution on which he hit was the origination of a house that would require less material and labor than customary. Thus, Monroe soon beheld a trio of mezzanine houses, designed by Father Winkworth and Son James, Carnegie Tech student of industrial design. Built from one set of plans, the houses present nothing startling in exterior appearance, differ notably from conventional residences in three fundamental aspects: foundations, basement, and their four floor levels.

Design. Largest part of the mezzanine house is erected upon a reinforced concrete mat supported at points of stress by concrete block piers. Fashioned after Master Frank Lloyd Wright and laid at grade, this mat serves as the floor for all rooms on the ground level, thus does away with much excavation and all first floor joists.

Only excavation required is for the combination recreation-furnace room, and then only to a depth of three and one half feet as half the basement is above grade. In addition to minimized excavation, resultant economies include: frame construction in lieu of masonry for half the basement walls, only six steps to ground level, and reduced height of chimney. The high basement also makes possible the use of large windows in an otherwise dark room.

Costs. In a cost comparison prepared by Mr. Winkworth, estimable economies effected amount to $706.73. Largest single saving appears as $218.24 in concrete block, directly attributable to the shallow basement, in turn attributable to the mezzanine arrangement. However, close analysis of the actual construction indicates that Builder Winkworth may be over-optimistic in the savings that he chalks up to this phase of his design. Equally significant are the economies gained by canny planning throughout. To wit: stairwells were placed between necessary partitions, thus saving rails and spindles; short joists and studs kept down dimension material costs; a foreshortened driveway saved about $75.

Monroe houseseekers snapped up these houses in short order, made one more noteworthy economy comment: the houses are easily heated at a comparatively small expense. Thus Creator Winkworth considers his experiment a success, believes that further research in this direction should bring forth even better results.
KOHLER'S COSMOPOLITAN
BATH is Safer...more practical...and makes a bathroom

Functional design makes this new Kohler Bath roomier, safer, and at the same time more attractive. It's the ace item in a star-studded matched Kohler bathroom which includes the shelf-back Gramercy Lavatory and the new, quiet Bolton Closet. Your clients will immediately appreciate a bathroom which includes an up-to-the-minute Cosmopolitan Bath.

LOOK AT IT 3 WAYS!

1 WIDER, FLATTER BOTTOM for showering safety and increased bathing space.
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This new Kohler fixture is tomorrow's bath today. Graceful lines...one piece...panels which blend into the flat rim...sheer smoothness of surface...safety and roominess...wide range of sizes and colors...costs no more...these help make "Cosmopolitan" a name wise architects will long remember. Be one of them. Write for Catalog K and full information today. Kohler Co. Founded 1873. Kohler, Wisconsin.

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PLANNED PLUMBING AND HEATING

The richest man in the world couldn't buy a finer oil burner

Any home-owner can afford a Gilbarco

Whatever you buy...whether it's an oil burner or an automobile...you have extra pleasure in owning a machine that's in a class by itself. With Gilbarco, you get a precision machine...unusually trouble-free and dependable. And it is so sturdily built that it's good for long years of efficient and economic service.

Yet with all its advantages, Gilbarco actually costs no more than the average good oil burner. Indeed, Gilbarco helps pay for itself in the long run—for it gives Most Heat Per Dollar.

Gilbarco's success has been phenomenal. Sales have been increasing rapidly every year. 1937 was the biggest year of all. There is good reason for this success. Gilbarco is backed by the largest and oldest manufacturer in the field of oil-heating and air-conditioning.

Leading engineers know all these facts. That is why so many of them have selected Gilbarcos for their own homes. You, too, in your home, can enjoy Gilbarco's advantages.

Phone your nearest Gilbarco dealer for further information. There is a Gilbarco Conversion Oil Burner, Boiler Unit (oil fired) or Warm Air Conditioning Unit to meet every heating requirement. If there isn't a Gilbarco dealer near you, write us direct and we'll send you the name of a dealer who will call at your convenience. We'll also send you—free—our booklet on oil heating.

DEALERS! For details of Gilbarco dealer plan, write us today.

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The Payne gas-fired Floor Furnace provides the easiest and least expensive way to home comfort on the heating horizon.

This tremendously popular Payne product requires no basement. Yet it provides a generous supply of circulating warmth usually expected only from a basement unit. Installation is extremely simple.

The Payne Floor Furnace is vented. Excess moisture and stuffiness are out. "Cold spots" and drafts become a thing of the past. Comfort is complete.

In thousands upon thousands of homes the Payne Floor Furnace is proving that it is the most efficient and economical floor furnace ever built. It is a modern product of America's most modern furnace plant.

Payne has manufactured gas-fired appliances exclusively for more than a quarter of a century

FORUM OF EVENTS

(Continued from page 14)

AWARDS

Socrates T. Seathes, Washington architect, has been awarded the thirty-first annual Paris Prize for architecture of the Society of Beaux-Arts Architects. Placed second was Joseph Caponnetto of New York; third, Edward A. Mouthrop of Cleveland. Winner Seathes studied architecture at Catholic University until his graduation in 1933. He has since been an instructor at the University and has designed small dwellings and restaurant renovations.

Erling F. Iversen of Brooklyn, N. Y., has been awarded the Wm. Rutherford Mead Fellowship in architecture of the American Academy in Rome. First Honorable Mention was given to Raleigh T. Daniel of Washington, D. C., graduate of Catholic University in 1936. Mr. Iversen studied at Pratt Institute for three years, received his architectural degree at New York University in 1936, then took graduate work at Princeton University for half a year.

Edward M. Hicks has been awarded the Ion Lewis Traveling Scholarship in Architecture of the University of Oregon.

Robert C. May has been awarded the George G. Booth Traveling Fellowship in Architecture of the College of Architecture, University of Michigan. William A. Griffiths and Robert L. Morris placed second and third respectively.

SCHOOLS

Massachusetts Institute of Technology announces a summer program in City and Regional Planning sponsored jointly by the School of Architecture and the American Planning and Civic Association. The first series of lectures and discussions will start July 6, continue to July 15 and be devoted to basic planning principles. The second series will be devoted to planning administration and be given from July 18 to 22. The staff will consist of Frederick J. Adams, associate Professor of City Planning, and Flavel Shurtleff, Counsel to the American Planning and Civic Association.

Design Laboratory, 116 East 16th St., New York, N. Y., announces a summer session of eight weeks, July 3 to August 30. Courses include work in Materials Laboratory, Drafting, Industrial Science and Design.

Wallace K. Harrison, one of famed Rockefeller Center's architects, has been appointed Associate Professor of Architectural Design at Yale University School of the Fine Arts. William Parsons of Chicago has also been added to the faculty to extend the scope of town planning. To provide a continuity of criticism, Max Abramovitz, formerly a design critic at both Columbia University and New York University has been appointed. The Department of Architecture of the Agricultural and Mechanical College of Texas announces a six-weeks tour to Mexico for students interested in the study of the arts and architecture of Mexico. Travel will be by means of a chartered bus, leaving July 18, returning August 27.

COMPETITIONS

Prompted by the success of its 1937 contest, the Barre Granite Assn., Inc., Barre, Vermont, has this year increased to $1,200 the prizes in its second Design Competition for a Cemetery Memorial of Moderate Cost. Each design submitted will participate in three distinct judgments with three distinct sets of prizes. The competition is open to all architects, designers, draftsmen, artists and art students with the exception of employees of any member of the Barre Granite Assn. A Book of Rules and Information for the competition will be mailed upon request.
For this hospital as for hundreds of other public buildings, Clearlite Quality Glass is specified because of unusual clearness, uniform thickness, brilliant lustre and fine quality.

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THE USUAL KOVEN HIGH QUALITY

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And its big talking point is its FIRST LOW COST PLUS ITS LOW OPERATING COST.

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JULY - 1938
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Billings-Chapin Clear Driwal is unusually effective in combating disintegration, particularly during cold weather, on many of the more porous masonry surfaces. It impregnates the pores with a colorless, insoluble preservative that makes them fully water repellent. As a result, moisture cannot enter, freeze and cause premature cracking or crumbling.

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Protection from destructive winter weather and preservation of natural beauty are two excellent reasons for the widespread use of Clear Driwal on concrete structures for more than a quarter century. It is equally effective on newly cleaned buildings. See our listing in Sweet's Catalog. Further information will be sent upon request.

THE BILLINGS-CHAPIN CO.
Boston • Cleveland • New York

THE MODERN FLAT, by F. R. S. Yorke and Frederick Gibberd.
The Architectural Press, London. 198 pp., illustrated with photographs and plans. 9 x 11 1/2, $8.50.

"The flat has produced a building type peculiar to our own era; without precedent in the architecture of the past . . . We do not suggest that a home in a tall building, that exactly fits a site cleared for it in an already built-up area, is the ultimate ideal. But we do believe the approach to the design of flat dwellings . . . has advanced considerably, and that if present-day building technique were in itself sufficient, the perfect home could be achieved.

"We are making this book because we believe that we shall want to live in a tall building in a park, with common amenities, air, and a view; and that the problem of housing cannot be solved by the provision of millions of little cottages scattered over the face of the country, whether in the garden city manner, or as speculatively built stragglers."

FLATS AT HAMPSTEAD. WELS COATES, ARCHITECT

On this clearly stated thesis "The Modern Flat" is based, and its illustrative material consequently falls into two parts. The main portion of the book deals with the most advanced executed examples of apartment house design, and a smaller section at the end shows a number of projects, such as Le Corbusier's Ville Radieuse, based on the placing of tall buildings in open park areas.

Both in format and content the book is excellent. Photographs of uniformly high quality are reproduced at a size which makes possible a study of detail. Information on construction, equipment, accommodations, and cost is given in most instances, and plans are frequently supplemented by structural details and sections. The countries represented take in most of Europe. Of particular interest and excellence are the buildings by the younger English architects, which for number and quality equal anything being done today. "The Modern Flat" is fully up to the high standard set by Mr. Yorke's previous works, "The Modern House" and "The Modern House in England," and the three books considered together form what is probably the best available reference work on modern domestic architecture.

As a service to interested readers, The Architectural Forum will undertake to order copies of foreign books or others not conveniently obtainable locally, which have been reviewed in this department. Checks and money orders to be made payable to The Architectural Forum.
When selecting, or creating, color schemes, please bear in mind that the 16 Positive Colors and the 10 Pastel Tints of MURAL-TONE Casein Paint offer you a palette to gladden the eye of every lover of color.

Formal dining rooms, cheerful sun-rooms, feminine boudoirs, mellow living rooms, restful bedrooms... all depend on color. MURAL-TONE Casein Paint gives you richness of tone, freedom from gloss or glare, and ease of intermixing and application. It has qualified for use under the most exacting conditions.

MURAL-TONE can be used on practically every type of surface. Practically any finish can be applied over it. It is cleaned with a damp rag. It dries in 40 minutes. One coat covers and hides on most surfaces.

Cuts decorating costs at least 25%

Four years experience proves that the use of MURAL-TONE reduces painting costs at least 25%. Time, labor and material are saved. Good reasons why it is preferred for industrial, commercial, institutional, and residential work. MURAL-TONE is well worth investigation. The Muralo Company, Inc., (Founded 1894), 574 Richmond Terrace, Staten Island, New York. Branches: Atlanta — Boston — Chicago — San Francisco — Los Angeles.

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A Gas-Heated Home
A Prominent Heating Engineer Endorses Non-Stick Double-Glazed Windows:

"In thirteen years of living in various parts of New York State, this is the first comfortable home I have had, and at the lowest cost for heating."

For years the Non-Stick Window—the original double-hung unit window, designed without sash weights and equipped with one-piece metal jambs—has been gaining widespread popularity because of its easy operation, weather tightness and appearance. Now, in the added feature of double glazing, comes a further contribution to economical heating and year-round comfort, plus the outstanding appeal of easy washing made possible by the muntin bars, when used, being placed between the two panes of glass.

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To all architects who entered the

ALL-GAS HOME

DESIGNING COMPETITION

—our sincere thanks

and congratulations on the splendid designs you submitted.

Your gratifying response to this Home Competition indicates a keen appreciation of the suitability of modern gas appliances to modern standards of living — and of the exclusive advantages of gas as a fuel.

We are confident that the erection of All-Gas Homes throughout the country will demonstrate to millions of home-owners, and future home-owners, that GAS FOR THE 4 BIG JOBS means the utmost in comfort, convenience, and economy.

AMERICAN GAS ASSOCIATION

AND A REMINDER
GAS FOR COOKING

GAS FOR THE 4 BIG JOBS
brings new freedom in home-planning

MODERN in appearance, brilliant in performance...today's gas ranges, refrigerators, and heating equipment are designed to make the most of gas fuel which is perfectly suited to handle all 4 Big Jobs dependably and economically.

The absence of complicated mechanisms and delicate parts makes gas equipment cost less to buy...to install...to maintain. Gas rates are lower than ever. Gas appliances are more efficient than ever. Operating costs are lowest in history!

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GAS IS YOUR QUICK, CLEAN, ECONOMICAL SERVANT

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GAS FOR WATER HEATING
Now enter the $10,000 ALL-GAS HOME BUILDING COMPETITION
FOR BUILDERS AND THEIR ARCHITECTS

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Although the competition for designing All-Gas Homes is now over, there's still plenty of time to enter a winner in the All-Gas Home Building Competition.

This competition is open to builders and their architects who shall, before July 1, 1939, complete the building of one or more houses utilizing "Gas for the 4 big jobs"—cooking, refrigeration, house-heating and water-heating.

Prizes for the best houses selected in this competition will be awarded to the builders of the houses and to the architects responsible for their design.

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Kindly forward complete details as checked above.

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59
MORE "ALL-GAS HOME" WINNERS
SPECIFY AGP GAS HEAT AND
HOT WATER...than any other make!

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WITH Bryant PERSONALIZED HEATING

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Compact, Self Contained Unit Shows Exceptional Combustion Efficiency

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It is not too much to say that the architect who specifies "PYROFAX" Gas Service will earn, through the years, the unfailing praise of clients who demand the utmost in modern convenience, economy and comfort beyond the gas mains. See Sweet's Catalog (28/65) for "PYROFAX" Gas Service specification data.

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An overwhelming victory for Magic Chef and a measure of its commanding supremacy in design, quality, and performance! In the verdict also is a reflection of the great public preference for Magic Chef.

In half a century of building fine gas ranges, American Stove Company has invested millions in product research and educational effort to develop and sell better stoves and to acquaint the public with the superior value of gas as a cooking fuel.

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GAS IS YOUR QUICK, CLEAN,
First Prize All-Gas Homes

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"I find the operating expense a dollar a month; have never had any expense for service or service parts. We are very well pleased and particularly like its silence and absence of moving parts. Am glad of my landlord's selection."

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Another huge low cost housing project uses Trane Convectors

Here's another vast housing project where Trane Convectors—"the modern successors to the old-fashioned cast iron radiators"—maintain ideal comfort conditions. The Julia Lathrop development has accommodations for 925 families—and all units of this large project are effectively and economically heated with Trane Convectors. The installation of these quality heating units in low-cost housing projects clearly shows that they are within the limits of even a modest budget. At Laurel Homes in Cincinnati, at Jane Addams and Trumbull Park in Chicago, at Cheatham Place in Nashville, at Cherokee Terrace in Enid, Oklahoma—to name but a few—the selection of Trane Convectors is but further proof that it costs no more for:

1. Natural air circulation
2. Space saving
3. Instant control of heat
4. More comfortable heat
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JULY 1938
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20 YEAR GUARANTEE

Monel Tanks used in Ruud Automatic Gas Water Heaters are strong, tough and permanently immune to rust—and carry a twenty year written guarantee against rust, or chemical action of the domestic water supply.

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The Ruud chassis—and the Monel tank—make a perfect combination for dependable low-cost, rust-free hot water service.

No rust—longer life—and always clean, clear hot water—because a Monel tank cannot rust! Dependable hot water service always, at rock-bottom cost—because the name Ruud is a guarantee of quality, known to millions!

For hot water service at its tip-top BEST, depend on Ruud automatic gas water heaters with Monel tanks.

A TANK YOU CAN TRUST
BECAUSE IT CAN'T RUST

*MONEL is a registered trademark applied to an alloy containing approximately two-thirds nickel and one-third copper.

RUUD MANUFACTURING COMPANY
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• When it comes to the acid test of performance after installation, Janitrol wins every time! Comparison, on any or all points, shows the superiority of Janitrol design. And why shouldn’t it? At “Gas Headquarters”... where Janitrol equipment is produced, gas experts work with gas heating problems. ... For over thirty years, their job has been to build the greatest possible efficiency and economy into Janitrol equipment.

BE CERTAIN — SPECIFY JANITROL

And be satisfied that the heating equipment that goes into the homes you design is as modern and efficient as the houses themselves. ... Remember, Gas is the only fully automatic fuel and when burned in a Janitrol, home-heating comfort is effortlessly obtained. Janitrol home-heating and Winter Air-Conditioning equipment is sold or recommended by leading Gas Companies from coast to coast.

WELL DONE!

These members of the architectural profession won prizes in the American Gas Association Competition “All-Gas Home.” When it came to specifying the heating equipment, they all said Janitrol.

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Edwin A. Wagner
919 North Jackson Street
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PART 1, CLASS 1
Frank S. Dougherty
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3rd PRIZE
PART 1, CLASS 1
Hayes Simpson and
Hunsicker
7829 Euclid Avenue
Cleveland, Ohio

1st PRIZE
PART 1, CLASS 2
Clarence W. John and
Edwin A. Wagner
919 North Jackson Street
Milwaukee, Wis.

Janitrol Gas-Fired HEATING EQUIPMENT

JANITROL UNIT HEATERS
Eliminates much of the heat loss that is found in piped systems requiring a central heating plant. Types and sizes for every industrial and commercial need—fully automatic in operation.

JANITROL GC GRAVITY HEATER
Modern to the minute—furnishes economical, low-cost home heat—easily and simply installed—available in four sizes... ranging from 75,000 to 150,000 Btu hourly input capacity.

JANITROL WINTER AIR CONDITIONERS
The finest home-heating and air-conditioning equipment—fully automatic—compact—beautifully designed and enclosed in smartly finished furniture—steel cabinet. Model ‘CF’ shown.

SURFACE COMBUSTION CORPORATION • TOLEDO, OHIO
The fact that one of the first prize designs in the “All-Gas Homes” competition includes the Niagara 220 Winter Air-Conditioning unit is again proof that architects familiar with Niagara construction find this modern gas-fired heating and air-conditioning unit ideally suited to modern home design and construction.

The Niagara unit specified in the prize winning design is fully automatic. It is famous for its low gas consumption and its selective eight-speed, direct-drive blower. This compact unit comes equipped with the Niagara summer-winter switch which permits the home owner to use the full capacity of the blower for summer cooling without any inconvenience.

With its cabinet of modern design, the Niagara 220 lends itself particularly well to installation in modern surroundings, where both appearance and economy of space are important factors. It operates efficiently and economically in homes with or without basements.

A complete description of the Niagara unit specified in the prize winning design is included in our booklet No. 220. Send for your copy today.

Perspective of the design which won first prize in the American Gas Association competition for all-gas homes. Hays, Simpson and Hunsicker, who have won awards in four national competitions, was the only firm to receive two prizes in the American Gas Association Architect's Competition.
Take a Tip from the Winners

Specify a

TAPPAN

Gas Range

For Your Plan

No matter what type of home you may be planning, you have the assurance that the Tappan will fit it as slickly as a triangle fits a T-square.

As proof look at the plans of the First, Second and Third Prize Winners (Class II), who specified the Tappan Range, reproduced in this issue. While each of these homes is distinctly different in character, the Tappan Range blends into the kitchen ensemble as though it were tailored to order. It is significant, too, that each of these three winning plans is in the classification of larger and higher quality homes.

Architects and home builders with an alert appreciation of style and value are quick to recognize Tappan's towering advantages; the beauty of its balanced design, the pronounced practicability of the Divided Top, the happy innovation of the Visualite Oven, and its clean cut lines, proper height, and toe-cove base that conform to cabinet measurements of the modern kitchen.

But these are only the high spots. There are a score of other features that your local Tappan Dealer will gladly demonstrate or about which you can get complete information by writing to... .

THE TAPPAN STOVE COMPANY
Mansfield, Ohio

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Models for all forms of liquefied gas
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This Shaker Heights, Cleveland, home where sectional control is applied, is equipped with two separate and distinct Moncrief winter air conditioning systems. One conditions the air of the rooms occupied by the family. The other circulates conditioned air only in the service quarters. When, for instance, the family is away, the temperature may be lowered while the servants’ rooms are maintained at usual comfort levels.

Small homes, too, can enjoy the convenience of gas with the unusual economy afforded by Moncrief Gas Winter Air Conditioners. Moncrief Winter Air Conditioning Systems for gas are available in various types and sizes with units designed specially for moderate priced homes. Send for new literature.

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Correct Height
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Super De Luxe Models Fit Back Flush With Wall
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JULY - 1938
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NOW ACHIEVED BY UTTERLY NEW AND DIFFERENT CONTROL METHOD!

ABOVE—When the Control Valve is closed, water circulates continuously through the Hoffman Circulating Pipe and radiators, until the water drops a few degrees in temperature.

RIGHT—Here the Control Valve has opened, admitting hot water to the circulating stream. When enough hot water has been admitted to restore the proper temperature to the circulating water, the Valve closes.

Hoffman Hot Water Controlled Heat maintains a balanced condition between outdoor and radiator temperatures.

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Through a system of coordinated controls, radiators are supplied with water at the temperature required to exactly offset the heat loss of the building.

Water is continuously circulated through the system, receiving just enough hot water from the by-passed boiler to keep radiators at the proper degree for any outside temperature. So smoothly is the heat supply modulated that overheating and "Cold 70" alike are eliminated and room temperature maintained at a constant level, regardless of the weather.

Hoffman Hot Water Controlled Heat is completely automatic and adaptable to either one or two-pipe installations, new or already installed. For full operating details and installation instructions, write to the Hoffman Specialty Co., Inc., Dept. AF-7, Waterbury, Conn.

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July 1938
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WHETHER AN ARCHITECT CHOSES the modern beauty of Bruce Finished Block Floors, the picturesque charm of Bruce Plank Floors, or the simple refinement of Bruce Strip Floors—he can be certain of two things: First, that the flooring will be manufactured exactly "as specified"; second, that the finished floors will win the approval of his clients and bring lasting satisfaction.

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In bronze or aluminum — casement or double hung — Permatite Windows have the exclusive features and sturdy construction which insure perfect performance. Entirely of metal — they have no felt or rubber to harden or wear out.

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Seamless tubular sash provides the most rigid construction possible. The patented weatherstrip of resilient metal fits snugly to top and side of sash.

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DOUBLE GLASS INSULATION)

When it's winter by the calendar—way below freezing by the thermometer—you can still have June in your home and keep it there! By installing storm windows or double-glazed such. You put two pieces of glass between you and winter. Between the two pieces of glass a wall of captive air is formed. This air space is one of the best forms of insulation.

Result—Window Conditioning. That means uniform temperatures throughout the home and freedom from drafts and danger from the floor and near windows. You can have healthful humidity without the nuisance of foggy windows, soiled draperies and moisture on window sills. In short, "Window Conditioning" means more comfort and more healthful winter living.

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LIBBEY·OWENS·FORD
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FREE LIBBEY·OWENS·FORD GLASS COMPANY, TOLEDO, OHIO

July 30, 1938
This full-page advertisement appearing in The Saturday Evening Post in July starts to unfold a story never fully told... a story to be continued in leading national publications and in widespread publicity... a story in accord with the program of the architectural profession—for it points the way to added comfort, better health and greater economy in the home.

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Window Conditioning brings a GREATER savings in fuel costs, shows a GREATER return on the investment and pays for itself in a SHORTER time than ANY OTHER SINGLE FORM OF INSULATION. It is ESSENTIAL for the complete enjoyment of the benefits of winter air conditioning.

NOW THE STORY WILL BE TOLD...

... In such outstanding publications as... Saturday Evening Post... Collier's... Good Housekeeping... American Home... Better Homes and Gardens... House and Garden... House Beautiful... Parents' Magazine—attention arresting, interesting advertisements to reach thousands of prospective home builders—advertisements that direct these home builders to an architect. Libbey-Owens-Ford has developed a comprehensive plan to bring the comforts and economies of "Window Conditioning" prominently to the public mind. The plan secures the cooperation of lumber dealers and heating contractors and capitalizes on the ever-mounting demand for winter air conditioning in the home.

LIBBEY-OWENS-FORD GLASS COMPANY, TOLEDO, OHIO

WITH THE WIDESPREAD ADOPTION OF TWO PANES OF GLASS INSTEAD OF ONE IN RESIDENTIAL CONSTRUCTION THE QUALITY OF THAT GLASS BECOMES DOUBLY IMPORTANT. L-O-F QUALITY GLASS IS TODAY AS IT HAS BEEN FOR MANY YEARS CLEARER, BRIGHTER AND FLATTER THAN ANY THAT THE INDUSTRY HAS EVER OFFERED.
IN MY HOME I MUST HAVE COMFORT AND CONVENIENCE

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PHOENIX ALL METAL COMBINATION SCREEN and STORM SASH is the Answer!

FOR COMFORT—Phoenix Windows insulate and weatherstrip the entire window area—the source of greatest heat loss. By reducing conduction and infiltration of cold air, temperatures are kept more uniform—hard-to-heat rooms become comfortable. Perfect ventilation without drafts makes the home more comfortable and healthful the year ’round.

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Phoenix Windows help conserve atmospheric humidity. Prevent sweating and frosting with as much as 45% relative humidity in zero weather. This materially reduces the load on the air-conditioning system allowing it to operate at maximum efficiency at minimum cost.

There Are Other Advantages Too!

1. Phoenix Windows’ patented construction allows ventilation the year ’round without danger of rain or snow entering and damaging hangings, furniture, etc. 2. Beautify the home. 3. Keep insects out. 4. Solve screen and storm window storage problems. 5. Afford a measure of protection against burglars. 6. Made to fit any size, double-hung window for the new or old home.

There is no other home improvement that will give all these comforts and conveniences without costing a penny in the end. Find out all the details. See an authorized Phoenix dealer or write direct to Phoenix Window Headquarters.

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The ARCHITECT: "With Balsam-Wool's factory controlled density and thickness, proved moisture barrier, definite air spaces and positive application, my clients are assured of permanently efficient insulation—no job skimping, no sagging or settling. I know from experience that Balsam-Wool will outperform its calculated efficiency rating."

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the OWNER: "I'll get a better job of insulation for from 10% to 15% less money—a job that will be as efficient in fuel savings and summer comfort when my grandchildren use the house, as today. My architect has shown me why Balsam-Wool, at a lower cost, prepares my house for air-conditioning if and when I want it."

FLASH! Balsam-Wool insulates first "All Gas Home" to be completed in American Gas Association Competition! It's at Hartford, Conn. A. Raymond Ellis, Architect.

A better insulation—at a substantially lower cost—that in a nutshell, is why new improved Balsam-Wool is striding ahead to new leadership. It has high efficiency in the laboratory and on the job. Its moisture barrier has been proved by 16 years of on-the-job performance. It is wind-proof—fire-resistant... protected from termites and dry rot. It can't sag or settle, because it is firmly fastened in place. And Balsam-Wool costs 50% less to apply. Let us give you complete details. Wood Conversion Company, Room 147-7, First National Bank Bldg., St. Paul, Minnesota.

*Patent pending

Balsam-Wool insulates first "All Gas Home" to be completed in American Gas Association Competition! It's at Hartford, Conn. A. Raymond Ellis, Architect.

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JULY - 1938
Installation of Rezo partition accordion doors separating two court rooms. Eight doors are arranged on each side of jambs for sound resistance. Size of door opening is 27'-0 wide by 10'-0 5/8" high, 2 1/4" thick, black walnut. For detail construction see Sweet's Catalog, Section 14-45.

For information write:

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Indianapolis Architects and Contractors have discovered that Carey Products build better homes because these modern materials enhance beauty and comfort; reduce the cost of home ownership through longer service and lower upkeep. This experience of the building industry of Indianapolis has been confirmed and duplicated in scores of other cities. You serve your clients in the modern manner when you specify Carey Products. See our Catalog in Sweet's.

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Provides highest efficiency in home insulation at low cost. Installed 4 inches thick in walls or roof, it equals a 59-inch solid brick wall in stopping flow of heat. Available in bat, wool and granulated forms, to meet installation requirements in new or old homes.

Illustrations show a few of the many Indianapolis homes built by Ross Neves, in which Carey Products, including MIAMI-CAREY BATHROOM CABINETS, are used.

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Dependable Products Since 1873
BRANCHES IN PRINCIPAL CITIES
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Architects — Contractors — Dealers — Home Owners — all enthuse over the neat, slender-line design, the exclusive oval sticking, the more complete weather and dust protection and the lasting utility of these distinguished new Factory-Fitted Window Units. The result of a long and able development aimed at perfecting a new high in window standards, EMBASSY Windows spell profitable and easy sales and real pride of ownership. Priced for small as well as large homes.

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They add distinction to the most ably designed homes. Slender-line with new oval clean-easy sticking.

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Special weather-stripping, more complete than you’ve seen—all-weather seal—effective dust exclusion.

UTILITY
Nothing has been overlooked — silent, easy operation — weathertight construction — more glass area — more light — toxic treated for permanence.

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Faster, easier installation — less maintenance — lasting — cheaper in the long run. In short — The Supreme Modern Window Value.

ROACH & MUSSER CO.
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TODAY, through the discovery of a new “vehicle” of crystal-like transparency for paint pigments, an amazing new trend in interior decorating practice has been created. It demands rich and striking color treatments—the utilization of a diversity of colors and hues in the same room. It allows the architect to combine all the tone values of tempera and fresco. Yet it is exceedingly economical.

The United States Gypsum Company, through the creation of Texolite®, a new principle paint, has contributed materially to this development.

USG has prepared an elaborate manual to help you know more about this new trend in interior decoration—to give you complete information on Texolite and its various other modern flat paints, colors and decorative texturing.

If you do not have one of these manuals—"Modern Principles in Paint and Decoration"—on file, USG would like to place one in your hands. You will find among its 40 pages many aids for the solution of your interior decorating problems.

United States Gypsum Company
300 WEST ADAMS ST. CHICAGO, ILL.
MARKS THE SPOT

Where the Added Livability of Extra Baths is Being Built Into New and Old Homes

Within the limits of a 3-foot square, or less, a Weisway Cabinet Shower provides complete bathing facilities. Guaranteed leakproof... with a foot-grip no-slip floor of vitreous porcelain... Weisways are easily, quickly installed without special treatment of building walls or floor, in new or old structures.

These Weisway qualities constitute an important reason why the X enclosed in a square appears so frequently on the plans for new and modernized homes... denoting the added livability of an extra bath. Weisways make extra baths practical and possible, even in small, low cost homes... and Weisway leakproof construction overcomes difficulties long associated with most expensive "built-up" showers.

Used separately or in combination with other fixtures to make a complete bathroom, Weisways add convenience and livability... off the first floor convertible study, the master or other bedrooms, maid's room, recreation room. In modernizing work, a little-used closet or end of a hall frequently provides space for an extra Weisway bath. Sketches at lower left are merely suggestive of many floor plan possibilities with Weisway Cabinet Showers.

There are Weisway models for basement and simplest cottage as well as the finest home... for institutions, industrial buildings and ships. Mail coupon, or write, now for complete information, without obligation.
Let Us Help You Plan the Kitchen of the Next House You Design

Take advantage of all the new ideas for convenience and work saving in the kitchen. We will submit layout and estimate without cost or obligation to you.

Don’t make the mistake of thinking that only expensive homes can afford steel planned kitchens. With two complete lines of St. Charles Steel Kitchen Cabinets you can fit the purse as well as the requirements of any kitchen layout. Get the most kitchen efficiency for your clients’ money.

ADVANTAGES OF STEEL • No warping, swelling, or binding ... easy to clean ... highly sanitary ... no dust catching cracks or projections ... welded joints assure strength and rigidity ... baked enamel finish.


St. Charles Steel Kitchen Cabinets

—ADAPTABLE—
HOME GARAGE FACTORIES WAREHOUSES SIMILAR BUILDINGS
GREASING STATIONS FIRE STATIONS BOAT WELLS

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"OVERHEADDOOR"
THE DOOR WITH THE

MIRACLE WEDGE
Salt Spray Steel TRACKS AND HARDWARE
Standard Equipment

Backed by A Nation-Wide Sales-Installation Service
OVERHEAD DOOR CORPORATION
HARTFORD CITY, INDIANA, U.S.A.

Smyser-Royer Cast Iron Veranda Design in Loggia Ironwork Residence of Donald Luna, Enn., Asheville, N. C. Architect—Will W. Griffin

INTERESTING TREATMENT OF CAST IRON VERANDAS

SMYSER-ROYER COMPANY
The decoration of all first floor walls in Prima Vera in the Herbert Bruning residence may seem as unusual as placing the glass brick-enclosed stairwell in the living-room. But there is sound reasoning back of both decisions. Architect George Fred Keck, having complete control from plot plan to curtain fabrics, relied successfully on the natural beauty of naked materials . . . wood, fabric, and glass.

Flexwood, being real wood, supplied color, form and figure. Installation was speedy and economical because Flexwood is applied by hand to curved as well as flat surfaces. The Prima Vera is in perfect match because the entire two thousand square feet came from one log.

Wood, as old as architecture itself, is in excellent taste in ultra-modern as well as classical interiors. The use of Flexwood places no limitation on the creative skill of the designer and its cost puts no strain on the normal budget. Samples and data are yours for the asking. We will appreciate it if home-owners, when writing, will mention the name of their architect or decorator.

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Manufacturers of Flexwood, Plywood, Armorply, and kindred products
"I've had 25 years' experience with Eagle White Lead. It's a premium paint at only $2.19 a gallon."

Architects will save themselves all the headaches caused by paint failures by making Eagle White Lead a standard specification for all outdoor painting. It gives lasting beauty and protection to wood, brick and stucco. Also fine for interiors.

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A recent home-owner survey conducted by a leading home magazine showed that 54% preferred kitchen cabinets of wood... and 62% preferred built-in standard units. Proof again that Kitchen Maid Cabinetry is always the most popular... that Kitchen Maid Kitchens meet modern demands in the homes you plan or build. Write for beautiful new catalog and details.


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Write for free detail catalogue (A. I. A. File No. 15-L)

161 Beautiful Trims for walls, floors, bars, desks, tables, etc.

THE B & T FLOOR CO., COLUMBUS, OHIO
First "ALL-GAS HOME" is carpeted by BIGELOW

"ALL-GAS HOMES" and the architectural design competition featured elsewhere in this issue are sponsored by the American Gas Association.

"All-Gas Home"—Hartford, Conn. Architect: A. Raymond Ellis

Completely furnished by The Flint-Bruce Company, Inc., of Hartford, Conn.

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