AT THE NEW YORK WORLD'S FAIR YOU ARE INVITED TO INSPECT

CELOTTEX EXHIBIT HOUSE NO. 17

THIS HOUSE Demonstrates to Millions!

CELOTTEX SAFETY SEALED CONSTRUCTION

... Shows Value of Modern Construction with

Celotex Vapor-seal Sheathing, Vapor-seal Lath, Interior Finish

and TRIPLE SEALED Roofing

MILLIONS of people who have
been reading about Celotex Safety
Sealed Construction in their favorite
magazines will see a comprehensive
exhibit of this construction when
they visit Celotex Exhibit House No.
17 in the “Town of Tomorrow” at
the New York World’s Fair.

Be sure to see this house when you
go to the Fair. See the “hidden ma­
terials” room on the second floor,
which demonstrates in cut-away sec­tions the use of Celotex Vapor-seal
Sheathing and Vapor-seal Lath. See
the rooms which have been deco­
rated with Celotex Interior Finish
Products, and the modern kitchen
with its sound-quieting ceiling!

You’ll get a world of profitable
new ideas to help you build better
homes, with more strong selling
features, at lower cost! And you’ll see
exactly how Celotex Vapor-seal
Products, Celotex Interior Finish
Products, and Celotex TRIPLE
SEALED Roofing Products are com­
bined in Celotex Safety Sealed Con­
struction—the modern method mil­
ions are reading about in Celotex
national advertising!

Architects: HENRY OTIS CHAPMAN and HAROLD W. BEDER

Celotex Exhibit House No. 17 under construction,
showing how the veneer of 4” Potsico concrete blocks
is laid up over Celotex Vapor-seal Sheathing.

The word Celotex is a brand name identifying a group of products
marketed by The Celotex Corporation

CELOTEX
REG. U. S. PAT. OFF

VAPOR-SEAL INSULATING SHEATHING • VAPOR-SEAL INSULATING LATH
INTERIOR FINISH PRODUCTS • SHINGLES, SIDING, ROLL ROOFING

THE CELOTEX CORPORATION • 919 NORTH MICHIGAN AVENUE • CHICAGO, ILLINOIS
MODERN HOUSES IN AMERICA

Three Houses in Miquen, Pa.
Kenneth Day, Architect

House for Harold V. Manor, Soule Tract, Calif.
Clarence W. W. Mayhew, Architect

House for G. C. Bauer, Glendale, Calif.
Harwell Hamilton Harris, Designer

House in Scarsdale, N. Y.
Fordyce & Hamby and George Nelson, Architects

House in Brookline, Mass.
G. Holmes Perkins, Architect

House in Lincoln, Mass.
Walter Griswold and Marcel Breuer, Architects

House in Princeton, N. J.
Kenneth Kasler, Architect

House for Alfred L. Loomis, Tuxedo Park, N. Y.
William Lescaze, Architect

House in Lake Bluff, Ill.
Philip B. Maher, Architect

House in Greenwich, N. Y.
Paul Deering, Designer

House for Walter J. Kohler, Jr., Kohler, Wis.
William F. Deknatel, Architect

House for William R. Stoll, Hayward, Calif.
George Patton Simonds, Architect

House for Alfred J. Bromfield, Jr., Denver, Colo.
Burnham Hoyt, Architect

House for Dr. Charles MacCallum, Midland, Mich.
Alden B. Dow, Architect

BUILDING MONEY

The Town of Tomorrow at New York World's Fair . . .
The Forum conducts a poll of visitors, finds that 41 per cent favor the Town's six modern houses . . . a house-by-house presentation of the modern sextet and its nine traditional neighbors—a supplement to The Forum's June, 1939, issue.
THE MONTH IN BUILDING

PERMITS
(Source: U.S. Dept. of Labor)

<table>
<thead>
<tr>
<th>Monthly data</th>
<th>First four months</th>
</tr>
</thead>
<tbody>
<tr>
<td>1939</td>
<td>Comparison with 1938</td>
</tr>
<tr>
<td>Apr. 1939</td>
<td>Apr. 1938</td>
</tr>
<tr>
<td>(millions)</td>
<td>(millions)</td>
</tr>
<tr>
<td>Residential</td>
<td>+43.4%</td>
</tr>
<tr>
<td>Non-residential</td>
<td>-5.9%</td>
</tr>
<tr>
<td>Additions, repairs</td>
<td>+1.8%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>+17.8%</td>
</tr>
</tbody>
</table>

FANNY MAY'S SUITOR. Since February 1898 when it was organized, the Federal National Mortgage Assn. (nicknamed Fanny May from its initials) has been stabilizing the mortgage market by quietly buying mortgages and thus releasing mortgage money for reinvestment. However, FNMA has never been aggressive in its purchasing activities because there is more than enough mortgage money available without it.

Several fortnights ago, however, Fanny May had a suitor who offered to take her out from under the Federal Government's wing, set her up as a private mortgage association, get her out of her lazy buying habits. Name of this suitor was FHA Administrator James A. Moffett, now president of the Texas-California Petroleum Company. If he cannot get FNMA, he wants to set up a new association with 83 million of private capital.

But chances are that he will get neither, that Fanny May will remain a spinster. Neither of her parents—FHA and RFC—look with much favor on Moffet's proposals, do not, in fact, take them very seriously. They have a lot more experimenting to do with the association before they think about putting it in private hands or letting private hands run one like it. FHA is empowered to charter these associations or to refuse to charter them. That negative privilege was exercised last year, will be exercised again.

WEIGHTED ROOMS. Most important single basis for judgment of any rental project—whether it be a sumptuous Park Avenue apartment or a low cost housing project—is its operating costs. Such costs are the only key to the efficiency of management, are an important means of comparing one project with another. Yet, as any building owner or manager will testify, it is usually futile to compare projects, for there are no standards uniformly followed in compiling operating statements.

At but for the creation of usable standards and their country-wide adoption is Chelsea Management Corp.'s Vice President H. Robert Mandel of New York City. In speaking before a recent conference on Planning for Low Cost Management called by the New York City Citizens Housing Council, he pointed out that, although the room is commonly used as a basis in figuring operating costs, no two people have the same idea of what constitutes one room. FHA, for example, rules that a living room to be counted as a "room" in figuring operating costs must have a minimum of 120 sq. ft., while the New York State Housing Board says 180 sq. ft., the New York City Real Estate Board, 70 sq. ft. Even greater differences arise in weighting dining alcoves, dressing rooms, foyers.

According to the Citizens Housing Council's plea for a logical and reliable operating cost standard, H. R. Mandel produced a new unit which he calls the "weighted room." Quite simply, his new unit is nothing but the room count adjusted for room size. He would evolve a standard cube for an average room and adjust the room count in all rental projects to that standard. For example, assume that a 160-room building of 480,000 cu. ft. or 3,000 cu. ft. per room is the average. Then a building of the same cubic but with 150 rooms instead of 160 would have a room cubic of 3,200 cu. ft. Having fewer rooms to share operating costs, it would appear in an unfavorable light under the old room count. But, since its room cubic is 6% per cent higher than standard, its room count is adjusted by that per cent, bringing it up to 160 "weighted rooms." Its operating cost would be figured on that basis.

Whether or not his method is the best possible one, at least Realtor Mandel's effort is praiseworthy. Such a standard would stop the discordance of warring anti- and pro-housers, would give both criticism and laudation a basis in fact.

FORECLOSURE DAM. Four short years ago 40 per cent of the mortgages on city properties were in default—a grim reminder of the importance of foreclosures in the business of home finance. FHA helps to preclude recurrence of this mortgage morass by fostering small monthly home ownership costs. But there is at least one man in the U. S. who believes that the National Housing Act should more strongly benefit the borrower. That man is Ben H. Hazen, and he is not a borrower but a lender—secretary-treasurer of Portland, Oregon's Benjamin Franklin Federal Savings and Loan Assn. His justifiable claim is that while FHA protects the lender in the event of mortgage foreclosure, it does nothing for the borrower in such a case. While waiting for the Government to remedy this condition, his association is carrying out its own program to protect its borrowers.
Our dining-room used to be gloomy!

...BUT LOOK AT IT NOW!

RIGHT OVER OLD WALLS IN REMODELING—If your clients ask you to solve the problem of dingy walls and ceilings, Masonite Products will do the trick. These all-wood, grainless boards go on right over old walls—nailed or cemented. Look at this dining-room, for example, brightened up with marble-smooth wall panels of Masonite Presdwood.

EYE-APPEALING EFFECTS—Masonite Products can provide any number of eye-appealing effects at very comfortable cost. In this living-room, Masonite Tempered Presdwood forms a durable, scuff-resisting wainscot, topped off with upper walls of Masonite Presdwood.

SMART, MODERN DESIGNS—In this den, the walls are completely covered with Masonite De Luxe Quartrboard. Here’s a surface that can be painted any desired color. Or use it in its natural, warm-brown finish. Either way, it’s a joy to your client because it’s so easy to keep clean. And notice the interesting, horizontal grooved pattern that can be executed with this material.

Mail coupon today for free samples of Masonite Tempered Presdwood and Masonite De Luxe Quartrboard.

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Department A-19
111 West Washington Street
Chicago, Illinois

Please send free samples of Masonite Tempered Presdwood and Masonite De Luxe Quartrboard and information about these products in new and remodeled homes.

Name
Address
City State

FREE MASONITE
THE WONDER WOOD
OF A THOUSAND USES

MASONITE CORPORATION
Department A-19
111 West Washington Street
Chicago, Illinois

As simple as it is noteworthy, Hazen's plan involves 15- to 20-year mortgages amortized monthly and covering a conservatively 7.5 per cent of property value. But the borrower each month pays more than the contractual requirement. For example, the home purchaser contracts for a fifteen-year loan but agrees to make his monthly payments according to a schedule which will retire the loan in twelve years. By so doing he builds up a substantial reserve of "advance payment equity." In the event of unemployment or other financial stress, contractual payments on the mortgage may be made from this reserve, and foreclosure will be forestalled, if not avoided.

Although the theory of advance payments on loans as a protection against foreclosure is not a new one, Ben H. Hazen's application of it to the long term, FHA-insured mortgage is new and, as a possible dam against the country's next foreclosure wave, it will be watched with interest by other mortgage lenders. To date, several building and loan associations throughout the nation have shown more than interest in the program—they too are actively experimenting with it.

OLD SAW. Few more hackneyed comparisons exist than that between Home Building and Automobiles. It is the pet of the mass-production, factory-method advocates, and whenever Building is viewed with alarm the comparison is brought up.

Last month the Temporary National Economic Committee (popularly called the Monopoly Committee) was neither viewing with alarm nor airing old saws, yet the comparison was made at committee hearings. Pierce Foundation's low cost housing protagonist, Robert L. Davison, produced a chart (shown below) to illustrate a cogent reason why automobiles sell better than houses.

Using 8750 as the dividing line between low and high cost autos, it shows the proportion of national income spent for these two price groups from 1921 to date. Also plotted on the same index base—1923 equals 100—is the proportion of national income used for housing.

A telling indication of the income group to which Building caters is the fact that the curves for high priced automobiles and for Building coincide almost exactly. The low cost automobile curve, on the other hand, is sharply divergent. Automobiles costing less than 8750 are solely responsible for the revival of the automobile industry since mid-depression. Large scale production of houses costing less than 81,000 would create a similar revival in the home building industry.

YIELD INSURANCE. A paradox of U. S. home financing is that there is more than enough money available for investment in mortgages on large scale rental developments, but a serious dearth of money for direct investment in such projects. In other words, large financial interests have not been attracted into the direct ownership of residential properties, although they have been willing to lend funds with mortgages as security. An explanation of that paradox lies largely in the fact that the Federal Housing Administration and the insurance of mortgages on rental projects, does nothing about the owner's equity.

To adjust this difference is the purpose of a plan hatched last mid-winter from within FHA's own organization, for possible FHA operation, but without official FHA sanction. Assistant Administrator Frederick M. Babcock drew from his experience in mortgage insurance, developed a "yield insurance" plan for the direct investor. It is designed to guarantee a minimum return on large scale rental projects which would be free and clear of any mortgage or funded indebtedness.

The plan is divided into two principal parts: The first, designed to attract investment groups such as trust companies, savings banks and insurance companies into medium rent housing, would guarantee an investment return of $1/2 per cent for a period of twenty years. If a project did not earn that $1/2 per cent, FHA would pay the difference until it had paid 10 per cent of the total investment, at which time the insurance would terminate. The second part of the plan is for low rental housing in slum areas to be financed by privately organized corporations with powers of condemnation. Such groups would be guaranteed by the Government a return of $1/2 per cent on their investment which would be depreciated at the same rate as in the plan's first part. This type of insurance would be limited to 14 per cent of the investment and to twenty years. Any earnings over $1/2 per cent would go to maintenance, to reserves (limited to $1/2 per cent of investment) or be used as an additional premium to the FHA above the one-fourth of 1 per cent basic premium rate.

To put such a plan into effect it would be necessary for Congress to amend the National Housing Act; thus there is no possibility that it will see the light of day during the coming year. It will, however, be much discussed in housing circles, and rumor is that it will have an airing during the hearings of the Temporary National Economic Committee.

EARNINGS. The seven companies which last month reported their earnings for 1939's first quarter all made a favorable comparison with the same period in 1938. Two with a net loss reported a smaller loss than they did last year. Two others bootstrapped themselves from a net loss to a net gain. One really had something to crow about: Stone & Webster reported an increase in net earnings of nearly 200 per cent.

Quarter ending Mar. 31 1939 1938
Certain-teed Products 8184,630* 8189,388* Holland Furnace 156,614* 156,614* Otis Elevator 937,697 798,113 Reliance Mfg. 39,988 173,777 Revere Copper & Brass 156,210 829,659* Stone & Webster 210,707 72,928 Yale & Towne Mfg. 6,905 5,996

*Net loss

---

PROPORTION OF NATIONAL INCOME SPENT FOR HOMES AND AUTOMOBILES

<table>
<thead>
<tr>
<th>Year</th>
<th>Private Home Building</th>
<th>Non-private Home Building</th>
<th>Low-Priced Automobiles</th>
<th>High-Priced Automobiles</th>
</tr>
</thead>
<tbody>
<tr>
<td>1922</td>
<td>100%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>1924</td>
<td>95%</td>
<td>5%</td>
<td>15%</td>
<td>85%</td>
</tr>
<tr>
<td>1926</td>
<td>90%</td>
<td>10%</td>
<td>20%</td>
<td>80%</td>
</tr>
<tr>
<td>1928</td>
<td>85%</td>
<td>15%</td>
<td>25%</td>
<td>75%</td>
</tr>
<tr>
<td>1930</td>
<td>80%</td>
<td>20%</td>
<td>30%</td>
<td>70%</td>
</tr>
<tr>
<td>1932</td>
<td>75%</td>
<td>25%</td>
<td>35%</td>
<td>65%</td>
</tr>
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<td>1934</td>
<td>70%</td>
<td>30%</td>
<td>40%</td>
<td>60%</td>
</tr>
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<td>1936</td>
<td>65%</td>
<td>35%</td>
<td>45%</td>
<td>55%</td>
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<tr>
<td>1938</td>
<td>60%</td>
<td>40%</td>
<td>50%</td>
<td>50%</td>
</tr>
<tr>
<td>1940</td>
<td>55%</td>
<td>45%</td>
<td>55%</td>
<td>45%</td>
</tr>
</tbody>
</table>
Counters and Booths with Lasting Formica.

For counters that are constantly used by the public, Formica provides a handsome and attractive surface and one that will endure through the years. There are many colors and designs may be produced by inlaying one color over another. The counter top and shelving may be cigaretteproof. Nothing that can be specified will maintain a good appearance longer with less maintenance or be more easy to clean.

The pictures show a Western Union telegraph counter in the Pennsylvania Railroad station at Baltimore, Maryland, and a telephone booth in the United States Post Office at Los Angeles, California.

For such uses Formica is becoming constantly more popular with the leading architectural offices. Let us send you all the facts including erection details.

THE FORMICA INSULATION COMPANY, 4620 Spring Grove Avenue, CINCINNATI, OHIO

FORMICA

FOR FURNITURE AND FIXTURES

JULY 1939
NOW...
MORE PERMANENT
MORE ECONOMICAL
MORE EFFICIENT
THAN EVER

Give Your Clients the Advantages of the
Latest Development in Insulation
... Pressstitching

KIMSUL® now offers a new and better solution to the problem of efficiency and permanence in building insulation.

Just four rows of stitching down the entire length of each blanket before it is compressed... that's all there is to Pressstitching. But the results! The stitching is approximately 20 times stronger than needed to support the entire weight of a Kimsul blanket... keeps it from sagging or pulling away from headers.

Pressstitching also prevents Kimsul from being expanded beyond its most efficient density... so that its full efficiency will be maintained after Kimsul is installed.

Get full details concerning Pressstitched Kimsul today. Use coupon below for convenience.

OF SPECIAL INTEREST TO ARCHITECTS
When attending the New York World's Fair, see the following buildings, all of which are insulated wholly or in part with nationally advertised Kimsul.

1. G. E. Home No. 18 in the "Town of Tomorrow"
2. Kelvin Home No. 16 in the "Town of Tomorrow"
3. The All-Wood Home in the "Town of Tomorrow"
4. Swift & Company Exhibit Building
5. U. S. Steel Building (Kimsul used for acoustical treatment of air conditioning equipment room)
6. Triangle Restaurant Building

KIMBERLY-CLARK CORPORATION (Kimsul Division), Neenah, Wis.
Established 1872
NEW YORK, 122 East 42nd St. • CHICAGO, 8 South Michigan Ave.
San Diego's New Fountain

Credit WPA's Federal Art Project with a clean bull's-eye! On June 10 San Diego dedicated in its civic center a distinguished work of sculpture, "Guardians of Water." Donal Hord, a sculptor who has never been abroad, never studied under the influence of foreign masters, was born 1902 in northern Wisconsin, came to San Diego in 1917. He won the Gould Memorial Scholarship which took him to Mexico, another scholarship which took him to the Pennsylvania Academy in 1927, and one which took him to New York in 1930. His figure of a pioneer woman holding an oila, carved from silver gray granite, stands on a drum covered by mosaic—the kneeling figures pouring water over a dam into a citrus fruit orchard.

(Forum of Events Continued on page 16)
Rome Prize Winners: Joseph F. Balis of Paterson, N. J.—the Daniel H. Burnham Fellowship in Architecture; Frederick W. Edmondson, of Pittsburgh—the American Academy in Rome Fellowship in Landscape Architecture.

Whitney Memorial Hall, a new wing of New York's American Museum of Natural History—Trowbridge & Livingston, architects—develops a new technique of the diorama. By holding a continuous horizon line and extending the exhibition space into an indoor sky dome, realism is gained. Backgrounds painted by Francis L. Jaques.

For the Motorist—Being tested near Hartford, Conn., is this tilted mirror at a hilltop crest, revealing the approaching traffic for some 2,000 ft. on either side.

Stage Version of the Sophisticated Interior. As a setting for Katharine Cornell in S. N. Behrman's "No Time for Comedy," Jo Mielziner designed these modern translations of Empire and Directoire (above) in ecru, dark brown and deep green, and the French Provincial marked by Chinese influence (below) in rich blue-greens and dull olive browns.
NO SIR! WE CAN'T TAKE A CHANCE WITH UNKNOWNS. WE MUST SPECIFY TESTED PRODUCTS

LIGNOPHOL

For wood floors.

The one application wood finish that preserves and beautifies—and leaves nothing to wear off. Lignophol gives permanent protection, costs little to apply and less to maintain.

LAPIDOLITH

Liquid—for concrete floors.

is a liquid chemical compound that penetrates the porous cement and binds the loose particles together into a fine, granite-hard surface that resists wear and is dustproof for years. Works equally well on new or old floors.

CEMCOAT

Filler and Dustproof for wood or concrete floors.

A durable, decorative treatment for floors subjected to light or heavy traffic—in attractive colors—made to outlast conventional floor paints ... and inexpensive to use.

PROOF BY ACTUAL TEST

Sonneborn floor treatments, Lignophol, Lapidolith and Cemcoat have proven themselves to be highly efficient and low in cost by actual comparison on numerous jobs.

Many of America's leading architects and building contractors have successfully used these products and evidence of actual tests on the job plus the customers' expressions of satisfaction are all on record for your inspection.

Write for proof of the effectiveness of Sonneborn's Tested Floor Products.

OTHER SONNEBORN TESTED PRODUCTS

Hydrocide Colorless, Kaukit, Hydrocide Waterproofing and Dampproofing, Architectural Finishes (Paints and Enamels).

Write for descriptive literature and scientific tests. Dept. F7.

L. SONNEBORN SONS, INC. 88 Lexington Ave., New York City

JULY 1939
THE MUSEUM OF MODERN ART displayed on the occasion of its formal opening these "Master Chairs of Modern Design"—significant milestones over the last fifteen years from five eminent designers. The Museum will be featured in the August Forum.

1. Marcel Breuer—first tubular metal chair, 1925
2. Ludwig Mies van der Rohe—sprung tubular metal chair spanned with leather, 1927
3. Marcel Breuer—tubular metal chair with cased bentwood seat and back, 1929
4. Le Corbusier—tubular metal chair spanned with canvas, 1929
5. Ludwig Mies van der Rohe—settee for German Pavilion, International Exposition in Barcelona, 1929
6. Alvar Aalto—chair for audience of Tuberculosis Sanitarium at Painio, Finland, 1932
7. Russel Wright—armchair of primavera wood with pony skin seat, 1936

LORD & TAYLOR'S second annual series of awards in American industrial designing—$1,000 each to four designers picked by American Design Awards Jury (Mrs. Edna Woolman Chase, Georges F. Doriot, Mrs. Dorothy Draper, Walter Hoving, Mrs. Dorothy Wright Liebes, Mrs. Helen Appleton Read, John W. Root, Miss Dorothy Shaver, Mrs. Carmel Snow, Stephen F. Voorhees and Howard Myers).

MERRY HULL, designer of the "first radical glove change in 3,000 years"—the finger-free glove.

RAYMOND LOEWY designs locomotives, automobiles, ships, planes, refrigerators. Great Britain too has just honored him.


WALTER DORWIN TEAGUE, successful consultant in design of industrial products. World's Fair exhibits and Kodaks.

(Forum of Events Continued on page 42)
There never has been a year when so many ultra-modern and unusually efficient fixtures for the modern home have appeared upon the market—an array of handsome kitchen, bathroom and laundry units; and the surprising thing about it is that far more thought has been given by the public to their outward appearance than to protecting their beauty or maintaining their efficiency after they were installed.

Of course, the home should be modern in design—its kitchen, bathroom and laundry fixtures handsome and conveniently located, but unfortunately, good looks do not assure good service.

The efficiency of these modern fixtures and the very livability of the home itself depend upon a permanently reliable piping system for the plumbing and heating—in a word—A STREAMLINE COPPER PIPE AND FITTINGS SYSTEM.

To use out-moded, rustable pipe with its old-fashioned threaded fittings to supply modern fixtures and radiators, is as impracticable as it is inconsistent.

A STREAMLINE Copper Piping System cannot rust, clog nor leak. It is practically indestructible under ordinary conditions of soil or water, or wear and tear of everyday use. It is a trouble-free system. It will always provide efficient service, day after day, year after year, without costly and annoying interruptions or replacements.

The first cost of STREAMLINE Copper Pipe and Fittings is but slightly higher than one of rustable material, and over the years, it costs a great deal less because its first cost is its last one.

PROTECT THE BEAUTY OF A MODERN HOME AND ITS HANDSOME FIXTURES, PLAN FOR EFFICIENCY, INVESTIGATE THE STREAMLINE COPPER SYSTEM BEFORE YOU DECIDE.

STREAMLINE COPPER PIPE AND FITTINGS

Send for our Home Owners' Catalog. It will give you the facts.
The Federal Home Loan Bank System Assures
PROMPT MONEY FOR HOME LOANS

No longer can there be a shortage of home mortgage money, for now the Federal Home Loan Bank System makes reserve credit facilities available to member savings or building and loan associations. A flow of funds to finance local homes is assured at all times.

On July 22, 1932, seven years ago, the Federal Home Loan Bank Act was signed. Its passage created another national safeguard for community investors . . . helped more families finance homes locally through local home financing institutions.

This Act provides twelve regional Federal Home Loan Banks which maintain a permanent reservoir of credit for local home financing institutions. No longer can depressions or recessions isolate member institutions.

In your own community, friendly savings or building and loan associations await the opportunity to serve you. Their service is without red tape and, therefore, easier to understand and faster to complete. And they utilize local dollars to finance home loans at home—a plan that builds your community and promotes your business.

Let a member of the United States Savings or Building and Loan League in your community explain the function of the Federal Home Loan Bank System. It makes safe and prompt home financing possible for the people you serve.

ARCHITECTS—the map below shows the twelve Federal Home Loan Districts. Their geographical positions make convenient credit facilities available to local savings or building and loan associations which are members of this reserve system.

Your Local
SAVINGS OR BUILDING
AND LOAN ASSOCIATION

When you support Your Local Savings or Building and Loan Association—You help local business!
ROOF TERRACES

To most laymen, the flat roof is the trademark of modern architecture, and every flat roof a potential roof terrace. Those who like modern point to the roof terrace as one of its principal advantages. Those who don't are inclined to center their criticism on the appearance of flat roofs and the utility of roof terraces.

Actually, of course, modern design is not doomed to stand or fall according to the popularity of roof terraces. Its claims are much broader than that. But the desirability of the roof terrace, as one of these claims, is worthy of careful consideration.

Houses with flat roofs are as old as man's history. The Egyptians used the inside of their box-like houses mostly for storage, ate out of doors, and slept on the roof the year round. Somewhat refined, this same mode of life was common among the Greeks and the Romans. As civilization moved northward, however, the flat roof all but disappeared, and the roof terrace became a luxury.

Big claim of the present-day modernist is that the use of flat roofs on commercial structures has cheapened and perfected their construction to the point where they are now thoroughly practicable for all classes of work in every climate. In addition, he argues that the special advantages of the roof terrace, as compared with ground floor porches and terraces, are such as to commend its use under present conditions; outlook, privacy, and accessibility from upper floors—all at a premium in densely populated areas, and particularly in the multiple dwelling.

Despite numerous advantages, however, it is undoubtedly true that application of the roof terrace has been restricted by various factors, most importantly by a widespread misconception of their cost. Owners and even architects sometimes reject the roof terrace as a luxury item without actually investigating the expense involved, while at the same time showing no hesitation about paving an equal area at the ground floor level, even when the former is clearly more desirable.

Besides the fear of high costs, another factor which sometimes rules out the roof terrace is the erroneous suspicion that such construction cannot be made permanently watertight, and may prove a source of perennial trouble and expensive repairs.

Both fears are exaggerated. As a matter of fact, much of the better commercial work has for some time employed regular terrace construction for all flat roofs because of the added durability which it affords, while simplified surfacing methods, appropriate to residential construction, have recently been developed. Such construction remains, however, an exacting problem which requires a proper appreciation of the severity of the conditions involved.

(Continued on page 22)
GENERAL CONSIDERATIONS

No part of a structure must withstand such severe service conditions as the roof. Alternately wet and dry, frozen by winter temperatures and baked by summer sun, it must remain at all times impervious to moisture—a difficult requirement under the most favorable circumstances.

To these exacting specifications, the roof terrace adds still another: a permanent wearing surface. This surface must be of sufficient strength and hardness to protect the waterproofing membrane from wear and mechanical injury, and must be able to resist the action of the elements for a protracted period.

EXPANSION AND CONTRACTION

Since, even in temperate climates, a horizontal surface of this sort is subject to temperature changes of more than 100° Fahrenheit, adequate provision for expansion and contraction is absolutely necessary. It is not uncommon for terraces exposed to the full blaze of the summer sun to reach a temperature as high as 135° F. This means that a 20 ft. panel of cement or tile pavement laid at a temperature of 70° will expand about 3/32 of an inch in the summer, and will shrink an equal amount in zero weather—a total movement of 3/16 of an inch to be taken up in the expansion joints. It also means that an unshaded roof terrace is scarcely the place to spend a pleasant summer afternoon. Any paved, unshaded area is likely to get quite hot in summer, but the roof terrace is particularly prone to this because the heat gathered by the surface is not as readily carried off into the construction as the heat in a sidewalk, for instance, is carried into the ground. For this reason it is especially important that terraces intended for summer use be provided with awnings or other coverings, particularly since they are less likely to be shaded by trees and buildings than are ground-floor terraces.

Roof terrace expansion joints must therefore be provided at least as often as the 30 to 35 ft intervals recommended by most manufacturers, and this recommendation may safely be halved for absolute assurance of a trouble-free roof. Even with satisfactory joints at 30 ft. intervals, terrace panels have been known to split along a mortar joint near the middle in freezing weather, making a crack through which the waterproofing may force its way under the action of the summer sun, and form ugly, sticky patches on the pavement.

SLOPE

Another important consideration is the question of slope to drains. Exaggerated slope, especially on a large area with many drains, gives an effect of a slight groundswell which is very disturbing, besides making it difficult to level furniture.

(Continued on Page 24)
THE JONESES SEE WHY
A HOME IS AS MODERN AS THE
WALLS

MRS. JONES: "Here's all the evidence I need! This quiet, inviting living room with Insulite walls and ceiling, is proof that a home is as modern as the walls!

AND THEIR DEMANDS MEAN
Profits to You!

Are you in a position to supply the Joneses in your town with Modern Walls? When they ask about The Insulite Wall of Protection, have you information to meet their increasing demands?

Give the Joneses the modern, comfortable homes they want, with inside and outside walls, ceilings, floors and roofs made of combinations of Lok-Joint Lath, the safe base for smooth plaster walls, Bildrite Sheathing, Insulating Brick Siding, the rigid mineral surfaced outside wall covering and other Insulite structural materials. Their rapid turnover and wide acceptance mean more profits to you!

Make the inquiring Joneses your profitable customers. Write today for samples and complete information. Have on file all necessary information about Insulite Materials. Because of them, homes have been more modern, comfortable and satisfying for 25 years. The Insulite Company, Dept. AF79, Minneapolis, Minnesota.

MRS. JONES: "And the colorful appearance isn't all! Insulite walls give us cool rooms in the summer—and lower winter fuel bills!"

MR. JONES: "Modern homes need protection against wind and moisture. These Insulite outside walls fill the bill by saving fuel and speeding up building—and—they provide a second wall of INSULATION!"

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The Insulite Company
PRODUCTS AND PRACTICE

5. SLATE. Light weight, relatively inex­
pensive, and permanent, thick roofing slate set in mastic makes an attractive pavement for residential roof terraces which requires little or no maintenance. Available in a wide range of colors which will not change with exposure. For harder wear, slate is set in cement with occasional expansion joints. Thickness used ranges from 1/8 to 1 in.

6. CONCRETE AND CEMENT. If properly applied, concrete may be used as a protective pavement with good results, provided that it is adequately reinforced and provision is made for expansion and contraction. American practice calls for a minimum thickness of 1/2 in., with 6 x 6 in. No. 6 reinforcement, marked off in 2 ft. squares, and expansion joints 10 ft. on center. The construction shown at the left has been used successfully for some years in England, consists of an inch of cement with integral waterproofing scored to within 1/8 in. of the roofing at 1 to 2 ft. intervals, and calking the joint thus formed with a plastic compound.

7. PROMENADE TILE. Long time standard for quality roof terraces, promenade tile laid in a 3/8 in. mortar bed over built-up waterproofing produces one of the most permanent roofs known. They require no maintenance and are almost impossible to damage. Available in various types and sizes, the 6 x 6 in. red tile is most commonly used.

8. PLASTIC COMPOUND. Introduced in time for the New York World's Fair (Building Reporter, Nov. 1938, BR-1105), a new cork and rubber compound used as a pavement in many of the Fair structures holds considerable promise for roof terraces, has the advantage of forming a resilient, non-slip surface. Troweled on like cement topping, it sets in 48 hours, requires no further attention, may be colored by the addition of pigments or marble chips. Natural color: dark gray to black.

9. SOIL FILL. Besides permitting attractive landscaping, the soil fill type of terrace affords protection against excessively high and low temperatures for the waterproof membrane and rooms below the roof. Any type of pavement normally used on the ground may be placed on the fill. Three feet of earth fill over 2 in. of reinforced concrete is sufficient for most purposes. The one disadvantage of this construction is its great weight, but in low structures this may easily be provided for.

Slope should be held to the absolute minimum which can be maintained without the danger of forming pockets—not more than 1/2 in. to the foot—and the possibility of employing gutters to permit slope in but one direction and reduce the number of drains should also be considered.

WEIGHT
Still another factor which must be taken into account in designing a roof terrace is the question of the weight of the construction. Some kinds of surfacing materials add as much as 20 lbs. to the square foot to the load on the roof construction, while an earth fill for landscaping will add about 100 lbs. per square foot per foot of thickness. In the case of the former, choice of a heavy surfacing material may mean increasing the thickness or depth of the roof rafters by one size over what would be required for an ordinary flat roof—a not too costly precaution. For the earth-fill type, special framing is of course required, but this is by no means prohibitive if spans are kept short.

CONSTRUCTION AND MATERIALS
The general principle of all forms of roof terrace construction is basically the same: a continuous waterproof membrane covered and protected by a wearing surface. In the case of tar and felt waterproofing, the slag or gravel protection commonly used on flat roofs is unsuitable for promenade purposes; some more durable surface, affording more protection to the membrane, must be used. In the case of canvas roofing, use of a good grade of canvas is sufficient to withstand wear for some time.

Choice of roof terrace construction is determined by first cost, maintenance cost, and the effect desired. Cost of the various types ranges from about 20 cents per square foot (in place including waterproof membrane) to about 81 according to surfacing material. Canvas, wood slats, bituminous pavement, and impregnated fiber board are usually cheapest, all require maintenance. Slate, cement, and tile are more expensive but do not require painting or waxing. Earth fill, with concrete protection for the waterproofing and flagstone pavement, is most expensive because of the heavy supporting construction required.

All types of insulation commonly used with flat roofs are applicable to roof terraces. Some types of pavement supply some insulation, while 3 ft. of earth fill has an insulating effect approximately equal to that of 4 in. mineral wool.

Flashing the roof deck is substantially the same problem as with other flat roofs, except that appearance is more of a factor. For this reason, sloping cant strips are not generally used, and flashing is usually concealed in the parapet wall. Another method is to carry the roof surfacing material up the wall to cover the flashing.
Each Webster System Radiator includes a complete enclosure of Armco furniture steel given a baked prime coat at factory. Contained within the enclosure is a one-piece unit, combining heating surface, valve, orifice, trap and union connections shipped ready for connection to supply and return piping. Choice of two standard grilles. Lengths 18” to 54”. Heights 13” to 80”. Depths 3”, 5” and 7”.

—a prefabricated unit

The completely prefabricated Webster System Radiator provides all of the advantages of low pressure steam for heating, all of the advantages of concealed light-weight convector heating surface, maximum heat output per unit of space occupied, easy low-cost installation and ready accessibility for cleaning.

The architect or engineer who selects Webster System Radiation automatically selects a Webster System of Steam Heating... and gets with it undivided responsibility for system results.

Webster System Radiation illustrates in full measure the Webster policy of building equipment coordinated for results. Webster products and service are available through Representatives in 65 principal cities. Consult your local telephone directory or address:

WARREN WEBSTER & COMPANY, CAMDEN, N. J.
Pioneers of the Vacuum System of Steam Heating: Est. 1888
Representatives in 65 principal cities: Darling Bros., Ltd., Montreal, Canada

Webster System Radiation is displayed in House No. 18, Town of Tomorrow, New York World’s Fair 1939.
ROTOR SUNDECK  Estate of Mrs. Dahlia Loeb, Redding, Conn.
Designed and executed by Hans Otto Stagel.

No mere gadget, this interesting device is designed to fill a definite need in Northern climates: protection from chilling winds while enjoying late fall and early spring sunshine. Built to revolve on a 20 foot circular track, the overhead canvas vane holds the open side to the lee of even a moderate breeze, while glass sidewalls and roof offer a minimum obstruction to the sun’s rays. It is pronounced a complete success by the owner, whose only regret is that it was not made big enough to accommodate more sun bathers.
The wood of today in the world of tomorrow!

Entrance, Firestone Building, New York World’s Fair, George W. McLaughlin, Architect; 2,700 sq. ft. of Figured Red Gum Flexwood used. One of the 27 Flexwood installations in the World’s Fair.

A mellow-brown figured Red Gum Flexwood wall greets visitors to the Firestone Building at the New York World’s Fair giving an immediate impression of quality, substantialness and good taste. A striking double-inverted cone with Flexwood used in a flush treatment to a height of 19 feet frames an oil painting of the Founder, Mr. Harvey S. Firestone. The direction and movement of the grain in the soffit invites and directs the crowds into the hall where they see Firestone Tires being made. An interesting feature of the design by George W. McLaughlin, Architect, is the continuous side matching of the veneer on the tapered surface of the cones. When the luxury obtainable only with genuine wood treatment is desired, and economy and time are imperative, Flexwood is the answer. Complete data and samples are yours for the asking.

UNITED STATES PLYWOOD CORPORATION, 103 PARK AVE., NEW YORK
Manufacturers of Flexwood, Plywood, Armorply, Weldwood, and kindred products
DESIGNS FOR 60 SMALL HOMES, by Samuel Glaser. Coward-McCann Inc., New York. Illustrated with plans and perspective sketches. 9 x 11. $2.00.

A catalogue of small house designs in a variety of styles, ranging in price from an estimated $2,000 to $10,000. Data are given in the form of captions and construction outlines. A preliminary chapter gives general information on site selection, relation of house cost to annual income and financing methods.

SCHOOL BUILDING COSTS, by N. L. Engelhardt, Jr. 95 pp. 6 x 3½. $1.60.

A detailed analysis of the principal factors influencing the cost of school construction, based on the costs of fifty-two school buildings constructed in New York State between 1930 and 1937. Valuable for its comprehensive treatment of the many variable factors involved and for the clear presentation of the data collected.

AMERICAN ART TODAY, published by the National Art Society. 342 pp., with 32 pp. of text and 1,150 illustrations. 9 x 12. $2.00.

This catalogue contains reproductions of the work of each of the 1,250 artists exhibiting at the huge show of contemporary art at the New York World's Fair. It covers painting, sculpture and graphic arts, and probably represents the most complete cross-section of American art available in book form.


Written by a professor of physical education, this book is an exhaustive study of every aspect of swimming pool planning, administration, history and equipment. Its usefulness to the architect is lessened by the absence of drawings, but the very complete statement of requirements and legal regulations makes it a valuable reference.

HEATING, VENTILATING, AIR CONDITIONING GUIDE, 1939. American Society of Heating and Ventilating Engineers. 1248 pp. 6 x 9. $5.00.

The seventeenth edition of the standard reference book in the field. Containing, in addition to text and charts, a valuable section on available equipment for various heating systems.


The first biography of Richard Upjohn, considered by some critics "the most important American architect between Jefferson and Richardson." Best known for his churches, particularly Trinity Church in New York City, Upjohn did a sizable amount of residential and public work as well, most of it being in the Gothic Revival style of his ecclesiastical buildings. A sympathetic and scholarly study, the book presents a quantity of valuable data on the little-known period between 1855 and 1879.
When a woman is making an important decision about a house, her thoughts naturally fly first to the kitchen. "Is it modern? Is it well planned; and are there plenty of good, strong, easy-working, easy-to-clean cabinets?"

If the cabinets are of Armco Steel, it is easy to get her approval. She knows from experience with range and refrigerator that metal makes a neat kitchen. You can tell her that steel drawers open smoothly and quietly on roller bearings—that doors open and shut without protest. As for the bathroom cabinets, she'll appreciate the beauty and convenience you can provide for her here—since this room has almost equal importance in her eyes.

When you are designing the house of today, sanitary cabinets of steel can well be your first choice for kitchen and bathroom. They are strong, dust-proof and vermin-proof. Their finish is smooth and gleaming. Cabinets of Armco Steel come ready to fit your design—are easily installed, and assure beauty, usefulness and customer satisfaction. All built-in accessories are readily available, of course.

Our free manufacturer reference service will help you achieve the kind of installation you want. Write to The American Rolling Mill Co., 1431 Curtis Street, Middletown, Ohio.

ARMCO STEEL SHEETS
World Fairs
Forum:

The June issue has just reached me. I want to congratulate you upon the beautiful job that you have done with the two "World Fairs." It’s a great story that you have told, and one that will have its distinct influence on the future approach to many of our problems.

Francis Keally
New York, N. Y.

Predictable Taxes
Forum:

The Forum always is "required reading" in our office because of its broad and informative coverage of a great many fields. We feel that a diligent study of all of the data which you have assembled, particularly as to land use, planning, designing and new materials in various sections of the country (Arch. Forum, Apr., 1939) should yield many ideas which can be adapted to our own problems.

We join with you particularly in your finding that "the biggest variable in the monthly cost of home ownership is taxes." We believe that some plan which would assure the home purchaser of the amount of his future taxes would do as much even as the FHA system of insured loans to stimulate home ownership. As matters now stand, the one important item in the cost of home ownership, which cannot be predicted, is taxes. Our newspapers, particularly our real estate sections, are filled — and rightly so—by the protests from owners of office buildings, apartment houses and other business properties of ruinous taxes and false valuations. Yet, tragically, most of our advertising appeal material on the same pages.

In the New York area, at least, the great market for homes is with apartment dwellers, most of whom never have owned homes. They are accustomed to pay one fixed monthly sum for shelter (generally including heat and water). They rent according to their income. When they become interested in a home, we are able to show them costs fixed to the penny for interest, amortization, FHA fees and fire insurance, and to give them surprisingly accurate estimates of the cost of heat and water. But we can only show them present taxes . . .

To reduce the monthly carrying charge a single dollar a month means that the builder must cut his costs or his profits about $800 a house. To wipe out the builder’s saving to the purchaser, the tax gatherer need increase the tax rate less than 30 cents per $100 of assessed valuation, or increase the assessed valuation less than $300 . . .

As much as two years ago I was much surprised at the response from all parts of the country to my mild suggestion, made in New York City, that any long-range scheme of social security might well include tax-exemption of the small home occupied by an owner who has reached retirement age. . . . I have become convinced that home ownership will be a great factor in preserving the social stability of this country in the years ahead. I am glad to see that a member of the U. S. Senate, as thoughtful and as conservative as Senator Sheppard of Texas, has proposed full tax exemption upon homes valued up to $8,000, both as a social and economic remedy . . .

In the past, we have passed many laws to protect or provide homes ranging from tax exemption of soldiers’ bonuses invested in homes to tax exemption for a decade to provide the incentive necessary to overcome a housing shortage. Is tax protection for the small home anything more than the streamlining of an old established principle?

Irwin S. Chanin
New York, N. Y.

Patented Planks
Forum:

. . . The framing system shown in photo 10, page 246, in Forum’s April Low Cost House issue discloses features of my staggered self-insulating plank roof and staggered vertical plank wall, which are fully protected by letters patent No. 1,780,297. People who read such publicity without qualification are being misled into committing an infringement thereby. They are misled into committing an infringement thereof without knowledge.

I licensed the National Lumber Manufacturers Assn. to construct one dwelling, House No. 8, in their 1938 experimental "Low Cost House" series at Fairway Hills, Md. Apparently their publicity describing this house does not indicate the fact that this form of construction is protected by patent.

Such a situation is, of course, doing us considerable injury since we are licensing lumber dealers and builders to prefabricate plank units and panels for walls, floors, partitions, and roofs especially for the low cost field. While we have every desire to extend the regulated use of these devices, we do not propose to have our proprietary rights infringed or otherwise mitigated.

Frank J. Alcott
Palisades Homes
New York, N. Y.

To Forum readers a belated warning to respect Inventor Alcott’s rights.—Eb.

Client Trap
Forum:

My secretary, a beautiful Chinese girl named I Gong Wong, has found it necessary to remove the May issue of The Forum from my reception room and hide it some place where it would never be disturbed. She put it in the safe.

It seems that a client came into the office, and she (my secretary) failed to carry out my explicit instructions, which are that all clients shall be chained to a ring in the floor until I can get around to seeing them. This client, a Mr. Zup, sat down and started reading The Forum with every evidence of pleasure until he came to the Plus section, and the Ozark article headed "Upon Beautiful Form or Do You Like Mushrooms? Eggs? Snails?" He then rushed from the office.

Pursuing only to don my Junior G-Man badge I followed him. Hailing a hansom cab I set off for Waterboro station, adjusting my deer-stalker cap as we drove down Baker Street. You know my methods. In less than a month I had solved the mystery. It seems that when Mr. Zup read that query "Do You Like Mushrooms? Eggs? Snails?" it came over him suddenly that he had left the house without eating breakfast. So as soon as the words "Do You Like Mushrooms? Eggs? Snails?" met Mr. Zup’s eyes he rushed right out and bought a mushroom omelet. He hates snails.

He never came back to the office.

I am a patient man, but this is too much. I have been put to considerable expense to remodel my reception room so that such a deplorable fiasco cannot happen again. By an ingenious arrangement, as soon as a client enters the door to the reception room it closes behind him and becomes part of the woodwork. He is unable to find the door again and has to stay there while a concealed loud speaker plays soft music interspersed with announcements that Allen is a bright fellow.

The first day we bugged two asphalt shingle salesmen, a young lady looking for the wash room, and a sales ambassador for the Little Giant dandelion extractor. No clients. It has occurred to me that Mr. Zup may well have been the last of the species. The wood pigeon disappeared, didn’t it? Possibly we should have taken steps to preserve clients where they would be safe from predatory hunters. One might have thought The Forum would have been in the front rank of such a movement. No; instead, they print articles that put ideas in client’s heads. No good ever came of that.

Roger Allen
Grand Rapids, Mich.
for removing seepage water

PENBERTHY AUTOMATIC
ELECTRIC SUMP PUMP
Made in 6 sizes

PENBERTHY AUTOMATIC
CELLAR DRAINER
(Water or Steam operated)
Made in 6 sizes

Copper and Bronze Throughout

Sales Active

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.

Jobbers everywhere carry Penberthy Products in stock.

PENBERTHY PRESSURE AND RELIEF CONTROL
Made in 3 Models

for modernizing hot water heating systems

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Made in 9 Models

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Made in 14 Models including Dead End Type

PENBERTHY INJECTOR COMPANY
Manufacturers of QUALITY PRODUCTS Since 1886
DETROIT, MICHIGAN  •  Canadian Plant: Windsor, Ont.
IMPORTANT TO STORE FRONT DESIGNERS—

27 APPEALING COLORS TO CHOOSE FROM
WITH THIS STURDY ARCHITECTURAL PORCELAIN ENAMEL!

RESILIENT SASH AND BARS
For maximum protection to plate glass insist on the famous Kawneer line of rustless metal store front construction in aluminum with the alumilite finish, bronze or stainless steel.

CONCEALED AWNING BARS
—both rolled and extruded types; hide awning rolls in recessed boxes when not in use. Simple lines and lustre of metal beautify the complete front.

ATTRACTIVE ENTRANCE DOORS
Kawneer Rustless Metal Doors—for all types of store fronts and buildings—harmonize with any architectural style. Require practically no maintenance.

★ New opportunities await the store front designer who has not yet worked with K.Z.S. Architectural Porcelain Enamel—for it has practically no limitations. Available in 27 standard colors (permanent and acid-resisting), this remarkable facing brings life, beauty and attention-value to any store front or building.

K.Z.S. Panels are of heavy, extra-flat steel, fused with inorganic porcelain enamel. They combine the strength, adaptability and comparative lightness of steel with the permanence and non-porous nature of glass. Each panel is individually suspended on resilient Rustless Spring Clips and may be removed at any time without disturbing adjoining units.

CONSULT SWEET’S OR WRITE FOR NEW ILLUSTRATED BOOKLET.

THE KAWNEER COMPANY, NILES, MICHIGAN. BRANCHES: NEW YORK, CHICAGO, BERKELEY, CAL. DISTRIBUTORS IN PRINCIPAL CITIES.
FIRST prize in the competition for the Smithsonian Gallery of Art has been awarded to Eliel Saarinen, Eero Saarinen and Robert Swanson of Bloomfield Hills, Michigan. This award marks the first time since the days of Thomas Jefferson that the architect for an important public building in the Nation’s Capital has been selected by open competition. Considered from this point of view alone it is an event of wide public interest and concern.

The competition was divided into two stages, one open to all qualified applicants, the second limited to those who won the first ten places in the preliminary judgment. Results have more than confirmed the efficiency and fairness of this method: a minimum of time and expense was required in the first stage, while the ten finalists were assured adequate compensation for the more elaborate drawings demanded of them. The jury, moreover, was able to give each project the attention it merited, since there were only ten instead of the usual hundreds. Also worth noting is that the great majority of the final contestants had already distinguished themselves professionally, a fairly strong argument against the common claim that competitions are a lottery in themselves professionally, a fairly strong argument against the common claim that competitions are a lottery in which almost any incompetent might be lucky enough to win.

The significance of this competition, however, overshadows the importance of the building or the success of the method. That an impeccable jury should have chosen—for Washington—a building without the usual Roman draperies is not only a tribute to their courage and honesty, but gives, at long last, some hope that the Capital may show three-dimensional evidence of its existence in the twentieth century.

This triumph for the modern approach by no means implies a flaunting of all that Washington stands for, but rather a step towards its fulfillment. There is no virtue in the denial of change: the America of 1939 is not the country of the Federal period, and there is little reason why Washington should be the only city to pretend that it is. Had the Roman emperors and Renaissance churchmen attempted to perpetuate the Etruscan style merely because it was the manner in which the Tarquins built, the absurdity of such an attitude would be as apparent in Rome as it is in Washington today. The great virtue of the winning design, aside from the technical excellence of its solution, is that it shows beyond the possibility of denial that the monumental tradition of Washington can be given appropriate expression, and new vitality, within the framework of modern architecture.

The Congress, in authorizing the use of funds for this competition, has discharged its official obligations. Funds for the building are to be raised either from private sources, or by means of a new Congressional appropriation. In the light of what public monies have already been spent in Washington, it seems far from unreasonable to expect that this building, of truly great architectural significance and cultural value, will be erected by the same means. Everything possible should be done to prevent the winner of our most successful national competition from remaining a project on two sheets of paper. The important thing is that the building be built.

THE REPORT OF THE JURY

THE Smithsonian Gallery of Art Commission announces the award of the First Prize of $7,500 in the Smithsonian Gallery of Art Architectural Competition to Eliel and Eero Saarinen Associated with J. Robert F. Swanson of Bloomfield Hills, Michigan. These architects will be recommended by the Commission to be employed as architects of the proposed museum. Construction will begin as soon as funds become available. The Commission announced that the ten winners were chosen for Washington—a building without the usual Roman draperies is not only a tribute to their courage and honesty, but gives, at long last, some hope that the Congress, in authorizing the use of funds for this competition, has discharged its official obligations. Funds for the building are to be raised either from private sources, or by means of a new Congressional appropriation. In the light of what public monies have already been spent in Washington, it seems far from unreasonable to expect that this building, of truly great architectural significance and cultural value, will be erected by the same means. Everything possible should be done to prevent the winner of our most successful national competition from remaining a project on two sheets of paper. The important thing is that the building be built.

PAUL P. CRET, Philadelphia, Penna.
PHILIP L. GOODWIN, New York City
(LOUIS C. JAEGER and ALBERT FREY, Associates)
HARRY F. MANNING, Chicago, Illinois
(DAVID W. CARLSON, Associate)
JAMES A. MITCHELL, Pittsburgh, Penna.
(DAHLER K. RITCHIE, Associate)

(ROBERT W. KENNEDY, Associate)
PETER and STUBBINS, Boston, Mass.
EDWARD D. STONE, New York City

This Competition which was conducted in two stages was first announced last January. Out of 2,000 requests for entry, 468 architects actually submitted designs in the first stage. From the 468 drawings submitted the jury chose ten contestants to participate in the second stage.

The Jury, composed of Frederic A. Delano, Chairman, John A. Holabird, Walter Gropius, George Howe and Henry R. Shepley, submitted the following report to the Smithsonian Gallery of Art Commission today:

It is unanimously agreed that the designs submitted by Eliel Saarinen and Percival Goodman are the best among those in the final competition. Both offer simple, direct solutions in which all facilities are adequately provided for and in which the relation of part to part is correct. In both designs the location of exhibition spaces on the first floor and the immediate accessibility of these
spaces to the entrances is commended. The relation of exhibition space to the auditorium, as well as the provision for access to the auditorium, are well studied. In each the service areas are organized in a practical manner.

The design submitted by Eliel Saarinen is considered especially appropriate in its relation to the site. It offers a remarkable clarity of composition in mass and a restraint and dignity in expression which appears to the majority of the jury especially suitable for a building to be built on the Washington Mall. The building has the distinction which comes from a fine use of materials, and shows throughout a professional competency on the part of the designer which leads the jury to believe that he could be safely trusted with the execution of the work.

The design submitted by Percival Goodman is commended by all members of the jury for the thorough study given to the organization of the elements of the plan. The exterior composition is full of interest and of that imaginative quality which gives distinction to architecture. The peculiar excellence of this design lies in its consistency throughout and the remarkable plasticity.

In their decision to place the design by Eliel Saarinen first, the jury were strongly influenced by considerations governing the proposed expansion of the building at some future date. The provisions for expansion in the design placed first are so managed that the building would be as efficient in organization after the expansion as it is before expansion. This is not as evident in the design submitted by Percival Goodman and it is believed that the sculptural quality of this design, to which it owes so much of its excellence, would be impaired when the proposed expansions are carried out. On the other hand, the expansion of the design placed first would improve rather than injure the design.

The jury finds a high standard in all the designs given third prize.

The design submitted by James A. Mitchell and Dahlen K. Ritchey offers what would comprise, when fully developed, an admirable scheme, but in the part proposed for immediate construction the galleries are too narrow, and the work areas, administration offices and library are unnecessarily broken up.

The plan submitted by G. Holmes Perkins is considered to be exceptionally well organized, but the access to the auditorium on the second floor and the excessive length in the working areas are considered faults.

The design submitted by Paul P. Cret is especially admired for its presentation. The introduction of a court impairs the flexibility of the general galleries and also makes the functioning of the work areas difficult. Access from the first floor gallery to the second floor is somewhat indirect and the high gallery is considered inadaptable for exhibition use.

The design submitted by Edward D. Stone is commended for its excellent grouping and for the admirable placing of the auditorium and the arrangement of entrances and exits. The arrangement of the galleries is criticized, however, since the introduction of the over-developed circulation elements in the center impairs the flexibility of the exhibition spaces. These defects might be less evident should the expansion of the building be effected.

The design submitted by Philip L. Goodwin shows competent knowledge of the workings of a museum. The facilities are well organized. The introduction of the auditorium in the center of the composition results in a complicated plan and in congestion in circulation.

The design submitted by Peter and Stubbins proposes a scheme admirable in its simplicity and clarity. The unification of the elements on the main floor by means of a long gallery is considered excellent and the flexibility of the exhibition spaces, combined with variety in form, is another excellent feature. The principal defect is the introduction of two courts which are high, narrow and useless, and the placing of the administration unit at the extreme end of the composition.

The design submitted by Eliot Noyes and Robert Kennedy offers one of the most compact plans. The relation between the working areas and storage and the exhibition spaces is admirable and the design as a whole is unusually straightforward and practical. The elevations are considered unsatisfactory in proportion, especially in that part proposed for immediate construction.

The design submitted by Harry F. Manning and David W. Carlson proposes compact, well organized galleries but the forced relations of the auditorium to the body of the building, and the complication of the working areas are considered defects.

Respectfully submitted,

June 26, 1939

FREDERIC A. DELANO
Chairman of the Smithsonian Gallery of Art Commission

JOHN A. HOLABIRD, architect. Chicago

WALTER GROPius, architect. Cambridge, Mass.

GEORGE HOWE, architect. Philadelphia

HENRY R. SHEPLEY, architect. Boston

Professional Advisor: JOSEPH HUDEI1, Harvard University


An air view of Washington with its long projected Mall between the Capitol and Washington Monument. The white rectangle represents the site allotted the Smithsonian Gallery of Art, just opposite the Mellon National Gallery now under construction.
FIRST PRIZE DESIGN BY ELIEL AND EERO SAARINEN ASSOCIATED WITH J. ROBERT F. SWANSON, BLOOMFIELD HILLS, MICH.
SECOND PRIZE DESIGN BY PERCIVAL GOODMAN, NEW YORK CITY

FIRST FLOOR PLAN

BASEMENT PLAN

SECOND FLOOR PLAN
It is thirty years since Frank Lloyd Wright built the Coonley house, fourteen since LeCorbusier's pavilion disrupted a Paris fair, nine since Miës van der Rohe produced the Tugendhat plan. Long enough, one might think, for the modern house to come of age in an epoch of swift development. But the new dwellings in the 1939 U. S. landscape are still predominantly traditional.

Should this seem to give cause for premature discouragement or gratification, a few other facts might be considered. There is the fact that this issue could not have been published four years ago, not for fear of irate readers, but simply because there would not have been the
houses to fill it. There are the recent polls, which show a consistent consumer opinion of 40 odd per cent favorable to the modern house, some four times the figure of a few years back. Finally there is the house itself, no longer a dogmatic geometrical essay in stucco and corner windows, but warm, catholic in its choice of materials and furnishings, indifferent to the degree of pitch of its roof, free and varied in its manner of providing shelter. The modern house today is no longer the frigid white symbol of a small cult, and in changing it has immeasurably broadened its appeal.

Discussion of whether the modern house is here to stay or not has become academic. It is here. And the number of examples has increased substantially with each passing year. If further evidence of its vitality is required one need only consider the modifications it is producing in the design of traditional dwellings.

The houses in this issue are neither small nor inexpensive; this does not mean that a good small modern house is an impossibility, but it does accurately reflect the position of the buyer of modest income, who often cannot overcome the attitude of over-conservative lending institutions which thus far have shown little faith in the resale value of the modern house. It has remained for the owners of such houses as these to break through the vicious circle. Evidence is not lacking that acceptance is spreading swiftly beyond the limits of a restricted group with independent means.

Quantitatively insignificant as these houses may be, THE FORUM's editors present them as important. They are important not only as indicators of a trend, but as outstanding examples of a powerful influence that is slowly but inevitably changing the appearance of the American residential scene. They are important because they represent the emergence of the age-old tradition of honest building, interrupted by more than a hundred years of eclecticism. And most important to the public, they are no longer experiments.
ARCHITECT: *"The factors leading to the construction of three modern houses at once were three: economy, the fact that the three families, knowing each other well, happened to need new houses at the same time, and the fact that the architect saw an artistic opportunity and made every effort to make it an actuality. The site was picked because of a really magnificent view of the valley of the Schuylkill to the southwest, and because it was one of the few very open sites left at its distance from the center of Philadelphia. The view, the compass point, and the fall of the ground determined the arrangement of all of the plans. A great advantage in site-planning resulted from an agreement between the three families never to spoil the big field below the houses which, although owned in three separate pieces, becomes in effect a community foreground for the view."

* Mr. Day is also the owner of one of the houses.
"Certain other aspects of cooperative saving, such as joint laundry, kitchen or garage facilities, were turned down on the ground of 'rugged individualism.' This same individualism dictated radically different plans and color schemes, but permitted use of similar materials and methods of construction. Only the architect member of the group, however, chose to employ fireproof construction.

"In the Day house, an awning projecting 14 ft. over the terrace to the southwest of the long living-room window has provided a summer porch and shade for the window, but may be removed in winter to allow full utilization of solar heat. This renders use of the heating plant unnecessary in sunny winter weather, so that the large glass areas have added nothing to the cost of heating.

"A great deal of the furniture, particularly in the bed- and dressing rooms, was built under the millwork contract, with substantial savings in original cost, upkeep, and especially a saving in floor space.

"An interesting point is illustrated by the living room of the Day house, where nearly all the furniture and decorative objects were old, and the architectural color scheme and scale were developed as a background for inherited objects. This refutes the statement, so often made, that if you want a modern house you must throw away all your old things."
BEDROOM, BATH: “Glass partitions between the bedroom, dressing room, and bath in the Day house serve to create an illusion of a large space in what might otherwise have seemed three tiny rooms, while at the same time permitting separate control of temperature. The herbarium in the bathroom has proven most agreeable, to both humans and plants.”

CONSTRUCTION OUTLINE

FOUNDATIONS: Walls—18 in. local stone.


CHIMNEYS: Terra cotta lined. Damper—Old Style, H. W. Covert Co.


PAINTING: Exterior woodwork and doors—gulf cypress some parts painted with Tector, Pittsburgh Plate Glass Co. and 3 coats lead and oil. Interior woodwork—spar varnish, Duco and wax, lacquer and wax and shellac and wax.

HARDWARE: Stanley Works, Schlage Lock Co. and P. & F. Corbin.

ELECTRICAL INSTALLATION: Wiring system—BX. Fixtures—built-in and Lumiline.


HEATING AND AIR CONDITIONING: Day house—Makin Kelsey winter air conditioning; other houses—Bryant Heater Co. winter air conditioning. All houses burn propane gas. Hot water heater—Welbach propane gas. Propane gas kept in single tank above grade and piped to three houses and metered separately.
CLARENCE W. W. MAYHEW, ARCHITECT
HOUSE FOR HAROLD V. MANOR, SOULE TRACT, CALIF.
ARCHITECT: "Mr. and Mrs. Manor are among the few clients I have had who have really let me be their architect, in the fullest sense of the term. They let me pick out their lot and design the house I thought they should have. At our first meeting they said that they wanted a house that would open up to the garden and bring the garden into the house. This, together with the number of rooms required, constituted the program. From then on it was up to me.

"The entrance to the lot, which is about two acres, is from the north. The main view is to the south with nice outlooks in all other directions. With the main view south, the view windows are also sun windows.

"Beyond a large, level garden-area to the south of the house the site drops off sharply, which prevents anyone from building and cutting off the view. This also gives complete privacy to the garden and the open southern glass walls.

"In general, the house has a Japanese character in both plan and elevation. Although I did not copy any Japanese details, I did copy the underlying principle. I feel that this type of house represents country living in California better than any style I know. It is certainly a relief after playing Rancho or Spanish Don."

COLOR NOTES
INTERIOR. Ceilings natural Insulite in patterns to fit rooms (see bottom picture). Walls, trim, and cases: natural redwood. Floors: natural Masonite: rugs, natural hemp, light and dark brown.
CONSTRUCTION OUTLINE


STRUCTURE: Exterior walls—2 x 4 in. studs, flush lapped redwood boarding and 3/4 in. Insulite Co. sheathing. Interior partitions—1 x 10 in. flush lapped redwood boarding. Ceiling—3 1/2 in. Insulite, left natural, covered with redwood batten. Floor construction—2 x 10 in. joist, 16 in. o.c., and 2 ft. squares Tempered Presdwood. Masonite Corp.

CHIMNEY: Common brick with terra cotta flue lining, Gladding, McBean & Co. Damper—Heatmore, Richardson & Boynton Co.


WALL COVERINGS: Main rooms—3/4 x 10 in. flush lapped clear redwood, sanded and left natural. Kitchen and bathrooms—Wall-Tex, Columbus Coated Fabrics Corp.

WALL COVERINGS: Main rooms—3/4 x 10 in. flush lapped clear redwood, sanded and left natural. Kitchen and bathrooms—Wall-Tex, Columbus Coated Fabrics Corp.


ELECTRICAL INSTALLATION: Wiring system and switches—General Electric Co.


LAUNDRY EQUIPMENT: Sink—Crane Co. washing machine—Bendix Co.

BATHROOM EQUIPMENT: All fixtures by Crane Co.


HEATING AND AIR CONDITIONING: Delco filtering and humidifying system with Delco oil burner. Delco Frigidaire Conditioning Div., General Motors Sales Corp.
ARCHITECT: "In a flippant mood Mrs. Cahn once said she wanted the house of the day after tomorrow. Actually, she wanted a contemporary house suited to her property, convenience, and comfort; a house that could be closed in a few minutes, with nothing in it that would deteriorate while it was unoccupied, and could be opened as quickly; a house to be practically servantless, for present day informal living.

"The crescent-shaped plan was developed to afford a full view of the sunrise and sunset from the living room, and to give privacy to the bedrooms. As you approach the house in a car you have the pleasant sensation of driving into it: it seems to bend to take in the sweep of your car.

"To reduce deterioration to a minimum, two heating systems were installed, one to keep the house just above freezing when unoccupied, the other a year-round air conditioning system for use when occupied. Fuel is gas, and the systems are entirely automatic.

"The exterior Venetian blinds take the place of old fashioned shutters, and are handier to operate. They are used to regulate winter solar radiation. Summer solar radiation is stopped by the large overhang over the south windows, so that the blinds need not be drawn.

"The living room was made large with a high ceiling to accommodate string quartets, radio, and recorded music. There are no materials in the house, including fabrics, which require much care to be kept in condition. Floors are rugless and windows without draperies. Other points: Lighting for bedrooms is from pin holes in ceilings over beds, tilted and masked to fall on top half of bed only, with handy switch for each bed. Glass block is generously used for borrowed light, sometimes through three layers. A loudspeaker on wheels plugs in to numerous outlets, with remote control in various rooms."

OWNER: "Our experience with the traditional home was responsible to a large degree for our conclusion that a modern house would fit our ideas of living. It was the "House of Tomorrow" at the Chicago Exposition which indicated to us that its architect would attain our objective.

"We like the house because it is spacious, colorful, bright, restful and in harmony with the surrounding landscape, and because it is a home in the fullest meaning of the word, since it affords the fullest amount of comfort and contentment. It has made our way of living simpler, easier, and more responsive to our demands. It requires no effort in housekeeping.

"We believe that the modern house is the house of the future, and that when it is fully understood and its potentialities are known, more and more modern houses will be erected. If we were to build again we would repeat what we have done in every respect."
CONSTRUCTION OUTLINE


ROOF: Twenty-year bond tar and gravel, Haydite Co. fill.

CHIMNEY: Reinforced concrete on brick base. Fireplace screen—Fyr-Slyd Screen, Inc.

SHEET METAL WORK: Flashing and expansion joints—crimped lead-coated copper, Revere Copper & Brass Co. Downspouts—cast iron.


FLOOR COVERINGS: All rooms—black rubber, American Tile & Rubber Co.


HARDWARE: Finish hardware special aluminum, Illinois Hardware Co.

PAINTING: Interior and exterior paints by Pratt & Lambert.


BATHROOM EQUIPMENT: Fixtures by Crane Co.

PLUMBING: Soil pipes—cast iron. Hot and cold water pipes—copper, Mueller Brass Co.

HEATING AND AIR CONDITIONING: Complete air conditioning by Air Comfort Co. using Carrier Corp. equipment throughout. Two heating systems, one forced hot water and one split forced air system.


HOUSE FOR GEORGE C. BAUER. GLENDALE, CALIF.

DISCARDED PRELIMINARY
A. "Living room looks into children's bedrooms. Entrance hall and bedroom hall are too long. A long kitchen is needed so that both dining room and entrance hall can be reached from kitchen. No room is left for a service yard on the street side. Paving separates the interior from the planting."

DISCARDED PRELIMINARY
B. "Bedroom hall is moved to the east side and widened, shortened, and the outside wall made entirely of glass. Children's bedrooms are narrowed and provided with wide openings to bedroom hall—which now becomes a sunny playroom opening into the garden. Other disadvantages remain as in 'A.'"

DESIGNER: "The problem was to provide a house for a family of five: parents, a boy of 5, a girl 1, and a maid or guest—giving seclusion for common family life, in which privacy for the individual members is not essential except for the maid or guest: to keep the house informal, simple, and with a close connection between the inside and the out-of-doors.

"In the solution, seclusion is provided by turning the house away from the street and opening it up at the back to make the most of the garden. This permits a maximum use of glass as the rear garden is completely screened from the street. Full use of glass makes possible a close connection between the house and the out-of-doors.

"Informality is secured by making the living, dining, play, and garden areas separate and yet merging easily into one another, while the circulation is worked out to permit separation of activities when this is desirable. The fireplace is visible from many of the rooms. Children at dinner or at play are visible to the parents in the dining or living rooms, yet separated from them by a glass partition. On occasion, one-half of the partition may slide in front of the other half to open the living and play rooms to each other. A curtain in front of the glass may be used to separate the rooms entirely."

OWNER: "We wanted a house that was simple, open, and which did not require a lot of furniture to make it livable. We did not discuss the question of modern versus traditional.

"We like the openness of the house, its airiness, and informality. It is homey and lacks pretense. It fits into its surroundings.

"We think our house a good investment because it suits the site, is comfortable to live in, and is not dated."

COLOR NOTES
EXTERIOR. Light gray green walls with roof stained brown and door and window rails black.
INTERIOR. Straw colored floor, pale yellow walls, pinkish-white ceilings, natural birch furniture, natural pongee curtains, oiled redwood cabinets, burnt orange upholstery, and black door and window rails.
CONSTRUCTION OUTLINE

FOUNDATION: Walls—concrete.
STRUCTURE: Exterior walls—colored stucco over 38 gauge galvanized wire mesh, 60 lb. Mullen Test waterproof paper and 16 gauge wire, 6 in. o.c. Interior partitions—2 x 4 in. studs, interior stucco on plaster board lath. Floor construction—1 x 4 in. T. & G. pine over 2 x 6 in. joists, 16 in. o.c.
ROOF: Wood rafters covered with redwood shingles.
CHIMNEY: Reinforced common brick with plaster finish. Damper—Superior Fireplace Co.
SHEET METAL WORK: Flashing—24 gauge Armco, American Rolling Mill.
WEATHERSTRIPPING: Felt.
FLOOR COVERINGS: Living room, bedrooms and halls—Chinese grass matting, California Asia Co. Kitchen and bathrooms—inlinoleum.
HARDWARE: By Schlage Lock Co. and Stanley Co.
PAINTING: Interior: Bathroom and kitchen walls and ceilings—sealer, flat coat and enamel; remainder La Hubra colored interior stucco. Sash—oil color in spar varnish. Garden wall—3 coats outside oil paint, General Paint Corp.
ELECTRICAL INSTALLATION: Wiring system—conduit. Steel & Tubes, Inc. Switches—tumbler type. Fixtures—built-in; indirect and flush panel; exposed lumilines in kitchen and bathrooms.
PLUMBING: Soil pipes—cast iron. Hercules Foundries Co. Hot and cold water and vent pipes—National Tube Co. Fittings and valves—galvanized iron, Walworth Co.
FORDYCE & HAMBY AND GEORGE NELSON, ASSOCIATED ARCHITECTS

HOUSE IN SCARSDALE, N. Y.

JULY 1939
ARCHITECTS: "Westchester building sites seem uniformly designed to make the use of an automobile impossible, and this was no exception. While generous, the lot consisted largely of a rocky slope which presented a major building problem, solved by the conventional expedient of building three levels on one side and two on the other.

"The owners’ living requirements were simple: accommodation for parents, two children, guests, and two servants. Their interest in a workable plan, ample glass areas, and simply furnished interiors led naturally to the development of a modern scheme, while their insistence on permanent, fireproof construction resulted in a somewhat unusual wall construction of concrete slabs.

"These units, made of vibrated concrete with the exterior finish integrally cast, are of ribbed construction with a shell four to six inches in thickness. Easy to erect, they also meet the architects' requirement of a reasonably honest expression of the structural method employed.

"This masonry construction conditioned the exterior design. It eliminated ribbon windows, since concrete posts 4 ft. on centers were more economical. The scale of the blocks also called for a simplification of detail wherever possible. A base of local fieldstone seemed like a good idea since the stone is very pleasant in color and provided a more suitable and flexible means of transition to the irregular ground than the large concrete slabs.

"The house was slow in building, due partly to difficulties with the local building department, which was upset for a long time by the unfamiliar wall construction. It was finally necessary to build up to the second floor without a permit and then make a loading test, a method which, if often repeated, would hardly contribute to an architect's longevity.

"The neighbors also were profoundly disturbed by the house, which sits next to a half-timbered affair on one side, Colonial cottages on another, and a pseudo-Georgian house on a third. The curious conviction of inhabitants of New York suburbs that they live in architecturally homogeneous communities is undisturbed by anything from a Scotch castle to a Mediterranean villa; modern is apparently the one exception. They seem resigned at present and no windows have been broken."

OWNER: "After having lived and visited in traditional homes for a period sufficient to enable me to form an opinion of them, and having watched developments and improvements in other types of buildings, I became dissatisfied with home life in surroundings designed for my Pilgrim forbears. I therefore decided on a modern house, which seemed to me a step in the direction away from muzzle-loading guns and pony express communications. Our transfer from a conventional to a modern house has made our home life more enjoyable, and, I think, less expensive."

JULY 1939
Large curtain: cedar.
BATH

KITCHEN. "The usual contradictory requirements of maximum cupboard space and window space resulted here in an attempt to provide both. From the illumination point-of-view in particular it has been very successful."

CONSTRUCTION OUTLINE


STRUCTURE: Exterior walls—vibrated concrete slabs with integral exterior finish; shapes specially cast, Dextone Co. Interior partitions—(bearing) cinder block, (non-bearing)—gypsum block. Floor construction—precast concrete slabs and joists, Bedford Hills Concrete Products Co.

ROOF: Truscon Steel Co. bar joists covered with Gyasteel planks. Structural Gypsum Div., American Cyanamid & Chemical Corp. 4-ply tar and gravel.

CHIMNEY: Common brick, fireclay lining; Damper—H. W. Conert Co.


STAIRS: Reenforced concrete, carpet covered.


WALL COVERINGS: Living room, dining room and study—Eastern Woodcraft Co., veneers on flush panels.


HARDWARE: Equipment by John Schoemer.

PAINTING: Primer-Sealer by Gall Bros., all other paints by Benjamin Moore.


PLUMBING: Soil pipes—extra heavy cast iron. Hot and cold water pipes—copper.

ARCHITECT & OWNER: "The design of the house centered to a large degree around the desire of Mrs. Perkins and myself to have a home which would permit the utmost flexibility in living both indoors and out. Our desire was not only to have the usual terrace and outdoor dining areas, but to give a feeling of unity between indoor and outdoor living in winter as well as during the summer months; this was accomplished by the large glass areas in the living room and dining room and by keeping the floor and terrace level the same. "To obtain the utmost privacy the house was oriented with its long side to the west facing a cliff which falls some 30 ft., about 150 ft. west of the house. The only close neighbor is to the southeast and due to the topography it is impossible for anyone to build within our view although we have only 1 1/4 acres. The location of the neighboring house and a large rock outcrop rising some 20 ft. to the south made the west orientation preferable, and, because of thick woods which have been left undisturbed, the house is amply protected from the too hot west sun."

COLOR NOTES
EXTERIOR. Brickwork: white except under dining terrace roof, where wall is gray. Vertical siding: cypress, bright copper color.

CONSTRUCTION OUTLINE
ROOF: Five ply tar and gravel; decks covered with deck boards.
構造: 外壁——スタッド、ロックラス、スラッパ; 外観は一部のセコンドハンドブロック、白いセメント塗料と残りの垂直 T. & G. シリコンスiding。 内部仕切り——木 スタッド、ロックラス、 U.S. ガイムコレクション。 リフォーム——金属ラス、セロテックス、 セロテックス コープ。床の施工——木条。
屋根——五層のラスとグラベル; デッキはデッキボードで覆われています。
保冷: 外壁と屋根——6インチの赤いトップガラスウール、 U.S. ガイムコレクション。 renovation——Acousti-Ceotex in kitchen and pantry, Celotex Corp.
床のカバー: Living room and main hall—walnut. ベッドルームと上部の廊下——オーク。 Kitchen and bathrooms——linoleum.
ハードウェア: 床と壁——白いセメント塗料と。
ARCHITECT & OWNER: "The aim for the conception of the house: a corridorless, compact plan, fitting snugly around the family life. Shortest communication. A maximum of sunlight during the winter from southeast to west. Protection against the sun during the hot time of the year, on the south side by built-in, overshadowing roof overhang, on the west side by exterior venetian blind of anodized aluminum.

"Large windows give full view of the landscape to the east, south, and west from the hilltop where the house stands. The screened porch extending from north to south catches the westerly and easterly summer breezes.

"Labor saving kitchen and pantry with automatic dish washer and garbage disposal. Special heating circuit for bathrooms and dressing room so that house heating can be switched down during the night and bathrooms remain warm. All bathrooms placed around one stack for economy. All water installation placed away from the living rooms.

"White painted lattice work on east and west sides, stretching out like tentacles, in order to weave plants around the house.

"The house stood in the full stream of last September’s hurricane and behaved perfectly, without damage to the roof, windows, or other parts. As roof drainage is through the inner part of the house, no icicles whatsoever formed during the winter."
CONSTRUCTION OUTLINE


ROOF: Fir boarding and joists, strapping, covered with Barrett Co. 5-ply, 20 year Bond roofing.

SHEET METAL WORK: Flashing—16 oz. soft copper, Revere Copper & Brass Co. One interior downspout—4 in. cast iron, Sanitary Co. of America. Ducts—Toscan galvanized iron, Republic Steel Corp.


STAIRS: Plywood sides with pine risers and stringers. Treads—cork, Armstrong Cork Co.


HARDWARE: Equipment by W. C. Vaughan Co.


COLOR NOTES

EXTERIOR. Roof: copper covered, now dark brown, beginning to turn green. Walls and window trim: white. All paving, steps, terraces, etc.: exposed aggregate, yellow bank gravel.
ARCHITECT & OWNER: "Mrs. Kassler and I desired a small house with relatively large-size rooms which would give as much sense of space as possible. We also desired a house which would be flexible in use either for ourselves or another owner. Hence, the studio was designed so that it might be turned into an additional bedroom and bath with either a library or another bedroom enclosed between the studio and the house. It was separated from the house because it was essentially a work room and not a living room, and also because of the desirable summer porch facing the summer breeze that was obtained thereby.

"The situation of the house was worked out primarily for privacy, sunshine, avoidance of winter winds and utilization of summer winds. The main living rooms have through cross-ventilation, and the overhang of the large living room windows admits sun during the winter months but keeps out the hot summer sun.

"Although the intersecting street has not yet been built, the property is a corner lot and the house has for reasons of privacy turned its back on these two exposures.

"The selection of materials was made chiefly on the basis of the material that seemed best suited to fulfill the conditions at hand. An experiment which has turned out very successfully is a type of panel or radiant heating used only in the studio and designed by an engineer and myself."
BEDROOM


CONSTRUCTION OUTLINE


STRUCTURE: Exterior walls—8 in. plain and molded cinder block. George Piper, 1 x 2 in. spruce furring. Ceiling, 1/2 in. corkboard and plaster. Interior partitions—2 in. plaster, 1/2 in. steel channels, wire lath and plaster. Floor construction (1st. and 2nd. floors)—steel, H. H. Robertson Co. Hall and studio—concrete slab.

ROOF: Wood purlins covered with copper covered steel sheets, H. H. Robertson Co.

SHEET METAL WORK: Flashing—copper covered steel sheets. H. H. Robertson Co.


WATERPROOFING: Outside walls—1/2 in. and 2 in. corkboard. United Cork Co. Attic floor—5 in. rock wool, Baldwin Hill Co.

ELECTRICAL INSTALLATION: Wiring system—BX. Switches—toggle type. Fixtures—Kurt Versen, Inc., and special designed with Corning Glass Co. cast glass and lenses.


PLUMBING: Soil pipes—cast iron. Hot and cold water pipes—brass. Chase Brass & Copper Co.


BUILDERS: L. C. Bowers & Sons.

LANDSCAPE ARCHITECT: Daniel M. Lenker.
LIVING ROOM


Large stone sculpture by Bennett Kasler. Furniture by Steese & Emmons, Inc.
ARCHITECT: "The fundamental scheme of the house was dictated by the owner's desire to experiment with a novel system of heating and air conditioning, in an effort to approximate the temperature and humidity conditions of his South Carolina home. For this reason the building has double exterior walls, about 2 ft. apart, and a ceiling space. The effect is that of a house built entirely inside of another structure. Because of this construction, it is possible to maintain a high humidity within the inner house without condensation on the glass areas. This gives the air a 'balmy' feeling. The house itself is equipped with a year-round air conditioning system and the surrounding shell space with a heating system of its own. With this arrangement the shell space may be heated above outdoor temperature, and if no heat is added will come to a temperature about mid-way between the indoor and outdoor temperatures.

"Due to the double wall construction the inner house is extremely quiet. Wind and rain are barely audible within the building."

DINING
CONSTRUCTION OUTLINE

FOUNDATION: Walls—12 in. brick.
ROOF: Light steel joints covered with Truscon sheets, Truscon Steel Co. and Barrett roofing.
CHIMNEY: Terra cotta lining, brick flue. Damper—H. W. Covert Co.
SHEET METAL WORK: Flashing, gutters and leaders—copper. Ducts—galvanized iron.
INSULATION: Outside walls and roof—4 in. glass wool, Chamberlin Metal Weather Strip Co. Sound insulation—glass wool tiles in ceiling of conservatory.
WINDOWS: Sash—steel casement. Glass—\( \frac{3}{4} \) in. plate, quality A.
HARDWARE: Equipment by Schlage Lock Co.
KITCHEN EQUIPMENT: Range and refrigerator—General Electric Co. Sink and cabinets—metal. Excel Metal Cabinet Co.
BATHROOM EQUIPMENT: All fixtures by Crane Co., fittings by Charles Parker Co.
PHILIP B. MAHER, ARCHITECT

HOUSE IN LAKE BLUFF, ILL.
ARCHITECT & OWNER: “The location of the house on a lake, some 75 ft. above the water, dictated that the principal rooms should enjoy the view. As the winters are quite cold, it was considered desirable to limit the amount of glass except where windows faced in this direction, and in the living rooms all exposure was concentrated in a single, 18 foot window. On the entrance court side, away from the view, plenty of light is obtained through the glass block walls, while privacy is insured and exposure minimized by the insulation provided by the block.

“The design of the house was adopted because its horizontal lines fit well with the lake horizon and permit modern treatment of the windows to take advantage of the lake view. It resulted in a type of construction which was simple and economical to build and requires little maintenance. Brick veneer is used throughout with wooden joists and a flat, gravel-surfaced roof. The house is insulated in walls and ceilings with mineral wool, and the walls receive the benefit of the three air spaces made possible by veneer construction.

“The interior was treated very simply and all possible woodwork omitted. Windows have plaster reveals and stools formed from rubber floor covering. Doors are trimmed with bull-nose metal beads.

“In the kitchen, metal cases and stainless steel sinks were used. The object of this treatment, in addition to economy and simplicity, was to reduce deterioration resulting from closing the house during the winter. The second floor has been arranged with a door at the foot of the stairs so that it can be entirely cut off from the rest of the house, as only the first floor will be heated for winter week-ends. This arrangement results in a house that can expand and contract for varied use and seasons.”
CONSTRUCTION OUTLINE


ROOF: Flat deck—2 x 8 in. joists, 16 in. o.c., wood sheathing covered with tar and gravel; main roof—2 x 10 in. joists covered with same.

CHIMNEY: Common brick, terra cotta flue lining.

SHEET METAL WORK: Galvanized iron throughout.


FLOOR COVERINGS: Living room and bedrooms—oak. Halls, kitchen and bathrooms—rubber tile, Wright Rubber Products Co.

WOODWORK: Trim, cabinets and interior doors—birch. Exterior and garage door—white pine.


ELECTRICAL INSTALLATION: Wiring system—white metal rigid conduit. Switches—toggle.


BATHROOM EQUIPMENT: All fixtures by Crane Co.
Architect: "Location of the property on a high ridge between Long Island Sound and the Hudson Palisades affords a view of both from the second floor terrace. The land is level for about 200 ft. from the road, which is on its north side, and then slopes sharply down to a meadow at the south end of the property. The surrounding land is mostly unimproved or farmed, with an uncertain future. "The nature of the property clearly suggested a long plan, with most of the rooms opening downhill, to the south, and with the north wall, facing the road, mostly closed with masonry or glass block for privacy and protection from the prevailing winter winds. An important requirement of the young and growing family was provision for expansion to accommodate more children later on. Plans for future expansion include a new garage and servant's room to be attached to the end of the house, with the present garage added to the present play room. This would permit use of the present servant's room as a guest room, releasing the present second-floor guest room for use as a child's bedroom.

"Flexibility of living space is obtained by the use of Fairhurst moving walls between the living and dining room, and between the living room and library. The living-dining room wall can be pushed around the corner so that it extends along the north wall of the dining room, or it can be moved so that either of the two sections remains as a partial screen. One sliding panel in each wall serves
as a door. These walls are flush teak veneer, extend from floor to ceiling and are semi-soundproof.

"Another important requirement was a fireproof house requiring minimum maintenance. This was met by the use of hard-fired brick—for precise surfaces of permanent color and texture—and steel and concrete construction. Heavy insulation, and orientation of large openings to the south, for solar heat, reduced fuel costs below those of the owners' previous house, which was smaller and traditional in design."
CONSTRUCTION OUTLINE


STRUCTURE: Exterior walls—face brick, Fredenburg and Lounsbury, bonded to cinder block backing, insulated with 1 in. cork laid in hot waterproof asphalt and plaster. Interior partitions—plaster on 3 in. cinder concrete blocks. Floor construction—Aerocrete Corp. slabs. Ceilings—plaster and metal lath.

ROOF: Open-web steel joists, Bethlehem Steel Corp., surfaced with concrete, covered with Johns-Manville 4-ply built-up roofing. Decks—reinforced concrete covered with integrally colored cement finish, Preservative Products Corp.


WILLIAM F. DEKNATEL, ARCHITECT  HOUSE FOR WALTER J. KOHLER.
KOHLER, WISCONSIN

ARCHITECT: "The property comprises 54 acres of pasture and woodland through which meanders the Pigeon River. The site commands a magnificent view of a valley to the east and a lesser view southward down a meadow cut out of the woods. To the west a rise shelters the house from the highway approach. A strip of circulation and service spaces isolates the living quarters from the north which is the source of the principal storms and is unembellished by any view.

"The house is placed on the edge of a bluff which drops about 40 ft. to the bottomland eastward, and its northwest corner, the garage wing, nestles into the side of a gentle hill. Its isolation—since it is one and one-half miles from the nearest village—as well as the prominence of the family led to a sharp separation of family life from the reception end of the house. Thus the entrance is a considerable distance from the three principal living rooms and separated from them by a stair hall. At the entrance is a guest suite and a study which serves also as a reception room for casual callers. Similarly the south wing of the house, which is continued by a high lilac hedge, separates the lawn to the south from the entrance way.

"In the main living room the usual problem of two generations under one roof was solved by placing a playroom on center with the dining room, and connecting both..."
to the living room. This affords great flexibility for entertaining large numbers and in the ordinary course of family life provides the children with a living room of their own apart from the parents and yet close to the service rooms.

"In arranging the bedrooms I placed the two young children in line with the master bedroom in such a way that these three rooms can be shut off from the rest of the house for safety's sake. The elder daughter has a suite of her own somewhat apart from the others. By the use of sleeping porches a large capacity for week-end guests and flexibility in the use of the various bedrooms are created."

OWNER: "We selected modern rather than traditional architecture because the modern approach to the problem of design as a function of need and utility seemed so innately sensible. It didn't seem reasonable to build a house with fake half-timbers, for example, in copy of sixteenth century technical limitations, when it was possible to take advantage of twentieth century knowledge of steel, concrete, and cantilevers and have more spacious, lighter, and more livable rooms. Consequently, we chose an architect whom we knew to be profoundly sympathetic to this point-of-view.

"There are many things we like about the house—the actual openness to the out-of-doors in summer and the illusion of it in winter; the spaciousness due to the use of folding partitions instead of doors; its coolness in summer, its sunshine and warmth in winter; the practical relationship of the rooms; the orientation in respect to the view and the south; its sleeping porches; its living and dining room porches—and many others.

"The lack of basement storage space is somewhat inconvenient. This could easily have been provided by excavating under the entire house instead of only under its central portion. However, this defect could exist in any house, traditional or modern. "Mrs. Kohler says it is much easier to clean but that dirt is more apparent. I would put these both on the credit side. It seems to me maintenance costs will be less, although only time can definitely determine that.

"No house of this size is a sound investment from the resale point-of-view and this factor was considered of secondary importance. I believe that today a traditional house could be more easily financed and sold than a modern house of comparable size, construction, and excellence of design. Ten years from now, however, the position of these same two houses will, I believe, be reversed and the 1939 modern will have a higher resale value than the 1939 traditional."
CONSTRUCTION OUTLINE


Floor construction: Stair hall, gallery and main stairs—reinforced concrete slab; remainder—wood joists.

ROOF: Wood joists suspended on steel beams by hangers, covered with 20-year Bond tar and gravel, Koppers Co. Dead level roof designed to carry 2 in. of water as insulation. Deck (master’s suite)—Tidewater red cypress plank laid on sleepers.

CHIMNEY: Face brick with common brick backing, circular burnt clay flue lining. Fire screens—Flex-screens finished in copper, Bennett Fireplace Corp. Face of fireplace—black granite, Cold Spring Granite Co.


BATHROOM EQUIPMENT: All fixtures by Kohler Co. Cabinets—Miami Cabinet Div., The Philip Carey Co.


ARCHITECT: "The property consists of a long, narrow strip between the street and a creek, varying in width from about 75 to 35 ft. The street side of the plot is southeast. This indicated a long plan with high windows on the street facade for privacy. Bedrooms, bath, and kitchen were placed on the street side where they receive the morning sun. The living room, on the back of the house, does not receive sun in the morning when not in use, and is protected from the hot noon and early afternoon sun by the roof overhang. It does receive the low western sun in the late afternoon.

"The budget was limited, and had to be increased when the bids came in. The house cost more per square foot than any I have done to date, but in spite of the amount of glass, insulation, and difficult construction, totaled only $5,500 including architect's fee."

OWNER: "Fortune's article 'The House That Works' changed a French-Norman dream to a modern reality... We like especially the abundant light and the compactness of the plan without sacrifice of privacy. The exterior of the house blends well with the landscape and fits our peculiarly shaped lot.

"The lack of a service entrance we find something of a nuisance, and the black floors a mental hazard. Due to plain surfaces and many windows the modern house is easier to clean and for the same reason harder to keep clean-looking than the traditional."
HOUSE FOR WILLIAM ROGER STOLL. HAYWARD, CALIF.

CONSTRUCTION OUTLINE


ROOF: Covered with Johns-Manville built-up asphalt and gravel roofing.

SHEET METAL WORK: Flashing and leaders—Armco galvanized iron, American Rolling Mill Co. Ducts—galvanized iron.

INSULATION: Outside walls—Reynolds Corp. Type C metalation; 1 in. Insulite Co. board in living room, and ¾ in Celotex elsewhere, Celotex Corp.


FLOOR COVERINGS: Main rooms—1½ in. tempered hardboard, Insulite Co. Kitchen and bathrooms—linoleum over ¼ in. plywood.


HARDWARE: By Rylock Co., Ltd.


KITCHEN EQUIPMENT: Range—Hot Point electric, Edison-General Electric Appliance Co. Refrigerator—Coloex, Sears, Roebuck Co. Sink—Kohler Co.

LAUNDRY EQUIPMENT: Sink—ceramic tray, Washing machine—Kelvinator Corp.


PLUMBING: Soil pipes—cast iron, Crane Co. Hot and cold water pipes—streamline copper, Mueller Brass Co.


ARCHITECT: "The house was planned entirely from the inside out—starting first with the furniture arrangement, windows were located with the furniture and view carefully considered. It is situated on a westerly sloping hill, commanding a superb view of the mountains. The entrance is directly on axis with Mount Evans, which can be seen through the west garden door down the stairs leading to the living room. The circular dining room affords vistas to the three important mountain peaks in this part of the Rockies: Long's Peak, Mount Evans, and Pike's Peak.

"The owners are modern minded and lived for years with all the reproductions of modern jobs they could find. I simply helped them weed out this collection."

OWNER: "It had been our idea for years to use modern because modern gave us what we wanted most without the restrictions of traditional. Our location, a rolling hill in the country with a 130-mile panorama of snow-capped peaks before us, necessitated windows, many of them, and large ones too. Also we feel that modern conforms to Colorado topography. "We like the sense of space which modern gives us. In no room are we aware of limitations or walls: the closed garden on the east of the living room brings us quiet and repose; on the south a garden of gay flowers; on the west our 14,000 foot peaks with rolling green lawn as a foreground. These stimulating, restful, and gay spots are all a part of our daily living because of plan, windows, and modern.

"The only way in which the house has proved at all unsatisfactory is in respect to the windows; on the basis of our experience we would say it is advisable to have eaves as a protection against snow and rain, especially in bedrooms where ventilation is a requirement."
BURNHAM HOYT, ARCHITECT

BREAKFAST ROOM

DINING ROOM

LIVING ROOM

THE ARCHITECTURAL FORUM
COLOR NOTES


LIVING ROOM. Ceiling, walls and floor: shades of yellow. Furniture and draperies: gray.

DINING ROOM. Ceiling, walls and floor: shades of gray. Furniture and draperies: gray. Curved, sliding partition is Celoglass on wood frame.

MASTER BEDROOM. Ceiling, walls, and floor: shades of blue. Bedspread, draperies and furniture: white.

CONSTRUCTION OUTLINE


STRUCTURE: Exterior walls—9 in. common brick, 2 in. wood furring; interior plaster. Interior partitions—in redwood drop siding. 7 1/2 in. sheathing, 2 x 6 in. studs, Stakraft Co. paper, wood lath and plaster. Floor construction—2 x 12 in. joists, sub- and finished floor flooring.


CHIMNEY: Terra cotta flue lining. Damper—Colonial Damper Co.


WINDOWS: Sash—Fencraft casement, Detroit Steel Products Co. Glass—1/2 in. double strength and 1/4 in. plate. Screens—Rolscreen Co.

STAIRS: Treads, risers and stringers—linoleum covered.

FLOORS: Fir throughout.

FLOOR COVERINGS: All floors linoleum covered.


GARAGE DOORS: Ro-way, Rowe Mfg. Co.

HARDWARE: Equipment by Yale & Towne Mfg. Co.


ELECTRICAL INSTALLATION: Wiring system and switches—General Electric Co.

KITCHEN EQUIPMENT: Range—Hot Point, Edison-General Electric Appliance Co. Sink—Crane Co.

BATHROOM EQUIPMENT: All fixtures by Crane Co. Cabinet—Hallenheid & McDonald.

PLUMBING: Hot and cold water pipes—copper tube.

ARCHITECT: "The family consists of Dr. and Mrs. MacCallum, three children, and a maid. Location overlooks a golf course and stream from the living room, dining room, and game room windows. The open terrace also overlooks the stream and golf course."

OWNER: "We chose modern because we believe it best fits our manner of living, and—since it is planned and built after a thorough study of the owner's needs—it gives greater living satisfaction.

"Our house works as it should in every way; its lack of waste space; our lovely views through the large windows; the feeling of spaciousness; and especially the joy it is to take care of. "We did not consider resale value when we built, but with increasing interest in modern and lowering construction costs, I believe the resale value will approach that of other types of houses. Several of our friends have changed their preference from traditional to modern after seeing our house, and one in particular—who was a confirmed antique collector and could see nothing but Colonial—is now building a modern house of her own.

"I am sure we would never consider building anything but a modern house again and would certainly like to see more modern houses. They are so much more interesting and livable than most traditional ones."
LIVING ROOM

CONSTRUCTION OUTLINE


ROOF: Wood covered with asbestos shingles. Decks—5-ply paper with brick finish set in asphalt.

CHIMNEY: Common brick, flue lining. Damper—Colonial Damper Co.

SHEET METAL WORK: Flashing, gutters and leaders—copper. Ducts—galvanized iron.

INSULATION: Outside walls and roof—Johns-Manville, Inc. Sound insulation—Acoustex, Celotex Corp.


WALL COVERINGS: Living room and bedrooms—plaster and brick. Halls and game room—Acoustex, Celotex Corp.

WOODWORK: Louisiana red cypress used throughout.


PAINTING: Interior and exterior sash—2-coats No. 61 float varnish, Pratt & Lambert, Inc.


BATHROOM EQUIPMENT: All fixtures by Kohler Co.

PLUMBING: Soilpipes—cast iron. Hot and cold water pipes—copper.

HEATING: General Electric Co. gas-fired, split system.
MODERN HOUSES TOP N. Y. FAIR, run off with 41 per cent of the votes in ARCHITECTURAL FORUM poll. A house-by-house presentation of the Town of Tomorrow.

A shining display of new building materials, the fifteen houses known as "The Town of Tomorrow" are now a completed part of the New York World's Fair. In no sense a town and distinctly of today rather than tomorrow, these houses—presented in order of cost in the following portfolio—constitute the Nation's No. 1 show. Of the fifteen, four houses are modern in exterior design, and two others are, with scant justification, so labeled by the Fair. The remaining nine are traditional, nearly all Colonial. Here for the first time the public can see modern and traditional houses side by side. Thus, by far the most interesting and significant question which the Town asks and answers is the public's reaction to modern architecture. The 3,000 dime-paying people who visit the Town every day represent a good cross section of U. S. public opinion and this Forum has sampled their reaction, has uncovered two newsworthy facts: 1) more than 40 per cent of the visitors favor —

The Town of Tomorrow is only part of Home Building's participation in the Fair. It is supplemented by a huge Home Building Center wherein manufacturers' wares are exhibited in usual exposition manner, by the Furniture and Decorations Building, and by the Electric Farm group. (ARCH. FORUM, June 1939, p. 481).

Trends. Other modern tendencies are apparent in various design and construction elements of nearly all of the houses:

- There is a growing emphasis on living space at the sacrifice of dining space—seven of the fifteen houses have a combination living-dining room or have folding walls (screens) which make it possible to combine the two.
- The pantry is no longer a required room—only one house (No. 21.*) backs this trend.
- The kitchen is progressing from its traditional location on the view-commanding rear of the house to the side or front—only three of the fifteen houses have a rear kitchen.
- The garage, long since moved from the back to the side of the house, is now moving to the front—four houses have their garage facing the street; six, the side yard; two, the rear yard; the remaining three

- All house numbers used herein are those assigned by the Fair. Explanation of the fact that the Fair's numbers are not consecutive is that only fifteen of the original twenty-one houses were built.

are small houses and are without garage.
- Natural, unpainted woods are increasing in importance both as interior and exterior decorative material—three houses underline this trend.
- Glass is becoming an increasingly important building material—eight houses make advantageous use of glass block in exterior walls wherever light, but not vision, is required. And it is used in every kind of room, from parlor to bath. Glass block also serves strictly decorative purposes in the Town of Tomorrow—such as in the serpentine wall in front of House No. 4.
- Corner windows and larger-than-average windows are becoming increasingly popular—ten houses show this.
- Lath and plaster for interior wall finish is giving way to "dry finish"—in about half the houses the inside walls are finished with plywood, wall board, drywall, cane fiber sheeting, etc., either papered, painted, or "raw."
- Most important, the long-standing theory that modern and traditional houses do not mix is exploded before the public's eyes. In the Town of Tomorrow modern houses stand toe to toe with traditional neighbors, collectively present an attractive, integrated appearance.

(Text continued on page 72)
Primarily an exhibit of the U.S. lumber industry, the house to the left is a variation of one of the two basic stock plans developed for this year's National Small Homes Demonstration by Architects Evans, Moore & Woolbridge. Aside from its abundant window areas, its design is completely traditional. Construction, however, features several new departures. Solid 2 in. planking is used for both floors and roof, supported by fewer but sturdier structural members than seen in conventionally framed houses. As shown in the interior photograph, these members are exposed as decorative ceiling beams. Interior walls are “dry-finished” with unpainted wood paneling.

Justified claim of the lumber industry is that these construction innovations save time, labor, materials and money. Through their use it is estimated that a duplicate of this house could be erected in the vicinity of New York City at a cost of approximately $3,200. This price (like all others presented in this portfolio) is figured to include concrete foundations in lieu of the wooden ones upon which all Town of Tomorrow houses rest. Unfortunately, erection of this house, in which lumber is used to the utmost, would not be permitted by the obsolete building codes of many cities.

This house falls into Group 3 of the Forum poll. (For an explanation of this poll see top of page 72.)

Sharing the low cost honors with the wooden house above, this 26 x 29 ft. brick unit is Architect George D. Comer's idea of the minimum house for the typical American family of four. A spacious kitchen provides modest room for dining, and a large exterior utility closet houses the washing machine and garden tools. Otherwise the plan is quite similar to that of most low cost houses. Construction is marked by the use of a 10 in. cavity brick exterior wall, an English importation. Its 2 in. air space has insulating properties, permits the application of plaster directly upon the interior face of the wall. Cost: $3,200. Forum poll: Group 3.
NEW YORK WORLD'S FAIR

This house successfully accomplishes its purpose to bring to the public's attention the many and varied uses of one of Home Building's newest materials. It is covered with plywood—inside, outside and on top. And, with the exception of the sheathing on the roof, most of the plywood is finished natural. Equally significant with its construction is the house's modern design, the work of Architect A. Lawrence Kocher. It features a large, high-ceiling living room lighted in part by a clerestory strip window, commendable segregation of the sleeping quarters, and a small but adequate dinette. Note also the number of large closets whose doors are sliding panels of plywood. Cost: $4,500. Although painting its exterior plywood would have reduced the exhibition value of the house, such a step might have improved it in the eyes of the public. Forum poll: Group 2.

PLYWOOD HOUSE (House No. 2)

Designed by Architect Henry S. Churchill, this $5,000 house is so planned and furnished that most of its rooms serve two purposes. Thus, the living room is an additional bedroom at night and its wall-high windows permit its use as a solarium. The small dining alcove when not used as such becomes a study. Housed in the master bedroom closet are a movable ironing board, sewing table, typewriter stand, files and drawers—making this room also an office for the housewife. With floor and walls attractively finished, the garage becomes a recreation room when the automobile is backed out. Forum poll: Group 2.
TOWN OF TOMORROW

Most popular house in the Town of Tomorrow is this creation of Architects Landefeld & Hatch—it earned 16.9 percent of the votes cast in the two-day poll conducted by The Architectural Forum. The plan is completely modern (see isometric, page 63) and the exterior is a frank expression of the interior which features two Bermudian importations: a knee-high fireplace and chamfered ceiling-wall intersections. The latter results from the use of low over-hanging eaves designed to exclude direct sunlight in the summer, to admit it in the winter.

Actually a part of the living room, the dining alcove is screened by a glass block spur wall which admits borrowed light to the otherwise dark vestibule and by a curtain which isolates the space from the living quarters. The latter is lighted on the facade wall by a row of large glass blocks, high enough to permit the facile arrangement of furniture beneath, and by a large strip window in the other two exterior walls. Focal point of the plan is its recreation room, one wall of which opens completely upon the paved terrace. It is separated from the living room by transparent glass, from the sleeping elements by a folding partition which slides on a ball-bearing ceiling track. Two bedrooms of identical size are lighted by large areas of block and transparent glass, are serviced by large sliding-door closets. Since this house is intended to be without basement, heating and laundry as well as cooking equipment is concentrated in the spacious L-shaped kitchen.

Although it was the house as a whole that pleased the public most, these elements were frequently singled out for favorable comment: its compact plan, its abundant built-in storage space, and its apparent low cost of maintenance.

Most frequent public criticism of the house, is that it makes use of too many types and colors of building materials. In addition to glass, the following materials enter into its design: white asbestos cement siding, reddish black brick with black cement pointing, redwood doors and window frames, black asphalt shingles on the roof and natural redwood on most of the interior walls and ceiling. This multiplicity of materials is attributable, in part, to the display purpose of the house.

Landscaping and brick garden walls are integral parts of the design. Contrasting with the sharp angles of structural walls and overhanging hipped roofs, is the serpentine wall which bounds the terrace. Equally attractive is the continuous brick window box located on two sides of the sleeping wing. Cost: $8,000.
NEW YORK WORLD'S FAIR

Behind the comparatively small facade pictured to the right hides a house of large proportions, for as seen in the plans below, an extension perpendicular to the house proper provides space for a workroom, maid's room and garage on the first floor, a bedroom and two baths on the second. Unfortunately this room arrangement places the garage in an inaccessible location which, in turn, gives rise to a difficult driveway problem unless the house were situated upon a corner lot.

Use of asbestos shingles on roof and exterior walls, wood fiber insulating board upon interior walls and ceilings and stock trim, doors and windows reduced the cost to $9,500.


JOHNS-MANVILLE TRIPLE INSULATED HOUSE (House No. 15)

For providing abundant closet space and an upstairs porch, Architect Cameron Clark has received many a verbal bouquet from Town of Tomorrow visitors. Furthermore, in an otherwise traditional house several modern tendencies are apparent: dining room and living room are one; the kitchen has been moved to the house's least desirable exposure—the front; and the garage is economically located near the street. Note also that, serviced by a small bath, the study is readily convertible into a guest room.

Newsworthy are its window screens whose horizontal wires have been replaced by thin strips of copper slanted to break the entry of direct sunlight, much as does a venetian blind. Cost: $10,000. Forum poll: Group 2.

NEW ENGLAND HOME (House No. 8)
TOWN OF TOMORROW

Designed by a woman, Architect Verna Cook Salomonsky, this house impressed a great many women visitors. Their comments by and large centered on two phases of design: 1) the exterior which the public thinks will "look pretty when the vines begin to grow" and 2) the room arrangement. Most interesting room is the second floor bath whose tub and shower are side by side against the exterior glass block wall and partially enclosed by a sheet of plate glass. Cost $13,000. Forum poll: third place in Group 1.

GARDEN HOME (House No. 13)

Another excellent example of material display, this house is built principally of the products of a single manufacturer: slag and cement block veneer, asphalt shingle roof, insulating sheathing board, and colored cane fiber board and moldings for interior wall finishes. The public commented favorably on its over-size steel casement windows, its second floor deck. The latter proved so popular as a resting place, that to keep people moving the Fair was forced to move the furniture to the first floor terrace. Architects: Henry Otis Chapman, Jr. & Harold W. Reder. Cost: $14,500. Forum poll: Group 3.

CELOTEX HOUSE (House No. 17)
NEW YORK WORLD'S FAIR

The most authentic Colonial design in the Town of Tomorrow, this house appealed to most of its Colonial-minded visitors, took second place in The Forum's poll of public preferences. Contributing to its popularity was the complete air conditioning equipment housed (for lack of a basement) in the servant's room. No other house in the Town boasted as cool an interior. Pictured to the right, the staircase which serves both the front and rear rooms on the first floor also made a favorable impression upon the public. Note similarity of the general shape and room arrangement between this house and house No. 15 (page 67) and that Architect Electus D. Litchfield has here given the garage a more practical location. Cost: $15,000.

KELVIN HOME (House No. 16)

Called the "House of Vistas" due to its three terraces and large corner windows, this is one of the Town's four examples of modern architecture. Focal point of the living room, two steps below other first floor rooms, is the fireplace corner whose white painted brick work is similar to the house's exterior. A screenwall of large glass blocks admits light from the living room to the entrance and stair hall. Although the multi-use room (study or bedroom) opens into this hall, it may be shut off by a folding wall hung from the ceiling and constructed of fabric on a steel frame. Most frequent favorable comments from the public concern the spaciousness of rooms and the outdoor living facilities. A large cantilevered canvas-on-steel awning shelters the second floor deck. Architect: Verner Walter Johnson. Cost: $17,000. Forum poll: Group 2.

HOUSE OF VISTAS (House No. 10)
TOWN OF TOMORROW

One of the largest residences in the Town of Tomorrow, this nine-room Georgian house was designed by Architect James W. O’Connor. With one possible exception—the use of glass block in the fenestration of the rear elevation—both design and construction are strictly traditional. Exterior materials are wood flush siding and shingle roofing; interior walls are painted plaster on wire lath. Modern, however, is its equipment—all electrical. In the garage the house’s chief sponsor set up a duplicate kitchen, wired it for sound. The displayed equipment “moves and talks” holds the interest of a seated audience. Cost: $17,000. Forum poll: fifth place in Group 1.

ELECTRIC HOME (House No. 18)

Classified by the Fair as “modern,” the “Motor Home” is actually a flat-roofed traditional house with its garage in a novel but questionable location. For visitors who were unaccustomed to enter a house between two garage doors, the Fair had to hang up a sign on the door knob reading “Front Door.” It discourages the public from trampling on the grass in search of a more likely entrance. While some of the Town visitors interviewed by The Forum commented that “maybe we are coming to this sort of thing,” many more thought otherwise. Architects: Adams & Prentice. Cost: $32,000. Forum poll: Group 3.

MOTOR HOME (House No. 21)
NEW YORK WORLD'S FAIR

Although purpose of this house is to boost fire safe building materials (brick walls are backed with terra cotta and insulated with metal while the roof is of asbestos shingles), the public devotes most of its attention to the attached greenhouse and pool. Down each sloping glass panel in the roof of this "garden room" flows a stream of water which is picked up by a gutter and directed into the pool. Designed by Architect Perry M. Duncan, the plan features compact room arrangement, abundant closet space. The garage, which would ordinarily face the street, is used as an office at the Fair. Cost: $24,000. Forum poll: fourth place in Group 1.

The most imaginative house design in the Fair's group of fifteen is also the most expensive—$33,000. In view of its extremely open plan, its tremendous window areas and the fact that it was not open for inspection during The Forum's poll, it is somewhat surprising that the public placed this house as high as sixth place. Particularly noteworthy are the sliding panels which subdivide two of the bedrooms. Flesh-tinted to make them visible, these panels permit the ventilation of half the bedroom for sleeping while the other half is kept warm for dressing. Fenestration that would be excessive on the street elevation opens up the rear or garden facade. Cavity walls and cantilevered slabs of concrete add interest to design of Architects Landefeld & Hatch.
People's Choice. Not satisfied with guesses, the Architectural Forum month ago conducted within the Town of Tomorrow a two-day poll of public opinion to determine which houses most interest the Town's visitors. Avoiding the comments of youngsters and oldsters, the Forum at the exit turnstiles singled out men and women in the middle age group (25- to 45-year-olds, comprising the biggest part of Home Building's market), asked them which house in the Town of Tomorrow pleased them most from the standpoint of architectural design and planning. Those interviewed were asked to disregard interior decoration and furnishings—most of which unfortunately are old vintage reproductions—and to base their answers solely on the houses themselves. This questioning brought to light two salient facts: (1) that 11.1 per cent of the Town's visitors favor modern houses* and (2) that the Town's most popular house is one of the four new moderns.

Fact No. 1 is based upon the number of votes cast for the six houses which the Fair classifies as "modern" as opposed to "traditional"—Nos. 2, 3, 4, 5, 10, and 21. Noteworthy in this connection is the fact that No. 5's only modern characteristics are its large corner windows, its flat roof; that No. 21 was so classified by the Fair due solely to the novel location of its garage and its flat roof. But, if modernizing these two houses is shifted to the traditional classification, votes cast for the other four modern houses still account for an impressive 34.5 per cent.

Fact No. 2 is based upon the polling of 16.9 per cent of the votes by House No. 3—a 86,000 one-story brick, wood and glass unit whose exterior appearance and interior planning seems to meet the fancy of young and old, men and women alike. Designed by Architects Landefeld and Hatch, its plan is distinctly of the contemporary, open type, its exterior is uncompromisingly modern.

*The misnomered "Bride's House" (it provides a bedroom for a Boy Scout son) was House No. 16, most authentic Colonial design in the Town. Since it is the only air conditioned exhibit within the gates, the popularity of this house must in some measure reflect a growing public acceptance of this feature. However, its clean, simple lines and direct plan prove again that a well-handled Colonial house is never far from the top in U. S. home buyers' estimation. Designed by Architect Eletus D. Litchfield, it trailed the winner by only 2.2 per cent.

Shortcomings. In general, the public heartily approves of the Fair's home building efforts; only a handful of the interviewed visitors regretted having spent their time and dime in the Town of Tomorrow. To those who believe that the most effective way to promote building materials and techniques is to display houses (rather than materials and techniques) the Town offers full confirmation. But, to those who hoped and expected that the houses exhibited would, for the first time in any U. S. Fair, present a forward looking, integrated neighborhood, the Town offers little more than a Sunday afternoon visit to any of the better subdivision developments.

In short, the Town stands simply as an exercise in present-day good home building practice. At a time when more than ever before the building business needs to put its best foot forward, needs more than ever to dramatize to the public its achievements, there is little at the Fair which rebukes that nasty person who continues to make odious comparisons between progress in automobiles and progress in houses. Fortunately for Building, there is little of interest in the exhibit. Unfortunately for the public, it will have to wait for the next Fair to see that progress adequately displayed.

The following paragraphs list the names, architects, sponsors and decorators of the fifteen houses which comprise the Town of Tomorrow.

### SMALL HOME OF WOOD (page 64)
Architects: Evans, Moore and Woodbridge.
Decorators: Gertz Department Store.

### SMALL HOME OF BRICK (page 64)

*Nine months ago Lura magazine polled its readers, found that 44 per cent favored modern over traditional architecture.*
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Kitchen compactness and labor saving convenience are outstanding in the Parsons Pureaire. Stove, oven, sink, refrigerator and unit, with generous drawer and shelf space, all in LESS THAN 8 SQ. FT. of floor space . . . And only patented Pureaire COOKS WITHOUT ODOR . . . But the biggest of all Pureaire exclusive merits is VALUE. For Pureaire costs you no more than a whole roomful of good quality kitchen units, bought and installed separately . . . Only possible explanation is efficient, standardized production methods by an organization that KNOWS HOW . . . Our yearly output of more than fifteen-million automobile parts and assemblies does its full part for you in establishing Pureaire's unique combination of high quality and low price . . . Investigate—RIGHT AWAY!

THE PARSONS COMPANY
Detroit

TOWN OF TOMORROW
(Continued from page 72)


DECORATOR: W. G. E. Slocane.

KELVIN HOME (page 69)
ARCHITECT: Electus H. Litchfield.

DECORATOR: Frederick Loeser & Co., Inc.

HOUSE OF VISTAS (page 68)
ARCHITECT: Verner Walter Johnson.

DECORATOR: John Wanamaker.

ELECTRIC HOME (page 70)
ARCHITECT: James W. O'Connor.


MOTOR HOME (page 70)
ARCHITECTS: Adams & Prentice.

DECORATOR: John Wanamaker.

FIRE SAFE HOME (Page 71)
ARCHITECT: Perry M. Durcan.

DECORATOR: James McCutcheon & Co.

PITTSBURGH HOUSE OF GLASS (page 71)
ARCHITECTS: Lancefield & Hatch.

DECORATOR: Modernage Furniture Corp.

MODERN or Traditional
Many architects use Cabot's DOUBLE-WHITE on houses they build for themselves . . .


For its extra whiteness and its remarkably long life, many architects choose Cabot's DOUBLE-WHITE when they build houses for themselves. DOUBLE-WHITE stays white—because it is not affected by gases which discolor many paints. It has greater hiding power and longer life—because it is made by our patented Collopaking process which divides the pigments much finer than other methods.


Cabot's DOUBLE-WHITE and Gloss Collopakes
(COLLOIDAL PAINTS)
AZROCK digs for its durability...
in one of the world's richest asphalt deposits.

Just as AZROCK, the modern mastic tile floor covering, improves this suite of handsome offices, so does Nature add to the strength and durability of AZROCK. AZROCK's basic ingredient (in all but the lighter shades) is Uvalde Rock Asphalt, a limestone thoroughly impregnated with natural high grade asphalt and mined from the huge, famed deposits owned by Uvalde Rock Asphalt Co., manufacturers of AZROCK. A random interlacing of cotton and asbestos fibers lends not only additional strength but provides a mild resilience, reducing foot noise, introducing foot comfort.

Cut micro-close for a smooth and sanitary surface, these tiles are impervious to dampness, strongly fire-resistant and make a floor covering easily cleaned, inexpensively maintained. Marks of burning cigarettes or cigars are readily erased. Available in a wide selection of beautiful all-the-way-thru colors and in a number of different sizes, AZROCK is sold installed. Write for name of your nearest distributor.

Manufactured by
Uvalde Rock Asphalt Co.
(In Business Since 1912)
Gen. Offices: San Antonio, Texas; Mines: Blewett, Texas; AZROCK Plants Houston, Texas; Distributing Contractors: in principal cities of U. S. A.
"SKINNY" is the new twice-as-thin Dust-Stop Air Filter—one inch thick instead of two—and here's why architects are choosing it for large air-conditioning jobs.

It costs 30% less than the two-inch filter... saves as much as 30% on filter replacement costs.

It's like this. Instead of using the two-inch filters two deep to form a four-inch depth, as heretofore, you use these new one-inch filters four deep. This means a 30% saving on every filter replacement. It's the front filter in the bank—whether it's one inch or two inches thick—that collects the bulk of the dirt. It's only that front filter that has to be thrown away. By using the less expensive, one-inch job you can save 30% per replacement, spend only $7 for every $10 spent before.

This one-inch Dust-Stop filter is the one to specify for all commercial installations, where maintenance men change filters regularly. It is not recommended for home use (see next page).

These one-inch daisies—known officially as the No. 1 Dust-Stop Filter—fit into the regular "L" and "Y" frames now used for two-inch filters. Their resistance at 300-foot velocity is .045 to .05-inch water-gauge. Their efficiency in the cell is as high as that of the 2-inch filter.

For more information about this new No.1 filter, write Owens-Corning Fiberglas Corporation, Toledo, O.
"FAT" is that popular old veteran, the two-inch Dust-Stop Air Filter—generally conceded to be the most efficient replaceable air filter ever made.

Although the new one-inch Dust-Stop will probably soon be top filter for big air-conditioning jobs, this two-inch filter still is best for use in the home warm-air furnace. (Indeed, it's specified in about 90% of the makes of forced warm-air furnaces now on the market.)

This two-inch filter—now known as the No. 2 Dust-Stop Filter—is better for home use because it has considerably more loading capacity than the one-inch filter. And in the home, where filters are seldom changed more than once a year, this extra loading capacity is IMPORTANT.

Recommend this two-inch Dust-Stop filter to your domestic clients—the one-inch to your industrial clients (see previous page).

Both these filters, are made with the thread-like glass called Fiberglas. The Fiberglas fibers are smooth and round and offer very little resistance to air flow. They are non-absorptive, do not shrink, swell, or rust with alternate wetting and drying, and are fireproof. They are arranged in two layers—coarse and fine—to stop a maximum of dust.

For further information, write to Owens-Corning Fiberglas Corporation, Toledo, O.
Walls that provide Two-Fold Insulation, Weather Protection, Strength and Economy

OUTSIDE

USG Weatherwood* Tongue and Groove, 2' x 8' Asphalt Coated Sheathing

★ A “3-in-1” product—it builds, sheathes, insulates
★ T & G joints provide tight joints, protection against wind infiltration
★ One man application—applied horizontally
★ Saves labor and material—cuts may be made on scaffold
★ Ties 7 studs together

INSIDE

★ USG Weatherwood U-Joint fasnap Reinforced Insulating Lath
★ A “3-in-1” product—it provides base for plaster, insulates, reinforces plaster
★ Convenient size sheets make handling easy, are fast-erecting
★ Reinforcement minimizes plaster cracks
★ Easy to plaster over—fiberboard has natural plasterboard
★ Helps quiet rooms, makes excellent sound deadening for partitions

Product of United States Gypsum Company
300 West Adams Street, Chicago, Illinois

WEATHERWOOD Insulated Wall
Here's the famous trademark of the new White Owl Cigars, perfectly and effectively carried out in blue, brown, red Terrazzo. This Terrazzo floor is in the White Owl Exhibit Building at the N.Y. World’s Fair, 1939.

TERRAZZO-

The Floor of Tomorrow
IN THE WORLD OF TOMORROW!

How will this and other Terrazzo floors look after millions of visitors to the World’s Fair have walked back and forth across them? Just the same! They’re Terrazzo!

Where architects want unusual floor beauty plus extreme durability, Terrazzo is the answer. It is surprisingly durable, easy to clean, and low in first and upkeep cost. It is also adaptable to any treatment or design. Color and pattern range are practically without limit.

So, for your job of tomorrow, plan to let Terrazzo carry out your floor designs! For the latest data on Terrazzo, just write to the National Terrazzo and Mosaic Association, 1420 New York Avenue, N. W., Washington, D. C.
"And to Me," Says the Architect . . . "It's a Guarantee of Maximum Comfort at Minimum Cost to Equip Homes with

HOLLAND Automatic Furnace AIR CONDITIONER FOR OIL OR GAS"

ANYONE with sufficient technical training who examines the Holland Automatic Furnace Air Conditioner can readily understand why virtually every installation arouses the kind of enthusiasm indicated above. Design, construction and materials all work together to provide maximum delivery of heat throughout the home.

New type instant-heating refractory chamber gives maximum combustion efficiency immediately—burns fuel in suspension—spreads flames to all parts of combustion chamber, utilizing the bottom as well as top and sides of the combustion chamber. Furnace unit of Hollandized Cast-Metal radiates stored-up heat after burner stops—burner does not operate so often nor so long at a time—saves fuel. Patented air-flow control makes system self-insulating—preheats air before it reaches heat unit—prevents leakage of warmed air into basement. These and numerous other improved features have been achieved by advance engineering which reduces manufacturing costs to make a lower selling price possible in addition to effecting increased comfort and efficiency at lower operating costs.

Yet mechanical improvements are not the only reasons why this new unit has already been installed in thousands of homes. No less important is the Holland Furnace Company's scientific planning and installation backed by an iron-clad factory-to-user guarantee of perfect heat in every room. Every home architect, therefore, will want to know all the facts. They are easily obtained by mailing the coupon below. No obligation!

HOLLAND FURNACE COMPANY
HOLLAND, MICHIGAN
World's Largest Installers of Home Heating and Air Conditioning Systems

HOLLAND FURNACE COMPANY
Dept. AF-7, Holland, Michigan
Please mail information on subjects checked below:
☐ Automatic Furnace Air Conditioner for Oil or Gas
☐ Coal-Burning Heating and Air Conditioning Systems
☐ Automatic Coal Burner
☐ Automatic Oil Burners
☐ Data Sheets
☐ Have Engineer Call

Name: ____________________________
Address: ____________________________
City: __________________ State: ________

THE ARCHITECTURAL FORUM
Its Beauty is a Bonus...

Costs are low, upkeep is low when you build with CONCRETE

Concrete helps you achieve architectural distinction at low cost because it permits frame, walls, floors and decorative detail to be cast in one thrifty material. Concrete can be molded into the shapes and forms desired, and finished economically in a wide range of surface textures. Gives the architect design freedom; the owner a lasting, firesafe building, low in maintenance.

The possibilities of this versatile material are illustrated in booklet, "The NEW Beauty in Walls of Architectural Concrete", furnished free on request in U. S. or Canada.

PORTLAND CEMENT ASSOCIATION
Dept. 7-7, 33 West Grand Avenue, Chicago, Illinois

A national organization to improve and extend the uses of concrete—through scientific research and engineering field work.

New Sears, Roebuck store at Baltimore, Maryland. Nimmons, Carr & Wright, architects. Consolidated Engineering Co., contractors. Similar Sears buildings by same architects at Chicago, Highland Park, Michigan, and Glendale, California.

ARCHITECTURAL CONCRETE
Architectural and Structural Functions Combined in One Firesafe, Enduring Material.

See Sweet's Catalog 45 for specifications and data on Architectural Concrete.
That NOFMA Oak Flooring retains the rich color, figure and texture inherent in its original forest growth will be evident to the supervising architect when the trim, clean bundles in which it is delivered on the job are broken open by the floor layer.

That NOFMA Oak Floors retain their smooth, well-groomed surfaces, because the flooring material itself is accurately milled from correctly seasoned oak lumber, which minimizes shrinking and swelling, will be evident to the owner through years of satisfactory service.

That specification writers may be equipped with correct data for specifying NOFMA Oak Floors, (which also qualify for Federal projects) the NOFMA Master Work Sheet will be mailed on request. See also Sweets Catalog.

NOFMA Oak Floors are immediately available from local retail lumber dealers anywhere in the United States.

National Oak Flooring Manufacturers' Ass'n
739 Dermont Building, Memphis, Tenn.
USE TRIPLE-DUTY CERTAIN-TEED STRUCTURAL INSULATION

Here's a way to give your clients the benefits of fully-insulated wall construction with great structural strength and a protective vapor barrier—at one low cost.

In place of three single-purpose materials, specify C-S-I Asphalted Sheathing. It builds strong, insulated outer walls with a protective aluminum-coated, asphalt vapor barrier.

Instead of one-purpose lath, specify C-S-I Asphalted Key-Lap Lath to provide structural strength, insulation, a vapor barrier and a "textured" plaster-base with exceptional plaster-bonding properties.

Made by the exclusive Certain-Teed Cane-Weave process, both of these materials do triple-duty—add strength, insulation, and a vapor barrier—at material-plus-labor costs that are seldom higher (and frequently lower) than those of the materials they replace. Both C-S-I Asphalted Sheathing and C-S-I Asphalted Key-Lap Lath, licensed under Ferox Process patents, are dry-rot proofed and termite-proofed.

C-S-I is also supplied as Insulation Board and as Finish Plank and Tile Board, in three colors and three textures to provide insulation and decorative interior finish. Ask for samples of C-S-I and a copy of the C-S-I Insulation Manual.

SEND FOR FREE C-S-I INSULATION MANUAL
Now being prepared, it covers the complete C-S-I Line—
C-S-I ASPHALTED SHEATHING • C-S-I KEY-LAP LATH
C-S-I ASPHALTED KEY-LAP LATH • C-S-I INSULATING BOARD • C-S-I DECORATIVE PLANK AND TILE BOARD

CERTAIN-TEED PRODUCTS CORPORATION • GENERAL OFFICES, NEW YORK, N. Y.
EXTRA!

DECORATING COSTS SLASHED

—with this fine medium for artistic expression

One coat of Mural-tone covers and hides on most surfaces, and Mural-tone Casein Wall Paint can be used on practically every interior surface material, i.e., plaster, cement, insulating boards, concrete, wall paper, etc.—for new or old construction.

Your savings are based on actual reductions in time, labor and materials. More than four years of use under every imaginable condition, from coast to coast, has proved conclusively that Mural-tone reduces painting and decorating costs at least 25%! Please write for color and let-down charts and facts on beauty, speed and economy to The Muralo Co., Inc. (Founded 1894), 574 Richmond Terrace, Staten Island, New York. Branches at Chicago, Boston, Atlanta, San Francisco, Los Angeles.

FORUM OF EVENTS

(Continued from page 42)

NAMED BY THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION for their Eleventh Annual Awards for the most beautiful bridges built during the year: Middletown-Portland Bridge, Middletown, Conn.—most beautiful monumental bridge. Capital Bridge, Frankfort, Ky.—most beautiful medium sized bridge. Middle Fork of Flathead River Bridge, Bolton, Mont.—most beautiful small bridge. Lafayette Avenue Bridge, Bay City, Mich.—most beautiful movable bridge. The jury of awards: Graham Eshkine representing Arthur L. Harmon, architect; J. André Fouilloux, architect; Kenneth Hayes Miller, artist; F. E. Schmitt, Editor Engineering News-Record; and Prof. David L. Snader, Stevens Institute of Technology.

COMPETITIONS

IN A COMPETITION TO ENCOURAGE DETROIT ARCHITECTS to study the possibilities of the out-swinging casement windows to houses of Colonial character, Detroit Steel Products Company sponsored a "Fenestra Architectural Competition," Contestants not only submitted designs, but also served as the jury of awards. The prize winners: First, Hyle & Williams; Second, J. Ivan Dise; First Mention, Ditch-Farley-Perry; Second Mention, Earl W. Pellerin; Third Mention, Talmage C. Hughes; Fourth Mention, J. Ivan Dise.

INSULUX GLASS BLOCK COMPETITIONS. For winners in Competition No. 1 see page 7. Competition No. 2, A Group of Three Stores, offering $2,000 in prizes, closes August 21, 1939 at midnight. For complete program see ARCH. FORUM, May 1939. A reprint will be sent upon request to the Professional Adviser, H. H. Saylor, A.I.A., 9 Rockefeller Plaza, New York, N. Y.

U. S. GOVERNMENT'S REGIONAL COMPETITIONS. The second project of a series of regional competitions for designs for Federal Buildings has been announced by Admiral C. J. Peopes, Director of the Procurement Division of the Treasury Department. Under the program announced last March by Secretary Morgenthau, architects of the five States of Region No. 7 are being invited to enter a competition leading to a design for the new Post Office, Court House and Custom House Building for the City of Evansville, Ind., with an estimated cost of $600,000.

This competition is open to all registered architects who are citizens of the U. S. of America and whose home- offices are located within the confines of Region No. 7 of the regional divisions set up by the Procurement Division. Region No. 7 includes the following States: Ohio, Indiana, Michigan, Wisconsin, and Illinois.

However, architects who are not registered but whose home-office is within the region above mentioned, are eligible to enter this competition upon the submission of qualifications satisfactory to the Department. The material for such submission consists of one or more photographs and a sufficient number of prints of working drawings to indicate the character of a building designed and executed by the applicant and considered by the Adviser as being comparable to the building which forms the subject of this competition. And it is further provided that no employee of the Federal Government or of the Government of the District of Columbia is eligible to enter this competition. For the purpose of this competition the term "employee" includes not only those employed on a salary basis but also any architect who, during the time that this competition (Continued on page 46)
Expanded Metal enclosures solve, in a practical way, the partition problem in tenant garages. Note how bright the interior of this garage is. The open nature of Expanded Metal is particularly advantageous in buildings protected by sprinkler systems, for Expanded Metal does not interfere with the operation of the sprinklers and thereby further increases the fire safety of the building.

STEELCRETE Expanded Metal for apartment building storerooms, laundry compartments and garage partitions, is available in standard panels approximately 4' wide and of various heights, with framing, ready for easy installation. The mesh in each panel is expanded from a single sheet of steel. The strands cannot be prised apart and will not unravel. The open diamond mesh permits free circulation of air and unobstructed distribution of light. Should alterations become necessary, Expanded Metal partitions offer full salvage value. Write for details on this practical firesafe construction.

"IT'S WHEELING STEEL"

THE CONSOLIDATED EXPANDED METAL COMPANIES
WHEELING, WEST VIRGINIA
Branch Offices and Warehouses:
New York • Chicago • Detroit • Cleveland • Pittsburgh • Philadelphia • Boston • Buffalo • Houston • Atlanta
Export Office: 330 West 42nd St., New York, N.Y.
$3,000,000
WORTH OF
ARCHITECT-DESIGNED

PRECISION-BUILT HOMES
HAVE ALREADY BEEN BUILT

30 days from your board to the finished house

MORE than $3,000,000 worth of architect-designed, Precision-Built Homes have already been erected!

Here is the most revolutionary method of home construction yet devised; more house for the money; standard materials and quality construction used throughout; built in 30 days or less; doubly insulated; one-piece, permanently crack-proof walls; eligible for FHA loans.

With this method, any frame building—of any size or design—can be completely built and ready for occupancy in a minimum of time. The exterior finish may be our own Sand Finish (resembling stucco and more enduring) or brick veneer, stone veneer, patented sidings, clapboards or shingles.

With the use of our new book "Tomorrow's Homes," which is privileged to architects without charge, it is possible to reduce your own time for drafting and supervision to a minimum. With our merchandising plans, you have business brought to you—by your local lumber dealer, contractors and realtors. You can handle even low-cost homes at a profit.

...Let us send you the book "Tomorrow's Homes"—show you how it saves many hours in both drafting and detailing. The whole system is developed on the Bemis 4" module and includes standardized details never before presented to the architect. Despite the standardization, you have complete flexibility, no limitations on your design. All details can be used with complete confidence that they are tested and practical.

We invite you to write for "Tomorrow's Homes," using your firm's letterhead. Only one copy to a firm.

FORUM OF EVENTS

(Continued from page 44)

is in progress, has a contract for professional services with the U. S. Treasury Department.

If a design is submitted by a firm, the copy of registration certificates or the other evidence of qualification mentioned above must be furnished by at least one member of the firm.

The author of the winning design will receive $6,000 for this distinction and will be paid an additional $6,000 in his capacity as consultant during the preparation of working drawings and specifications, these to be prepared under the direction of the Public Buildings Branch of the Procurement Division.

In order that all eligible architects of the seventh region may be free to compete, it has been arranged to draw a jury of award from neighboring regional districts.

Drawings called for are to be in pencil, free from elaborate rendering, thus keeping to a reasonable minimum the labor involved in the competition drawings.

Copies of the program will be available about June 31, 1939, and in order to enter this competition competitors must apply by letter or by telegram so that their names may be placed on record in the Public Buildings Branch of the Procurement Division. The letters or telegrams should be addressed as follows: "Director of Procurement, Procurement Division, Treasury Department, Washington, D. C."

Applications by letter should have the envelope conspicuously marked with the words "Architectural Competition." And included with the letter of application from a registered architect there must be a photographic copy of the applicant's certificate of registration or a statement from a qualified State officer attesting to the applicant's registration status; in the case of unregistered architects, they must submit with the letter of application evidence of qualifications mentioned above. Applicants by telegram must state that copy of certificate or evidence of qualifications has been mailed. Action on the application will be subject to the receipt of such certificate or other acceptable evidence as described.

The program for competitions for designs of Federal buildings in other regions will be issued in the near future.

COMPETITION FOR A SMALL CHURCH. Under the sponsorship of University of Notre Dame's Department of Architecture 27 drawings for a small church were submitted to the following jury: Rev. Michael Andrew Chipman, P.R., of Lafayette, Ind., and architects Harold Maurer of South Bend, Ind., T. Clifford Noonan of Chicago, and Thomas E...
THIS SIGN
INVITES YOU TO NEW
SOURCES OF INSPIRATION

The marvels of the New York World's Fair—the splendors of Manhattan—both will attract you to the metropolis this year. Both will offer to the architect limitless sights of compelling interest—limitless sources of inspiration.

In New York, readily accessible in famed Radio City, is the Permanent Exhibit of Decorative Arts and Crafts. And here Libbey-Owens-Ford conducts a permanent and complete exhibit of flat glass.

The photographs of sections of this exhibit illustrate some of the novel, practical and ornamental possibilities of glass. However, they do not portray the full scope of the display. You will find there in infinite variety, new and artful uses of glass in keeping with today's trend in architecture—a trend that emphasizes the functional and decorative value of this fascinating material.

Libbey-Owens-Ford Glass Company, Toledo, O.

LIBBEY·OWENS·FORD
QUALITY GLASS
NOW ON SALE ALL OVER NORTH AMERICA

Reardon's WASHABLE KALSOMINE
Brings You
1 "Finger-Tip" MIXING
2 "Smooth-as-Velvet" FINISH

Here’s real news! Reardon’s Washable Kalsomine has been improved in two different ways—ease of mixing and smoothness of finish. Nothing else has been changed and R.W. K. again sets the pace offering these major improvements plus washability, self-sizing, uncanny “hide” and permanency at low cost. Reports from users of the improved product are full of enthusiasm for its “finger-tip” mixing and its “smooth-as-velvet” finish.

Mixes With Amazing Ease
R.W. K. was always easy to mix but now all you need for preparation is a few minutes of “finger-tip” stirring. The New R.W. K. has an even finer texture and achieves complete dispersion through effortless mixing.

Ends Bumpy, Sandy Finish
Inferior washable kalsomines fail to deliver the smooth hard effect that is so desirable. The New R.W. K., however, achieves a satin-like texture through an extra milling process which insures a uniform “smooth-as-velvet” finish.

Try This New R.W. K. Today!
The improved R.W. K. will sell itself. Try it on a job soon. You’ll be convinced that we have succeeded in making a fine product even finer.

SEND FOR NEW R.W.K. FOLDER
THE REARDON COMPANY
St. Louis • Chicago • Los Angeles

FORUM OF EVENTS

(Continued from page 46)

CALENDAR

September 4-8. Institution of Mechanical Engineers of Great Britain to meet with American Society of Mechanical Engineers, the two societies to be joined by the Institution of Civil Engineers and the Engineering Institute of Canada, who are meeting with the American Society of Civil Engineers, Hotel Pennsylvania, New York, N. Y. (Mechanical Engineers at Hotel Pennsylvania, Civil Engineers at Columbia University.)


September 28. International Congress of Architects as guests of the A.I.A. leave by steamer for Old Point Comfort.


January 22-26, 1940. Sixth International Heating and Ventilating Exposition, Lakeside Hall, Cleveland, Ohio.

PERSONALS

The new firm of Ditchy-Perry-Sidnam, architects of Detroit, Mich., is announced as the successor of Ditchy-Farley-Perry, architects. The members of the partnership include Clair W. Ditchy, Leo I. Perry, and Verne H. Sidnam.

The partnership of Grant & George, architects, has been dissolved by mutual consent. Alfred Watts Grant has opened an office for the practice of architecture at 1340 Post Road, Fairfield, Conn. L. Livingston George will continue to practice architecture at 11 East State St., Westport, Conn.

Gilbert Rothe, industrial designer, has moved his offices to 22 East 60th St. in New York.

Stanton Willard, architect, announces the dissolution of the partnership, Symmes & Willard, and that he will carry on the practice of architecture under his own name with offices at 1314 Seventeenth St., Bakersfield, Calif. Associated with Mr. Willard, as in the former partnership, are architects Arthur C. Metcalf and J. Warren Wright.

James W. Follin, who has become widely known to architects through his work with the Federal Home Loan Bank Board in Washington, D. C. as chief of the Home Building Service Division, has been appointed managing director of The Producers’ Council. Mr. Follin is a graduate professional engineer, a past president of the Philadelphia Section, A.S.C.E., and for several years he was assistant engineer to the Pennsylvania Department of Highways. He also served as secretary of the Construction Code Authority, Inc., the administrative and coordinating agency created by the Construction Code.
Herman Nelson Air Conditioners are selected for another Willmar, Minnesota, School

In 1921, School Authorities of Willmar, Minnesota, selected Herman Nelson equipment for installation in the Lincoln School. Now, 18 years later, Herman Nelson Air Conditioners will be installed in the new Willmar High School.

Not only in Willmar—but in all sections of the country—Herman Nelson Air Conditioners are being selected in preference to any other unit for modern school projects. This is only natural, because Herman Nelson equipment has proved in actual service that it provides superior results and unmatched operating economy.

During the past 30 years, Architects and School Authorities have learned that they can rely on Herman Nelson's nation-wide organization for intelligent, reliable service in heating, ventilating and air conditioning of schools.
Jasphalt tile was a wise choice. This floor made the room! Better still, Johns-Manville made the floor...that means it will wear!

If you have a floor problem, you need this helpful book—Mail Coupon!

MORE than "just a catalog," this full-color J-M Book shows how you can have a durable, quiet and resilient floor, surprisingly inexpensively. You'll find new ideas for cheerful, attractive floors for stores, hotels, restaurants, schools, offices...restful designs for churches and hospitals. And the beautiful natural-color illustrations of the many attractive patterns enable you to visualize your own ideas in color and design. You'll find the J-M Asphalt Tile brochure helpful as a reference book...even more helpful in picturing flooring effects to your clients. For your free copy and specification data, mail the coupon.

J-M Asphalt Tile is sold only by Approved J-M Flooring Contractors. There is one near you...consult the Classified Telephone Book under "Flooring." The J-M Insignia marks his name.

CLIP COUPON FOR FREE BOOK

JOHNS-MANVILLE, Dept. AF-7, 22 East 49th Street, New York City

Send me free specification data and your full-color brochure on decorative floors of J-M Asphalt Tile Flooring.

Name:

Address:

City:

State:

Ralph D. Huzzaph, Architect


The Ric-Wil Co.

Accept no substitute for Dry-pac—which meets severe sub-soil conditions. Write for Ric-wil Catalog.

Ralph D. Huzzaph, Architect

Protect the BEAUTY of "French Farmhouse" homes this old-fashioned way

JOHNS-MANVILLE

ASPHALT TILE FLOORING

Ric-Wil Conduit
Gives Real
Underground
Steam Protection

The RIC-WIL CO.

NEW YORK

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AGENTS IN PRINCIPAL CITIES

Conduit Systems for Underground Steam Pipes

The Eagle-Picher Lead Company, Cincinnati, Ohio

Makers of Eagle Enduring Home Insulation—Thick, Fireproof Mineral Wool

Since 1843

EAGLE pure
WHITE LEAD

THE EAGLE-PICHER LEAD
COMPANY, CINCINNATI, OHIO
THE Pittco Store Front Metal line is notable for its beauty... for the sharp contours, the pleasant lines, the harmonious relationship of design which exists between all bars, mouldings and sash. But it is also distinguished by its sturdy practical construction. Every Pittco Metal member has been so styled as to contribute definitely to easier installation, greater adaptability and longer life.

At the New York World's Fair, see the full-size Pittco Store Fronts of the "Street of Tomorrow" in the Forward March of America Building, and the miniature Pittco Fronts in the Glass Center Building. Or, at the Golden Gate International Exposition, see these miniatures in the Homes and Gardens Building.

PRACTICAL CONSTRUCTION

THE Pittco Store Front Metal line is notable for its beauty... for the sharp contours, the pleasant lines, the harmonious relationship of design which exists between all bars, mouldings and sash. But it is also distinguished by its sturdy practical construction. Every Pittco Metal member has been so styled as to contribute definitely to easier installation, greater adaptability and longer life.

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PITTSBURGH PLATE GLASS COMPANY

JULY 1939
EXTREME EXPOSURE
But
THOROUGHLY WEATHERPROOF

This home, situated atop a high cliff, presented a special problem for weather protection. Accurate metal weather strips and door saddles have fulfilled every requirement, even where sliding doors are employed to convert a bedroom into a sleeping porch. No moisture seepage or drafts when windows and doors are closed. And this type of brass door saddle (see detail) also prevents free access of termites and other insects. The Accurate organization has pioneered many improvements in weather strip design in the past 35 years. Its products are protected by numerous patents, some of very recent date. Write for catalog.

Representatives in Principal Cities

Accurate Metal Weather Strip Co.
214 East 26th Street, New York, N. Y.
Use Buckeye Conduit that lets you pull a profit from the job just as easily as you can fish a cable through its oven-baked mirror smooth raceway. Good conduit is a combination of good pipe plus the proper non-conductive lining, and Youngstown is in the fortunate position of controlling the manufacture of Buckeye Conduit all the way from the iron ore.

The finished product reflects the advantages of that control. Ore, metal, manufacture, the finished conduit and its lining are all designed to go together into one excellent combination of those qualities of uniformity, ductility, ease of fishing and the high non-conductivity factor that contractors demand.

The universal acceptance of Youngstown Conduit is a true measure of these statements. Buy Youngstown Conduit and learn for yourself the faster time and greater profit you can make with it.
Probably no monumental or public structure demands more of its windows than the school...where adequate light and efficient and easily controlled ventilation are so essential. Besides these qualities which are definitely assured in "Projected Fenmark" Windows, the architects' desires for harmony of design with attractive lines and well proportioned glass areas are also completely satisfied.

These sturdy steel windows provide weather protection while the ventilators are open. The projected-out ventilators in an open position form a canopy above the opening. Projected-in ventilators shed water toward the outside. All ventilators are of the "projected" type opening "in" or "out" as specified.

"Projected Fenmark" Windows may be screened if desired. Ventilators are usually arranged so that all glass may be cleaned on both sides from inside the room. Complete details will be gladly furnished upon request. See Fenestra Catalog in SWEET'S for 1939 (30th Consecutive Year).
You can't beat lead for making PAINT

You know how lead lasts. You know it's got what it takes to stand up against the attacks of time and weather.

That's why it's good where there's a tough job to do.

Now maybe you never realized that white lead is made from lead. But it's a fact.

And being in the family, so to speak, white lead paint has lasting qualities all its own.

That's not just my opinion, because I work in a lead mine.

Ask any good painter and he'll tell you the same.

He'll tell you how white lead lies smooth and snug, doesn't crack or brittle up—how it stays on the job for years.

Fact is, you can't beat a paint that's made from lead. And you're money ahead, because this is a case of the best being the cheapest too.

Want to know more about this whole subject? Write for "What to expect from White Lead Paint."

LEAD INDUSTRIES ASSOCIATION
420 Lexington Avenue, New York, N.Y.

Puttying is important and it always pays to hire a skilled painter who knows the definite part that filling nail holes with white lead putty plays in maintaining a smooth, sightly looking job.

JULY 1939
When a home draws as much attention as this one, it's just plain good advertising to equip it with the last word in modern housekeeping appliances. And that means gas appliances for all four big jobs!

For home-buyers recognize these handsome, automatic miracles as real labor-savers and money-savers. Each house you build this way enhances your reputation for homes that are easy to live in, economical to run.

Lower first cost, and lower installation cost mean more house for the money. See your local Gas Company for details of the new gas ranges, refrigerators, water heaters, and house heating equipment.

AMERICAN GAS ASSOCIATION

STILL TIME TO ENTER $10,000 ALL-GAS HOME BUILDING COMPETITION

All types of homes, new or modernized are eligible for big prizes. Simple rules. Worth your while.

MAIL ENTRY COUPON NOW!

Competition Director
American Gas Association, 420 Lexington Ave., N. Y. C.

Date

Last Name.................................. First

Address........................................ City.................................. State

I wish to enter A.G.A. Builders’ Competition. I am a builder

Note: Architects may enter homes in this contest with the written permission of the builder. Architect

Kindly forward complete details.

A9

Signature

LET

DO THE 4 BIG JOBS

COOKING
WATER HEATING
REFRIGERATION
HOUSE HEATING

Be sure the gas appliances are specifically listed in the Architectural Digest of the American Gas Association Testing Laboratories.

THE ARCHITECTURAL FORUM

56
Why Architects Prefer GYPSTEEL PLANK for College Buildings

In all college buildings, firesafety, permanence and economy are of prime importance. GYPSTEEL PLANK* provides all three. Firesafety—because it is a combination of steel and gypsum, two incombustible materials. Permanence—because gypsum floors and roofs have proved their durability by more than forty years of use in various types of buildings, and because GYPSTEEL is doubly reinforced with steel mesh and tongued and grooved steel bindings that lock to form a strong I-Beam. It is vermin-proof, termite-proof, and will not shrink or warp. Economy—because GYPSTEEL PLANK is a pre-cast, factory-made unit that is handled, cut, sawed, nailed or bored—and installed with the ease and speed of lumber. These are the reasons why so many architects prefer PLANK for college buildings.

In short, GYPSTEEL PLANK is the ideal solution to the problem of obtaining permanent, firesafe floors and roof-decks at low cost. The same advantages gained in the college buildings shown here can be had with PLANK in any type of building. Write for the 28-page Gypsum Plank Bulletin, which puts all the information you want at your fingertips.

*The term PLANK as applied to cementitious building products is a trade-mark of the American Cyanamid & Chemical Corporation.
IS IT TIME TO revise your ideas ABOUT REFRIGERATION?

There has been so radical a change in ice refrigerators during the past few years that knowledge of the facts may well give you an entirely new conception of the situation in domestic and commercial refrigeration.

The modern air-conditioned ice refrigerator—smart and trim as to lines, gleaming white, with chromium fittings—is an ornament to any kitchen or shop, however fine. It may be a descendant of the old wooden "ice-box", but you'd never guess it.

And functionally, the change has been just as great. As designed and constructed today the ice refrigerator gives food protection such as is not available with any other type refrigerator—guarding foods not only with constant cold, but also with properly moist air from which trouble-causing food odors have been washed.

The modern air-conditioned ice refrigerator has nothing to get out of order—no noise—no defrosting. It costs only a third to a half as much as other types and there is a style and size to suit every home and meet every commercial establishment.

Your local ice company will be glad to give you complete details, or write:

NATIONAL ASSOCIATION OF ICE INDUSTRIES
228 North LaSalle Street, Chicago, Illinois.

PAYNE FURNACE & SUPPLY Co., Inc.
BEVERLY HILLS, CALIFORNIA

Announcement:
Wyvernwood, the largest rental housing project in the United States, is heated by Payne.

WYVERNWOOD STATISTICS:
Wyvernwood is a 70 acre development within 10 minutes' drive from downtown Los Angeles.

When completed, it will comprise 143 residential buildings made up of 1102 units containing 4443 rooms.

It is a private enterprise erected under the National Housing Act, and privately financed by the largest single loan for which an F.H.A. insurance commitment has ever been issued. Total investment will be in excess of $6,000,000.

The architects, David J. Witmer and Loyall F. Watson, designed this project for permanence and specified the finest materials to help maintain rental values and reduce upkeep costs.

The entire project is being heated by Payne Floor Furnaces, Payne Duplex Furnaces and Payne Console Heaters.

Payne has been a recognized leader in the gas heating field for more than a quarter of a century. The same facilities that have made it possible for Payne to meet Wyvernwood's rigid specifications are available to you for your next heating job. Whether you are planning another Wyvernwood project or a three room house, take advantage of Payne's scientifically designed precision-construction and feel free to call upon Payne's up-to-the-minute engineering staff for heating plans.

Payne Furnace & Supply Co., Inc.
Beverly Hills, California

Cold ALONE is not enough!
"Why all the flag waving about washability?"

you ask.

And we answer: "Washability is probably the most important thing to check on when specifying interior paint. The reason why is that walls which can be kept clean do not need to be repainted so often. Therefore, real washability means real economy for your client."

Flat paint made with Dutch Boy White-Lead and Lead Mixing Oil is washable in both senses of the word. (1) The beauty of this paint is not destroyed by hard scrubblings. (2) Those scrubblings actually get you somewhere. The test panel at the right shows how stubborn stains and dirt really do "come out in the wash."

But there's more to the story of Dutch Boy money-saving than that. This paint has all the durability for which white-lead has long been famous. It mixes quickly, spreads easily and has high coverage—800 sq. ft. per gal. on smooth plaster. Those three qualities mean low first cost. Then add long wear and real cleanability, and you have long-run economy also.

NATIONAL LEAD COMPANY—111 Broadway, New York; 116 Oak St., Buffalo; 990 West 18th St., Chicago; 839 Freeman Ave., Cincinnati; 1213 West Third St., Cleveland; 722 Chestnut St., St. Louis; 2240 24th St., San Francisco; National Boston Lead Co., 809 Albany St., Boston; National Lead & Oil Co. of Penna., 1st Fourth Ave., Pittsburgh; John T. Lewis & Bros., Widener Building, Philadelphia.
"U.S.S Galvanized Copper Steel is the Logical Choice for Duct Work...

Experience Has Proved that it Gives Longer Life"

I've specified U-S-S Galvanized Copper Steel Sheets for ducts and housings in your new home—and for downspouts, gutters and flashings, too—because 21 years of testing have shown that this material lasts longer when exposed to corrosive conditions. Wherever U-S-S Galvanized Copper Steel is used, you can be certain of freedom from replacements or repairs for years to come. And here's why I can make that statement. Metallurgists long ago discovered that a little copper added to molten steel gives the base metal surprisingly long life. It certainly has made the problem of specifying steel sheets an easy one for me.

Although air conditioning is too new to present an adequate picture of steel performance, the extra resistance to atmospheric corrosion of U-S-S Copper Steel is clearly demonstrated by the chart shown here. U-S-S Galvanized Copper Steel possesses qualities which enable it to stand up under the attacks of alternate wet and dry conditions—to resist the high humidities and condensation of modern heating plants. Give your clients the added advantages that may be obtained through the use of U-S-S Galvanized Copper Steel Sheets. Any one of the companies listed below will be glad to give you complete information about U-S-S Copper Steel. U-S-S Galvanized Copper Steel Sheets are available for quick delivery in important cities.

GALVANIZED COPPER STEEL SHEETS

Carnegie-Illinois Steel Corporation, Pittsburgh and Chicago

Columbia Steel Company, San Francisco

Tennessee Coal, Iron & Railroad Company, Birmingham

Scully Steel Products Company, Chicago, Warehouse Distributors • United States Steel Products Co., New York, Export Distributors

UNITED STATES STEEL
You are Invited
By
PAINE LUMBER CO. LTD.
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REZO DOORS
Installed in the
UNITED STATES GOVERNMENT BUILDING
at the NEW YORK WORLD'S FAIR

THE U. S. Government Building is international in conception and character. All materials and appointments reflect the decisions of experts. It is appropriate, that in choosing doors for this building, the selection was awarded to REZO, with its 12 years' international background of building and marine service.

REZO the only proven cell type door.

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ESTABLISHED 1855
OSHKOSH • WISCONSIN

Federal Building REZO Entrance Doors—
Moisture Proof
ADDOING THE "Color Touch" 
WITH PERMANENT COLORS

Cabinet Hinge No. MC1521 (Wrought Steel)
Cabinet Hinge No. MC1521½ (Wrought Brass)
Cabinet Hinge No. MC1522 (Wrought Steel)
Cabinet Hinge No. MC1522½ (Wrought Brass)
Cabinet Spring Latch No. MC1299½ for Lipped Doors
Cabinet Spring Latch No. MC1299½ for Flush Doors
Cabinet Latch No. MC4298
Drawer or Cabinet Pull No. MC4478
Cabinet Latch No. MC4298
Cabinet Latch No. MC4298
Drawer or Cabinet Pull No. MC4478

Choice of five colors — Red, Black, Ivory, Blue, Green. All hardware is brass (except choice of brass or steel in hinges). Furnished in whatever color is specified.

The color inserts can be changed in a jiffy, but are positively fixed in place when the hardware is applied. Get a sample (with a set of all colors of inserts) and convince yourself.

STANLEY "MULTICHROME" CABINET HARDWARE

Stanley "Multichrome" Hardware is finished in heavy chromium plate with inserts of color that cannot peel or fade, no matter how often they are cleaned. The colored inserts, which are easily applied, remain fixed in place when the hardware is attached but may be replaced at any time with other colors to conform to any change in the general decorative color scheme. See the complete line at your dealer's, or write for literature giving full details and specifications.

THE STANLEY WORKS, New Britain, Connecticut

STANLEY
HARDWARE FOR CAREFREE DOORS

THE ARCHITECTURAL FORUM
RAIN shows up the weakness of many roofing materials. But the pitch that goes into a Barrett Specification Roof is actually preserved by water. The harder it rains, the better a Barrett Specification Roof likes it. . . . and that's just one more reason why Barrett Specification Roofs so frequently outlive by decades the 20 years they are bonded against repair and maintenance.

These famous roofs have been developed during 85 years of successful roofing experience. They are applied only by Barrett Approved Roofers . . . according to proved Barrett Specifications. For positive protection against roof failure, specify BARRETT SPECIFICATION.

THE BARRETT COMPANY
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Chicago, Illinois
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The nearest Barrett Approved Roofer may be found in the Classified Telephone Directory under "Roofers."

RAIN HARM THAT ROOF?
—MAN, IT PRESERVES IT!
are you "FED-UP" fooling around with

WEATHERPROOFING?
if so, here's the answer

Use X-PANDO Pointing Mortar for pointing all joints. It is the only mortar that expands as it sets. Gives a watertight bond against all weather, water, steam and heat.

X-PANDO Pointing Mortar is a prepared mortar ... mix with water only. Expands and contracts with temperature changes to maintain its bond indefinitely.

Kill surface and subsurface porosity with X-PANDOSEAL. Here is a penetrating waterproofing for all porous materials. X-PANDOSEAL contains no stearates, wax, paraffin or oils to break down ... Natural resilient gums give better protection ... permanently. Write today for full details on X-PANDO Pointing Mortar and X-PANDOSEAL.

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A Size and Price for Every Type of Home!
Today, women just won't put up with cooking odors, greasy fumes and smoke spreading all over the house —they're bound there'll be an exhaust fan in their next kitchen ... or else! That's why, nowadays, smart architects and builders are putting Victor In-Bilt Ventilators in all their homes, Victor In-Bilts are offered in three models for homes and apartments of every size and any type of construction—even for small low-cost homes where price is important!

FREE! WRITE TODAY!
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Keeping Out Of Hot Water
By Keeping In It
The New Burnham Yello-Jacket boiler is equipped with a Bilt-in Tankless Taco hot water supply heater.

Does away entirely with a storage tank. Insures freedom from all sediment and stains of basin and tub from rusty water. Gives a continuous supply of piping hot water that's always crystal clear. A tempering valve insures a uniform temperature, preventing any possibility of excessively hot water caused by long intervals between use.

The Burnham Yello-Jacket boiler is the only one made today, having a fully Bilt-in Tankless Taco.

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SMYSER-ROYER CAST IRON VERANDAS
Prices, estimates, and a complete catalogue of designs will gladly be furnished on request.

SMYSER-ROYER COMPANY

KEEPING OUT OF HOT WATER
KEEPING IN IT
"BUT LUTHER, THE GUTTER WE CHOSE WAS UNDER A WORN-OUT ROOF"

"I REPEAT, MARIA, THEY PUT THIS BARBER GENASCO ROOF RIGHT OVER IT!"

MARIA: You mean they didn’t take off those worn old shingles?

LUTHER: Not necessary. And this new roof certainly went on in a hurry.

MARIA: Sure is pretty. I like the deep “shadow lines.”

LUTHER: It’s fire-safe too.

MARIA: Must have cost a lot.

LUTHER: Don’t you believe it! What’s more, I heard the Barber Genasco dealer say he could arrange convenient terms through the Barber-First Bancredit Plan.

MARIA: When we go South next winter, Luther, we must find a house with a Barber Genasco Roof.

BARBER GENASCO ROOFINGS— and no others— provide the valuable waterproofing and weatherproofing of genuine Trinidad Native Lake Asphalt— The Vital Element. These roofings are offered in a wide variety of beautiful, non-fading colors, and in a range of sizes and shapes that are sure to please. Specify Barber Genasco for roofing new homes ... for reroofing present homes. Free catalog and details will be sent on request. Address Barber Asphalt Corporation, Barber, New Jersey.

BARBER Genasco PRODUCTS

Nationally advertised Barber Genasco Products, made with The Vital Element, include: Bonded and other types of Built-up Roofings, Shingles, Siding, Roll Roofings. Other Barber Asphalt Products include: Waterproofing Asphalts and Fabrics, Restorer, River, Resurfacer, Asphalt Protective Products (Plastics and Liquids), Spandrel Beam Waterproofing (Spandrel Cloth and Cement).

FOR FURTHER INFORMATION SEE OUR CATALOG IN SWEET’S

Made with from the Southern Caribbean Island of Trinidad

JULY 1939 65
Every day thousands of visitors attend the Anthracite Exhibit in the Home Building Center of the New York World’s Fair. Most of these thousands are not merely sightseers, but thoughtful householders. Many of them are discovering for the first time how efficient, economical, and how convenient modern Anthracite equipment really is.

What architects and builders can learn
Every architect, every contractor and builder can learn a lesson for his own advantage from the Anthracite equipment prospects who visit the Fair. Here are people learning for the first time that there are such conveniences as automatic Anthracite stokers, that thermostats can be installed with boilers and furnaces to give automatic heat control with extended firing periods. Here are people who are eager to learn about the new and improved Anthracite equipment available for the houses you will design, build and remodel.

The important fact for the architect—and builder—is that there are literally thousands of families that are eager for homes in which they can have the convenience, the safety and healthfulness, the comfort and, especially, the economy of Pennsylvania Anthracite.

Anthracite Industries, Inc.
Chrysler Bldg., New York
For low-cost homes
TIMBERTEX DUTCH LAPS
The same beautiful texture, the same fire-proof and
rot-proof qualities. The ingenious design effects
great economy in the cost of the finished job.

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ARCHITECTURAL PRODUCTS
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The No. 1 shingle for architects and builders—Eternit Tapered Timbertex, an
asbestos-cement shingle, Ruberoid-made! It scores first on every point. Beauty.

Tapered Timbertex shingle colors have life, depth and richness. The beauty
of these colors is further enhanced by deep shadow lines from thick tapered
butts. Tapered Timbertex Shingles are built to endure, for they are laminated—
built up layer upon layer—to provide extra strength, greater flexibility and
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When you use Tapered Timbertex Shingles, you have another advantage. Nail
holes are so punched that the shingles may be laid in the usual American
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For new homes or for modernizing old homes, Tapered Timbertex gives you
the many qualities long desired in a shingle—beauty, durability, safety and
economy—at a price friendly to your client's pocketbook. Write for full facts—
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Here's the latest complete information you've been looking for on Kitchen Cabinet Sinks and Tops. Handy, convenient. Detail Drawings and Specifications. A concise presentation of

ELKAY "Sturdibilt"
STAINLESS STEEL

Cabinet Sinks and Tops
for both new building and modernization projects. Be sure to note the new extra heavy reinforcement and new rounded corner construction as well as other exclusive ELKAY "Sturdibilt" Features.

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MACKIN PREMIER BLINDS

Consider these distinctive Features When You Buy Venetian Blinds

- Slats are easily removed.
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FROM HUNDREDS OF INSTALLATIONS, Here Are a Representative Few.
- Radio City—each successive building since 1933.
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MANUFACTURER FOR 40 YEARS OF THE FAMOUS MONCRIEF FURNACES
Proves It's the Sure Way to Insulate

Leadership means being first—setting the pace which others follow years later. In the insulation field, leadership means the ability to be right the first time... knowing why you are right and having the courage to stick to the right way rather than to follow the crowd in the opposite direction. And leadership means constant improvement as construction practices improve.

Balsam-Wool is such a leader. It is the sure way to insulate—the sure way to protect the interest of your clients—the sure way to keep their good-will and respect through all the years they live in the houses you design.

Here are a few "Firsts" that spell "Leadership"

Leadership in Moisture Protection
Today moisture protection is recognized as a necessity. Such recognition has come 17 years after Balsam-Wool announced the first moisture barrier insulation. Today Balsam-Wool's moisture barrier is better than ever—its improved application method provides positive air spaces as additional assurance of dry walls.

Leadership in Positive Application
For 17 years Balsam-Wool has been fastened in place—allowing no settling or packing. Balsam-Wool introduced the Spacer Flange, making application 50% easier with consequent savings to the consumer.

Leadership in Balanced Performance
It's easy for an insulation to have a few good qualities. Balsam-Wool, since its inception, has had every quality that an insulation needs to perform efficiently on the job. It is moisture-proofed—wind-proofed—vermin-proofed—termite-proofed—non-settling—highly fire-resistant. It meets every test of actual service—and it's available in 3 thicknesses for every need and purse.

Let us give you full information about why Balsam-Wool is the sure way to insulate—why Balsam-Wool leadership means outstanding performance in the buildings YOU plan!

Wood Conversion Company
Room 147-7 First National Bank Bldg., St. Paul, Minnesota
Please send me complete information on Balsam-Wool.

Name
Address
City State
Here, today, is the school of tomorrow—a noteworthy example of the happy application of modern design, modern materials and modern construction methods to a difficult architectural problem.

Because of the possibility of ground settlement and slippage caused by neighboring mining operations, for the Girardville, Pa., high school, the architects, Grootenboer and Knobloch, turned to steel for lightweight and safety—and in Republic's wide line of building products they found materials already at hand to carry out their modern design with speed and economy.

Yes, Girardville is proud of its smart, new building where the three "R's" are dispensed—proud of the beauty of its brilliantly-colored enameled Toncan® Iron surface, trimmed in gleaming ENDURO® Stainless Steel—proud of the protection which steel construction will afford its youth through years to come.
In every modern building there is a place where you can use to advantage one or more of these Republic building products, all of which went into the Girardville High School:

- Republic light structural
- Republic steel pipe
- Republic galvanized sheets
- Toncan Enameling Iron sheets
- ENDURO Stainless
- Republic Ferrobord roof deck
- Truscon Clerespans trusses
- Truscon steel joists
- Truscon reinforced steel
- Truscon mesh for floors
- Truscon metal lath
- Truscon steel windows
- Berger steel lockers
BEAUTY AND THE BASEMENT

Three home recreation rooms get beautiful, long-wearing floors of Armstrong's Asphalt Tile

ARCHITECTS can no longer ignore basements, because the client of today knows and wants a basement recreation room. And to make your task easier—to keep costs down—Armstrong offers you a truly economical asphalt tile flooring that lends itself to the creation of beautiful basement floors.

Armstrong's Asphalt Tile dispels many important basement problems. It is the only type of resilient floor that can be used over concrete in direct contact with the ground. Maintenance is inexpensive and easy. Daily dusting and occasional washing and waxing keep it fresh and new-looking for years.

This asphalt tile provides a scuff-proof play floor with colors that can't wear off because they run right through the material. It is fire-resistant, and cigarette burns can be easily removed by rubbing lightly with fine steel wool. Waxed, Armstrong's Asphalt Tile makes a fine game board or dance floor.

The color schemes you can create in asphalt tile are practically unlimited. In addition to a wide range of plain and marble colors, you can have insets cut to almost any shape you wish. Get all the facts. See Sweet's or let us send you a copy of "Gay Floors for Basement Playrooms." Armstrong Cork Company, 1204 State Street, Lancaster, Pa.

Armstrong manufactures the only complete line of resilient floors—Asphalt Tile, Linoleum, Linotile (Oil-Bonded), Cork Tile, and Reinforced Rubber Tile. Therefore our Architectural Service can offer you unbiased suggestions.

Modern to the 7th degree, but in excellent taste, is this basement recreation room with its attractive floor of Armstrong's Steel Gray and Lead Gray Asphalt Tile.

"Relax," says this handsome radially-styled basement recreation room. The architect has used Spanish red asphalt tile with a feature strip of white, creating a floor that is beautiful as well as comfortable and quiet.

Note the entirely different effect obtained with Spanish red and white asphalt tile in this modern room. Diagonal strips were to add yards of space to the room. The ceiling is Armstrong's Pendulum De Luxe.

RUBBER TILE • LINOTILE (OIL-BONDED) • ASPHALT TILE

Armstrong's LINOLEUM and RESILIENT, NON-CERAMIC TILES

CORK TILE • LINOWALL • ACOUSTICAL CEILINGS
ON LOS ANGELES’ BUSIEST STREET

Beauty of Terrazzo pavement improves after 5 years

BEAUTIFUL when laid . . . beautiful years after—that’s Terrazzo. In Los Angeles the staccato pounding of sidewalk traffic polished and actually improved the color and pattern of this pavement. And if fine Terrazzo can keep its life, warmth and color outdoors, you know what you can expect inside.

Fine Terrazzo means rich, clean-cut colors and distinctive patterns exactly as you design them. And fine Terrazzo is obtained only with white portland cement, as in the pavement shown here. Atlas White is pure white cement. Specify it (plain or waterproofed) for Terrazzo that is moderate in first cost, low in upkeep, and ideal for many types of buildings.

Consider Terrazzo with Atlas White for your next job. Write for free Booklet showing 24 true-color specimens of fine Terrazzo. Universal Atlas Cement Co. (United States Steel Corporation Subsidiary), Chrysler Bldg., N. Y. C.

FOR FINE TERRAZZO SPECIFY ATLAS WHITE PORTLAND CEMENT
The Modern Kitchen is ALL-ELECTRIC!

We point with pride to the complete General Electric Kitchen in the house of Walter Gropius, internationally famous architect. Like the house itself, this all-electric kitchen is a model of modern beauty and efficiency.

Other modern houses described in this issue of "The Architectural Forum" also feature General Electric Kitchen equipment. G-E Electric Kitchens are FIRST CHOICE of the majority whose house specifications have appeared in the profession's No. 1 magazine.

Complete G-E Electric Kitchens are available in practically any size, any style, any price class. Ask your G-E Appliance Distributor for detailed information or write direct to General Electric Co., Specialty Appliance Division, Section CG7, Nela Park, Cleveland, Ohio, or General Electric Home Bureau, 570 Lexington Avenue, N.Y.C.

See the General Electric Kitchens in homes of the "Town of Tomorrow" at the New York World's Fair—also visit the G-E "House of Magic" at both Fairs.
MORE PEOPLE EVERY YEAR
ARE LOOKING FOR APARTMENTS
WITH GAS REFRIGERATION

Tenant
"Servel Electrolux gives
me more satisfactory and economical
service than any other type of
refrigeration I have ever used. Just
think what it means to me to have an
automatic refrigerator with no mov­
ing parts in its freezing system—you enjoy permanent silence, con­tinued low operating cost! So it’s
little wonder I’m so sold!" Mr. Du­
ward D. Crowe, 2101 N. Beechwood
Drive, Hollywood, Calif.

Builder
"I am an
apartment
house owner and builder and our
experience with another type of re­
frigerator decided us on Servel Elec­
trolux. Lack of annoying service
calls, satisfied tenants and the
knowledge that there are no moving
parts in our gas refrigerators to wear
and grow noisy seem almost too
good to be true." Mr. Herman
Johnson, 2101 N. Beechwood Drive,
Hollywood, Calif.

Different
FROM ALL OTHERS . . .
SERVEL ELECTROLUX is the only au­
tomatic refrigerator which offers tenants
and builders all these advantages:

• NO MOVING PARTS
  in its freezing system

• PERMANENT SILENCE

• CONTINUED LOW RUNNING COST

• MORE YEARS OF SATISFACTORY
  SERVICE

• SAVINGS THAT PAY FOR IT

The
SERVEL
ELECTROLUX
Gas Refrigerator

SPECIFY THE REFRIGERATOR THEY HEAR ABOUT • BUT NEVER HEAR

J U L Y  1 9 3 9
Deservedly Popular—

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