Selling of Homes Goes Forward Apace.
The very last word in garage door equipment is Slidetite hardware, engineered to slide your doors inside the garage on silent, smooth running, frictionless ball bearing hangers that do not, cannot give you trouble.

So easy are Slidetite doors to operate that any child can open them wide and shut them tight, regardless of wind or weather.

Slidetite doors cannot blow closed; they open inside, freeing you forever from the annoyance of ice or drifted snow. They lock tightly shut against wind, cold and dampness. The cost is surprisingly small, the benefits beyond all comparison.

Any good carpenter can install them. Regardless of the width of the opening there are no center posts—the doorway is entirely unobstructed, an R-W feature. Use R-W Slidetites for all service stations, public and private garages.

If you are not acquainted with the many superior features of R-W Slidetite, ask your dealer to show you a set—or write us for descriptive literature.
A Talk with Our Readers

GOVERNMENT policies affecting business have been discussed on this page for some months.

Numerous letters regarding what has been said here have been received, some commendatory, some critical, but all reflecting the intense interest being taken by intelligent citizens in current national problems. Some have accused us of talking "politics."

The American Builder is a business paper devoted exclusively to the building industry, and presents and discusses conditions and policies that affect that industry. The building industry being so large and important, this includes conditions and policies that affect general business. Full revival of building is dependent upon full revival of general business.

The problems of reviving business are essentially economic. If they are not intelligently dealt with, restoration of prosperity will be hindered, no matter who is responsible.

Fortunately or unfortunately, legislation within recent years has forced into politics some of the most important economic problems with which the American people ever have been confronted. This has not changed their nature. They remain essentially problems of economics and business.

In discussing them the American Builder is not talking "politics," but business. It did more to promote passage of the National Housing Act than any other publication, because it believed—correctly, as subsequent developments have shown—that it would help revive the building industry, and thereby stimulate general recovery. It is opposed to many policies of the so-called "New Deal," not for political reasons, but because it believes they are economically unsound, and therefore have hindered, and are still hindering, improvement in business, including the building industry.

Stimulated by the National Housing Act, residential construction is rapidly increasing throughout the country. The American Builder predicted in its July issue that the Supreme Court's decision destroying NRA would stimulate recovery. Is it significant or not in this connection, that there has been since then the most marked improvement in general business since the depression began?

All letters from our readers are welcome, whether they contain bouquets or brickbats for us. The more the problems of business in general, and of the building industry in particular, are discussed the better it will be for all of us. We are telling you frankly what we think. Tell us frankly what you think.

Samuel O. Drumm, Chairman, American Builder Publishing Corporation
Simmons-Boardman Publishing Corporation
To help clear the stack gases of cement particles and to save that cement for return to the kilns, huge hoppers like those you see at the left are installed in the plants where Universal and Atlas portland cement is made.

To help clear the way for efficient concrete construction and to save time and trouble for you (where we are able), we offer our cooperation in helping to solve those occasional problems of concrete work which may be bothersome.

It is not at all our idea to try to set ourselves up as experts. You who are practicing contractors and engineers certainly know as much theory and considerably more about actual job conditions on concrete work than we do.

But we have accumulated considerable helpful material on cement and concrete in our years of carrying on the business of cement-making—not only theory from the laboratory but also job-practice experience and results learned from men like you in the field. And each year we tackle new problems on some of the many projects where Universal Atlas cements are used, and learn new things thereby.

So this is our idea—if the information we have gathered and have on file can be useful to you at any time, we want you to take advantage of it. And there’s no charge, of course—it’s a service that is as much a part of the manufacture of Universal and Atlas cement as are those dust hoppers in the plants. Try us out!
MORE residential values are destroyed every year by obsolescence (a high-sounding word for “out-of-dateness”) than by fires, floods, panics or poor construction. The building industry must gird itself to prevent this destruction of values.

Old Man Obsolescence is a sinister villain who sneaks up unawares to shave off hard-earned dollars from the sales price of a property. Why is it that some houses make such good pickings for him?

It takes more than good groceries to make a good meal. It takes more than workable wood and metal to make a musical instrument. Similarly it takes good materials and equipment to make a house—but it takes more than that to make it a modern house and a lastingly sound investment.

The qualities required to beat Old Man Obsolescence are skill, imagination and awareness of the trend of building styles and neighborhood values. Many houses that are soundly built by well-meaning men are obsolescent and out-of-date before they are completed. They never have a chance. Their value is impaired from the start because the builder did not know or did not care to consider the building trends of the time.

In no other industry does change take place more rapidly. Never have developments in materials, equipment and house styles swerved so swiftly as in the past three years. There are far too many short-sighted men in the building industry who refuse to recognize the change and progress that is taking place. They are a danger and a detriment to the industry.

How can open-minded aggressive builders beat Old Man Obsolescence?

This entire Model Home Issue of the American Builder is devoted to the answer. The model and demonstration homes shown here are concrete evidence of changes and progress in style, materials and equipment. The model homes of today set the pattern for the mass market of tomorrow. Study them carefully to see what other builders are doing; then adapt the best features to your own localities.

Influence of FHA Mortgage Rating

A new influence in the prolonged match of “Kid Value” vs. “Old Man Obsolescence” is the Federal Housing Administration. FHA is acting as rule-setter and umpire. And the new umpire is giving a lot of good breaks to the intelligent, responsible and honest builder of homes.

FHA experts have made exhaustive studies of obsolescence. It is undoubtedly the most important feature in determining the value of a twenty-year mortgage loan. They have set up in an understandable way the features that tend to make a house and its mortgage stable values. A table setting forth some of these risk rating features is shown in connection with the FHA article on page 33. American Builder urges every reader to study these factors, for they constitute one of the best anti-obsolescence helps we have ever seen.

Taking Out the Uncertainties

The studies of the FHA have shown that most of the mistakes of the past that have destroyed residential values have not been in construction practice primarily. They have been in the financing, real estate and neighborhood aspects. In making a long-term insured loan, particular attention is now paid to the character of the neighborhood, its restrictions and its long-term trend. A stable neighborhood means stable values.

Many of the practices that have come in since FHA was set up, and which may be fairly attributed to it, are having a beneficial effect in stabilizing construction and residential values. To get a long-term loan, whether FHA or otherwise, plans and specifications must be more carefully thought out in advance. The owner and the builder are forced to review their financial set-up as well as their construction plans in a fashion that tends to bring out errors in judgment or in taste.

Once the loan has been approved, inferior materials may not be substituted. More frequent inspections during construction tend to prevent deviation from plans and specifications.

Discouraging to Chiselers

While many of the new rules under which this old building industry operates may seem troublesome and may delay operations, within reasonable bounds they will be of benefit to everyone concerned, for by stabilizing building practices and forcing the incompetent or careless operators to live up to minimum standards they do the entire industry a lasting benefit. They will help us all to beat Old Man Obsolescence as well as a lot of other evils that have plagued the industry in the past.
Why Not Broaden FHA Rules To Admit Homes on Low-Cost Land?

The Housing Administrator, in considering the broadening of the regulations to admit to insurance loans on suitable homes on low-cost land, might well bear in mind the fact that volume always comes from the outlying towns. This truth was well phrased in a press release from the Treasury Department on Sept. 20, following a conference of durable goods industries men. "Considerable importance was attributed," this Treasury statement said, "to the fact that not less than half of all the building activities in this country during a given year took place in communities of five thousand and less."

Broaden Rules for Bigger Volume

The regulations governing the appraisal of homes for FHA mortgage insurance ought certainly to be drawn with consideration for this "big half" of the market. A good house on an unpaved street in a small town and served by a well and septic tank sewage disposal may be a safer risk than the same house on an expensively improved city plot at twice the valuation.

The Administration is said to be keenly desirous of making "a big push" on home building to increase employment and bring about recovery in 1936. A broadening of FHA Rules to permit the acceptance for insurance of loans on houses on low-cost land would, in our opinion, go far toward creating the desired volume.

Low-Cost Homes Are Possible Only on Low-Cost Land

Home cost is the combination of three factors—land, construction and financing; and it should be plainly evident to the Federal Housing Administrator that land made high priced by expensive paving and underground piping cannot be used if total home costs are to be kept low. Yet the present official regulations do not permit approval for FHA mortgage insurance of properties outside the fashionable city suburbs. Small city and village home building and the movement toward garden homes and subsistence homesteads out toward the open country find no encouragement under present rules.*

It is a matter of general comment that most of the FHA loan-financed new homes are up in the $10,000 to $20,000 class and in the best city suburbs. They are unquestionably prime risks—none better; yet are the broader purposes of the Act being served when low cost homes for wage earners and the great volume of small town home building are not encouraged?

Figures given out by the Federal Housing Administration on Sept. 18 cover all FHA mortgages insured up to Aug. 14. There were 42,297 loans with total value of $165,236,197. This gives an average for each loan of $3,906; and, since the average percentage of loan to total value is 68 per cent, the average cost of all these properties is $5,744. This is 41 per cent higher than the average value of all new houses for which building permits were issued in 94 cities during the first half of this year, $4,080, according to figures compiled by the U. S. Department of Labor; which again goes to prove that FHA, under its present working rules, is serving only the de luxe developments.

The absence of some of the less important factors should not bring about a disqualifying or extremely low rating so long as the more important ones are well supplied. An insufficiency of the more important utilities or conveniences, however, such as water, gas, electricity, and sewage disposal, is sufficient cause for a "Reject" rating.

*Quotations from "Underwriting Manual" of FHA for valuation procedure under Title II: "Appeal of the Neighborhood"—"315. The appeal of a residential neighborhood results from the general condition and attractiveness of the properties located therein; the kind and social status of the inhabitants; nearness to commercial centers and facilities for religious worship and for recreation, amusement, and sports, such as swimming, boating, riding, tennis, and golf; the provision of adequate police and fire protection; proper maintenance of the public streets and other public improvements; the percentage of owner occupancy; the degree to which the neighborhood is built up; and other similar factors. "316. The rating of this feature will be greatest when the mortgaged property is situated in an exceptionally desirable neighborhood. On the other hand, if influences are present or are likely to occur which will lessen the attractiveness of the neighborhood, it becomes less appealing to the general public for home use, and a lower rating will be given." "Sufficiency of Utilities and Conveniences"—"318. "Utilities and conveniences" may be considered to include, electricity, gas, water, telephone, postal service, sewers, garbage disposal, storm drains, parkways, street lights, fire and police protection, and street cleaning services—all for the neighborhood as a whole. When these utilities and conveniences are provided so as to adequately meet the needs of the inhabitants of a neighborhood, the highest rating of this feature will result. "319. The absence of some of the less important factors should not bring about a disqualifying or extremely low rating so long as the more important ones are well supplied. An insufficiency of the more important utilities or conveniences, however, such as water, gas, electricity, and sewage disposal, is sufficient cause for a "Reject" rating."
PUBLIC interest intense at opening of the Dayton, O., "Home of Today"

Model Homes Set
The Style for 1936

5,000 MODEL AND DEMONSTRATION HOMES in 5,000 communities are showing the remarkable forward strides of home builders and planners. Prominent among the 1936 models are the "New American" Demonstration Homes sponsored by General Electric and dedicated to "a better way of living." Planned from the inside out, these homes show a distinct new trend in modern design and equipment.

-AND IN THE SOUTHWEST—Governor Moer of Arizona breaks ground for G-E "New American" home to be built at Phoenix by Dwight B. Heard Investment Co.
How to Get a Higher FHA Rating on Insured Loans

QUALITY CONSTRUCTION REQUIRED

by JOSEPH B. MASON

"SMALL REVOLUTION" is taking place in home construction as a result of the practice of risk rating of mortgages which has been put into effect by the Federal Housing Administration.

Under this system merit and quality are being substituted for price. Building is being stabilized, and destructive price cutting discouraged.

Builders anxious to obtain long-term loans at the lowest cost may well study the FHA mortgage risk-rating plan.

American Builder presents the following facts after study of the FHA plan and consultation with builders who have used it. In addition, American Builder has interviewed the chief underwriter, Bradley Randall,* and the chief architect, Frederick Mathesius of the New York FHA division which has approved many thousands of insured loans on new houses. Randall and Mathesius have personally passed on every loan in the New York territory, which includes the hundreds of speculative builders on Long Island who have been unusually active. A high percentage of all homes in this territory are financed by long-term FHA mortgage loans.

In answer to the question "how can a builder get a higher rating on insured loans?" chief underwriter Randall stated in no uncertain terms: "Build better houses." He points out that the extra cost of sound construction and sound quality work is slight. But the effect on the lasting quality and the loan value of the house is great.

Chief architect Mathesius pointed out that price cutting in the past has been the speculative builders' own worst enemy. "There was no end to the ways in which a builder could cut the quality and value of a house in his attempt to underbid a competitor," he says. "Now we have made progress towards stabilized home building, and are substituting merit for price. Loans are now based on what actually is put into the building."

In the New York territory FHA officials got leading speculative builders together and persuaded them to agree on certain minimum standards. They have followed these standards and now, instead of competing to cheapen quality, are competing to improve quality of houses being sold.

What are the qualities in a house and in a neighborhood that the FHA considers important in rating their value as security for a long-term loan?

Before answering that question it should be pointed out that the system of rating mortgages by the FHA has been developed after long research and careful study.

*Editor's Note: Mr. Randall has since been promoted to the post of Senior Underwriting Supervisor for the entire country.
FHA Mortgages Are Rated on These Points

<table>
<thead>
<tr>
<th>Comparative Rating Value of House</th>
<th>Percentage</th>
</tr>
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<tbody>
<tr>
<td>General Layout</td>
<td>15%</td>
</tr>
<tr>
<td>Design of Property</td>
<td>8%</td>
</tr>
<tr>
<td>Suitability of Climate</td>
<td>7%</td>
</tr>
<tr>
<td>Livability</td>
<td>15%</td>
</tr>
<tr>
<td>Light and Air</td>
<td>5%</td>
</tr>
<tr>
<td>Mechanical Equipment</td>
<td>7%</td>
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<tr>
<td>Accessory</td>
<td>3%</td>
</tr>
<tr>
<td>Special Equipment</td>
<td>2%</td>
</tr>
<tr>
<td>Structural Soundness</td>
<td>20%</td>
</tr>
<tr>
<td>Resistance to Elements</td>
<td>10%</td>
</tr>
<tr>
<td>Resistance to Use</td>
<td>5%</td>
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<tr>
<td>Total</td>
<td>100%</td>
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<thead>
<tr>
<th>Comparative Rating of Neighborhood</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Stability of the Neighborhood</td>
<td>25%</td>
</tr>
<tr>
<td>Protection from Adverse Influences</td>
<td>20%</td>
</tr>
<tr>
<td>Topography and Special Hazards of Neighborhood</td>
<td>5%</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
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<thead>
<tr>
<th>Relation of Property to Neighborhood</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Conformity as to Type</td>
<td>15%</td>
</tr>
<tr>
<td>Conformity as to Usefulness and Function</td>
<td>15%</td>
</tr>
<tr>
<td>Conformity as to Physical Condition</td>
<td>10%</td>
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<tr>
<td>Conformity as to Architecture</td>
<td>10%</td>
</tr>
<tr>
<td>Relative Adequacy of Municipal Utilities</td>
<td>10%</td>
</tr>
<tr>
<td>Relative Accessibility to Neighborhood Conveniences</td>
<td>10%</td>
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<tr>
<td>Relative Freedom from Nuisances</td>
<td>10%</td>
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<tr>
<td>Conformity as to Lot Characteristics</td>
<td>10%</td>
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<tr>
<td>Conformity as to Probable Remaining Useful Life</td>
<td>5%</td>
</tr>
<tr>
<td>Conformity as to Placing of Buildings on Lot</td>
<td>5%</td>
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<tr>
<td>Total</td>
<td>100%</td>
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<tr>
<th>Rating of Borrower</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Character</td>
<td>30%</td>
</tr>
<tr>
<td>Ability Toward Obligations</td>
<td>15%</td>
</tr>
<tr>
<td>Ability to Pay</td>
<td>15%</td>
</tr>
<tr>
<td>Prospects for Future</td>
<td>12%</td>
</tr>
<tr>
<td>Business History</td>
<td>10%</td>
</tr>
<tr>
<td>Ratio Value of Property to Annual Income</td>
<td>7%</td>
</tr>
<tr>
<td>Ratio Monthly Mtge. Obligation to Income</td>
<td>6%</td>
</tr>
<tr>
<td>Associates</td>
<td>5%</td>
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<tr>
<td>Total</td>
<td>100%</td>
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<tr>
<th>Rating of Mortgage Pattern</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ratio of Loan to Value</td>
<td>50%</td>
</tr>
<tr>
<td>Ratio of Useful Building Life to Life of Mtge</td>
<td>20%</td>
</tr>
<tr>
<td>Interest Rate</td>
<td>15%</td>
</tr>
<tr>
<td>Amortization Provisions</td>
<td>10%</td>
</tr>
<tr>
<td>Service Charges by Mortgagor</td>
<td>5%</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
</tr>
</tbody>
</table>

standards may receive less than the perfect score indicated on the table, but this brings down the total rating.

For example, under the rating of the "House Features" in the table, the "structural soundness" item might be brought down by use of inferior methods or materials. In that case, the inspector might rate that item at 10 percent instead of 20 percent, which would reduce the score under that classification.

The FHA inspectors have a specially prepared form which enables them to figure the risk rating of the mortgage on the basis of points. When all the points under each classification have been totaled and the findings summarized by the chief underwriter, the mortgage is given a rating of "A," "B" or "C" or rejected on the score.

Obviously the risk rating of mortgages is a combination of science and good judgment. The system enables the FHA inspectors to use good judgment and provides them with a sound background of knowledge and understanding of all the elements involved in creating the value of a house and of a mortgage. FHA men take the attitude that when they insure a loan they must be willing to back up their judgment for many years to come—even to the extent of taking the property over at a later time.

Probably the best advice any builder can take on the methods he can employ to get the highest FHA rating on his houses is to get acquainted with the local FHA officials and discuss with them the things they consider important. Local conditions and practices affect building, and FHA recognizes this fact. FHA officials advise builders with definite projects to come in and discuss a proposed construction plan before they make commitments. In effect, the builder has available in the staff of the FHA an advisory service on architecture, real estate and financing.

The long-time results of this system of rating residential properties should be a real benefit to honest and capable contractors and builders. There is a real incentive to substitute merit for price. Competent builders will welcome this trend for it will tend to eliminate the unscrupulous and incompetent competitors who have done so much to hurt their business.
SELLING HOMES
The Demonstration Way

By JOHN F. QUINLAN
Manager G-E "New American" Home Program

In a world whirling with new ideas and changes, the home building industry cannot remain stationary. We of the General Electric Co. have adopted the demonstration way of bringing to the attention of the American public a type of home fundamentally suited to a modern concept of living.

By the demonstration way of selling, I mean the method which the automobile industry has so successfully followed—putting people behind the wheel and letting them drive a demonstration car. This is exactly what the "New American" program is aiming to do for home building. We are bringing millions of people to see New American demonstration homes located in strategic points throughout the nation—hundreds of modern, thoroughly equipped houses which set a new standard of living.

I need hardly point out the important factor of obsolescence is in the automobile industry where new models are constantly creating new markets. In the same way, new home models can create new home markets.

In adopting the term, "New American," which describes a form of modern living, we hope to call attention to new models in homes. It is not our desire that this program should be a General Electric or even a home electric program exclusively. We invite all other lines of the building industry to join with us in this program. We know that the progress of home building is dependent on the open-mindedness and progressive spirit of the contractors and builders of the nation. They are the ones who will build these houses and sell them to the public. They can make "New American" a term which will be universally used to describe a new era of home building in this nation.

This issue of the American Builder is dedicated to model and demonstration homes. As this issue reaches you, hundreds of New American demonstration homes are being opened simultaneously to the public. Newspapers, popular magazines of all kinds, and trade publications are joining with us at this time to talk about and describe this new American concept of building. Many of you are building New American homes and I hope your experience will be as favorable and as valuable as it was in the case of Angus MacDonald, the Cape Cod builder who opened his New American home at Marblehead, Mass., a bit ahead of the rest of the procession. (See illustrations on pages 36 & 37.) More than 20,000 visitors inspected this little Cape Cod house on the first Sunday, and since then 40,000 more have visited this house. As a result of the wide publicity and advertising and the crowds of people, Angus MacDonald has sold lots all around the demonstration home and has also been successful in selling several houses completed last year which had not found buyers. This is just one example of the effectiveness of the demonstration way of selling.

Perhaps I should make it clear that in talking about New American homes, we are not referring to any particular type of architecture or design. Some people mistakenly confuse this term with "factory-built" or "prefabricated." Nothing of the sort is intended. All of the New American demonstration homes built are of sound traditional architecture that the American public appreciates and will buy. As you know, the New American homes are being built from plans submitted by more than 2,000 architects in the General Electric Home Electric competition. We have analyzed the important features of planning, construction and equipment that were brought out in the competition designs. The twelve features that are outstanding may be briefly summarized as follows:

1. Practical Design—New American homes are designed for living, from the inside out. Cheaper to build because of emphasis on space use.
2. No "Traffic Lights" Needed—You go from one room to another with the fewest possible steps, without tripping over furniture, or disturbing other people.
3. Completely Equipped Kitchen—The kitchen is arranged for the "use sequence" of equipment in the preparation and serving of meals. All-electric equipment cuts manual labor to a minimum.
4. More Wall Space—Windows and doors are placed scientifically (windows at corners of rooms, for example). Simplifies placing of furniture and hanging of drapes.
5. Adequate Wiring and Lighting—Good wiring, and enough of it, make possible scientifically planned lighting, conveniently placed labor-saving equipment. Result: greater comfort, safety and health.
6. Garage Part of House—Garage close to street, easy to get in and out of, no lot space wasted, easy access to and from house.
7. Air Conditioned—Automatic control of temperature, humidity, circulation. Dust is filtered from air. Less housecleaning, greater health and comfort.
8. Outdoor Living—Terraces connect directly with many of the rooms. Provide for outdoor dining, relaxation, living.
9. "Dining Room" Works 16 Hours a Day—A good-sized dining alcove replaces the old-fashioned dining room. The space is usable not merely three hours a day, but all through the waking hours.
10. Simplicity—The keynote of the New American design is simplicity. Cornices and traditional moldings are eliminated, another reason for lower construction cost.
11. Practically No Waste Space—In many old houses only 65 or 70 percent of the space is used. In the New American home the usable space runs as high as 80 or 85 percent.
12. Better Use of Windows—The windows are larger than average. They are placed where needed, rather than for external design balance.

Have you analyzed the houses you are building and selling to see whether they cover these twelve features? If they do, you are entitled to call them "New American" homes. We believe you will find them suited to the needs and habits of the modern way of living of the American public—your customers.
Model Homes

of TODAY

Pre-Views of 1936 Styles

Latest Ideas in Design-Planning-Equipment-Materials
Automatic Heat

ALL THE CONTROLS necessary for heating this "New American" demonstration home are located in the living room. The house has an oil furnace, air conditioner, scientific lighting throughout.

Livable Basement

THE BASEMENT recreation room of the Marblehead, Mass., "New American" demonstration home built by Angus MacDonald, is clean, cheerful and well lighted. The pine paneling, linoleum floor, attractive fireplace, make it one of the most livable rooms in the house.

Open Porch

THIS REAR VIEW of the Marblehead demonstration house shows how the open porch is skilfully handled to bring the outdoors at the convenient command of the owners. Floor plans and further details of this house are given on pages 54 and 55.
OF ALL THE PRIZE WINNERS—radical and conservative—in the recent General Electric small home competition, this Cape Cod Colonial has proved most popular with builders. It is located at Marblehead, Mass. Cost Key is 1.731—127—630—28—18—15

First "New American" Demonstration Home

Angus MacDonald, Builder; Royal Barry Wills, Architect

FLOOR PLANS AND FURTHER DETAILS GIVEN ON PAGES 54 & 55

MANY MODERN FEATURES are included in this Marblehead demonstration home. Garage is located close to the street. The plan is convenient, economical. Its equipment includes air conditioning, scientific lighting, electric range, home laundry, dishwasher, kitchen ventilation, basement workshop, basement playroom, compact, scientifically arranged kitchen. The cost is reported at $9,000.
Westchester County, N. Y., Model Home

Frank N. Gobel, Builder
Theodore Richards, Architect

A NEW MARK in home building was set by this Westchester County Model Home located in White Plains, N. Y. It is expertly-planned, well-built, fully-equipped in most modern fashion. Cost of duplicating it is estimated at $8500. It has concealed radiation, oil burner, winter air-conditioning equipment. First floor exterior is field stone painted white. Shingle roof is stained black; shutters, flower boxes and doors are painted red.

ENTRANCE DETAIL at left attracted much comment with its picket fence, hand-turned lamp post, colorful flower boxes, trellised doorway. These are the details people like. Rear view of house shows glass-enclosed breakfast nook and overhang over garage door to protect back door. The garage rear entrance and breakfast nook arrangement were very popular.

Cost Key is 2,170—154—948—41—27—19

Complete Specifications
Given on Page 51
NEW AND MODERN WOODWORK with latest hardware, fixtures and wallpaper make the interiors of the Westchester Model Home unusually fine. At right is seen the inexpensive stair detail with random-width feather-edge vertical pine panelling. Below is shown view of dining room with attractive arch trim and built-in corner china cabinet with shell top.

FLOOR PLANS show expert planning. Open hall gives spaciousness, easy access to kitchen. Rooms are ample, cross ventilated. Kitchen-dining-alcove layout is one of the best.
Kitchen
Bath
Playroom

THE WESTCHESTER Model Home has the latest in equipment of all kinds. The bathroom at left shows attractive tiling, built-in fin-type radiator, shower stall, metal medicine cabinet. Lavatory is vitreous china with hooded overflow, chromard metal legs. Toilet is one-piece syphon-Vortex bowl and tank.

THREE GOOD-SIZED BEDROOMS are included in the Westchester Model Home, one of which is the attractive child's room below. Note the rope moulding, concealed radiator, built-in desk and seat, double-deck ship type beds. Windows are new style double-hung factory built with built-in copper weatherstripping.

A NAUTICAL ATMOSPHERE is given the boy's room at right by the double-deck beds with ladder. This room, like every room in the Westchester Model Home, is well proportioned to fit necessary furniture. It has ample light, cross ventilation, latest wallpaper designs, simple trim, Venetian blinds, concealed radiators, plenty of electric outlets conveniently located.

Complete Specifications Given on Page 51
A MODEL KITCHEN in every respect. The work area is scientifically grouped in a U shape to eliminate extra steps. Yet the dining alcove which is separated from the work area by the metal-top table gives a sense of size that is desired. Equipment includes package receiver, towel driers, planning desk, gas range, Monel metal sink. The glass enclosed breakfast alcove was one of the most popular features of the house. The basement recreation room illustrated below features a fireplace, indirect lighting, modern decoration on concrete.
"The Home of Today"
at Dayton, Ohio

Designed by Dayton Chapter A.I.A.
Constructed by Dayton Master Brick Contractors Ass'n.

DAYTON'S "HOME OF TODAY" was formally dedicated and opened in impressive fashion on the evening of August 28 in the presence of some 200 women club leaders and officials of Dayton and surrounding communities. Climax of the ceremony was the unlocking of the front door of the home by Miss Colleen Moore, noted motion picture star, who assisted the committee in welcoming the guests into the home.

Mayor Charles J. Brennan, in behalf of the City of Dayton, lauded the undertaking as one that will keep the community to the forefront as "the city of homes."

"The Home of Today" is of English Georgian design, a two-story brick home with a beautiful center hall. The first floor contains a living and dining room, kitchen, breakfast alcove, and maid's quarters. The second floor has two master bedrooms, two baths and an upstairs study. Sun terraces are adjacent to two upstairs rooms. The garage for two cars is on the main floor level, attached to the house. The home is situated well back from the roadway, with a secluded garden development to the north and west, and a terrace leading from the living room to the north lawn. The basement has a commodious game room, a laundry, air-conditioning and heating rooms and a lavatory.

**PARTICIPATING FIRMS AND ORGANIZATIONS**

- Brick: Portier Brick Co.
- Brick Work: Master Brick Contractors Ass'n.
- Copper Pipe: Window Glass (Double Glazed): The Thermopane Co.
- Concrete: Ready Mixed Corp.
- Control Equipment: General Electric Supply Corp., Control Equipment Minneapolis-Honeywell Co.
- Insurance: Arnold S. Althoff Insurance Agency
- Landscaping: Gorman & Peters, Inc.
- Lighting Fixtures: The M. D. Larkin Co.
- Oak Flooring: Resource Lumber Co.
- Overhead Garage Doors: Overhead Door Co.
- Plumbing Fixtures: M. J. Gibbons Co.
- Printing: The Thompson Printing Co.
- Radiant: Radiator Corp.
- Sand and Gravel: Sand & Gravel Ass'n.
- Sheet Metal Work: American Rolling Mills Co.
- Steam Heating Service: Terminix Co., of Cincinnati
- Window Glass (Double Glazed): The Thermopane Co.
Chicago Builder

Features Ultra-Modern Home at LaGrange, Ill.

Wm. Joern & Sons, Contractor
Wm. F. Kramer, Architect

THIS MODEL HOUSE was erected and exhibited in a west Chicago suburb early in August. Within a month after opening the house to the public, this contractor had signed contracts for seven more houses of similar construction—concrete masonry and stucco walls with concrete first and second floors. Cost is $7,250.

For further details of the construction of this house, see page 56
General Electric's Experimental House at Nela Park, (Cleveland)

J. Byers Hays & Russel Simpson
Architects
Keyes-Truehaft Co.
Builders
Mrs. Margaret Green Dargan
Decorating and Furnishing

FLOOR PLAN
INTERIORS of the G-E experimental house feature new ideas in decorative lighting. Over page is living room with 12 1/2 foot ceiling; above is book case between living and dining room; to right built-in utility cabinet in bath room; below the electrified kitchen.

For detailed specifications of this house, see page 56
Cincinnati's Steel Frame Demonstration Home
Kopf & Kopf, Inc., Builders
L. J. Marioni, Architect

THIS HOUSE is notable in that, early in the 1935 season, it aroused public interest in Cincinnati in home building and in quality construction. Among the first of the truly modern type homes to be opened to the public, this perfect example of design and construction was acclaimed by the newspapers and by the home seeking public. Its unusual talking point was the Stran-Steel frame, rigid, safe, and practical—as pictured below.
JOHN J. EARLEY'S
Shop-Cast Polychrome House
Demonstrated at Washington, D.C.

EARLEY Polychrome House No. 1 has been built to show how the walls of a small house can be made with a beautiful material that was developed for the construction of great buildings. It is built with 32 precast panels which were made in a studio with great care and by fine craftsmen. They were made with the same materials and by the same process which produced the famous mosaic concrete ceilings in the new Department of Justice building at Washington.

These panels are two inches thick, approximately nine feet high, from four to ten feet wide and heavily reinforced with electrically welded steel mesh. They are cured for fourteen days in a humidity chamber until they have a crushing strength of about 5,000 pounds to the square inch. The panels are so made that they can be easily assembled upon a concrete foundation, such as can be constructed by any builder who knows how to make concrete and handle it properly.
Carefree Cottage

HEM Lastad, L.]. N. Y.
Estabrook Construction Co.
Maximillian R. Johnke, Architect

THOUSANDS OF PEOPLE ADMIRE this compact model home, and rightly so, for it is splendidly done. It is a truly low-cost house, yet meets all the needs of modern living. It is built in the Cape Cod fashion with shingle exterior and gives a quaintness and homelike appeal that make it one of the best of the country's model homes to be exhibited this year.

Cost Key is 1.863—206—753—35—23—18

Even the garage and back door entrance of Carefree Cottage have charm and beauty.

CAREFREE COTTAGE has a balanced compact plan with unusually good circulation. Porch and garage offset each other. The breakfast nook, lavatory off kitchen, ample entrance hall are good features.
WHO WOULDN'T BE CAREFREE in this attractive pine panelled living room? The fireplace is Early American with an 8 ft. mantel shelf and built-in cupboard for logs. Panelling is knotty pine with antique maple stain and wax finish. The marine basement recreation room illustrated below is one of the most striking and popular rooms of the house, and is a splendid example of what can be done to make the basement livable. It is designed to represent the open deck of a ship. The seascape views on walls give an effect of great distance. Ceiling is of wall board. Complete plans, specifications given on pages 51-53.
OUTDOOR LIVING IS INCREASINGLY IMPORTANT and in this Hempstead, L. I., model home an open porch adds much to the appearance and living of the house. The concrete and brick floor, arched openings and irregular shingle exterior make this porch detail especially good. The gable angle and the arch openings are well proportioned so that the porch does a great deal to increase the beauty and attractiveness of "Carefree Cottage."

Specifications and Detailed Plans of Carefree Cottage Given on Pages 51, 53
Specifications—Westchester Model Home
Frank N. Gobel, Builder; Theodore Richards, Architect

(For photographs and floor plan see pages 38-41)

FOOTINGS—10” deep, 36” wide, concrete reinforced with 2½” bars.

FOUNDATION—12” and 18” thick concrete. Truscon waterproofing.

DRAINS—Round tile drain pipe at footings around cellar, branches in each direction under entire cellar floor which is also waterproofed.

FRAME—Rigidly braced construction, over-size members, diagonal cross-bracing, trussed window and door openings, cross-braced partitions. Bearing walls and partitions carried on masonry or steel girders to prevent settlement. All headers and trimmers framed into bridle iron, windows and doors have double stud jambs and sills. Floor beams cross-bridged. Double floors throughout. Ceiling cellar wall board.

WATER TABLE—Copper flashing at bottom of frame under stone to prevent water leaks.

FIRESTOPS—Cinder concrete fire and vermin stops under floor on top of foundation.

CHIMNEY—Well built of stone and brick, with fireplace in living room specially detailed to prevent smoking. All flues lined with ¾” thick terra cotta linings. Flashed above roof with copper pan through entire chimney into flue lining; counter flashed on exterior with copper cricket.

EXTERIOR—Walls of varying materials, including 12” cedar clapboards and dressed field stone, all painted white. Stone painted with Dixie White special masonry paint.

EXTENSION TRIM—Frames, exterior trim, cornices and all clapboards back painted to prevent warping and cracking. Curtis double-hung Silentine windows with copper weatherstripping.

PAPER—Building paper used is improved waterproof kraft paper reinforced with heavy threads of sisal fibre to hinder tearing and penetration of air. Made by Sisalkraft Co.

FLASHING—All window and door openings are copper flashed as well as paper sealed to prevent filtration of air.

ROOF—Edge grained red cedar shingles stained black two coats, to guard against curling, laid on 1” x 2” strips.

GUTTERS AND LEADERS—16 oz. copper.

INSULATION—Air tight, hand packed, water-proofed rock wool in bats, on all exterior surfaces, walls and second floor ceiling, to prevent heat loss in winter and retain coolness in summer. Eagle Picher Co.

WEATHERSTRIPPING—All window and door openings have improved metal weatherstrip built in at factory. Each door has a brass saddle.


KITCHEN—Cabinets latest type Napane flush door factory built with baked enamel and stainless steel counters. Equipment consists of drawers, cupboards, towel driers, delivery compartment, Planning desk, telephone space, broom closet, serving counter, etc. Heavy aluminized pot closet, Norge refrigerator, electric clock, utility outlets, Curtis built-in ironing board and glass enclosed breakfast alcove.

RANGE—The kitchen range is a Universal model flush top with all improvements including self-lighting aluminum burners, heat control, two service drawers, porcelain burner reflector tray, porcelain lined oven and range lamp.

HEATING—Latent type vacuum, balanced vapor heating system by Dunham Co. All piping enclosed. Each steam main vented and trapped. System includes return traps, air eliminators, Minneapolis-Honeywell thermostat for controlling oil burner, Aquastat to control hot water and a 40 gal. Monel metal storage tank. Radiators are Dunham fin-type concealed in wall with checkered grilles and regulating fittings at inlet and trap at outlet. Air humidifier and filter by Harris Auto Car Co.

BOILER—Burnham oil-burning boiler built to give high efficiency and insure perfect combustion with domestic hot water unit having gas, oil, steam, electric and coal fuel cost, including all specialties and 275 gal. oil tank.

ELECTRIC—Building wired for complete lighting system with service and power meter and ample convenience outlets. Edwards recessed flush call bell and buzzer combination installed in kitchen does away with unsightly dirt-collecting bell jars. Radio aerial is installed in the attic and connected to special radio plate in base of living room. Telephone conduit and bell call box is enclosed in partition for telephone receptacle in master bedroom. Electric fixtures by Whiflen Electric Co.

INTERIOR—All walls and ceilings are plastered in hard white finish, three coats, on Reynolds Co. Ecost lath composed of network of steel ribs, wires and fibrous paper backing. Interior woodwork is white pine painted. Six panel Curtis colonial doors throughout. Mirror door in master bedroom. Closets are completely equipped with shelves, hanging rods, shoe shelves, etc. All rooms except kitchen, bath and powder room have stained and waxed clear white oak floors. Kitchen Floors are Congoleum-Nairne linoleum in new designs, cemented in place. Walls of powder room of linoleum.

BATH—Walls are Franklin tile of recent design, cushion edged 6” x 12” units, tile floor and shower all of select grade, well-equipped with tile accessories. Columbia Metal Box Co. medicine cabinet with Venetian top mirror.

HARDWARE—Russwin colonial, with black iron hinges, brass rim locks, all master keyed. Wilson Overhead Door in garage.

SPECIAL INTERIORS—Dining room has two Curtis shelf-top colonial corner china cupboards, a dado rail, window valances, and cornice molding. Living room fireplace side is entirely panelled with detailed assembly of pine panels and mantled with colonial brick-faced fireplace. Wood cornice finishes wall at ceiling. Hall walls are feather-edged vertical panels, elliptical arches. Stair is early American with closed string and delicately turned balusters and newels, a silk rope hand guide.

Specifications—Carefree Cottage
Hempstead, Long Island, Model Home
Eneterbrook Construction Co., Builder

(For photographs see pages 48-50; for working drawings see pages 52, 53)

FOOTINGS— Reinforced concrete on gravel base 8” deep, 20” wide.

FOUNDATION—8” concrete.

FRAME—Best type rigid braced construction, diagonal cross bracing, 3” x 8” joists on 16” centers. Trussed window and door openings, cross braced partitions. Steel girders support bearing walls. Brindle iron used at headers and trimmers; double studs at all openings.

FIRESTOPS—Brick firestops on bearing partitions.

FLOOR PLAN—Selected common brick with Covert Co. damper, terra cotta flue lining.

FLASHING—Copper flashing and counter flashing at chimney, where porch and garage abut main building, and at heads of windows and doors. All gutters and leaders 16 oz. copper.

EXTERIOR—Diagonal sheathing covered with heavy building paper over which is laid hand cut cedar shingles, 24” painted white.

INSULATION—Celotex board used as plaster backing.

HARDWARE— Colonial hardware by P. & F. Corbin Co.

WINDOWS—Pre-fitted Andersen windows, fully weatherstripped.

FLOORS—Dining, living room and hall are random oak, pegged. Kitchen, bathroom, breakfast nook covered with linoleum.

HEATING PLANT—Crane Co. boiler with vacuum vapor system. Home Oil Burner.

PLUMBING—Seamless Chase copper tubing, colored bathroom fixtures by Crane Co. Nall tile bathroom.


ROOF—18” stained cypress shingles.

INTERIOR—Authentic colonial woodwork and trim. Knotty pine wainscoting in living room.

For photographs and floor plan see pages 38-41
WORKING PLANS OF CAREFREE COTTAGE AT
Masonry

PREPARATION OF SITE—The contractor is to stake out the building and erect permanent batter boards at such points that they will not be disturbed during construction.

EXCAVATION—Excavate to the depths shown on the drawings and no deeper unless the condition of the soil calls for deeper footings. Make excavations one foot wider than the walls to be built in them.

SURFACE DRAIN—Connect surface drain to sewage system.

DYES WELLS—Construct dry wells where required and connect to leader drains.

LEADER DRAINS—Construct dry wells where required at leaders.

ROCK—Any boulders under two cubic yards encountered in excavation must be removed by the contractor without cost to the Owner. Rock excavation must be allowed for at a separate figure per cubic yard, which must be stated by the contractor.

WATER—All water must be removed from the excavation during construction.

REFILLING—Do all refilling against walls using dirt from the excavation.

GRADING—All rough and finished grading is included in this contract.

WATERPROOFING—Exterior walls of foundation shall be covered with a coat of hot tar. Mortar shall be one part cement, three parts sand, gauged with not more than 10% lime putty.

PROPORTION—Concrete for foundation shall be one part cement, two parts sand, four parts stone.

" to

Stone shall be hard, sound, local stone, broken to pass through a 2" ring, free from dirt and rotten stone.

Sand must be clean, sharp, well washed, and free from loam, vegetable matter or other impurities.

MATERIALS—Lime must be fresh, clean, live lime, properly slaked.

GRADING—All rough and finished grading is included in this contract.

BUILDING—Build chimney from top of foundation to height determined on the drawings of brick. Face chimney on outside with second hand hardburned waterstruck brick.

CLEANING OF BRICKWORK—At completion of work clean all brickwork with dilute oxalic acid. Do this thoroughly, removing all white spots from the brick.

FIREPROOFING—The contractor shall do all fireproothing required by local ordinances, and in absence of such requirements he shall fill all spaces between studs at first floor level from top of sill to point 4" above top of floor joists, and at second floor level on girders and partition caps to top of floor joists in all partitions. Fillings shall be done with common brick in lime mortar, concrete or wood blocking.

CONSTRUCTION—All work shall be done to exact specifications, and the contractor shall exercise care to keep all floors, woodwork, glass, and so forth, free from plaster.

PLASTER—All plaster throughout the house shall be gypsum plaster applied according to the directions of the manufacturer.

WORK TO BE DONE—All walls and ceilings, except in basement and garage, shall be plastered in two coats. Basement and garage shall be plastered in one coat.

Last coat on all walls, except in basement and garage and ceilings, shall be finished smooth and hard. Finish on all other walls and ceilings shall be slightly travelled.
American Builder, October 1935.

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Studies in Partitions

2 x 4" 16" oc

2 x 6" 24" oc

Girders

Steel. See plan.

FINISHING—All framing of partitions, roofs, floors, and so forth, must be plumb and square, true, with proper joints and true bearings and without the use of shims. All shall be haled at corners and tightly bolted.

Corner posts shall run through two stories and fire against the masonry plate. They shall be braced both ways to sill with 3 x 4" timbers. Fit and finish between the square at cutting same post.

Study all external walls shall be one story, length, capped with a rick or raised girt, or plate, as the case may be.

Interior partitions shall be spliced to 2 x 4" solid, and so made that rough floors, except for bearing partitions which must stand on the girders, shall not have more than two openings per 8 ft. minimum.

Roof rafters shall be notched over, placed and bolted against ridges and walls well together.

Ceiling beams shall be well spliced to rafters, lap a half and must be brought to a true upper surface, by notching them down over the bearers.

FAIRNESS OF CHIMNEY—No timber shall be placed within 1/2" of the face of the chimney

BRIDGING—Cross bridge all floor beams at 8'/0" intervals. Use 2" x 3" stock stuff well fitted and heavily spliced to beams. Beams are to be level, and 4" square. Also, spliced with double nailed cleats.

BOARDING—Boarding on walls and roofs is to be 3/4" x 8" matched boards, two nailing to a bearing, and shall be sound, warp free, straight and from seasoned lumber. Apply roofing felt as described automatically the roof boarding and clapboards.

SHEATHING PAPER—Use a layer of water-proof building paper between boarding and roof shingles and clapboards.

PURLING—Purlins all ceilings on inside of building, and on outside ceilings, with 2 x 2" stuff set 12" oc.

LOCKING—Do all blocking required.

GROUNDS—Furnish and set dressed grounds for all door and window trim, all base, and elsewhere where required for other finish. Furnish and set dressed %" grounds for metal lath. Pile all building hardware, best grade. Furnish and install good grade of ammonia finished hardware throughout the house.

Details of Air Conditioning Ducts and Key to Drawings

Legend

Base- ment outlet
First floor outlet
Second floor riser
Volume damper
Splitter damper
Thermal control
Humidistat
Bulb between jost.
All returns are shaded
Positive locking light damper installations
In all ventilating ducts and return branches and in manifold supply and return branches in manifold supply and return branches and in manifold supply and return branches of air conditioning system. This legend based on the following:

- Wallboards; Clapboards, sheathing, 3/8" fir sheathing, 3/8" slash fir.
- Lathing: Square, Lath and plaster
- Roof: 3/4" sheathing, slate on felt
- Windows: Double hung, 4 casement
- Doors: Dutch doors, weather-stripped
- Second Floor—lath and plaster
- 4 Rock-mass

details of Air Conditioning Ducts and Key to Drawings

Legend

- Basement outlet
- First floor outlet
- Second floor riser
- Volume damper
- Splitter damper
- Thermal control
- Humidistat
- Bulb between jost.
- All returns are shaded
- Positive locking light damper installations
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- Windows: Double hung, 4 casement
- Doors: Dutch doors, weather-stripped
- Second Floor—lath and plaster
- 4 Rock-mass

Details of Air Conditioning Ducts and Key to Drawings

LEGEND

- Basement outlet
- First floor outlet
- Second floor riser
- Volume damper
- Splitter damper
- Thermal control
- Humidistat
- Bulb between jost.
- All returns are shaded
- Positive locking light damper installations
- In all ventilating ducts and return branches and in manifold supply and return branches in manifold supply and return branches of air conditioning system. This legend based on the following:

- Wallboards; Clapboards, sheathing, 3/8" fir sheathing, 3/8" slash fir.
- Lathing: Square, Lath and plaster
- Roof: 3/4" sheathing, slate on felt
- Windows: Double hung, 4 casement
- Doors: Dutch doors, weather-stripped
- Second Floor—lath and plaster
- 4 Rock-mass

Details of Air Conditioning Ducts and Key to Drawings

Plumbing

CAST IRON DRAIN PIPES—All soil, vent, waste, and horizontal drains, traps, and fittings over 2" that are placed on the inside of the building shall be extra heavy cast iron pipe.

BRASS PIPE—Lead-sound connections to water closet shall be 3/4" brass pipe to a weight of 8 lb. per ft. Connections be made with brass flanges and brass ferrules and wired joints. Branches to be carried in front as close to fixtures as possible.

METAL PIPES—All metal pipes shall be made with oakum and new pig lead 12 oz. per ft. leaded in each end of pipe. Joints to be made properly tight.

RAISED METAL PIPES—In bath room, lavatory, and kitchen, all exposed piping, including trap, supply and return branches and lines. Flanges, hinges, chains, bolts, brackets, screws, washers, nuts, and all other exposed metal work about the fixtures, are to be chromium plated except for blacking.

WORK TO BE DONE—All plumbing shall be in accordance with local plumbing laws. If it is necessary to increase or decrease the size of any pipes for the best results, foreign sizes shall be required additional material, or any deviation from the specifications of this contract, the plumber to conform to the Code or to facilitate the proper functioning of a fixture, system, and so forth, he shall do so without extra cost.

The plumber shall obtain and pay for all permits he shall be required to get. All pipes shall be concealed in the walls, partitions, or floors, and must be erected in advance of partitions to avoid unnecessary cutting.

HOUSE DRAINS—House drains shall be run as required. Main house drain shall be four inch.

TRAPS—Provide and place where necessary and in accordance with plumbing ordinances, traps and cleanouts.

PIPES SUPPORTS AND HANGERS—Make all pipes firm and secure with galvanized iron hangers and supports.

TESTS—On completion of the work and after all lead bands, vent pipes, and branches are in place, and when the work is ready for the setting of the fixtures, the plumber will test all venting, waste, and lead pipes in the presence of the proper authority of the plumbing inspector in charge. The entire system of piping with water to the highest point of the system shall be tested to see that the work the plumber will apply all pressure and let water tests to the entire system of drain and vent piping in good order.

Any defects discovered and any repairs required to make the installation fit for use shall be made good by the plumber at his own expense, and the tests repeated until satisfactory, and the work proven secure.

Water Supply

TEMPORARY SUPPLY—Place a temporary valve on main line for the use of the plumber.

WATER METER—Provide, place, and connect, if necessary, on water supply main, one meter of size and make approved by the water department.

(Continued to page 92)
9.

The ultra-modern six room residence illustrated on page 43, demonstrates fireproof construction in the medium cost field. Designed by William F. Kramer and built by Wm. Joern & Sons at a cost of $7,250, it was opened for inspection for 30 days and approximately 10,000 people visited the house. The builders did not think it advisable to foreclose the house. This was the conclusion of the house, which would foreclose the building itself, the building is marketable and the house is marketable. An inspection of the house shows that the building is marketable and the house is marketable.

The Structure was purely an experiment to determine whether houses of its type satisfy all present-day comfort and economy requirements, and yet will be modern and up-to-date for years to come.

The house was designed under the title of "General Electric Good-Value Servantless Home" by the widely-known Cleveland architects, Hays and Simpson. The Keyes-Truehaft Company constructed the house.

This home was opened for inspection for 30 days and approximately 10,000 people visited the house. The builders did not think it advisable to foreclose the house. This was the conclusion of the house, which would foreclose the building itself, the building is marketable and the house is marketable.

Major Specifications

Walls: All exterior walls are of Haydite Concrete. Regular openings are of 134 inch solid stiles and rails of pine with solid pine panels. Chromium hardware is found throughout the house.

Doors and Windows: Distinctly modern is the use of steel door and window frames. Wall space is materially increased with these frames. The front door frame is of steel and the other door frames are of 134 inch solid stiles and rails of pine with solid pine panels. Chromium hardware is found throughout the house.

The exterior finish of the building was as follows: A double under-coating of portland cement and finished in white Medusa cement, all coatings having water proof powder ground into them.

Low Insurance: Because of the fireproof construction of the house, the insurance is only eight cents per $100 and is 60 per cent lower than on the ordinary brick house.

The garage, during the showing, was converted into a sample room in which all products used in the building were displayed. This afforded an opportunity to see how the products were used in actual practice and see exactly what products helped make up the construction.

Specifications of G-F Experimental House at Nela Park, Cleveland, O.

Illustrated on pages 44 and 45

American Builder, October 1935.
MODERNIZATION

"which makes buildings of all kinds more cheerful, more livable and more salable"

Appearance Up—Costs Kept Down

IN ELEVATOR CAB REMODELING there is an excellent opportunity for effective modernization. The operation is one that is comparatively simple, and one that can be done quickly and economically—particularly so if any one of the many modern wall covering materials suitable for this work is used with the installation methods made available by a manufacturer of metal wall trim, Wooster Products Inc. Just how effectively this can be done is well illustrated by the accompanying, contrasting photographs which show a Hudson Terminal Building elevator cab “before” and “after” treatment.

ABOVE: “Before view” showing antiquated grill work which was stripped from the elevator cab in effecting the installation. A cap section of the wall trim was placed in position at the door. The balance of the trim was then marked and laid out, the screw holes spotted, the holes drilled and tapped; flat head machine screws were then put in place and bolted from the outside where possible. The trim was then removed, the panels put into place starting against the cap section, and the trim fitted securely against each panel.

RIGHT: Interior of cab after having received the modernizing treatment. The wall covering used is a Bakelite laminated panel with a beautiful wood grain finish. Panels are securely fastened to the steel frame work of the elevator car by the Wooster metal wall trim which serves as a structural part of the wall covering as well as an important decorative feature. The glistening metal moulding emphasizes the panel design by its pleasing contrast to the more somber natural wood color of the panels.
Joint Enterprise Proves Value of Home Remodeling
By CHARLES W. BAUER, Jr.
Secretary Cincinnati's Little Home Committee

WHEN the Cincinnati Modernization of Homes Committee was formed last fall, with George D. Crabbs, prominent industrialist and civic leader as its general chairman, its objectives were stated in the following language:

"To conduct a survey for the purpose of finding the city's actual repair and remodeling and housing requirements.

"To demonstrate to home owners, through such means as Cincinnati's Little Home, the important advances made in the construction industry in the past several years—both in materials and methods."

To Mr. Crabbs' appeal for counsel and direct assistance, all professional, commercial, industrial and financial leaders responded. Both major objectives were simultaneously planned—the house-to-house canvass, reaching about 100,000 property owners, and the construction of the Little Home. A committee of qualified advisers immediately undertook the planning and construction of the Little Home, at the same time working with other leaders in launching the survey. Practically every trade-body and civic group rendered outstanding service from the first day of the movement.

With little time in which to work, the committee believed that a modernizing project would serve all practical needs of the movement. Cincinnati's topography, however, was a major problem. The city proper comprises seven hills. In order that the project might do the most good to all concerned, a central location was necessary. No house was available in such a location, so the committee chose the most likely house and moved it to a lot at the intersection of the two most prominent highways and almost in the residential center of the city.

The house chosen for this job was a 1½ story structure dating from the era of the hand-forged iron nail—as the workmen discovered when they started to prepare it for modernization. A committee of architects had drawn plans for converting the structure into a two-story dwelling for a small family. However, when the workmen ripped off the "skin" of the house, they found it would have to be rebuilt from the ground up. A clinical examination revealed that the "good old honest workmen" of the "good old honest days" of which folks today hear so much, were not so honest and not too good after all. The house was flimsy in design and in construction; it had no subfloors; it had no sheathing. Except for the square, hand made nails and the yellow poplar timbers—an almost extinct wood these days—it had little to excite the wonder of a prospective home-owner.

So, instead of a modernizing job, it was turned into a remodeling project on a large scale. There is scarcely an item known to the modern construction industry that is not represented in this Little Home. Tangible results for the construc-
tion industry began to appear almost immediately. Stimulated also by the house-to-house canvass under the Committee’s auspices, home-owners qualifying under the Federal Housing Act negotiated immediately almost $400,000 in credit for modernizing and repairing of their properties. In addition, almost $2,000,000 was spent in cash by property owners during the survey-period on actual construction and remodeling of all kinds.

The contagion has been such that one of the largest churches in the city got a present of a thorough renovation for the main structure and its parish buildings, a gift from an influential parishioner who saw the importance of setting a conspicuous example even though he had no property then available for modernizing. Two large downtown buildings have had their “faces” rejuvenated and their interiors improved since the movement started. Store fronts have been done over both in the competitive spirit of the proprietors and also because the credit log jam was broken by the persistent efforts of the committee.

Described as “an achievement in civic co-operation,” Cincinnati’s Little Home stands today as a symbol for community endeavor. Although the mid western metropolis is no stranger to joint enterprise, the enthusiasm and eagerness to co-operate elicited by this single project have set a high mark in this city where popular sentiment is always on the side of civic progress.
FOR most builders the depression years since 1929 have been years of slackening pace or no business. But for two young Long Island builders, William and Alfred Levitt, these same years have marked the growth of one of the most talked of, best thought of, home building businesses in the East.

The Levitt brothers were only 18 and 22 years old respectively in 1929 when they acquired a 40-acre tract near Rockville Center, L. I. Alfred Levitt designed unusually attractive homes and superintended their construction; William Levitt handled the financing, advertising and selling. Since 1929 they have built and sold more than 300 houses. Their most recent project has been Strathmore-at-Manhasset, a wooded 50-acre piece on the North Shore of Long Island which will contain 250 houses and is now more than two-thirds built up. Announcement was made by William Levitt on August 11 that Strathmore-at-Manhasset will be completed early next spring, and as a result the builders are negotiating for another large acreage parcel on Long Island as a site for their next operation.

Many people have asked, "What is the secret of success of the Levitt Company?"

The most all-inclusive answer is "quality." The land is beautifully sub-divided with large lots, winding streets, no sidewalks, shrubbery and tall trees. Everything is done to maintain the natural beauty of the original setting of the property.

Every house is especially designed by Alfred Levitt for the prospective home owner, and he has shown a remark-
able ability to produce homes of quality and style that catch the public eye. The houses in Strathmore-at-Manhasset range from $8,000 to $20,000.

Sensible restrictions as to the type of people, the styles of architecture, the treatment of the lawns, all contribute to maintaining a quality and charm to the home project. The Levitts provide custom-built homes at speculative prices.

The matter of quality is carried out to a far-reaching extent in the Levitt-built homes. Quality methods, materials and equipment are used, but what is more, the Levitt advertising prominently features some of the outstanding quality products.

Standard construction practice, as reported by William Levitt, includes: Poured concrete foundations; N. C. pine frame; 9/16-inch diagonal sheathing; Bangor staggered slate roofs; copper leaders, gutters and flashing; brass-plumbing throughout; Johns-Manville rock-wool insulation; Monel-Metal hot water boilers; General Electric oil furnaces; Fenestra steel casement windows with Rotol-Adjuster bronze hardware; Armstrong linoleum; American radiators; plumbing fixtures and chromium fittings by Standard Sanitary Corporation; General Electric exhaust fans; Schlage self-locking hardware.

A typical advertisement showing how William Levitt presents the quality idea in his newspaper advertising is shown on this page. The advertising developed by Levitt has been so unique and so effective that many others have attempted to imitate it, but few with success. By far the majority of customers are secured from the newspaper advertising used, and the Levitt budget for this purpose is a liberal one.

Various financing plans have been used by the Levitts since 1929 in keeping up the continual sale of homes. They have had the respect and cooperation of the Prudential Insurance Company which has handled a large part of their mortgages, and here again the value of quality materials and equipment are used, but what is more, the Levitt advertising would have been impossible in the depression years without it.

The financing plan now employed by Levitt is a minimum cash payment of 25 percent. On all cash paid over the minimum a discount of 2 1/2 percent is given. The un-paid balance on a house is humped as one mortgage running for twenty years, which is amortized in monthly payments.

Interest rates vary in accordance with the amount of

RIGHT: Typical Levitt advertisement features quality materials.

Below: A moderate cost Levitt-built house in parklike surroundings.
cash paid in, and are based on the following schedule:

25% Cash 6%
35% Cash 5.5%
50% Cash 5%
60% Cash 4.5%

In explaining the financing plan to customers, Levitt states that "carrying charges are easily figured by taking 1 percent of the mortgage per month. This includes interest, reduction of principal, taxes, water, and fire insurance. For instance, if a house is priced at $9,000, the minimum cash is 25 percent, or $2,250, leaving a mortgage of $6,750. One percent of that is $67.50, which is the monthly charge for all the items mentioned. There are no fees or charges of any kind."

The past year has been the most successful in the history of the Levitt brothers. When interviewed by American Builder early in August, William Levitt stated that they have stopped taking orders because their construction crew was so far behind on houses already sold but not completed. Business this year has tripled that of 1934, and the entire staff is working full speed to keep up with the volume of work sold.

The Levitts build very few houses on speculation. Frequently, at the beginning of a season, they will build one or two, and the number of speculatively built homes may run to half a dozen in the course of a season. These are usually advertised as model or demonstration homes, such as "The American Home" widely publicized in March this year. This demonstration home attracted wide attention, and deservedly so, for it had many unusually fine features that illustrated the latest developments in moderate priced homes. The Levitts feel that it is well to have several demonstration homes available to show the public, but they are careful not to have too many houses ahead at any one time, as they feel that too many empty houses inevitably create a bad impression. One of the restrictions of note maintained by Levitt is that no houses may be built in Spanish or Modern architecture or style. They feel these styles would detract from the harmony of the setting. Houses are not duplicated in the subdivision but Alfred Levitt will attempt to produce a house with somewhat similar roof lines or details when a customer is thoroughly sold on a certain style.

To walk or drive through Strathmore-at-Manhasset is an encouraging and stimulating experience for anyone interested in better home building. The entire project has the appearance of a beautiful private estate, the homes are substantially built and harmoniously arranged, and what is most important, satisfied customers testify to the success of the quality methods employed by these builders.

"Quality Products Pay Their Way, Help Sales," Levitt Says
The SHOPCRAFTER'S Corner

A Workshop Department of Things
To Build for Profit or Pleasure

THIS MONTH two projects are presented which are quite different in their handling. The Colonial mirror offers the shopcrafter an opportunity to build a very useful piece of furniture since Early American furnishings are very much in demand at present. Placed over a chest of drawers it adds to the utility of that piece in the bedroom.

In constructing it, the uprights that hold the mirror in place may be cut out with a turning or heavy scroll saw and finished with spokeshave and file. The frame as shown in the drawings at the right calls for a deep rabbett to bring the glass up to the front of the frame, which is made more interesting by rounding the front of the pieces which make up the frame.

Another outdoor project is shown below in the form of a garden gate. It is very easy to build but, like the seat shown last month, can add much to the appearance of the landscaping about either a new or old house. Although it is getting late in the season, there is still time to do outside work and prepare the garden for an early start next spring—or the gate can be built during the coming winter months and used for next year.

Readers are invited to write to American Builder about their experiences with the plans published in this department and give their ideas as to the most useful type of project which might be presented.

ABOVE: The drawings for building a useful and attractive Colonial mirror which will fit in with the popular Early American style. Below, illustration of garden gate and the plans for the construction of this outdoor feature. These projects are published through the courtesy of Edward F. Worst, formerly Director of Industrial Arts Work, Junior High and Elementary Schools, Chicago, Illinois.
New Low-Cost Steel Panel House

Contractors Offered Newest Development in Steel Interlocking Panel Building Construction

A NEW TYPE steel home of patented interlocking, self-framing construction has recently been completed on Centennial Ave., in Middletown, Ohio. It was built by Steel Buildings Inc., under patents of the Steelox Company of Chicago, with whom the American Rolling Mill Company has cooperated. The house can be duplicated for approximately $2,500. It is of Cape Cod Colonial architecture and contains a large living room, two good sized bedrooms, a modern kitchen with dinette space, bath and service room.

The house was built in record time, being made ready for the decorators in approximately two weeks after erection of the steel work was begun. The method used is interesting and extremely simple. Panel shaped sections are pressed from 20 gauge Armco galvanized steel. Each panel has a flanged side designed so it interlocks with the flange of the adjoining panel. A steel angle, encased in asphalt, is bolted to the foundations. The wall panels are then upended and interlocked. They are fastened to the angle by means of a hook bolt. An angle-shaped wall cap is placed on top of the sections and held in place by hook bolts. Short panels are inserted where doors and windows occur.

The roof is assembled from panels of the same design as the wall, except the flanges are turned up. No rafters or wall studding are required, the flanges serving this purpose.

Less than two days were required to erect the steel chassis of the home. The walls were then packed with batts of rock wool insulation three and one half inches thick. Plywood was used as the wall finish, attached to furring strips which were in turn nailed to the steel walls. See construction details opposite.

The modern kitchen contains two roomy cabinets, an automatic water heater and combination sink and laundry tray. Both bath and kitchen have linoleum walls.
CONSTRUCTION details: The walls and roof of Steelox structures are made of 20-gage galvanized Armco steel channel-shaped sections sixteen inches wide, having flanged sides. The flange on one section easily and securely interlocks with the flange of the adjoining section. These patented sections are the exterior wall of the building, and at the same time their flanged sides when interlocked form strong, rigid steel columns which serve as the studding and rafters of the building.
ELVEN thousand dollars in cash prizes have been awarded to 52 architectural designers in the "Modernize Main Street" Competition sponsored by Libby-Owens-Ford Glass Company. Their drawings present a splendid group of solutions to one of the building industry's most urgent problems—namely, what to do to the old style drug stores, grocery stores, and women's wear shops (dry goods stores) that stand on every business street, blocking progress and losing trade because of their old-fashioned, uninviting appearance; and the problem of the old time auto showrooms and gas stations which have been left behind in today's race for the motoring public's dollar.

This competition was announced on June 15 and closed Aug. 12. More than 2,000 architects and designers submitted drawings. The Jury of Awards under the chairmanship of Melvin T. Copeland, Professor of Marketing and Director of the Bureau of Business Research, Harvard University, met the week of Aug. 26 and selected First, Second and Third Prize Designs for each of the four problems, together with 40 Honorable Mention Designs. This entire collection of 52 designs in a large page portfolio (in color) will be obtainable from the sponsor by architects, contractors, dealers and property owners interested in store modernizing. American Builder is privileged to present on the next three pages, in reduced size, the First Prize Design in the Drug Store, Food Store and Auto Station groups. Additional designs will follow in later issues.

In approaching the problem of redesigning typical old style stores for this competition, the contestants were given the following specifications (and these will help to make clear the intent of the drawings that follow):

THE DRUG STORE: The modernized corner drug store is to provide for the selling of many types of small merchandise, as well as medicines and prescriptions. Among other things the following "departments" must be provided for: soda fountain and lunch counter, cigars, candy, toilet articles and cosmetics, proprietary medicines and home remedies, sick room supplies and rubber goods, packaged drugs, and prescriptions.

The kitchen for the lunch counter may be considered to be in the basement if proper stairs, conveyors or dumb-waiters and flues are shown on the plan.

Dimensions: The building is on a level corner lot 25°0' x 75°0', the short side on the north side of Main Street; the long side faces west on the side street. The cast party wall extends 6' into store lot. The present clear height, floor to ceiling, is 12°0'.

THE FOOD STORE: This store is to provide for the merchandising of groceries, packaged and canned foods, fresh fruits and vegetables, meats, fish and frozen foods.

Dimensions: The building covers a level inside lot (not a corner lot), 25°0' x 75°0' on the north side of Main Street. There is a service alley at the rear. The clear width between the party walls is 24°0'. The present clear height, floor to ceiling, is 12°0'.

THE AUTOMOTIVE SALES-AND-SERVICE STATION: The gas station, presumably, is to be modernized by an automobile dealer as a "feeder" for his main showroom, as well as to produce a profit through the sale of gasoline, oil, tires, accessories and parts. Servicing, such as greasing, washing and minor repairs on all makes of cars, will return a profit in addition to creating goodwill which may lead to a car sale.

The plan shall provide a showroom for two low-priced passenger automobiles; space for the display and sale of tires, parts and accessories; cash and record space; "restroom" toilets; one car-washing space; two greasing pits, hoists or lifts; work bench and tool racks for minor repairs, with enclosure for repairing one car at a time; gasoline pumps and oil dispensers shall be located within the building lines.

The basement is not to be shown on the drawings. It is assumed that employees' lockers, the heating plant, air compressors, etc., and extra storage space may be provided for in the basement, providing a stairway is shown on the plan.

It is assumed that the present structure may be moved, enlarged, altered, or torn down so that the most efficient design for the lot can be realized. Gasoline pumps, also, may be added, changed or relocated.

Dimensions: The level lot is on the Northeast corner of intersection of Main Street and a through traffic artery. The wide Main Street runs East and West. The rectangular lot measures 100' on Main Street, 75' on the intersecting street. Both are two-way traffic streets. From building line (lot line) to curbs of streets is 12'.

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The plan shall provide a showroom for two low-priced passenger automobiles; space for the display and sale of tires, parts and accessories; cash and record space; "restroom" toilets; one car-washing space; two greasing pits, hoists or lifts; work bench and tool racks for minor repairs, with enclosure for repairing one car at a time; gasoline pumps and oil dispensers shall be located within the building lines.

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Dimensions: The level lot is on the Northeast corner of intersection of Main Street and a through traffic artery. The wide Main Street runs East and West. The rectangular lot measures 100' on Main Street, 75' on the intersecting street. Both are two-way traffic streets. From building line (lot line) to curbs of streets is 12'.
FIRST PRIZE, Class A (Drug Store), submitted by M. RICHTON SWICEGOOD, New York City. Specification calls for: show window, 5'4"2" x 10'0" x ½" L.O.F. "A" quality D.S. window glass; show window floor, black linoleum; show window ceiling and walls, lacquered Transite; interior lighting fixtures, indirect lighting from ceiling; partitions, prescription room L.O.F. Plate; facing of bulkhead, spec. aggregate (steel brushed) concrete; sign lettering and illumination, metal letters with Neon tube; sales interior, walls, light gray lacquered Transite; ceiling, white lacquered Transite; flooring, Olympic Blue Sealex; show cases, terra cotta color; furniture, metal and terra cotta color leather; main lighting fixtures, indirect ceiling trough; trim, nat. finished stainless steel.
FIRST PRIZE, Class C (Food Store), submitted by G. FOSTER HARRELL, Jr., New York City. Specifications call for: show window, 1/4" L.O.F. Plate, bent; show window lighting troughs or fixtures, 3/16" L.O.F. Sand Blt.; skylights (exterior), Blue Ridge Wire Glass; Skylights (interior or ceiling), 1/4" L.O.F. Sand Blast; store front frame, metal; facing of bulkhead, corrugated terrazzo; bulkhead trim, stainless steel; sign lettering and illumination, stainless steel and Neon; show window floor, walls and ceiling, stainless steel; sales interior, walls, lacquered Transite; ceiling, acoustic block; flooring, terrazzo; show cases, steel and glass; main lighting fixtures, indirect; trim, stainless steel.
FIRST PRIZE, Class D (Automotive Sales-and-Service Station), submitted by ALFRED CLAUSS, Knoxville, Tenn. Specifications call for:
glass for show window, 1/4" L.O.F. Polished Plate; show window lighting troughs or fixtures, Holophane lenses below reflectors flush in ceiling; show cases, 3/16" L.O.F. Polished Plate; partitions, 3/16" L.O.F. Polished Plate; rear windows, 1/4" Blue Ridge wire glass; store front frame, stainless steel; facing of bulkhead, blue porcelain enamel; trim, stainless steel; facing of exterior wall, walls or columns, white porcelain enamel; trim or ornament, blue porcelain enamel projecting canopy—stainless steel louvers; sign lettering and illumination, letters sandblasted on blue glass light box; show window floor and walls, 3/16" dark gray battleship linoleum; ceiling, blue porcelain enamel.
"Silver Lining"
Model Home

New Coordinated Building Plan and line of products announced by Reynolds Corporation.

Using a new coordinated building and distribution plan, the Reynolds Corporation, New York City, is now offering 80 per cent of the building materials and equipment that go into a house under one bill of sale in the way that may have a far-reaching effect on the building industry.

Under the Reynolds plan, local architects, builders and lumber dealers take an active part and perform their usual functions in the field. They are supplied with technical assistance by the Reynolds company that is intended to assist them in selling a fully engineered, nationally advertised, guaranteed house.

Through acquisition of new plant and production facilities the Reynolds system provides the following procedure:

1. Flameproof and termite proof framing and structural flooring known as Metalumber.
2. Ecod Fabric plaster base—plain or metallated.
3. Reynolds Metallation (insulation).
4. Air Conditioning System complete with conduits.
5. Plumbing system and fixtures.
6. Steel windows.
7. Complete roofing installation.
8. Liquid Metallation.

While the above products are available individually through the regular dealer channels, where desired, the important feature of the new Reynolds plan is that they can all be purchased under one bill of materials for a "Reynolds Specified House," effecting important cost economies. A house so supplied will be entitled to a distinctive, nationally advertised trade name. The significantly important result of the plan is that all of the parts are carefully planned and engineered in relation to each other and to the whole house. In addition to the sales plan which includes the architect, builder and dealer, the Reynolds company is setting up the Reynolds Fiscal Corporation to supply local financing where none is now available from customary mortgage lending sources.

Will Help Builders

Residential contractors, whether building for sale or on contract, will send plans and specifications of their houses to the Reynolds Corp. The Reynolds engineers translate the requirements into a fully engineered house. The structural engineers prepare special framing plans for the Metalumber. The air conditioning engineers plan a complete system which is supplied with air ducts, precut and ready for installation. Plumbing experts coordinate the layout with the structural department.

Materials and equipment will be sold through the local lumber or building materials dealer.

Of especial interest to builders is the fact that the Reynolds Corp. will supply advertising and selling helps
for their Reynolds specified houses. These consist of:

1. Supplying sample advertising, mailing literature and signs particularizing the advantages of the houses.
2. Arranging special previews of "House with the Silver Lining" for which engraved invitations are supplied and mailed to the builder's list of prospective buyers and civic officials.
3. Arranging a demonstration in the house which dramatizes the advantages of this type of house over other kinds of construction.
4. Organizing a direct mail campaign to the best of the builder's prospects.

Many unusual and interesting new materials and construction ideas are incorporated in the new Reynolds plan. The Metalumber consists of steel shell units filled with a cementitious compound that can be nailed, sawed and otherwise handled like lumber. Floor joists, studs and framing members are manufactured at the factory and delivered ready for erection. Floor joists are placed on two-foot centers, bridged every eight feet with a steel band two inches wide. Spans are up to 18 feet. The Metalumber is flameproof, decay proof, termite proof and has high structural strength and rigidity.

The plan, design and exterior materials of the Reynolds houses are determined by the architect or builder.

Of the 50 houses already sold, practically all are of traditional types of architecture. The houses are thoroughly insulated. Pictures show job by McMorrow Co., Norwood Manor, Manor, N.J.

One of the most progressive steps of the Reynolds plan is the supplying of a complete air conditioning system which is delivered with all grills, ducts, supply and return lines ready for immediate installation. A standard air conduit system has been developed which eliminates the cutting and fitting of galvanized ducts on the job. The Reynolds ducts are equipped with special snap-lock fittings which eliminate solder or sheet metal screws.

R. S. Reynolds, president of the Reynolds Corporation, believes that important economies can be achieved by this "package system" of selling building materials and equipment. The company is not building "prefabricated houses" but is providing economically engineered and planned materials for individually designed houses that are planned for the local needs and conditions of the community. Associated with Mr. Reynolds are Roe Black, vice president and general manager, and Gardner W. Taylor, who is vice president and general manager of the Reynolds Fiscal Company in charge of housing for the Reynolds Corporations.
Garage Models
Forecast 1936 Activity

JUST as the radical improvements in automobile design developed by the car manufacturers and exposed to the public in advance of the 1935 car buying season relegated all previous models to the discard, so likewise there has been going on a radical development in garage design and equipment that makes obsolete most of the private garages now standing.

For this reason, it is expected that 1936 will show unusual activity along lines of garage construction and remodeling. The new houses being built, and particularly the 4,000 model demonstration homes that are being exhibited this fall, are bound to have a powerful effect on realty values, building design and construction practice.

The attached garage, or a motor room incorporated within the home design, is greatly favored in all new construction. In the recent prize competition conducted by the General Electric Company, all designs submitted included a built-in garage, and uniformly the architects placed the garage at the front of the house close to the street approach, by so doing cutting down the amount of concrete driveway and leaving the side and rear lawn and garden areas free to be developed into quiet, safe and pleasant retreats for the family.

This prominent location for the motor room calls for particular attention to be given the door design and construction, to assure an adequate piece of equipment from the triple point of view of good appearance, security and ease of operation. Garage door openings are wide and doors are heavy, yet they must be so equipped that a frail woman or child can open and close them without difficulty.

Here is where the improvements mentioned above come into the picture. The upward-acting doors, delicately counterbalanced, have been so perfected as to construction and hardware equipment that they seem to be equal to any requirement.
Example of large garage doors used in Commercial buildings. This washing and greasing station is equipped with Wagner Mfg. Co. hardware.

*INDIVIDUALIZED* design is featured in this triple-door garage in Cincinnati, Ohio; Standish Meacham, Architect. "Overhead" Door Corp. equipment was specified and used, proving entirely adequate to control these heavy doors.

KINNEAR'S "Rol-Top" doors on Columbus, O., residence; R. G. Hanford, Architect; Pettinger & Schleppi, Contractors.

*ALLITH Prouty* Hardware on this funeral home garage at Danville, Ill.
Looking Ahead in Home Equipment

New Standards and Improved
Models Stimulate Buying Interest

By V. L. SHERMAN

Department of Mechanical Engineering,
Lewis Institute of Technology, Chicago

JUST as I sit down to discuss the future in home equipment there comes a letter from my brother-in-law. He, and his young family, are on the brink of a new home in a middle eastern city, and would be thankful for any advice that I might tender. Well, I might at that; but I know from his letter that he is in good hands, and that when his home is completed there will be everything to be thankful for and nothing to complain about.

Given a good contractor, a contractor who can familiarly supervise the plans and specifications, who knows how to choose the best in materials, and who relishes a full responsibility, there can be little chance of any but the best results. The advent of the Federal Housing Administration with its long term single-mortgage loan and its direction of securities has worked a marked change in the past year. Thus it is that the family I speak of can count on several advantages to come in the way of a “domicile” which would have been considered rank extravagance by some a few years ago and by others as a risky building prospect. Now there is really nothing extravagant in what they plan, nor is there anything in the way of a risk.

Just to turn it over in prospect suppose we see what the intentions are. The home is to be a story-and-a-half house with living room, dining room, kitchen, two bedrooms and a bath on the first floor. The second floor is to have two bedrooms. (They probably will amount to play rooms for the boys and the boys’ friends, if I am not mistaken.) There is to be no basement, but a heater room and laundry will be accessible from the kitchen. The heater and air conditioner will be furnished by as reliable companies.

Now, I hold no special brief for basementless houses. Except for a few purposes the basement appears to me to be an unnecessary subject. With the “invention” of the hot-air furnace it was thought necessary to excavate so as to provide enough height for the hot-air stacks. And the anticipation of a dirty furnace on the same level as the parlor was not to be considered for a moment. Besides, how could hot air be distributed but underneath the floor?

This mention of a basement is merely to point out that with modern heating and air conditioning a basement really is not necessary at all. The heating is cleanly; the distribution of heat by steam, hot-water, or warm air is positive and not left to the difference in densities of the heating mediums; and floor, wall, and roof insulation is now, and has been for some years, a matter of success and certainty. The writer has lived in a basementless house for ten years and would not trade the type for any other.

The automobile builders are deservedly pointing with pride at the enormous improvements which have come in the last years. But I wonder if there is any greater improvement in cars than that shown in the building of garages for their housing. In roaming around the country it is evident that the modern garage is nothing akin to the ones we used to see. The newer ones grace the premises rather than disgrace them. And the equipment that is considered saving of time and temper is neither expensive nor superfluous. The garage is really a part of the house whether it is built attached or detached. But even now, as well as in the future house, the garage doors are easy to handle, do not require excavation after a snow storm, are out of the way in any position and no longer look like the side door of a box-car. And if a little motor can run your vacuum sweeper or your refrigerator, why can’t the garage doors be operated just as easily by motor power.

The sketch, Figure 1, shows one of a number of door types which can be operated from the car on entering or leaving the garage. This one is operated from a switch-post alongside the drive. The motor, which is reversible, and the reduction gear to the sprocket spindle are shown in the smaller sketch. Taking advantage of the scientific advance this company also has garage door operators which employ the photoelectric cell. These operate when the light beam strikes them. And there are operators employing floor and drive plates. These things may seem strange but they are far from radical. The photoelectric cell is certainly used for numberless cases where accuracy and convenience are required.

In these recent articles on mechanical equipment there may have been a disproportionate outlay on heating, cooling, and air conditioning. While these matters are of prime importance and it would suit the present writer to continue stressing them there are other items on the list which are just as deserving of discussion because of the
noted improvements and the necessity of prescribing their adoption in the homes of the future. The modern types of heating and conditioning units are really in their stride. The advantages gained by installing the modern units are just about universally granted. To omit from a future home whatever can be readily installed to insure successful heating, cooling or conditioning is surely gross failure.

But just as convenience and safety is the key note in these cases so are the other, and sometimes less considered factors a part of this policy. Take the package receiver shown in Figure 2 for example. This is not a large item when considering the whole, but it is an example of what the hardware manufacturers are doing with their products. There is apparently no end of choice in hardware fixtures for the new home, both in use and design. The better hardware manufacturers seem to have a surprise for me every time I take up a new catalog, and the advances they have made in metals and structure are just as well advanced as in any other line.

Regarding convenience and safety again, let me repeat a little on what was said a few months ago about improvements in plumbing practice. Figure 3 shows the modern flush valve for the water-closet with a vacuum or syphon-breaker. It has been shown so positively that when the water supply opening in any fixture is below a possible high-water level a reduction in the supply pressure provides enough syphonage to draw contaminated water back to the supply side endangering all of the supply water. For this reason such fittings as the highly regarded flush valve must have vacuum breakers of approved design. These fittings are really part of any good plumbing system.

For the same reasons recent and future plumbing fixtures such as sinks, lavatories, and such have their faucets well above the possible overflow level. This point is one of the many points of improvement in plumbing fixture design. The use of the modern metals, especially steel, has brought about various changes for the better that were heretofor considered impossible.

Another item for safety, somewhat related to the other featured electrical improvements embodied for safety and convenience, is the boiler protector shown in Figure 4. This attachment is always such a safeguard as thoughtful people appreciate. It is another of those features which give safety and long life to equipment so well exemplified by the water softener. So many times you hear complaints from those who expect hard water to be safely and unhinderingly heated by higher temperature heaters. But it is quite likely that these same people would be badly frightened if the water in the radiator of their automobile approached a boiling temperature. Hard water on one side of a tube and high temperatures on the other are, one might say, "conducive to scale." And so it goes on, less circulation, more scale. There is no special argument against higher temperatures since the coming of the modern types of heaters with modern steels and irons, but there never will be any excuse for abusing these heaters and lowering their efficiency by using hard water in them.

Another item for those interested in hot water heating of residences. For many years there have been those who proclaimed with a good deal of reason that the hot water heating system was thus and so better than any other type. They may have been prejudiced, but I have known of cases, in large installations, where this type of heating was adopted and found much favor. The seeming secret of these systems was the booster pump. Just as in the case of positive circulation for warm air heating, and the vacuum pump in steam heating, so the positive circulation of the hot water showed a marked improvement in the system. These pumps are not great in size nor in cost, for residential work, but they are great in effect and economy of operation.

It would be easy to devote these three pages to the modern fuels and the modern methods for handling them. But it would be very difficult to discriminate justly between these fuels. They are all "best." And by best I mean that whatever fuel is used there is an efficient heater.

(Continued to page 78)
A REVOLUTIONARY NEW BUILDING MATERIAL
ADMITS DIFFUSED LIGHT • RETARDS HEAT FLOW

Insulux Glass Building Blocks bring to the building industry a revolutionary new material that has definite functional and decorative uses. These new glass blocks are hollow and contain dry rarified air under partial vacuum. They are available through your local lumber or building material dealer in three standard sizes with a wide variety of designs impressed on the faces of the glass blocks.

The designs produce a wide range of light transmitting values and diffusing properties resulting in an absence of glare with controlled intensity of light. They have high compressive, lateral and bond strength. Scientific tests, conducted by Purdue University, have proven that the impervious character of the material itself and the solid mortar joints makes infiltration losses negligible, that their heat conductivity is low, and that they reduce the effect of solar radiation.

For a complete brochure giving the necessary data on Insulux Glass Blocks, together with architectural details showing a large number of construction applications, see your local dealer, or write on your business letterhead to . . .
This block bonds with 2 courses of ordinary brickwork. Square corner blocks and half blocks used to start panels of Running Bond, are standard.

The larger size square block results in a wall of larger scale. Rounded corner blocks are standard in this series.

The architectural rendering reproduced above has taken advantage of both the functional and decorative properties of Glass Masonry. The bulkhead and spandrel admit light into the building during daylight hours, or can be lighted from the inside to increase the "eye appeal" of the front.

Glass blocks are light in weight and are of a size that is convenient for the mason to handle. They lay up quickly in the same manner as other masonry units.

The Owens-Illinois Glass Company has given the building industry the Dustop Glass Wool Air Filter and Glass Insulating Wool. These products, as well as Insulated Glass Blocks, were introduced only after exhaustive research and comprehensive studies of the problems involved.

The architectural rendering reproduced above has taken advantage of both the functional and decorative properties of Glass Masonry. The bulkhead and spandrel admit light into the building during daylight hours, or can be lighted from the inside to increase the "eye appeal" of the front.
or boiler provided for its use. The question of economy is probably the chief problem, and the cost of the various fuels varies largely with the locality. Just now I have in mind a building owner who through connections was able to try out a number of types of fuel. Finally, with a friend, he determined to try a stoker. He had never tried one before and was rather skeptical. After a year’s experience he asked me to look at his fuel bin to see what I thought of his grade of coal. Since I had no knowledge of the stoker before seeing what was in the bin I naturally called him a perfect chump for expecting such a grade to perform without making a mess of his boiler. Then he pointed out his stoker, and said it had performed entirely up to specifications. He certainly had cut his expenses, and, as he said, just about paid for his new stoker. The stoker has been a feature in industry for many years, just, for instance, as has air conditioning. Now it has been adapted to residential work with fairer results than many of us predicted. Where coals are an item of expense a stoker is invaluable.

The fact that stokers can operate efficiently on cheaper coal does not mean that the higher grades of coal are necessarily expensive. In some regions where anthracite is available, at prices even more than one might think economical, there are types of heaters used which make other fuels scramble for a place on the market. Just so with oil and with gas. In a word the modern heaters have been designed for the most efficient operation with any of these fuels. And the modern heater is so far superior to the older types that there is no question as to preference. Only the modern heater should be installed in the modern home.

But to plan and build a modern home without deeply consulting the housewife would be a capital error. Therefor instead of approaching the subject of the kitchen and the bathroom last, as I have done, it would be more reasonable to prescribe for them first of all. Nowhere has the advance in metals played a greater part. The modern architectural lines seem to have caught the eye of most of us in the kitchen because the clean lines and surfaces reflected the newer metal fixtures so well. The old-time sinks with their heavy lines are gone. The bright surfaces aboveboard and the smooth enamels below and above are quite different. Color and an ease in cleaning have certainly set us far ahead. And available space through architectural lines seem to have caught the eye of most of us in the kitchen because the clean lines and surfaces reflected the newer metal fixtures so well. The old-time sinks with their heavy lines are gone. The bright surfaces aboveboard and the smooth enamels below and above are quite different. Color and an ease in cleaning have certainly set us far ahead. And available space through architectural lines seem to have caught the eye of most of us in the kitchen because the clean lines and surfaces reflected the newer metal fixtures so well.

Speaking of the advance in metals certainly brings forth the mechanical refrigerator which is now an integral part of most residences. They are clean, and many think they are indispensable. Just the matter of frozen desserts puts the children on the mother's side when it comes to arguing the necessity of a mechanical refrigerator.

And I have noticed, too, that there seems to be a size suitable to any size of family. There are small ones as well as large ones, just as efficient. But do not forget to provide for ventilation.

So when it comes to the building of the future home consider what advantages are within each reach, how well a modern home can be fitted for the convenience and comfort of the family, and how much to be regarded is the good office of the Federal Housing Administration, mutually protecting and economizing, and making the modern home the sensible home to build.

"Air Conditioning for Comfort" by Samuel R. Lewis; Keeney Publishing Company, & N. Michigan Ave., Chicago; ($2.50)

An author and authority on the subject of air conditioning has just put out this volume which should easily provide proper schooling in the subject for the novice and for those who need certainty in place of uncertainty. Mr. Lewis is here concerned with air conditioning for comfort, for adequate human comfort. Theory is patiently dealt with and thoroughly illustrated. Practice is carried from all viewpoints, with the theory, design and calculations plainly shown. A feature of the book is the provision of a large scale Bulkeley psychrometric chart. This is an excellent book for contractors.

"American Society of Heating and Ventilating Engineers Guide" published annually by the A.S.H. & V.E., 51 Madison Ave., New York; ($5.00)

This volume is the last word in air conditioning texts. While explanations in the theory may not be so profuse as they would be in a school text, this "guide" takes us back to the original and leads us up to completion. The data contained in this book is backed by responsible men or groups to whom it is first-hand. Each chapter concludes with "problems in practise" which crystalizes the proceedings and thereby makes it a first-class school text besides a complete source of information.
Can Keep A House Snug and Tight

There is no substitute for the unique characteristics of Sisalkraft when you want to insure real weather protection in a house.

It’s Strong and Tough

Your own test demonstrates these qualities. The reasons are almost as obvious. Sisal is the correct reinforcement for paper because, like paper, it will not stretch. String and other suggested reinforcements stretch when pulled and the paper breaks before the fibres take the strain. There’s over a half mile of sisal fibres in every square yard of Sisalkraft and the fibres are so closely spaced that no matter where you drive a nail, they give necessary resistance to movement in any direction.

It’s Waterproof and Airtight

These qualities are also easy to demonstrate. Sisalkraft folded into a cup will retain water indefinitely. In laboratory tests, Sisalkraft shows no measurable air leakage under pressures corresponding to 133 miles wind velocity—much higher than could ever be encountered in service.

It’s Permanent

This quality of Sisalkraft is demonstrated by thousands of early installations. When you subject the paper to severe abuse you can readily understand why it has a long life. Separation is made practically impossible by the method used in combining the materials. Oxidizing of the asphalt—the most common cause of failure in any product with exposed asphalt—is prevented in Sisalkraft by covering the asphalt membrane with the two kraft cover sheets.

Ask your lumber dealer for samples of Sisalkraft. Test it—not only in the sample but on the job. Owners gladly approve Sisalkraft when you show it to them.

THE SISALKRAFT CO.
205 W. Wacker Drive, Chicago, Ill.
101 Park Ave., New York 95 New Montgomery St., San Francisco

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ARE YOUR MODEL HOMES OBSOLETE?

... or Do They Reflect TODAY’S Building Ideals?

Remember when a “Model Home” was nothing but a conglomeration of the latest built-in gadgets and equipment? When the prospect was so dazzled by modern appliances that little or no attention was given the house itself?

Home buyers have changed since then. And many changes have occurred in the home building industry. The public is no longer willing to overlook the basic factors, construction and design. A model home today must feature these fundamental values in order to live up to its title.

Builders who depend exclusively upon eye-appeal and pretentiousness are finding that prospects for model homes are passing them up and buying homes whose appeal lies in their structural value.

Stran-Steel fire-safe construction meets this new demand of home buyers.

Write us today for information regarding modern construction for model homes.

Gentlemen:
Please tell me about STRAN-STEEL framing. I am interested as a

- [ ] builder
- [ ] realtor
- [ ] architect

Name:

Address:

*One of 50 Stran-Steel Model Homes in Washington, D.C. This and many others were sold before completion, due to interest aroused by permanent, fire-safe construction.

STRAN-STEEL CORPORATION
6100 McGraw Ave. DETROIT
PRACTICAL JOB POINTERS

A READERS' EXCHANGE of tested ideas and methods, taken from their own building experience. Two dollars or a year's subscription to American Builder is paid for each item published. State business connection or trade.

Making Artificial Flagstones

At slight cost a piece of steel several inches in width and seven to eight feet long, which bends easily, may be purchased at the local junk yard or blacksmith shop. With the ends welded together the form is laid in the holes already prepared for the purpose and is held in place with wooden pegs driven into the ground. These pegs hold the form to the various shapes into which it may be made. The concrete is then poured and smoothed. When nearly set a wire brush may be drawn over the surface to give the rough finish that the natural stone would possess. Then when the concrete has finally set the form may be removed, bent to any other desired shape and another flag may be made in the same way.

- PAUL H. SMITH, Charlestown, Mass.

Time Saver for Shinglers

I am sending a sketch showing a short cut in shingling. First, cut all the valley shingles on the ground before beginning, as follows:

Cut one shingle to fit the valley, then make a mark 5½ inches from the butt which marks the space to show to the weather; then cut as many shingles as it will take to go to the ridge exactly like the pattern, and scribe a mark 5½ inches from butt of each. When I start to shingle all I have to do is run in the valley up to the top, with no measuring up or sawing shingles on the house top (see drawing below). Also run up the ends of the house in the same way, only use the first one wide, second narrow, third wide and so on to break the joints. In the valley, use all of the shingles the same width.

- C. C. COOPER, Salisbury, Md.

Handy Lawn Roller

Four years ago I made this handy lawn roller of which I am sending a sketch. It has been useful on various jobs and perhaps others will be interested in building one like it.

The roller is made of two 100 pound paint cans with 3/4-inch holes drilled in the centers of the ends through which is inserted a 3/4-inch rod, 22 inches long. The cans are filled with cement, the rod put in place and turned on end until set.

Bend strips of 3/4 x 1 1/2 strap iron as shown in the drawing and drill holes for the bolts and axle. The center bar is made of a piece of 2 x 3 three feet long and a wood rod is fastened to it with U-bolts for the handle.

- WALLACE OMAND, Builder, Manchester, N. H.

Correct Form of Flagpoles

Since flagpoles are extensively used on buildings, public grounds, parks, club grounds and private estates, I am sending herewith a "Practical Job Pointer" for your editorial department. The curve or taper of a flagpole may be developed by the following method:

The diameter at the base where it emerges from the roof or ground should be about one fiftieth of the height, and the diameter at the head would be one-fiftieth of this height, or 12 inches, while the diameter at the head would be 6 inches.

To obtain the curve or taper, draw a center line (ad) through the pole, as shown. Divide the lower half of the diameter (cd) as follows:

From d mark a point equal to 1/4 of the lower diameter, as de; divide the remaining distance ed into two equal parts, as at f, and divide the distance ef into two equal parts, as at g, and again divide eg into two equal parts, as at h. Divide the vertical height of the shaft into four equal parts by horizontal lines; transfer the distance de to d'f; df to d'g'; dg to d'h'; and dh to d'f', then through the points marked, draw the curved outline.

- ROMEO LAROSE, Rochester, N. H.
New Carter Electric Tools

which enable you to pay full wages, make larger profits and still meet the market.

One week's hand work completed in a day:

AT THE LEFT — a door is being fitted and beveled with a Carter Power Plane.

IN THE CENTER — a mortise for a lock is being cut in 30 seconds with a Carter Lock Mortiser.

AT THE RIGHT — mortises for butts are being cut with a Carter Hinge Butt Router.

Pay for these tools as they earn for you.

THE R. L. CARTER CO.
116 Elm St., New Britain, Conn.

Val Berry, the authorized DUNBRIK manufacturer in Kalamazoo territory, gets all this desirable business because his product and price are beyond the reach of competition.

Val Berry's sales are easy because of the high quality of his product—absolute uniformity—square true edges—water repellent faces and strength greater than any building requirement. In addition to common brick, he supplies face brick and DUNSTONE (3 sizes), all in 40 colors, shades and textures, enabling him to supply complete masonry material market.

With DUNBRIK design he saves 20% in material—makes a one-fifth lighter brick,—thus effecting a saving in hauling, handling and laying. In addition he delivers direct from factory to job, eliminating high transportation costs.

On top of all these advantages, Val Berry's labor cost is less than $1.25 per thousand. The automatic line production DUNBRIK machine not only eliminates every chance of human error but enables a few men to do the work of a large force and at a fraction of the investment.

THEIR BUSINESS FUTURE ASSURED—From Spokane to Newport News—From St. Petersburg to Montreal, wherever located—Authorized DUNBRIK manufacturers are getting as high as 80% of the good jobs.

YOUR OPPORTUNITY—Why not learn how you too can become the exclusive DUNBRIK manufacturer in your territory? Write today for booklet "4 Keys to Success."

W. E. DUNN MFG. CO., 450 W. 24th St., Holland, Mich.
Forecast Increased Insured Mortgage Sale

Further developments in the regulations governing the sale of insured mortgages have occurred, the principal change dealing with the participation of real estate brokers in these transactions. The following information was made public by Jesse H. Jones, RFC Chairman, as contained in a letter reading:

"For the purpose of encouraging the construction of new homes and to assist in creating a more general market for mortgages insured under the National Housing Act, the RFC Mortgage Company will, until further notice and to the extent hereinafter named, buy and sell these insured mortgages.

"For the present it will buy the mortgages at par and accrued interest, less a discount of 3/4 of 1 per cent, but will only buy from reputable financial institutions originally making the loans, who agree to look after servicing them.

"Any mortgages that we buy will be available for sale and when sold through qualified brokers and distributors, we will allow an over-all commission of 3/4 of 1 per cent to cover their compensation and cost of distribution.

"Under the new Banking Act banks may invest in these mortgages, and such investments will not be regarded as real estate loans. We feel that these mortgages also offer a desirable form of investment for institutions and fiduciary trusts. The greater their distribution, the more home building we will have, and the more we will contribute to national recovery.

"Commitments for the purchase of these mortgages will be considered by the RFC Mortgage Company at the 32 RFC Loan Agencies throughout the country, as soon as regulations can be issued.

"$10,000,000 has been made available to the RFC Mortgage Company by the Reconstruction Finance Corporation as a revolving fund for this purpose."

September Volume of Construction

THE F. W. Dodge Corporation for the first eleven business days in September reports the volume of all classes of construction to be $67,654,400. Residential building amounted to $17,539,700 for the period which is almost equal to the amount for the entire month of September 1934.

Calumet Steel Names Works Manager

W. BRUCE CALDWELL has been named works manager of the Calumet Steel Company, subsidiary of Borg-Warner Corporation, of Chicago Heights, Ill., according to an announcement by Roy C. Ingersoll, president. Mr. Caldwell has been associated with the steel industry since his graduation from the School of Mechanical Engineering of Cornell University in 1912. He was general superintendent of all the plants of the Sharon Steel Hoop Company of Sharon, Pa., from 1919 until 1933.

W. B. CALDWELL
A TIP
FROM AMERICA'S INDUSTRIES
GET ON THE
CELOTEX ROAD TO SALES

Leading manufacturers in every field specify Celotex when efficient insulation is required. Domestic refrigerators, automobiles, coolers, refrigerated showcases, refrigerator railway cars and trucks use Celotex to economically retard the passage of heat and to control temperatures.

Take a tip from these industrial leaders—recommend and sell Celotex. Widely advertised, widely used, backed by an experienced, fair dealing organization, Celotex is logically the product to merit your co-operation.

Insulation, decoration and modernization are the objectives today. An active, profitable market exists for lumber dealers who handle Celotex. Celotex Interior Finish, Celotex Sheathing, Celotex Lath, Celotex Finish Plank and Celotex Tile Board cover the entire range of uses in homes, new and old—also, shops, taverns, stores, schools and churches.

There’s money to be made and there’s money being made with Celotex. That’s why more and still more lumber dealers are taking advantage of their opportunities.

See your Celotex representative—or write!

THE CELOTEX COMPANY
919 No. Michigan Avenue Chicago, Illinois

CELOTEX BRAND
INSULATING CANE BOARD

BUILDs - INSULATES - DECORATES - SUBDUES NOISE

THE ARROW-HART & HEGEMAN ELECTRIC CO.
HARTFORD, CONNECTICUT, U.S.A.

COUPON: To Arrow-Hart & Hegeman Electric Co., Hartford, Conn.
SEND ME illustrated data-sheets on the following numbers:

Name:
Address:
City and State:
GUESSWORK IS OUT

Definite fuel economy is no new discovery with Gar Wood engineers... for, since 1927, Gar Wood units have delivered efficient oil heat in all types of homes. With the Gar Wood Tempered Aire System guesswork is out because operating costs are known. Owners say Gar Wood automatic oil heat costs less than coal.

Install Facilities for Lumber Treatment

In order to meet the growing demand among retail lumber dealers for lumber treated to prevent decay, fungus growth and termite damage and the demand for timbers treated for bridge, dock and culvert construction, the Frost Lumber Industries, Inc., in co-operation with the American Lumber & Treating Company, is installing an up-to-the-minute treating plant at the big Frost plant in Shreveport, La.

The new modern treating plant will be equipped with cylinders for creosoting and others for treating with Wolman Salts, zinc chloride or any other recognized salt treatment. The Frost officials anticipate that the plant will be ready for operation about December 1st for salt treatment, and about December 15th for creosote.

Elect Steel Institute Officers

The board of directors of the American Institute of Steel Construction has voted to create a new office to be designated Executive Vice President, and has elected Robert T. Brooks of New York to fill it. This action will be confirmed at the thirteenth annual convention of the Institute to be held at White Sulphur Springs, West Virginia, October 16, 17 and 18 next.

Mr. Brooks has been identified with the structural steel industry in New York for the past thirty years. He has been treasurer of the American Institute of Steel Construction for the past four years.

V. Gilmore Iden has been elected to the office of secretary. Mr. Iden has been serving the Institute, for the past year, in the capacity of acting secretary.

Mr. Iden joined the staff of the American Institute of Steel Construction in 1927 to become its director of public relations. Prior to that time he had been engaged in newspaper work in Washington and New York.

Michigan Architects Hear Building Outlook

The nation not only is swinging into one of the biggest building booms in its history but entirely new standards of comfort and convenience will be included in the construction of new homes, Ward M. Canaday, assistant federal housing administrator at Washington, told nearly 200 Michigan architects recently at a dinner in Detroit.

The architects represented a large section of the membership of the Michigan Society of Architects who were guests of the plumbing ware division of the Briggs Manufacturing Company.

Mr. Canaday declared that the new housing scheme and the need for new features and appeals for homes presents a challenge to the ingenuity of the architects which, if properly met, will have immediate effects in stimulating the building program.

"You may no longer think only of efficient heating," Mr. Canaday said. "You must think of efficient air conditioning. There is no reason why a $5,000 home shouldn't have it. You must think of automatic heating, mechanical refrigeration, insulation and the designing of homes that will reduce upkeep to the absolute minimum. You must plan for comfort and convenience. You must not overlook garage space for motor cars."
EDWARDS ROOFING
PERMANENCY
EASIER TO SELL AND TO INSTALL

Beat competition by bidding on Edwards Loxseam Roofing and the job is yours! The customer can see that you are offering a better roof, tight as a drum from ridge to gutter, handsome in appearance and good for the life of the building, at a substantial saving in cost.

You can be low bidder and still make your full profit on material and labor because Loxseam is so much easier to install, on new construction or over old roofing. Sheets interlock full length with watertight seal, as fast as you can nail and lock them together.

Send roof measurements for estimate. Write for Loxseam Circular and General Catalog No. 88.

THE EDWARDS MANUFACTURING CO.
542-562 Eggleston Ave.,
Cincinnati, Ohio

WALL-TEX
Canvas Wall Covering

Are you seeking loan approval for a building or improvement project? If so, you will find that permanency in decoration carries a lot of weight. The durability and permanency of Wall-Tex as a practical decorative covering for walls and ceilings assure that it will outlast the loan.

THESE WALL-TEX FACTS PROVE ITS ADVANTAGES

1. Wall-Tex is canvas decorated with permanent oil colors—the same mediums an artist uses. Gives colorings and textures not possible in paper.
2. Its strong fabric reinforces plaster walls and ceilings, prevents cracks, hides them if they should occur.
3. Wall-Tex is honestly washable, year after year, with soap and water. Its beauty is renewed with each cleansing.
4. The tough Wall-Tex fabric resists scuffing and tearing which so quickly ruin perishable paper.
5. Wall-Tex can be hung over plaster or any other smooth surface. No specialists are needed.
6. Wall-Tex is the perfect base for painting should it ever be desired to change the color scheme.
7. Dull prints, glazes, and metallic satinesques in nearly 200 patterns—for every room.

Mail the coupon today for complete details.

DEWALT PRODUCTS CORPORATION
252 Fountain Ave.
Lancaster, Pa.

Please tell me fully how Dewalt machines will save and earn me money.

[ ] Dewalt Variety Saws.
[ ] Dewalt Wadack Electric Hand Saws.

Volts: Phases: Cycles:

Thickness of lumber: Width of Cross Cut:

Name: Address:

City: State:

DEWALT VARIETY SAW

DEWALT WADACK ELECTRIC HAND SAW

All Dewalt machines rip, cut-off, miter, and bevel all from one side of the table. 28 operations on one machine.

25% Profit

You pay for a Dewalt whether you own one or not. One owner says “One job estimated to cost $6,000. I completed for $3,542.—on the next job I cut my profit my estimate and that led to more business.” Since you are paying the price of a Dewalt in actual work you may as well own a Dewalt.

Write for full information.

DEWALT CUT WOOD—METAL—STONE

COLUMBUS COATED FABRICS CORPORATION
Dept. AB105, Columbus, Ohio

Please send me Wall-Tex file folder 28-C-1, including Wall-Tex samples.

Name:
Address:
City: State:
Play Safe!

The door with SAFETY COUNTERBALANCE CONTINUOUS ANGLE MOUNTED TRACKS

Safe! Because these two ROL-TOP features simplify satisfactory installation and insure safety in operation throughout the door's years of service. The torsion counterbalance spring is mounted on a solid steel shaft... in a fixed, harnessed position. Can't fly loose or cause trouble. Easy to accurately adjust. And it's always neat in appearance. The angle mounted track is equally important, facilitating a permanent solid installation — often-times with a saving in the otherwise necessary opening preparation.

By no means are these the only valuable features found in ROL-TOP. “Keystone” sealing — a weathertight arrangement without complicated mechanism... a rugged cylinder lock operable by key from outside... special ball bearing rollers... features that make ROL-TOP a better value.

ALL FORMS OF ELECTRIC CONTROL

There's a ROL-TOP to meet every requirement... for old or new residential, commercial or industrial buildings... for large or small openings. And with Kinnear's highly perfected electrical equipment, ROL-TOP can be arranged for any form of electrical control.

BUILT IN STEEL

For heavy duty purposes the Steel ROL-TOP is an “Ace”. And it's fire resistant too! The steel angle and plate constructed sections have a continuous interlocking hinge which gives the door astonishing strength and durability. Any number of sash sections can be provided.

MAIL this coupon TODAY

The KINNEAR Mfg. Co. 1560-80 FIELDS AVENUE COLUMBUS — OHIO
Please send me complete information on your ROL-TOP door. I have noted below the use and size I am interested in. No obligation.

NAME
ADDRESS
CITY
STATE

LETTERS from readers on all subjects

Facts, opinions and advice welcomed here

Readers Re-Act to “Big Push” Editorial

To the Editor:

This conveys to you my sincere, whole-hearted congratulations on Mr. Dunn's signed editorial in the September issue of American Builder, under the caption: “What Kind of a ‘Big Push’ is It to Be?”

If the business press of the country had the courage and capacity to continuously speak its mind with the clarity and constructiveness which characterizes this editorial in your September issue, it would unquestionably accomplish great good.

WALTER C. McMillan,
National Shelter Group.

Disappointed at Our Attitude

To the Editor:

I recently subscribed to your magazine American Builder for two years and find in the first issue received an article by Samuel O. Dunn entitled “It is Your Money that is Being Squandered.” It seems rather inconsistent that the publisher of your magazine should take that attitude when the present activity in the building business and the necessary push to get the whole industry started again is being supplied by government money and when your magazine and many of its advertisers recommend cooperation with the Federal Housing Administration and its program. His program is one of the so-called “emergency” programs.

Of course, they all have to be paid for; but isn’t it better to use the money now when it is needed and pay for it when business is good than to let business remain stagnant indefinitely? Would you have the building industry continue as it has during the last six or seven years? Or perhaps you are satisfied to let the government put up money for the building industry and let other things go.

You say the money is being wasted and offer no proof or example. That is a very dogmatic statement.

I had hoped that I was subscribing to one magazine that could keep out of politics, and then the first issue made me think for a moment that I was reading a Hearst newspaper. If you must deal with political matters in your publication, I suggest that you do it along the same progressive lines that your magazine recommends to the building industry in its work.

LEWIS Z. BIRMINGHAM, JR.,
Attorney at Law.

Wants to Distribute Copies

To the Editor:

We would like 40 additional reprints of your September release “What Kind of a ‘Big Push’ Is It to Be” for distribution among our branch yards.

ECLIPSE LUMBER COMPANY,
F. J. Ward, Vice President.

Accuses Mr. Dunn of Being a “Mussolini”!

To Samuel O. Dunn, Chairman:

I have been a reader of the American Builder for many years. I subscribe to it because it is the best building paper I know of.

I note that you personally have for some time used its pages to introduce your own personal views about politics. We subscribe to your paper for things pertaining to building. Your page tears down and offers no remedy.

This administration has done much to help us middle class people. It has guaranteed our bank deposits; lowered interest (Continued to page 88)
AMERICAN SHEET AND TIN PLATE COMPANY, Pittsburgh, Pa.

AMERICAN STEEL SHEETS
FOR ALL KNOWN USES

KEYSTONE Copper Steel Sheets
Excel in the Building Field
Use sheets of recognized reputation and value. For roofing, siding, gutters, spouting, air conditioning systems, and general sheet metal work—Keystone Copper Steel gives maximum rust resistance.

Insist upon AMERICAN Black Sheets, Keystone Rust Resisting Copper Steel Sheets, Apollo Best Bloom Galvanized Sheets, Galvannealed Sheets, Heavy-Coated Galvanized Sheets, Formed Roofing and Siding Products, Terne Plates, etc. Write for information.

This Company also manufactures U S S STAINLESS and Heat Resisting Steel Sheets and Light Plates for all uses to which these products are adapted.

PORTLAND CEMENT ASSOCIATION
Room 1510, 33 W. Grand Ave., Chicago, Ill.

Please send me, free, the booklet checked. □ "Twenty-two Low Cost Concrete Homes." □ "Concrete Masonry Construction." □ "Concrete Ashlar Walls."

Name
Address
City State

$7,000 WORTH OF MODERN HOME... with the permanence and firesafety this community said it wanted

B. V. Zamore has long been one of Toledo’s most prominent builders. Recently he has interviewed people, taken straw votes and circulated questionnaires on the kind of homes they wanted. And this house (one of five similar ones including a General Electric demonstration home) is the answer. It’s modern—it’s masonry—it’s concrete! And it sold with the lot, for only $7,000.

People know what they want. They need only one look at a concrete home to realize that this is it. They like its smartness and beauty; its time-defying strength; its fire-proof and storm-proof safety; its low first cost and low upkeep cost.

Keep in tune with the times. Meet the trend toward simplicity in modern architecture by building with concrete.

Toledo’s newest: Concrete cinder block house with portland cement stucco exterior. Floors and roof of precast joint and concrete slab construction. Rigid insulation applied to interior walls over asphalt coating.
Metal Weatherstrip is as essential to the modern home as the doors and windows. Makes living and workrooms more comfortable. Keeps drafts out. Saves fuel by keeping heat from escaping freely through cracks and crevices. Helps the sale and rental of property.

**METAL WEATHER STRIP**

Get in on the ground floor. Become the recognized Accurate Weatherstripper in your section. It is easy to weatherstrip the right way because Accurate Metal Weatherstrip is precision built, always dependable—priced right. A few choice territories still open. Write today for special dealer proposition.

**ACCURATE METAL WEATHER STRIP CO.**

258 East 26th Street, New York

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This machine and process completely solves the problem of permanently renovizing masonry buildings, walls, etc. It fuses a waterproof plastic mixture on any masonry surface. It fills all cracks and checks and can be applied in any thickness desired and in 30 colors and shades. Fully proven by over seven years actual use under all conditions and in practically every climate.

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Buildings everywhere need this permanent surfacing process. With Colorcrete machine and process, you can offer this surface at amazingly low cost. Many operators report costs of 10c to 15c per sq. yd. and sell at 25c to 50c per sq. yd. Machine capacity 40 sq. yds. per hour. Some have paid for their equipment from first job. Spraying machine furnished on 10 days free trial and easy payments. Prepare now to cash in on the big government modernization financing campaign opening up much greater possibilities for you. Write today for Bulletin C-4.

**COLORCRETE INDUSTRIES, Inc.**

500 Ottawa Ave., Holland, Mich.

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**RENEW OLD BUILDINGS WITH PLASTIC STUCCO**

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American Builder, October 1935.

(Continued from page 86)

rates; helped us keep our farms and homes against the Shylocks; has helped the farmer as no other administration has ever done. It is a big mistake has been to think that you and I were big enough to play the game of business or life squarely. We were not. We were a bunch of chiselers. We wanted the high wages and low hours ourselves but didn't want to give it to the other fellow. It wasn't the idea that was wrong; it was human nature that was still too greedy. You say building has increased 150 per cent in 1935 over 1933. Fine, I say. A good steady growth and not a boom is what we want.

I take it that you and I are on opposite sides of the fence. I want a home and time to pay for it. I don't want some shyster real estate man to hang a sword over my head and force me to pay him 3 per cent commission to get my loan renewed every 3 years. All other countries have financing over a long period.

If you want us ordinary folks to read and pay for your paper you had better write editorials for your readers and not against them.

I am telling you this because it is evident that you are the Mussolini of your outfit and the rest of the board are afraid to tell you this.

Please be big enough to be an American pulling for a bigger and better America and not a partisan sitting on the sidelines growing and doing nothing else but. We have all the work we can handle and are turning jobs away. Quit kick ing and grumble. If you are well off you can afford to pay part of our national debt. If you are poor you can't. So why kick?

**ARNOLD RANCH.**

P. Ranch & Sons, Contractors and Builders.

**Approves Editorial Stand**

Chicago, Ill.

To the Editor:

I liked your lead editorial in the September issue of *American Builder*. Perhaps so because of my close association with those in charge of the Administration of the National Housing Act.

You say that the buyers of homes "can be 'sold' only by making the cost of building or buying a good investment."

Surely the Federal Housing Administration is helping to do that—and in a manner that is fast making it a self-supporting agency of government not involving further use of the taxpayers' money.

Through the standards that the Federal Housing Administration has set up for its insured mortgages it has automatically raised standards of construction in all parts of the United States. Through the provisions it makes for long-time amortization of well built, well located properties it is making home ownership a "good investment"—making it possible for thousands of people to build and own well constructed properties for a nominal monthly payment.

If we are to have a "big push" to increase residential construction, let that push be along the lines of the National Housing Act which has already proved its soundness and has provided an opportunity for both the construction industry and that portion of the public that wishes to own a home of its own—on a sane and constructive basis.

D. R. COLLINS, Asst. Mgr.,
Cement Products Bureau, Portland Cement Assn.

**Favors Letting Wreckers Have the Old Mansions**

Evanston, Ill.

To the Editor:

I read with interest your reply to an architect in the September issue of *American Builder*. The policy you outline is certainly commendable and I admire you for adhering to it, in spite of repeated requests for "plan books" and "sets of designs."

There is another item in the same issue which I cannot refrain from commenting on, in the hope that your attitude toward Municipal Building Officials may be tempered with the same spirit of co-operation. I refer to the article on page 47 entitled "Old Mansion Saved from Wreckers." This is a description of the alteration of what appears to be a two-story and attic frame house into a multiple dwelling containing eleven separate apartments. It appears from the plans of the three floors included with the article that considerable ingenuity has been exercised in fitting the eleven apartments into the irregular layout of the old building. There is probably little doubt but that the income from the (Continued to page 90)
Cooking Odors
BANISHED!

Sales Appeal
Plus!

For Both New and
Old Homes!

The Victor In-Bilt
Ventilator

No kitchen is truly modern unless it is equipped with an efficient electric ventilator. Cooking odors are a disgrace to any home and, besides, the greasy fumes that spread all through the house are the main cause of expensive cleaning bills. That's why women are so enthusiastic over a home that has a kitchen ventilator. It's a feature that adds more sales power per dollar than anything you can use.

Only Victor Provides These
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The Victor Ventilator is built to do a real job. It has beauty—performance—convenience—dependability and price. Without question, it is the finest Ventilator made and one look at it is all you need to prove it. Exclusive franchise includes wonderful promotion plan that helps build your entire modernizing business. Handsome profits certain—ask for Distributor Franchise Plan—act quick.

DISTRIBUTORS!
A Few Open Territories are waiting for wide-awake contractors and Building Material Dealers. Exclusive franchise includes wonderful promotion plan that helps build your entire modernizing business. Handsome profits certain—ask for Distributor Franchise Plan—act quick.

CASH IN
ON WEATHERSTRIP BUSINESS
WITH THESE TOOLS

Stanley—The Tool Box of America—provides you with these special tools to speed up the installation of weather strip. Weather strip contracts can now be made to pay you a nice profit.

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NEW BRITAIN, CONN.

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Fireplace Dampers

In new home construction or on remodeling jobs always plan for a fireplace. No single item adds more beauty, charm and livability to the home. A Peerless damper will insure successful operation of the fireplace. No smoke—no back draft—no heat loss. Three models to choose from—Rotary Control—Poker Control—Chain Control. Built of heavy stove plate cast iron, they will last indefinitely.

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Every Contractor can make extra profits by finishing the floors on his jobs with his own crew. No need to sublet floor jobs when you own a Speed-O-Lite sander. The extra profit you make pays for the machine. Backed by 38 years of experience in building floor machines it meets every need. Let us tell you how you can obtain one of these new up-to-date sanders.

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**THE EQUIPMENT THEY ALL ARE TRYING TO IMITATE**

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**FRANTZ MANUFACTURING COMPANY**

STERLING, ILLINOIS

(Continued from page 88)

remodelled premises will be very welcome to the owners and perhaps to the local taxing bodies.

However, consider the hazards involved. The building appears to be frame, but even if it were brick it probably has the average wood joisted floor construction, with little or no protection from fires originating in the basement. In fact the first floor plan shows the stairs to the basement to be located directly under the large common stairwell which is carried through the center of the house to the attic. This stair, by the way, is the only one shown serving three apartments on the attic or third floor.

It seems reasonable to suppose that with eleven kitchens instead of one, the fire hazard will be increased materially over that which existed in the case of the original building, even though the four open fireplaces were not increased in number.

Many additional hazards could be listed, such as increased demands on the electrical equipment, more danger of fires caused by careless smokers, eleven electric irons instead of one or two, and so on. However, if I have not made my point by now it would be useless to continue, so I come finally to the reason for this letter.

Will you not cooperate with Municipal Building and Fire Officials by carefully considering the advisability of publishing such articles? There are not many cities in the country where similar alteration could be made in conformity with the Building Code, but there are a great many towns where codes are inadequate or totally lacking. In addition, there is the lamentable fact that the depression has so depleted the forces of Building Departments and other regulatory bodies that such alterations might be slipped in without notice in cities which would otherwise not permit them.

Should my position on this subject seem far-fetched or unduly severe to you, I would be glad to have you obtain an opinion on the subject from any of the recognized authorities, such as the National Fire Protection Association, The National Board of Fire Underwriters, the consulting engineers Mr. Rudolph P. Miller of New York or Mr. Frank Burton of Detroit, or the appropriate officials in Chicago, Mr. John Plant, Fire Prevention Engineer and Deputy Commissioner of Buildings Robert Knight.

E. M. GOODMAN, Building Commissioner.

Pre-fabricated Houses

To the Editor:

Your editorial on pre-fabricated houses in the June issue certainly was not written with much foresight. Don't you realize that when these houses are produced on a large scale, the cost will be reduced to one-half to one-third the present figure? Furthermore—the heavy industries, (steel, etc.) are in great need of something to stimulate their industry—here is something that will do it. The union labor in the factories will not be hostile to these new type homes. The union labor generally, not specifically in towns, carpenters, bricklayers, etc., haven't had any work for so long they can't pay their dues.

WILLIAM W. STAHL.

Answer:

I realize fully that if and when prefabricated houses are produced on a large scale the cost will greatly reduced. The obstacle, however, is to attain that large production; and there doesn't seem to be any way to overcome this obstacle. However, we are cordial to the idea. The American Builder is in favor of anything that makes progress in the home building field. However, knowledge of the difficulties makes us critical of much of the loose talk now going on about "Houses Like Fords."

E. M. GOODMAN, Building Commissioner.

**Pre-fabricated Houses**

Scranton, Pennsylvania

To the Editor:

Would you be good enough to send us full particulars with reference to your sale of plans for bungalows, particularly 1 ½ and 2 ½ stories, preferably for 50-foot lots. Your co-operation in the matter will be deeply appreciated.

E. M. GOODMAN, Building Commissioner.

**Pre-fabricated Houses**


Editor, American Builder.

**Not in Plan Business**

To the Editor:

We have no plans nor architectural service for sale, preferring not to compete with thousands of our readers who are architects and designing builders.

Editor, American Builder
KIMBALL

No. 2
HAND POWER
ELEVATOR
over 6000 now in use
★ Roller Bearing
★ Quick Rising
★ Easy Operating
★ Inexpensive

Write for folder and prices

Kimball No. 2 Elevator is one of a large family of Hand Power, Electric Passenger and Freight Elevators made by Kimball. Tell us your transportation needs. We can furnish the elevator.

KIMBALL BROS. CO.
1200-22 NINTH ST.,
COUNCIL BLUFFS, IOWA

FEDERAL
METAL WEATHERSTRIPS
Do You Want To Make More Money?

Sell and install Federal Metal Weatherstrips. Now is the time, clean up this fall before cold weather sets in. Federal Strips have a national reputation. Their ease of installation and efficiency is unexcelled. Any good carpenter can sell and install Federal Weatherstrips. Don't waste valuable time. Write today for details—we will help you get started in this profitable business.

Federal Metal Weather Strip Co.
4620 Fullerton Ave.
Chicago, Ill.

MASTER
STEEL TAPE
WOOD FOLDING
RULES

INSIDE MEASURE STEEL TAPE RULE
8 EXCLUSIVE FEATURES: Precision Lock, INSIDE OUTSIDE, HEIGHT, DEPTH, RADIUS, FLEXIBLE, LAYOUT. Direct reading on all measurements.

INTERLOX MASTER SLIDING RULE
World's famous as the only rule to give accurate INSIDE measure by direct reading. No guesswork. Outside measure, too.

"BLUE END" QUALITY FOLDING RULES
and a complete line of high standard wood rules.

"Master Rules for Master Craftsmen"

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Dept. 88 817 East 134th St.,
New York, N. Y.

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Ask your Dealer about this
easier-to-use WHITE LEAD!

NEW

Eagle D-X
WHITE LEAD

comes in quarts, gallons and 2½ gallon kits
... ready to thin gallon-for-gallon with linseed oil

- Contractors are welcoming the new Eagle D-X White Lead... it makes any kind of painting job easier to figure.
- You can estimate a job in gallons... and then buy your paint in gallons. Eagle D-X is ready for brushing in 3 minutes!
- If your local dealer doesn't carry Eagle D-X White Lead, write The Eagle-Picher Lead Company, Cincinnati, Ohio.

DEALERS... MAIL COUPON
No matter what kind of paint you're now carrying, there are extra profits for you in the new Eagle D-X White Lead... it's bound to increase your sales. For attractive terms on handling this new easier-to-use white lead specialty, mail coupon to The Eagle-Picher Lead Company, Dept. AB18, Cincinnati, Ohio.

Name__________________________
Address________________________
City_________________________State__________________________
Specifications for G.E. "New American" House

(Continued from page 55)

WATER SUPPLY IN HOUSE—From water meter extend a line of piping to all plumbing fixtures requiring cold water service. Carry line of pipe from hot water, supply and drain lines.

SILL COCKS—Furnish and install sill cocks where shown on plan and run cold water pipe to nearest hot water pipe.

HOT WATER SUPPLY—Connect to hot water system and run to all fixtures requiring hot water service.

COUPLINGS—No unions to be used on hot and cold water pipes when installed in partitions. Use couplings set up in white lead.

HOT WATER TANK—For the domestic hot water supply the plumbing contractor shall furnish and install a storage tank properly insulated; the material and size of tank shall be specified by the G.E. Air Conditioning Dealer. A Kleanway flushing valve and a G.E. mixing valve both purchased from the G.E. Air Conditioning Dealer shall be installed by the plumbing contractor in the piping of the hot water storage tank.

Plumbing Fixtures

LAUNDRY TRAYS—Trays to be a two-part porcelain, size 48 x 24", with back, glazed all over, with porcelain legs to set the trays about 14" to the top of the rim, of same material with porcelain. Where specified, porcelain to be installed in partitions. Use porcelain tray set up in white lead.

CLOSET—Water closet to be a syphon action, no vent, white vitreous china closet bowl with jet, back inlet, floor outlet, 4-arm metal handles with angle pattern shut-offs having concealed 5/8" supply valves with removable seats, 4-arm metal handles with index and metal wall escutcheons, 1 1/4" S.S. supply pipes to wall with angle pattern shut-offs having 4-arm metal handles with index and metal wall flanges, 1 1/4" S.S. cast brass trap with bottom cleanout, 1 1/2" S.S. nipple to wall with flange. All exposed metal to be chrome.

BATH TUB—Tub to be square type double shell tub with shower head over with mixing valve. Supply swinging curtain rod and hooks with water-repellent materials.

LAVATORY—Lavatory to be 24 x 20" vitreous china pedestal lavatory with rectangular basin having hinged overflow and anti-splash rim, white enameled wall brackets; all metal pop-up waste with metal knob and sprout supply fitting having concealed 5/8" supply valves with removable seats, 4-arm metal handles with index and metal slab escutcheons, 1 1/4" S.S. supply pipes to wall with angle pattern shut-offs having 4-arm metal handles with index and metal wall flanges; 1 1/2" S.S. cast brass trap with bottom cleanout, 1 1/2" S.S. nipple to wall with flange. All exposed metal to be chrome.

STORAGE TANK—For the domestic hot water supply the plumbing contractor shall furnish and install a storage tank properly insulated; the material and size of tank shall be specified by the G.E. Air Conditioning Dealer. A Kleanway flushing valve and a G.E. mixing valve both purchased from the G.E. Air Conditioning Dealer shall be installed by the plumbing contractor in the piping of the hot water storage tank.

Painting

SCOPE OF WORK—This contractor shall include in his work, whether specifically called for herein or not, all materials and labor for all interior and exterior painting, varnishing, staining, sizing, and shellacking of all metal work and woodwork, including all wall, ceiling, and floor surfaces, stairs, trim, sash, and so forth. Through-out the interior of the building from the basement to the second floor, and for all metal work and woodwork on the exterior of the building.

PREPARATION OF SURFACES—Clean and sandpaper all woodwork before finishing, rubbing the direction of the grain.

SHELLACKING—On work to be painted, saps, pitch, knots, and similar defects shall be covered with good quality shellac before priming.

PRIMING—Primers for all woodwork are specified under Carpentry.

PUTTYING—All cracks, joints, and nail holes shall be carefully filled with putty using putty stained or colored to match finish.

NUMBER OF COATS—Primers and shellacking shall not count as coats in this specification.

CLEANING—Drop cloths must be used to protect surfaces from paint, oils, stains, and varnishes. At the completion of the work this contractor shall remove and clean off all spots from floors, walls, ceilings, floors, trim, glass, and so forth, no matter by whom caused. All blisters of painted surfaces are to be made good to the satisfaction of the Owner.

SAMPLES—All colors as stated herein are for the general guidance of the contractor. He shall submit finished samples of the various finishes, both for color and finish.

MEETS EVERY NEED!
8 FULL-SIZED MACHINES, EACH INDEPENDENTLY OPERATED.
New Model "A" Planing Mill Special

Here is a complete modern woodworking factory in one machine—sturdy, accurate, smooth, low in price and operating cost: $685 without power. If you have real work to do, get this well-designed, versatile machine—one of the most famous of the famous Parks' line of modern woodworkers.

Send for catalog of our complete line of individual and combination machines.

THE PARKS WOODWORKING MACHINE CO.
Dept. BL-10
1524 Knowlton St., Cincinnati, Ohio
WHAT WILL IT DO ON THE JOB?

A FEW UNVARNISHED FACTS ABOUT INSULATION

We have plenty of laboratory figures to show why BALSAM-WOOL is better insulation. But your customers don’t want laboratory figures. They want insulation efficiency—on the job. Here are a few questions every contractor should ask... if he is interested in giving his customers more insulation value per dollar:

1. **Is It Moisture-PROOF?**

   We know—and you know—that moisture destroys the effectiveness of insulation. We know—and you know—that moisture gets into any insulation which is not adequately protected as a whole. BALSAM-WOOL is completely and permanently protected from moisture... sealed in a waterproof covering. In addition, it is chemically treated to make it verminproof and fire-resistant.

2. **Is It POSITIVE in Application?**

   To be effective, insulation must have no weak spots—leave no loophole for wind, heat or cold to get through. But you cannot be sure of continuous insulation with materials that are merely poured or dumped in by common labor. BALSAM-WOOL is positive in application—fastened in place by qualified carpenters who know their business. Flanged edges now make it even easier to apply than ever before.

3. **Is It Permanent in EFFECTIVENESS?**

   Materials that settle or that change their form, cannot be permanently effective. BALSAM-WOOL lasts as long as the building in which it is applied—stage where it is put and does not change its form.

4. **Does It Offer the RIGHT Thickness for the Job?**

   For every home and every climate there is a right thickness of insulation beyond which it does not pay to go. BALSAM-WOOL comes in thicknesses to fit every insulation need, everywhere.

Let us tell you all of the facts about BALSAM-WOOL. We believe you will find them worth knowing!
Specifications for G.E. "New American" House

LINOULEUM—Linoleum shall be finished with a good grade of linoleum lacquer.

WALL PAPERS—Walls of living room, dining room, and hall above dadoes, and walls of bed rooms shall be papered with good quality wall papers in simple colonial designs.

Air Conditioning Installation

DESIGN CONDITIONS—The "New American" house should certainly be equipped with air conditioning or it will not be the typical Winter air conditioning is essential. Complete year-round (winter and summer) air conditioning is supplied by the G.E. air conditioning system covered by these specifications and drawings. The supervising architect must see that any variations from the specified design are worked out with the local G.E. Air Conditioning Dealer.

The size of equipment and the proportions of ducts, registers and grilles assume that the front of house faces north and are based upon design conditions for Boston, Mass., as follows:

Season Indoors Outdoors
Winter 70% 45% QO 78 50% 91 74 46%
Summer 100% 65% 78 72 50% 91 74 46%

1. This specification together with accompanying plans are intended to cover labor and materials required to install the General Electric Air Conditioning system complete.

General Contractor

2. It shall be the responsibility of the general contractor to see that these specifications are carried out in complete detail.

3. It shall be the responsibility of the general contractor to set and level all major equipment in locations shown on plans.

4. It shall be the responsibility of the general contractor to see that all inspections required by local ordinances and to see that all equipment is installed in accordance with local codes and regulations.

5. All pipes, covered or otherwise, shall be painted to conform to the color of the light gray trimmings on the oil furnace and air conditioner.

6. Exposed duct work and canvas collars shall be painted with GE-1212 Glyptal (an aluminum waterproof paint), thinned with GE-1500 Thinner.

7. The general contractor shall have the entire system checked for proper adjustment by the General Electric Air Conditioning Dealer.

8. The general contractor shall affix metal tags stamped with identifying numbers on all water, steam, and refrigerant valves and on all quadrant dampers in the duct system. He shall prepare a descriptive list for the numbers and mount it in a glazed frame at a suitable location.

9. The general contractor shall furnish material for and construct a sound absorbing enclosure for the oil furnace unit as specified and designed by the G.E. Air Conditioning Dealer.

Steamfitting Contractor

1. The steamfitting contractor shall connect the furnace to the air conditioner and any other heating equipment as shown on the drawings and any supplemental sketches and instructions from the G.E. Air Conditioning Dealer.

2. It shall be the responsibility of this contractor to have all pipes running in furred ceilings, partitions, in floors and under floors to be free of leaks before and after ceilings, floors and partitions are finished and insulation is applied.

3. Where local practice is to cover cold water lines, or where condensation will occur on cold water lines in summer or winter, they shall be insulated with 1" of air cell asbestos.

4. The steam connection from furnace to air conditioner shall be 14" pipe, run as directed by the G.E. Air Conditioning Dealer.

5. The furnace shall be connected to the masonry chimney with inch No. 26 gauge galvanized iron pipe. Each joint shall be fastened with 4 sheet metal screws. Pipe shall be cemented into chimney and joint made air tight.

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3. Where local practice is to cover cold water lines, or where condensation will occur on cold water lines in summer or winter, they shall be insulated with 1" of air cell asbestos.

4. A drain cock shall be furnished and installed on the boiler.

5. Connections to domestic hot water storage (Continued to page 96)
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The most powerful and dependable electric hand saw ever built!

Saves time and material—
easy to handle—fingertip angle and depth adjustments—built to stand up under hard and constant use—guaranteed to make the savings shown in our booklet "Manual on the Use of Electric Hand Saws in House Building." Be sure to send for your FREE copy today.

Speedmatic FLOOR SANDERS

Save money on floor work with this Speedmatic that does a better job in less time . . . easily handled by one man . . . powerful 1/2 H.P. motor operates from lighting circuit. Write for full details, or no obligation demonstration.

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Plaster and Mortar Mixers Trailer and 4 Wheel Type. Write for Catalog AB

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NOW, YOU CAN GIVE PROSPECTS A Preview of Completely Decorated Homes

★ Yes, you can now give your prospects a Preview which will enable them to see exactly how various color combinations will look when their homes are painted. In large, full color illustrations, made with actual paint, the Lowe Brothers Pictorial Color Chart, shows correct color schemes for various types of houses and every kind of room.

The dealer who sells Lowe Brothers products in your locality will gladly loan you these charts to show to your prospects. And he will also supply you, free, with a Specification Book that makes the preparing of painting and decorating specifications extremely simple. This book will save you time because it tells you exactly how the specifications should read.

And remember, Lowe Brothers High Standard Paint contains 90% film-forming solids, whereas many so-called "cheap paints" contain as much as 63% water and other evaporating liquids. Lowe Brothers Paint covers more surface, lasts longer and costs less in the end. THE LOWE BROTHERS COMPANY, Dayton, Ohio.

Lowe Brothers
PAINTS • VARNISHES
Quality Unsurpassed Since 1869
Specifications for G.E. "New American" House

All lines run under the floor and in partitions shall be a single piece and there shall be no connections or joints in this or any other coverage. All joints shall be of the soldered or flared compression type.

Electrical Contractor—The electrical contractor shall furnish and install all wiring materials necessary to complete the electrical installation hereinafter defined or indicated on the drawings, using wiring materials of General Electric manufacture through the types or grades of materials as designated herewith and as on drawings. When such materials are designated as G.E. Standard Under Normal Conditions are not applicable to the costs of the installation, the contractor shall install companion items of General Electric manufacturer fittings and accessory materials not indicated in this table but which may be necessary to complete the installation shall be furnished by the contractor as though herein defined in detail, and they shall be of a type or grade appropriate to the quality of specified parts. No substitutions of materials of another manufacturer nor of a quality or type inferior to the typical item designated as standard shall be made without written permission of the architect or owner and a proper allowance made in the contract price.

For garages—factories—warehouses—service stations and markets

FRAZIER Glide Over Garage Doors

Easy to operate—attractive appearance—simple to install—weather-proof. Here is perfection in overhead doors. No bulky or complicated mechanism to clutter up the interior of the building—so easy to operate women and children can easily open and close the Glideover door.

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Stanley Portable Electric Saw No. W-6 is compact, nicely balanced and powerful. With its full one horse power motor it will cut steadily hour after hour without heating. Steel base adds greatly to its wearing qualities. 100% Safe. Swinging guard with spring return instantly covers the blade when cut is finished. Approved by Industrial Commissions and Liability Insurance Companies.

The W-6 Saw will cut dressed 2 x 4's or less, hard or soft wood. Its compactness and light weight make it adaptable for many types of work on the job.

Other Stanley Portable Electric Saws are available up to 6" cutting capacity. Descriptive circular gladly furnished.

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THE STANLEY WORKS
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A complete line of Portable Electric Saws, Hammers, Drills, Screw Drivers, Grinders and Unishears (The Motor Driven Hand Shears)

THE LAW OF ARCHITECTURE AND BUILDING
By Clinton H. Blake, Jr., A.B., A.M., LL.B., of New York and Federal Bars
Invaluable for the architect, engineer, owner, contractor and all who have to do with building construction. A consideration of the mutual rights, duties and liabilities of architect, owner and contractor, with appendices and forms.
Second revised edition, 396 pages; 6x9 buckram. $5.00.

A GLOSSARY OF TERMS USED IN ENGLISH ARCHITECTURE
By Thomas D. Atkinson, Architect
In this little work there are about 800 terms explained. The appendices include a chronological list of buildings and other useful information, and the illustrations are from drawings by the author. Third edition revised, 267 illustrations, 5x7, cloth. $1.50.

American Builder and Building Age
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Makes Your Fireplace Burn Right and Heat Right
For thirty years the accepted standard with builders, architects and home owners. Built in sections with steel reinforcing angle bar which anchors the facing and carries common brick backing. With the Colonial Fireplace Damper and our plans you are sure of a fireplace that functions properly, conserves heat, and gives joy to the owner. Three styles—fits any fireplace opening.

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$1.30

Think of it—a complete window frame including metal casing, frame and ventilating wings for this remarkable low price. Simple and quick to install... fits between studung 24" on center. Galvanized... rust resisting... won't rot... won't swell... won't stick. With ordinary wood sash makes an ideal ventilating window. Tilts for indirect ventilation—also tilts and raises.

IN FIVE SIZES—To take wood sash, 4 light 9"x12", to 9 light 9"x12".
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Carpenters and contractors are loud in their praises of this new Clay Window. Ideal for farm buildings... barns, poultry houses, hog houses, sheds... also, for garages, warehouses, cottages, tourist camps and many other uses.

Ask your lumber dealer or write direct to
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Dept. AB-1035
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A Real Helper for Contractors
The DRIVER TILTING ARBOR SAW

TABLE SIZE 48 x 30
CUTS FULL 3" STOCK
REMOVABLE INSERT FOR DABBING
SAW UNIT TILTS TO 45°
CONVENIENT POSITIVE CONTROLS
LOW OPERATING COST
SAVES TIME

This remarkable saw can be used for cutting corb, sheet rock, tile and brick by simply replacing the saw blade with an abrasive cut-off wheel.

Either on the job or in the shop, the DRIVER Tilting Arbor Saw will quickly pay for itself in time and labor saved.
Its 10" blade handles all stock up to 3" thick, ripping and cross-cutting with extreme accuracy. All angles are cut by simply tilting the combination saw and motor unit. The top is laminated maple 1/4" thick with steel guides inserted in it for the mitre gauge. The ripping fence is a rigid casting, wood faced, easily adjusted to a fraction of an inch.

SPECS: 10" Blade Diameter
Blade—5/8" thick. Blade Speed, 3,450 r.p.m.
Arbor—1" bore. Arbor Speed, 4,500 r.p.m.
Ripping Fence—._5/8" T.I.M.C. Guide Rails—_1/4" thick.
Depth of Cut—Ripping, 2 1/2"; Crosscut, 1 1/4".

WALKER-TURNER Co. Inc.
1105 South Avenue
Plainfield, N.J.

I would like to know more about your Tilting Arbor Saw. Please send me complete catalog.

Name
Street
City
State

WALKER-TURNER CO. INC.
PLAINFIELD, N.J.
Specifications for G.E. "New American" House
(Continued from page 56)
capacity and the Service Equipment shall be of a capacity not less than the Trumbull combination entrance and range switch Catalog 2924-0.

BELL RINGING TRANSFORMER—Shall be provided and installed as Mercer Bussing (capacity adequate for the load indicated on the drawing, such as GE-6218).

DISTRIBUTION MATERIALS:
Circuit Breakers—For heavy circuits—all circuit breakers used in the branch circuit breakers shall be located approximately 60" from the floor. Gang outlet boxes and covers such as SP-632 and SP-631 shall be used with suitable hangers and their accompanying plates. These circuit breakers shall not be further than 25 running feet from the service equipment equipment.

All Conductors—Shall be of G.E. Code Grade Rubber-covered Wire, Flame-retarding Finish unless otherwise noted.

The Conductors from the Service Equipment to the electric range and/or to the air dryer shall be a capacity of not less than three (3) No. 12 A.W.G. conductors.

The Conductors of all the feed circuits from the service distribution equipment to the branch circuit breakers, as shown on the drawings, shall be of a capacity not smaller than No. 10 A.W.G.

No. 12 A.W.G. except where used on low voltage requirements.

Armored Cable—Shall be General Electric BX in dry locations and BXT in damp locations.

Non-Metallic Sheathed Cable—Shall be BraidX.

Rigid Conduit shall be G.E. Code Grade Electric Metallic Tubing where conditions require possible withdrawal of circuits, or shall be BX with sheathing grounded, as designated on drawings.

For Private Telephones—Shall be G.E. Telephone Wires run exposed except where BX: or conduit circuits are indicated.

For Radio Wiring—Shielded Circuits—Shall be run in G.E. black rigid conduit or G.E. Electrical Metallic Tubing where future changes require, or where conditions indicate the use of shielded conduit for electrical wiring.

For Non-Shielded Circuits—Shall be BX or conduit where conditions dictate.

Non-metallic sheathed cable shall be BraidX single conductors or cables.

ELECTRICAL WORK: Entire installation to be approved by National Board of Fire Underwriters and by General Electric engineers. An allowance of $175 is made for electrical fixtures.

125 outlets are provided. Fixtures modernistic and incorporates latest indirect lighting principles. No ceiling lights used, except in dining room, ball, and storage room, garage, and basement. Instead, in living room, bath, kitchens, bedroom, local illumination is used, employing where possible, lightolier floor lamps, "J.E.S." concealed floor reading lamps, and "pin-up" lamps; "Luxoline" G.E. tubular bulbs used in ceiling fixtures.

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INSTALL IRON RAILING
The contractor shall install bells and buzzers, radio and telephone outlets and their wiring as here specified and shown on the drawings.

Lightolier: "Lightolier" today is the outstanding name in the field of lighting fixtures. For over thirty years, it has stood for quality, beauty designs and finishes, sound construction and the most advanced developments in lighting efficiency. When you purchase Lightolier, you can be assured of the utmost in beauty and efficiency without increasing cost. Write for booklet "Beautiful Lighting" and names of nearest distributors.

American Builder, October 1935.

Specifications for G.E. Experimental House
(Continued from page 56)
double construction.

PAINTING: Exterior woodwork to have three coats; interior woodwork shall have three coats enamal job. Floors also to have three-coat job.

PAPER, SANITAS, LINDLEMANN: All wall papers to be washable types. Bathroom and kitchen shall use Sanitas and Linwall on walls. Bathroom, kitchen, storage room, and hall to gar-"eage, shall have on their floors Linoleum as made by the Armstrong Cork Co., over a Goodyear Rubber Base. Basement steps likewise, with metal edges and corners.

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CONTRACTORS all over the United States are employing these sturdy, efficient Delta tools to reduce their labor costs and save time on Modernization and Repair Work. Delta tools can be taken right out on the job. Although compact and portable they are so skillfully designed and carefully built they turn out clean accurate jobs even under the heavy grind of production work. Best of all they are so moderately priced as to require a minimum initial investment. The complete Delta line includes: Circular Saws, Jointers, Band Saws, Scroll Saws, Drill Presses, Router, Mortising and Sanding Units, Lathes and a complete line of motors, accessories and stands.

For full details, prices, and name of nearest Delta dealer write to

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Salesmen covering Building Supply, Roofing Supply Lumber or Hardware dealers wanted, carry sideline non-competitive roofing material commission basis for AAA1 manufacturer. State experience, lines carried, territory covered. Box 135, American Builder.
Selected List of Manufacturers’ Literature
For the Service of Builders, Contractors, Architects and Dealers

The publications listed on these pages may be obtained without charge either by using the coupon, listing the numbers of the catalogs desired and mailing to American Builder, 105 West Adams Street, Chicago, or by applying on your business stationery to the manufacturers direct, in which case kindly mention this publication. Either the titles or the numbers may be used in ordering. This list is an editorial feature for convenience of our readers.

PLANS AND DESIGNS
Portland Cement Assn., Chicago, Ill.
1—Concrete Houses—“22 Low Cost Concrete Homes”; 32 pages of designs and illustrations.

Clay Equipment Corp., Cedar Falls, la.
2—Barn Plans—160-page catalog of Clay barn equipment with numerous floor plans and designs for all types of farm buildings.

CONSTRUCTION MATERIALS
Universal Atlas Cement Co., Chicago, Ill.
3—White Stucco—Details regarding factory-prepared Atlas White Stucco for modernizing Main Street and for new buildings.

Briggs Manufacturing Co., Detroit, Mich.
4—Brigsteel Beautyware—“Here’s Something New,” a display in full colors of the sinks, tubs and lavatories in acid-resistant porcelain enamel, 65 per cent lighter than cast iron fixtures.

Johns-Manville, New York City.
5—J-M Materials—“General Catalog, Johns-Manville Building Materials”; 36 pages illustrating complete line, with specifications and numerous color illustrations.

6—Asphalt Products—“Propaganda vs. Facts” tells why Trinidad Lake Asphalt Cement is used in Genasco Shingles and why it makes these shingles superior.

Ruberoid Co., New York City.
7—Asbestos Cement—“Eternit Colonial Timbertex Siding,” an illustrated brochure on this new type side wall material.

American Sheet and Tin Plate Co., Pittsburgh, Pa.

9—Sinks, Tables—“Inco Standardized Monel Metal Sinks, Tops and Tables,” a 24-page catalog.

The Kawneer Co., Niles, Mich.
10—Store Fronts—Information regarding a new and revolutionary type of store front construction.

Libbey-Owens-Ford Glass Co., Toledo, Ohio.
11—Store Front Portfolio—The 22 prize winning designs in the recent architectural competition modernizing Main Street.

Pittsburgh Plate Glass Co., Pittsburgh, Pa.

The Sisalkraft Co., 205 W. Wacker Drive, Chicago, Ill.
13—Reinforced Paper—A printed sample of Sisalkraft for walls, roofs or floors.

Reynolds Corp., 19 Rector St., New York City.

The Celotex Co., Chicago, Ill.
15—Celotex—“You Need Celotex”; also a companion piece, “Planning Modern Interiors with Celotex.”

The Insultile Co., Minneapolis, Minn.
16—HardBoard—“Meeting your Hardboard Needs”; all about Insultile Hardboard and its many uses.

Wood Conversion Co., St. Paul, Minn.
17—Insulation—“Make All These Temperatures the Same,” a discussion of Balsam Wool insulation for maintaining uniform winter and summer temperatures.

North Bangor Slate Co., Bangor, Pa.
18—Roofing Slate—“Consider the Roof Over Your Head”; information regarding the use of genuine Bangor slate.

Milor Steel Co., Milwaukee, Wis.
19—Metal Lath—“The Milor Manual,” a 60-page handbook of metal lath, metal trim and other Milor specialties.

Solvay Sales Corp., 61 Broadway New York City.
20—Calcium Chloride—“Solvay Calcium Chloride in Concrete Construction”; 32-page manual.

Louisville Cement Co., Louisville, Ky.
21—Masonry Cement—“Brickmend”; 20-page manual on better brickwork.

The Tile-Tex Co., 1235 McKinley Ave., Chicago Heights, Ill.
22—Resilient Floor Tile—“Tile-Tex Book of Designs,” a portfolio of color cards.

Marsh Wall Tile Co., Dover, Ohio.
23—Tile Wall—“Wonder Walls”; folder giving general and technical information on Marshtile, a fiber tile in sheet form.

Lloyd Floor & Wall Tile Co., Kansas City, Mo.
24—Ceramic Tile—“Catalog No. 32”; 56 pages of designs and details, many in color.

Seal-All Clip Co., 100 Smith St., Flint, Mich.
25—Asphalt Shingle Roof Fasteners—Information regarding this ingenious new help for roofers.

CONSTRUCTION SPECIALTIES
26—Residential Steel Floors—“Robertson Keystone Beam Steel Floor for Low Cost Housing and Apartment Construction”; 12-page handbook giving details of use of special inverted floor section for housing and apartment construction.

Truscon Steel Co., Youngstown, Ohio.
27—Steel Casements—“Truscon Resi-Casements”; Series Five is a new 30-page manual on Truscon steel casements and fittings.

28—Steel House Framing—“East Side, West Side, All Around the Town”; Illustrations of Detroit’s latest Stran-Steel homes.

29—Steel Joists—“Kalman Steel Joists”; 20-page handbook of spans, safe loads, and design data.

Mid-States Steel & Wire Co., Dept. S20, Crawfordsville, Ind.
30—Wire Fencing—Information regarding “Galvanealed” weather-proof woven wire fencing.

Metal Lath Manufacturers Assn., 208 S. La Salle St., Chicago, Ill.
31—Glass Brick—"Owens-Illinois Translucent Glass Masonry"; a reprint of “Pencil Points” announcement giving full details of this newest building material.

32—Ornamental Iron Work—Illustrated circular on wrought iron stair railings and gates for modern homes.

33—Rubber Flooring—Information regarding the Wright line of rubber flooring.

34—Disappearing Stairs—How to add a room to your home with the Marco folding stairway.

35—Disappearing Stairs—"Save Space with the Frazier." Specifications and dimensions of the six models of Frazier disappearing stairs.


37—Paint Guide—"High Standard Specifications for Painting and Varnishing" contains specifications covering every type of job. Arranged so that they can be copied word for word. "The Lowe Brothers Pictorial Color Chart," full color illustrations with actual paint; also offered through Lowe Brothers dealers.

38—White Lead—"The True Story of An Indiana Community" graphically illustrating painting quality with white lead.

39—Plastic Paint—"Modernize Your Property with Plastex"; how to produce all the modern textures and color schemes for wall finish.

40—Linoleum Wall Covering—"Transform That Old Room with Armstrong's Linowall"; broadside in color illustrating uses of this beautiful material.

41—Washable Wall Coverings—"The Important Points of Interior Decoration"; folder of advice by a well known style critic.

42—Fireplace Fittings—"Peerless Building Specialties" featuring dome dampers, ash dumps, doors, coal windows, garbage receivers, electric heaters, etc.

43—Coal Chutes—"Majestic Building Products for Homes of Character"; 24-page catalog giving entire Majestic line of coal chutes, garbage receivers, garage doors and air conditioning furnaces.

44—Electrical Supplies—"Arrow General Catalog No. 25"; full information regarding this extensive line.


46—Telephones—Information regarding telephone installation and service in buildings.
LUMBER AND MILLWORK

HUTTIG MANUFACTURING CO., Muscatine, Iowa.

58-A—Improved Windows—Information regarding the Huttig rot-proof window, chemically treated, and factory-fitted.

ANGELINA COUNTY LUMBER CO., Kellys, Tex.

59—Lumber Through Retailers—Information for Retail Lumber Dealers About "Sudden Service" on virgin Southern Pine and hardwood.

ARKANSAS SOFT PINE BUREAU, Little Rock, Ark.

60—Pine Paneling and Finish—"New Interiors for Old," a beautiful 16-page brochure with detailed work sheets of paneling and interior finish.

DIEKERS LUMBER & COAL CO., Kansas City, Mo.

61—Interior Trim and Paneling—"Beautiful Interiors": 16-page booklet on inside finish.

MICHIGAN-CALIFORNIA LUMBER CO., Camino, Calif.


POLSON LUMBER CO., Hoquiam, Wash.

63—Lumber Through Retailers—Information for dealers on fir, spruce, cedar and hemlock lumber.


64—Lumber Through Retailers—Information regarding Perfection brand oak floors.

65—Oak Flooring—Information regarding Perfection brand oak floors.

66—Block Flooring—"Bradley Presents a New Creation in Block Design Flooring," a broadside in color showing this beautiful flooring.

MAPLE FLOORING MANUFACTURING ASSN., Chicago, Ill.

67—Maple Flooring—"Heavy Duty Finishes for Maple Flooring," a folder on approved finishes especially adapted to maple floors given hard usage.

E. L. BRUCE CO., Memphis, Tenn.

68—Oak Flooring—"Patterned Floors of Wood": information on Bruce Nail Block flooring.

FORDYCE-CROSETT SALES CO., 80 E. Jackson Blvd., Chicago, Ill.

69—Treated Lumber—"Crossett Creates a New Day for Lumber," a valuable bulletin on Wolmanized lumber (pressure treated).

FROST LUMBER INDUSTRIES, INC., Shreveport, La.

70—Treated Lumber, Wholesale—Information on Frost yellow pine and hard-

American Builder, October 1935.