

SHIRLEY TEMPLE'S glass block play-house under construction at the Temple home in Hollywood. Shirley is discovered checking up on the workmen laying this glass masonry.

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| | |
|--|-------|
| Some Views on Recovery—Samuel O. Dunn..... | 31 |
| Editorials..... | 33 |
| Shall FHA Be Discontinued? | |
| 58% Want Air Conditioned Homes | |
| Frontispiece—Homes or Stocks..... | 35 |
| Detroit Builders Market Complete Homes..... | 36 |
| Detailed Market Study of Today's Home Building Practice—Surprising New Facts Uncovered | |
| Sold!..... | 38 |
| How an Operative Builder in Washington, D. C., Serves the Medium Priced Market | |
| Selected Homes Invite Study..... | 39-54 |
| Colonial Entrance by Fred J. Burmeister, Architect | |
| Compact Colonial at Wantagh, L. I.—American Builder's "House of the Month" | |
| FHA Lumber House, Washington, D. C. | |
| Firesafe Bungalow, Briarwood Estates | |
| Spacious Bungalow near Miami | |
| Utica, N. Y., Demonstration House | |
| Richmond, Va., "Character Home" | |
| Brick House Built for Two | |
| Colonial Demonstration Home | |
| French Provincial Charm | |
| American Builder Better Detail Series..... | 55 |
| Details of Colonial Entrance and of Interior Wall Paneling | |
| Winter Heating Conditions and Equipment..... | 57 |
| V. L. Sherman Discusses Various New Ideas in Air Conditioning | |
| Costs More Without Basement Than to Build in Regular Way..... | 60 |
| Albert E. Bill, Detroit Home Builder, Saves \$250 by Including a Basement | |
| Modernization Department..... | 62 |
| Quaint Dickeyville (Md.)—"The Whole Town Modernized" | |
| Old Style Doors Modernized with Power Equipment..... | 64 |
| Simple Method for Cutting Down Doors from Standard Stock Sizes Developed | |
| Modern Service Station of Stone and Tile..... | 66 |
| Details of Chicago North Shore Structure | |
| Fire Resistance of Open Web Steel Joist Construction..... | 70 |
| Tests by Columbia University Show Fire Safety of Typical Open Web Steel Joist Floor | |
| Shopcrafter's Corner..... | 74 |
| New Products Department..... | 76 |
| News of the Month..... | 84 |
| Letters from Readers..... | 90 |
| Selected Catalog Service..... | 100 |
| Advertisers' Index..... | 102 |

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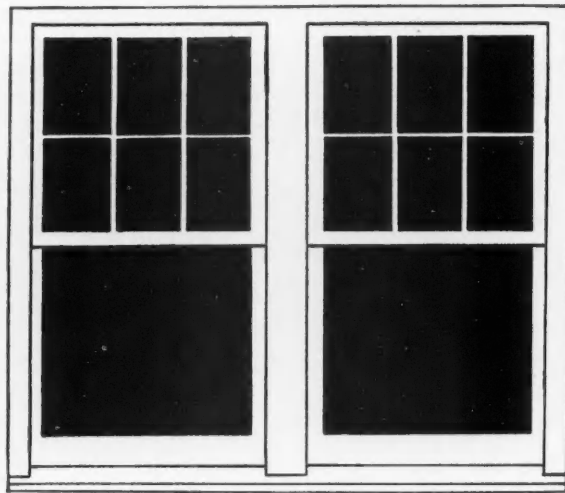
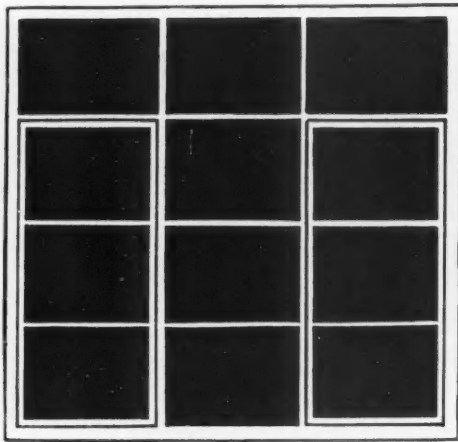
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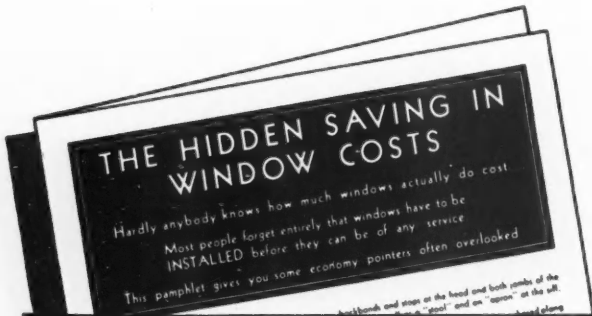


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BETTER WINDOWS THAT COST LESS

Fenestra

Some Views on Recovery

NOW that "the tumult and the shouting" of politicians regarding whether there has been recovery—and, if so, how much and why—is about to be temporarily muffled by the election, it may be worth while to recall some things that were said previous to this political campaign.

We have been hearing from some sources that there never can be again as extensive development of industries as in the past; that therefore unemployment and relief will continue problems insoluble excepting by further reductions of hours of work. Bearing that in mind, read the following: "There may be further intensive *but not extensive development of industries in the present era of civilization.*"

The quotation is from the report written by Carroll D. Wright, United States Commissioner of Labor, in 1886—*exactly fifty years ago*. The progress made by free private enterprise during the half century ahead in the "extensive development of industries" will be as great as it was in the half century after Mr. Wright made this pessimistic prediction *if private enterprise is given as much opportunity during the next half century as it was during the last.*

WHAT, then, causes recovery and "extensive development of industries?"

"The industries are *an aggregation of individual business acts* performed by men *who have in view the problems of adding to their wealth*. They move cautiously as long as the future looks uncertain, but when the business outlook is clear, and they see prospects of making construction investments which promise steady profits as well as security to their capital, they act promptly and with vigor. . . . The motive which underlies the industries of a nation is a plain, simple, uncomplicated business consideration. . . . It stimulates production at one period and retards production at another with equal consistency."

THE views just quoted attribute declines and improvements in business, not to the activities of politicians, but to the "aggregation of *individual business acts*." They were not written, however, to explain the present depression or the measure of recovery from it that has occurred. They are quoted from a book entitled "Industrial Depressions," written by George H. Hull. His conclusions were based on a study of all the depressions that had occurred down to 1908. The edition of his book from which the above quotations are made was published in 1911. He had the disadvantage—or advantage—of never having heard of the New Era or the New Deal.

Government can hurt business by helping make "the future look uncertain." It can stimulate business by helping make "the business outlook clear." This is *all government can do* excepting insofar as it goes into business itself and to that extent substitutes socialism for private enterprise.

And that will still be true whoever wins the election.

Samuel O. Drinn



Before and After pictures showing remarkable rehabilitation of Commercial Museum, 34th and Spruce Streets, Philadelphia, using stucco made with Atlas White portland cement. Plans and specifications prepared by the Department of City Architecture, Philadelphia.

Presto!

Look what Stucco did!

● Twelve thousand square yards of stucco, and the dingy Commercial Museum of Philadelphia was changed into a beautiful building that ranks in attractiveness with the city's finest! *Atlas Gray* was used for the base coats. *Atlas White* for the finish coat.

White portland cement stucco has certain definite advantages that you should be thoroughly familiar with when you are planning either modernizing or new construction:

1. *It is a durable finish.* A thin but sturdy wall of concrete, with the permanence, weather resistance, and fire resistance of concrete.
2. *It can be applied in any texture.* From smooth to

rough finish . . . whatever texture is best suited to the architectural design.

3. *Any color is available in stucco.* This is possible only with *white* cement. And *only* white produces clean, beautiful colors . . . from delicate pastel tints to deep rich tones.

4. *It is economical.* The first cost is low. It is permanent. It has the stamina that endures in any climate.

Write for detailed information on Atlas White . . . plain or waterproofed, and facts on the newest developments in stucco. You'll be interested in other outstanding modernizing jobs, big and small, in which this good stucco has figured.

UNIVERSAL ATLAS CEMENT CO.

United States Steel Corporation Subsidiary  208 South La Salle Street, Chicago

A FACTORY PREPARED STUCCO IS PREFERABLE

S-6

STUCCO MADE WITH **Atlas White** PORTLAND CEMENT

AMERICAN BUILDER AND BUILDING AGE

Shall FHA Be Continued?

IN TWO very remarkable about-faces, the Mortgage Bankers Association of America and the U.S. Building and Loan League have both turned savagely on FHA. At their annual conventions, held before the presidential election, both adopted unanimous reports demanding its discontinuance. It was apparent that these financial men do not want FHA standing in their way.

President L. A. McLean of the Mortgage Bankers told his prosperous, record-breaking crowd that FHA was "attempting to upset the existing mortgage loan structure." He described it as an attempt to "regiment and regulate the entire mortgage loan business of the country on a proved unsound basis."

The U.S. Building and Loan League also condemned FHA to an early doom. In New York's fabulous Waldorf Astoria hotel, the largest group ever to attend one of Morton Bodfish's tightly-run B. & L. conventions heard FHA roundly roasted by a special committee appointed to investigate it. The convention did not even bother to hear the entire committee report before adopting it by a unanimous vote. Among the reasons given by the League's Committee why FHA should be discontinued were that it might prove unconstitutional, that its financial statements in regard to "mortgages approved for loans" are not clear, that there is inefficiency and red tape, and that too much emphasis has been given the idea of 5 percent interest. This last item was the cardinal sin. Instead of trying to lower interest rates, the Committee chairman declared, let the government investigate high building costs. Let the government talk to the material men and the labor unions about it, he urged.

Not a Political Issue

Thus two of the outstanding institutions of the United States concerned with financing home building have announced their opinion of FHA. With the election over, this is no longer a political issue. What do building men in general feel about these strong denunciations by the financiers? Do builders want FHA continued? If they do, they should make their feelings and opinions known, and *American Builder* will be glad to have letters from its readers on this subject.

Few people in the building industry will deny that FHA performed a valuable and helpful service at a time when it was painfully needed by the building industry. This publication led in the fight for adoption of FHA. It recalls that the mortgage bankers and a large percentage of the building and loan institutions fought FHA. For a time this publication was decidedly unpopu-

lar with the mortgage bankers who were criticized editorially because they refused to do anything about the urgent need for improved home financing.

Even the financial interests must admit that FHA did a permanently great service to the building industry by popularizing the long-term amortized mortgage. It did more in a short time to develop and popularize this sound idea than the building and loan people had ever been able to do. It did more than this. It developed a scientific approach to the appraisal and valuation of mortgages that is of tremendous value to the industry. It eliminated many abuses that had long plagued the financing of homes.

At a time when the volume of home building was so small as to be non-existent, FHA brought enthusiasm and confidence. It started the flow of mortgage money. It created a tremendous National sentiment in favor of home building. These are accomplishments that cannot be denied.

Bankers Make Serious Charges

The mortgage bankers, however, have a different view. President McLean described the FHA promotion of home ownership as "a campaign of propaganda such as has never been experienced." He said that the majority of FHA loans are being made by institutions not qualified to grade mortgage loans and make them properly. The U.S. Building and Loan Committee declared that the FHA men are inefficient and inexperienced. The Committee chairman was highly sarcastic in his comment on this angle and stated that there was "less mortgage business experience than in any other group you could assemble."

The point of view was expressed by the home financing people that FHA perhaps did some good when it was started but that it was only an emergency measure and should now be discontinued. There is a difference of opinion as to whether FHA was only an emergency measure. Many people felt that it was a permanent development. Certainly an institution guaranteeing 20-year loans should not come in today and out tomorrow.

Financing Rackets Opposed

Many building men will agree with the mortgage bankers that they do not want to see any more encroachment of government into the building industry than is absolutely necessary. But the vast majority of building men do not want to see the mortgage practices of the pre-depression days return. They believe, as does this publi-

cation, that the 20-year amortized loan is a sound and beneficial improvement in home financing methods. They believe that interest rates should be lower and that there should be no return to the high fees, bonuses and renewal charges that in the past amounted to little more than a racket.

It has been apparent all through the history of the Federal Housing Administration that the home finance people were mortally afraid that they would be forced to accept lower interest rates. They have resisted every attempt to bring down the rate, and they are fighting in every way they can for a full 6 percent or more. This accounts for the real basis of opposition of the building and loan associations. The mortgage bankers are equally resentful of the loss of their bonuses and renewal charges, as well as of their high interest rates.

Busy Upsetting Old Abuses

When President McLean charges FHA with "attempting to upset the mortgage loan structure," he is probably right. FHA has tried to upset and destroy many of the old abuses of home financing. That is why it is being so viciously stabbed in the back now. But most of the men of the building industry feel that FHA's chief faults have been that it has not reduced interest rates sufficiently nor been able to correct all of the abuses that exist in home financing. The reason it has not done more than it has is that it is not in a dictatorial position nor has it tried to assume one. Private industry still makes the loans and FHA merely insures them. Most of the benefits that it has achieved have had to be secured through education; and considering the difficulties of the job it has done very well indeed.

Considering the attitude and actions of the mortgage bankers and the other home financing bodies in the past, building men may well ask whether they can afford to lose the powerful influence FHA has exerted on loaning practice. The financial institutions that opposed FHA in the first place finally adopted many of its policies only because they were forced to do so by keen competition. Without this competitive spur they would not even now be making 20-year amortized loans. And they would still be insisting on home financing charges so high as to discourage construction. *American Builder* feels that a reversion to the racketeer home financing methods of the twenties would be a tragic mistake. If FHA is not continued some other method of preventing a return to these methods must be found.

58% Want Air Conditioning

WHAT the public thinks about air conditioning is indicated by answers to a recent questionnaire sent anonymously to 10,000 people by the General Electric Air Conditioning Institute. Analysis of these replies shows that the public's knowledge of all the functions of air conditioning is fragmentary; that most home owners have not yet considered it for their present

homes; but that they would definitely expect it as a feature of any new home.

Only nine per cent were able to name all six functions performed by modern air conditioning. That the air is cooled was much the most frequently mentioned fact. For every 100 who specified that function, only 82 knew that it also warms air; 68 knew that it dehumidifies; 65 were aware that it humidifies; 46 had the knowledge that it cleans air, and only 40 knew that it circulates air.

In answer to the question, "Have you ever thought of it for your present home," 38 per cent replied, "yes" and 51 per cent "no." Two per cent replied that they already have it.

Asked, "If you were to buy a new home, would you expect it to be air conditioned?" 58 per cent responded that they would, and 31 per cent that they would not.

For those concerned with planning and building up-to-date and salable homes for the market, this report has a lot of meaning. If 58 per cent of the home-seeking public is looking for air conditioning in the new homes it will buy, builders must equip their homes with this wanted improvement or see more than half of their hoped for customers pass them by.

Why They Buy

Just why present day Americans want such home improvements, even though they add substantially to total costs, has been revealed by another survey, this one conducted by the air conditioning division of the Gar Wood Industries. From this it appears that almost 25 per cent of owners purchased their automatic heating equipment because it is a positive labor-saving and comfort-providing equipment; a little more than 20 per cent decided because of the cleanliness feature; 18 per cent for uniform temperature; 16 per cent because personal responsibility is lessened; 8 per cent for better health; 8 per cent for space saving and 7 per cent for economy.

Today, a modern heating and air conditioning unit is completely automatic; drudgery is absent. There is practically no manual labor required to heat and air condition a home. Temperature, humidity and air circulation are controlled by thermostatic or finger-regulated devices. No wonder so many people are now insisting on automatic, healthful heat for the home. The family no longer wants to be shackled to tiresome, annoying labor or inconvenience. Home folks crave more time for companionship; more leisure hours for recreation and visiting. With automatic heat and air conditioning, mornings are cheerful; the home is a cleaner and a healthier place in which to live.

All these delightful new advantages for home owners give the sales-minded men of the building industry new arguments and appeals for contacting clients and prospects. There never was a time when old houses were being so rapidly and completely shoved into obsolescence. Present home owners and prospective home builders are all sales prospects today for these modern home improvements.

homes



or stocks?

A HOME is first of all a place of higher satisfaction and better living. It is a blue chip investment of the first order which the owner can see, use and control for his own benefit. It is the safest of all investments because, next to food, it is the most basic necessity of life.

WHETHER THE COUNTRY goes democratic, republican or socialistic, or even if everyone goes on the dole, the essential value of a home remains unchanged. The dollar, the pound or the peseta may or may not be tied to gold, but their fluctuation cannot devalue the satisfaction and livability of a home of your own.

THE STOCK MARKET may zoom up or down or

break wide open, making many pretty pieces of paper worthless, but the value of your home as a place to live in and enjoy remains unchanged. Paper profits are exciting, but the benefits of home ownership are more lasting.

BUILD WELL, build carefully, and the house that soon grows into a home will pay a lifetime of dividends.

Detroit Builders

By LYMAN M. FORBES



LAST spring I built a model home. Since then I have sold ten houses from it. All were built on contract, and sold for \$8,200 to \$8,500 without land."

The speaker is a successful contractor. His experience is typical of Detroit, where one out of five of the city's most active builders is selling today from model homes. This is, however, only one of the ways in which the technique of marketing fully equipped homes in a "package" has been developed to a high art in Detroit. Builders are discontinuing "eye catchers," in favor of mechanical conveniences and equipment as a major aid in selling. Detroit's 1936 homes, particularly those costing \$6,500 or more, very often include refrigerators, ranges, air conditioning equipment, and other conveniences that have been recommended and sold by builders.

The practice of selling from model homes has been so successful in Detroit that their use undoubtedly will be continued and expanded next year. Contractor-builders have introduced a number of innovations in the current Detroit building revival. Because of their success, *American Builder* has recently completed a detailed personal investigation of the city's construction activity. All building permits issued by Detroit and nine communities located in its metropolitan area were carefully checked. The most active contractor-builders were contacted personally to find out how many houses each had completed, how many were under construction, what they cost, how they were sold, how materials and equipment were selected, how plans and specifications were prepared, how many were built on contract, and similar details.

Building Revival Well Under Way

In 1926, Detroit's building industry rode hilariously on the crest of a building boom. That year the city issued 40,204 building permits for structures valued at \$183,721,438. In 1933, building was flat on its back, scarcely able to hold up its head. That year the city issued 4,074 permits for buildings valued at \$3,945,765. By 1935, building sat up and took a little nourishment in the form of permits for 10,136 structures valued at \$21,222,391. In 1936 the industry rolled up its sleeves, went back to work, and accomplished more during the first eight months of the year than in all of 1935. Single-family dwellings account for more than 70 per cent of the value of new building.

Detroit building costs showed an increase of 8.5 per cent from February to August, according to the *Federal Home Loan Bank Review*. The Federal Home Loan Bank Board makes periodic cost comparisons on an identical six-room house in representative cities. Total cost of this house in Detroit was \$5,162 last February, and \$5,677 in August. Detroit building costs, despite the advance, compare favor-

ably with St. Louis, where the same house cost \$5,915 in August; Buffalo, N. Y., \$5,690 in August; Chicago, \$6,628 in July; Cleveland, \$6,240 in September, and Indianapolis, \$5,697 in August.

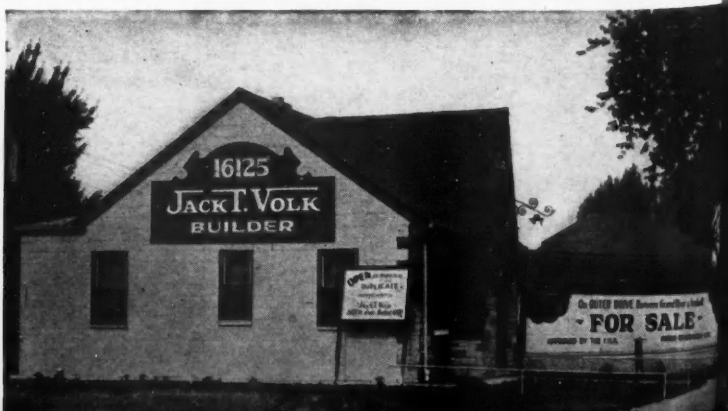
While there are approximately 1,000 builders in Detroit, permit records show that 19 per cent of them (those who erected two or more houses during 1936) accounted for 54 per cent of the total building activity.

Those interviewed had completed during the first eight months of 1936, or had under construction, more than \$9,000,000 worth of houses.

The "average" Detroit house, if there is such a structure, is a two-story brick veneered dwelling that sells for \$6,000, without land. Detroit contractor-builders, taken collectively, erect single-family houses ranging from a \$4,000 minimum up to \$70,000. Individual builders usually confine their work to a limited price range. When divided into cost groups, it was found that 33.4 per cent of the houses were built to sell for \$4,000 to \$6,000; 53.1 per cent ranged from \$6,000 to \$10,000; 8.1 per cent were valued \$10,000 to \$15,000; 3.6 per cent sold for \$15,000 to \$25,000; 1.8 per cent cost more than \$25,000.

Methods of builders varied. Of those interviewed, 10.4 per cent reported that they are operative builders exclusively; 54.6 per cent stated that they build only on contract; 35 per cent are both operative and contract builders. The survey revealed that those who combine contract and operative building use identical buying "connections" on both classes of work, and that these connections play an equally important part in the selection of materials and equipment by those who build on contract exclusively. Sixty-six per cent of the houses accounted for in the survey were built on contract, 34 per cent on speculation. Operative builders by no means confined their activities to the lower price brackets. It was not unusual to encounter \$15,000 and \$20,000 speculative houses. As one successful builder stated it, "We find that we make three times the profit on one \$15,000 house that we make on three \$5,000 ones, without scattering our efforts and without having to make three sales."

Purchasers of 93½ per cent of the contract built houses accounted for in the survey paid only one professional fee—that of a contractor-builder for complete service, including the preparation or furnishing of plans, preparation of specifications, supervised construction and selling. Most of the contractor-builders interviewed do not accept work involving architectural supervision outside of their own organizations. One



Market COMPLETE HOMES

of the partners in a firm that has completed eight houses and had six under construction when interviewed, summed up his reasons for furnishing complete service by saying, "There is not enough money in even the better-than-average building job to support both a builder and architect."

Eighty-three per cent of the contractor-builders interviewed stated that they furnish architectural service in some form. The largest group, 54.1 per cent either employ a staff architect, or have an architect member or members of the firm. (Three were originally architects who have become builders.) The next largest group, 29.1 per cent, reported that they furnish service through various working arrangements with architects, including payment for plans on a time basis, a flat rate per plan, and a percentage basis. The percentage basis most frequently reported was 7/10ths of 1 per cent for plans; 1/10th of 1 per cent for specifications (prepared according to the builder's standards); 1/10th of 1 per cent for a material list; 1/10th of 1 per cent for an elevation.

Maintain Own Sales Departments

Seventy-six per cent of those interviewed who build on contract exclusively maintain their own sales departments and sell no houses through real estate brokers. Seventy per cent of those who combine operative and contract building sell some of their houses through realtors. Two qualified their statements by adding that they "rarely" sell through brokers. Another estimated that 5 per cent of his work is disposed of through real estate organizations. Fifty-seven per cent of the operative builders sell part of their production through brokers. Four contractor-builders reported that they have an exclusive working arrangement with real estate organizations. Four other interviews were with the building departments of realty firms, ten or twelve of which are generally recognized as active builders with established departments.

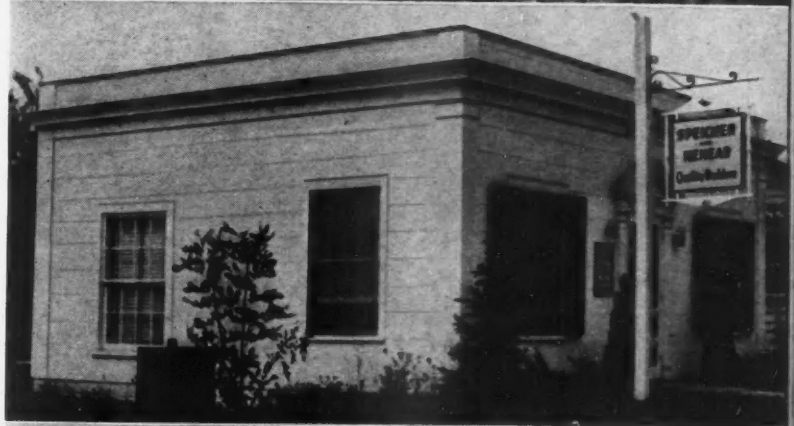
Realtors work on the customary 5 per cent brokerage fee. All of the interviewed contractor-builders who sell through brokers stated that the real estate firms act only as selling agents and have no part in preparing specifications or selecting materials to be used in houses. One summed up the situation by saying, "Realtors rarely build unless they are exceptionally anxious to move lots. When lots are selling they would rather not build. They are interested only in their 5 per cent commission and don't try to influence the choice of materials."

In its current revival, Detroit is growing outward rather than upward. Comparatively few apartment buildings are being erected. Most of the new single-family dwellings are found in a semicircle that extends around the entire city. The most active "hot spots" are located from six to twelve miles in any direction from downtown Detroit. A person can travel for miles in these areas, can look in any direction and see houses under construction. Small but attractive offices of contractor-builders will be found nearby. Most of these offices serve as display rooms where clients and prospects can see installations and samples of the materials recommended by builders.

Job signs adorn practically every unoccupied struc-

(Continued to page 98)

DETROIT builders maintain attractive offices where prospective clients see pictures, plans, elevations, specifications and samples of recommended materials.



SOLD!



WILL YOU INVEST IN A HOME?

To "invest" means, according to Webster, "to lay out money with the view of obtaining a profit." In a home, that profit should represent many years of comfortable and enjoyable living.

838 NOYES DRIVE

"THE HOME WITH THE SILVER LINING."

Located in lovely **WOODSIDE PARK, MD.**, Washington's most delightful suburban area—at the head of Sixteenth Street—it offers quiet and contentment in beautiful surroundings, and yet is within easy access to transportation, schools, churches, shops and parks. A safe area for children.

The house is of brick construction, with brick garage attached. Steel casement windows, Bangor slate roof. The first floor, in addition to living room, dining room and kitchen, has a fine bed room (or library) with full tiled bath. Kitchen has Oxford cabinets, insulated gas range and electric refrigeration. Two large bed rooms on second floor—full tiled bath with shower—and unusually large closets. Basement contains IDEAL gas furnace, laundry tubs and toilet, properly grouped, leaving ample space for recreation room, servants' quarters, or workshop.

The complete price, on a lot with 60 feet of frontage, containing 7,872 square feet, is

\$9,850

It could be less in cost, but then it could not be built the same way, nor with the same materials and workmanship. It could not, for instance,

1. Have **POURED CONCRETE** footings, and 5" **CONCRETE** basement floor, as this has.
2. Have **NUMBER ONE** Bangor slate roof, as this has.
3. Have **INSULATION BY METALLATION**, with ECOD fabric plaster base, as this has.
4. Have **FURRED WALLS**, water-proofed with asphalt pitch, as this has.
5. Have **DRAIN TILE** around exterior walls, in addition to parging and waterproofing, as this has.
6. Have **FENESTRA STEEL CASEMENT** windows, with bronze screens and hardware, as this has.
7. Have doors and windows **WEATHERSTRIPPED** and **CAULKED**, as this has.
8. Have **TWO TILED BATHS**, as this has.
9. Have **OXFORD** cabinets and **ARMSTRONG** linoleum, as this has.
10. Have **OVERHEAD** doors to garage, as this has.
11. Have **CARE-FREE** heating comfort, as this has.
12. Have Sanitary Mfg. Co. special **PLUMBING** equipment, as this has.

Chestnut trim in b.r. & d.r.
And so, if you are planning an **INVESTMENT** in a home, don't buy simply because the price is low. Its value—**REAL VALUE**—may be even lower! Buy the home that will pay you dividends for years to come in comfortable living, trouble-free, in the right kind of environment. F. H. A. financing if desired.

Open daily until 9 P.M. Four blocks from Silver Spring traffic light on Georgia Avenue extended to Noyes Drive—right one block to house.



F. P. WILLIAMS

316 Tower Bldg. Met. 1776
(Or Your Own Broker)

THE advertisement and house on this page tell their own story, except to add the statement of builder F. P. Williams, Washington, D. C., that: "The house sold promptly and if we were to reproduce it I do not know of any change that we would make."

Mr. Williams wrote the copy in the advertisement himself quoting Webster on what it means to invest. The house is described completely, mentioning the slate roof, steel casement windows, overhead garage doors and gas furnace.

In addition to newspaper advertising Williams prepared a mimeographed sheet which contained much the same information and was sent to all real estate brokers. This mimeographed sheet starts out with the title: "If you have clients who are willing to invest \$2,000, take them out to see this house."

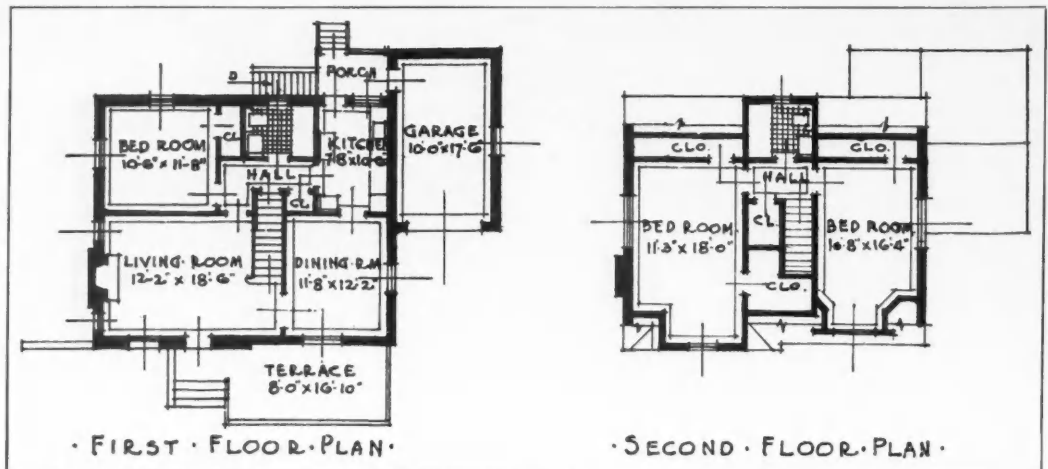
The house is well laid out and some of the popular features are the pleasant front porch, the center hall arrangement, downstairs bedroom and bath, ample closets and bedrooms upstairs. Placing one bath above another reduces plumbing costs.

THE advertisement to left has a little different approach than many. F. P. Williams found it very successful. Actual size is 4 x 10 1/2".



THIS is the house Builder Williams sold with the advertisement at left. He "would not make any changes" if he reproduced it.

FLOOR plans at right are compact, livable. There are two baths, a downstairs bedroom. Cost Key is 1.673-142-800-35-21-18



• FIRST FLOOR PLAN •

• SECOND FLOOR PLAN •



FRED J. BURMEISTER, ARCHITECT

Selected Homes Invite Study

SIXTEEN PAGE insert presents choice home designs in popular price class



COMPACT COLONIAL AT WANTAGH, L. I.

Coles A. Doty, Builder

Paul Schulke, Architect

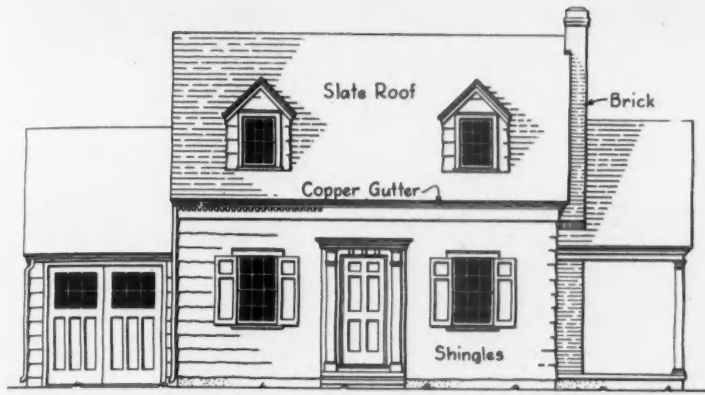
Cost Key is 1.171—115—473—22—17—12

THIS Triple-Insulated Model Home, featuring Johns-Manville building materials, was erected by Coles A. Doty at Wantagh, Long Island. It was designed by Paul Schulke, New York City architect. The house is surfaced with Cedar-Grain asbestos siding shingles, giving it a light and cheerful aspect.

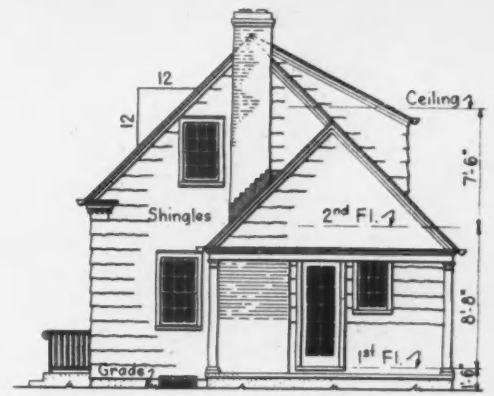
THE AREA of the main part of the house is only 23 foot 10 by 19 foot 10. The architect has made the most of this small area and has provided a surprisingly livable little house with many of the features of more expensive structures. An unusually good feature is the open porch, which has an entrance to the living room and adds to

the size of the house, balancing the garage at opposite end. The little coat closet is an important item, and the window which lights the stairs a good feature.

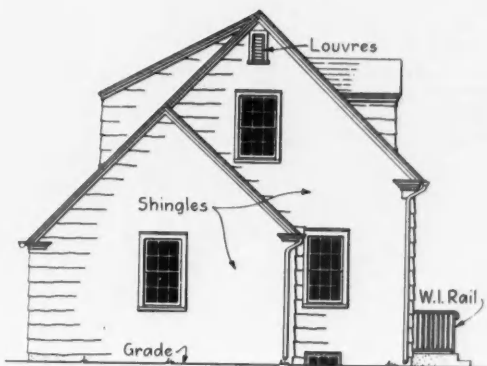
MODEL and demonstration homes frequently are too big or too expensive for the going market. It is of unusual interest therefore, to find an architect and a builder who have put up a really small but good-looking house such as the one above, which features Johns-Manville products. In spite of the small floor area a living room 13 feet 2 by 16 is achieved, and the size of this is enhanced by the landing and open stairs.



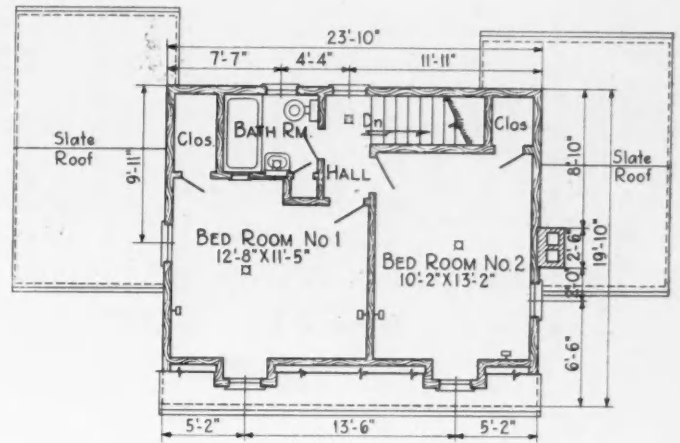
FRONT ELEVATION



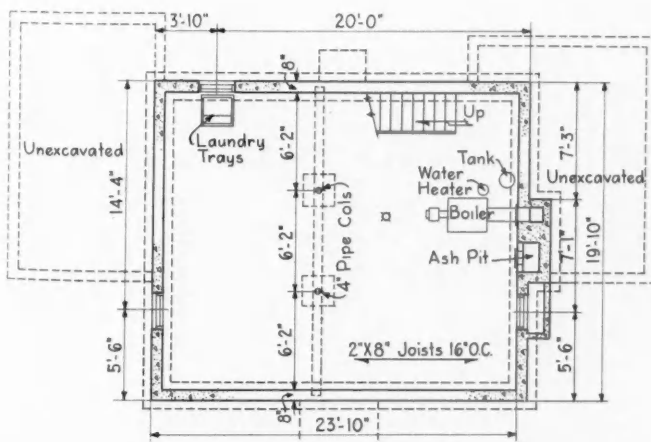
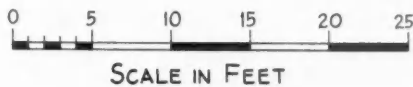
RIGHT SIDE ELEVATION



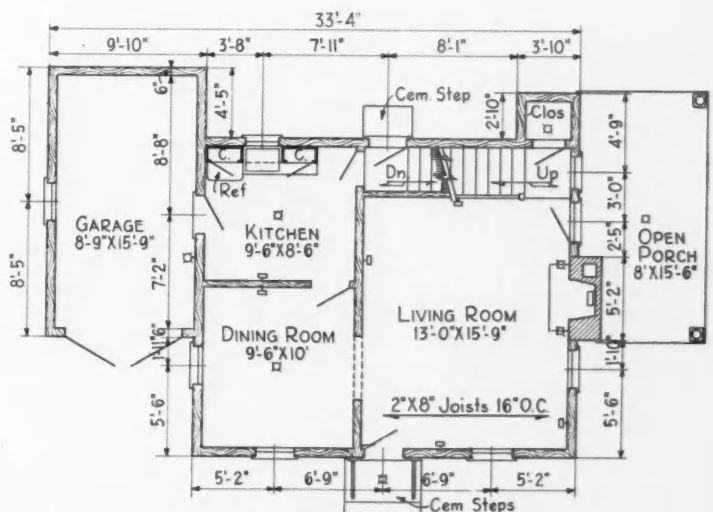
LEFT SIDE ELEVATION



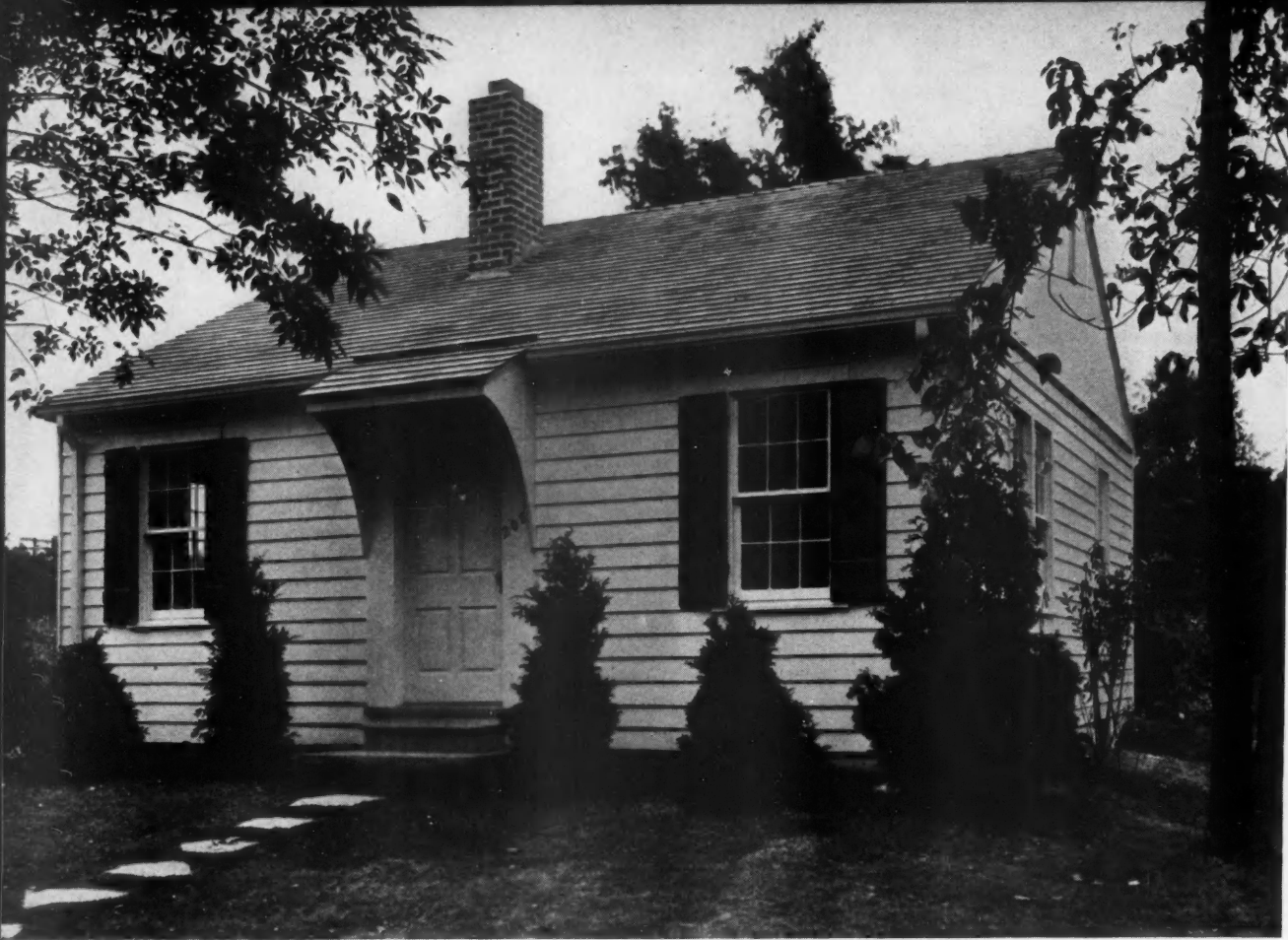
SECOND FLOOR PLAN



BASEMENT PLAN



FIRST FLOOR PLAN



LOW COST HOME DEMONSTRATION

Near Washington, D. C.

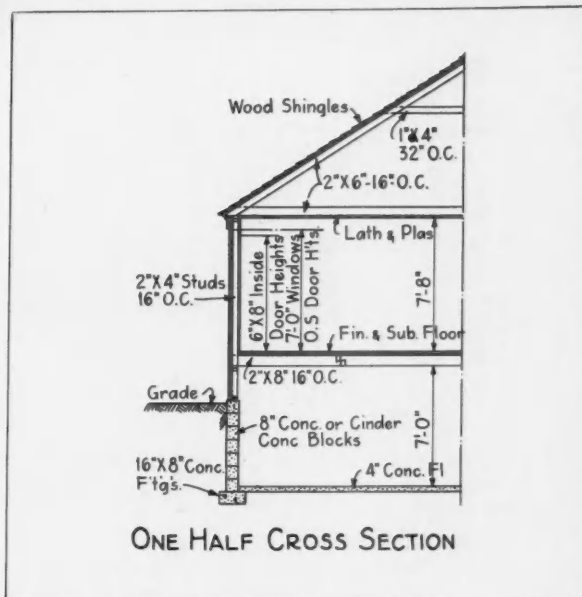
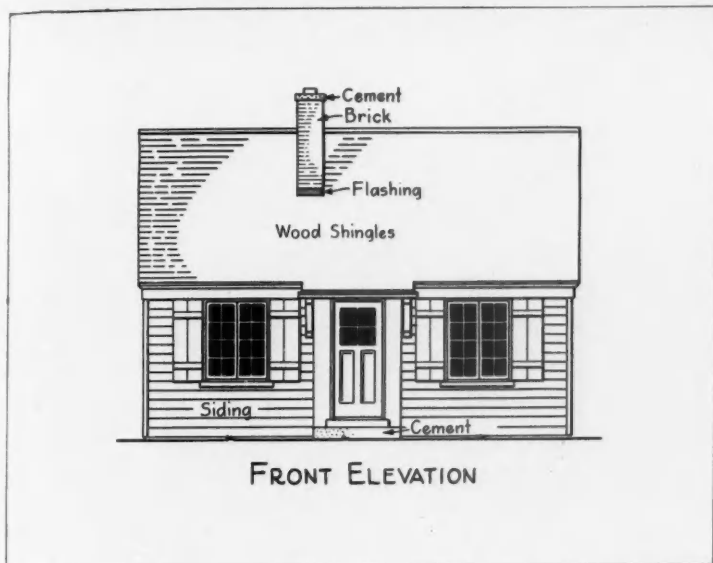
Sponsored by Nation Lumber Mfgs. Assn.

Design from FHA Tech. Bulletin No. 4.

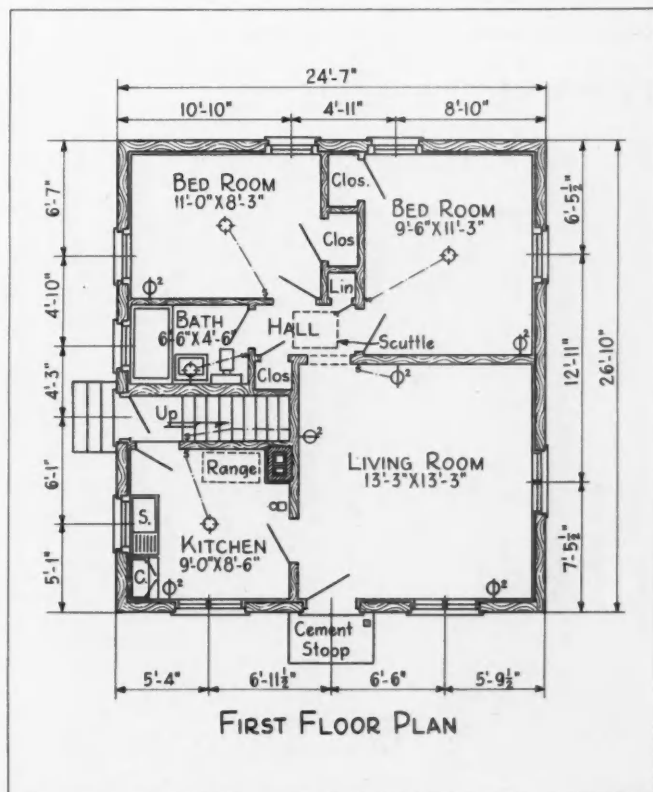
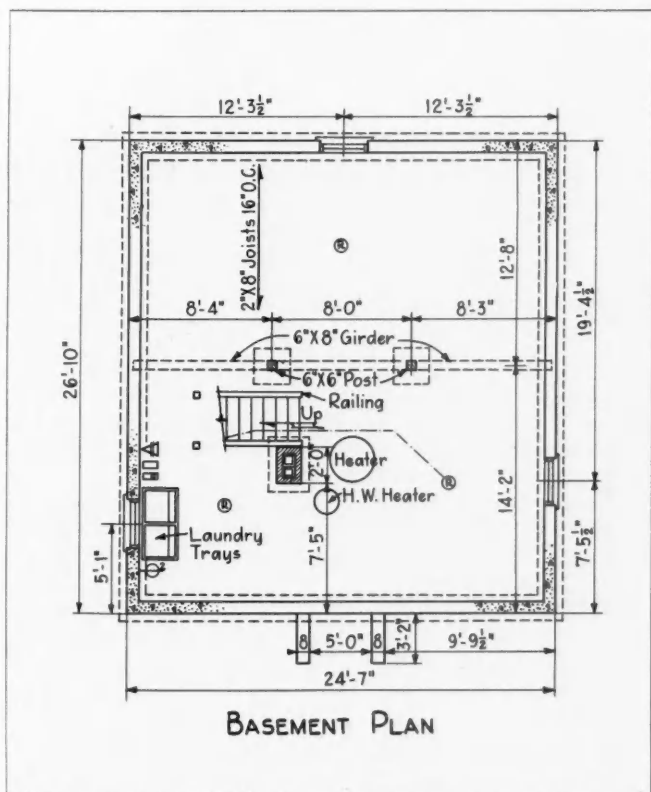
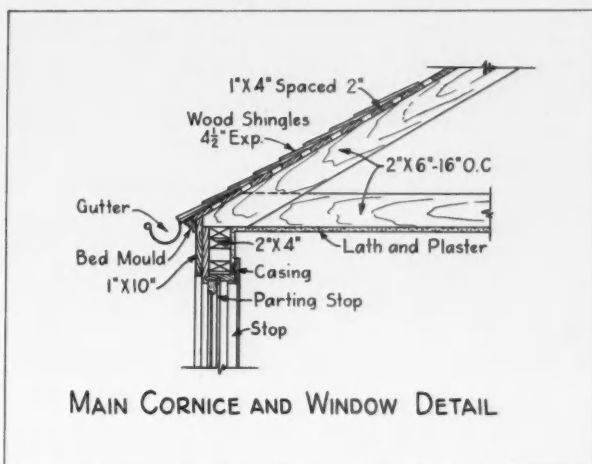


HERE is one of the three small homes dedicated on Sept. 28 in a Washington suburb to the cause of better low cost home building. These houses were sponsored by the National Lumber Manufacturers Association and by the National Lumber Dealers Association, the designs taken from the recent Federal Housing Administration's "Technical Bulletin No. 4." Working drawings for these designs were prepared by the National Plan Service, Inc., Chicago. These drawings, for House B as illustrated above, are reproduced, in part, on the opposite page. The photo to left shows the wood paneled dining nook in House D, a 2-story design. The FHA cost estimate on the 1-story model illustrated, as compared with the actual cost experience on this job is figured below:

| | |
|---|------------|
| FHA ESTIMATE WITH BASEMENT..... | \$2,500.00 |
| Cost to build with basement..... | \$2,463.00 |
| Contractor's profit..... | 274.00 |
| Cost of lot..... | 666.81 |
| Cost of house and lot..... | \$3,403.81 |
| Landscaping, sod, walks, shrubs..... | 51.00 |
| Equipment and extras, architect's fee, built in tubs, gutters, refrigerator, stove, taxes, insurance, etc..... | 310.43 |
| Total property cost..... | \$3,765.24 |



| WIRING SYMBOLS | | No. |
|----------------|---------------------------|-----|
| Ⓜ | Meter | 1 |
| Ⓜ | Panel Board | 1 |
| Ⓜ | Transformer | 1 |
| Ⓜ | Buzzer | 0 |
| Ⓜ | Bell | 1 |
| Ⓜ | Push Button | 1 |
| Ⓜ | Single Convenience Outlet | 0 |
| Ⓜ | Double " " | 6 |
| Ⓜ | Ceiling Outlet | 3 |
| Ⓜ | Ceiling Lamp Receptacle | 3 |
| Ⓜ | Wall Bracket | 1 |
| Ⓜ | One Way Switch | 6 |





FIRE-SAFE BUNGALOW

near Kew Gardens, Long Island

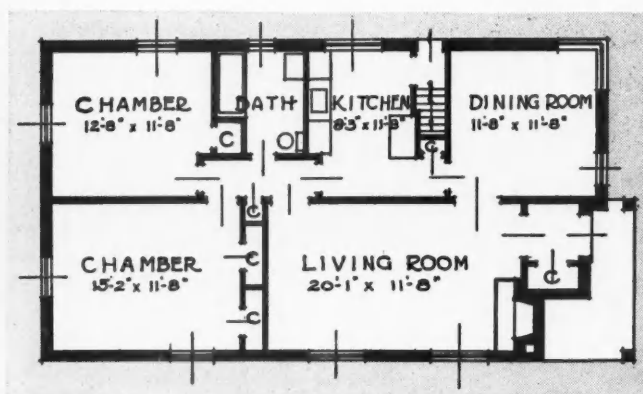
Briarwood Estates, Builder

Andrew A. Marjery, Architect



THE DEVELOPERS of Briarwood Estates, Queens, Long Island, have erected this model bungalow of concrete construction to demonstrate to their prospective clients and customers the solid worth of the homes being offered and to be built on this attractive subdivision. It is freshly modern in its conception and handling. With concrete masonry walls, precast concrete joist floor and steel windows, this is an excellent example of fire-safe construction.

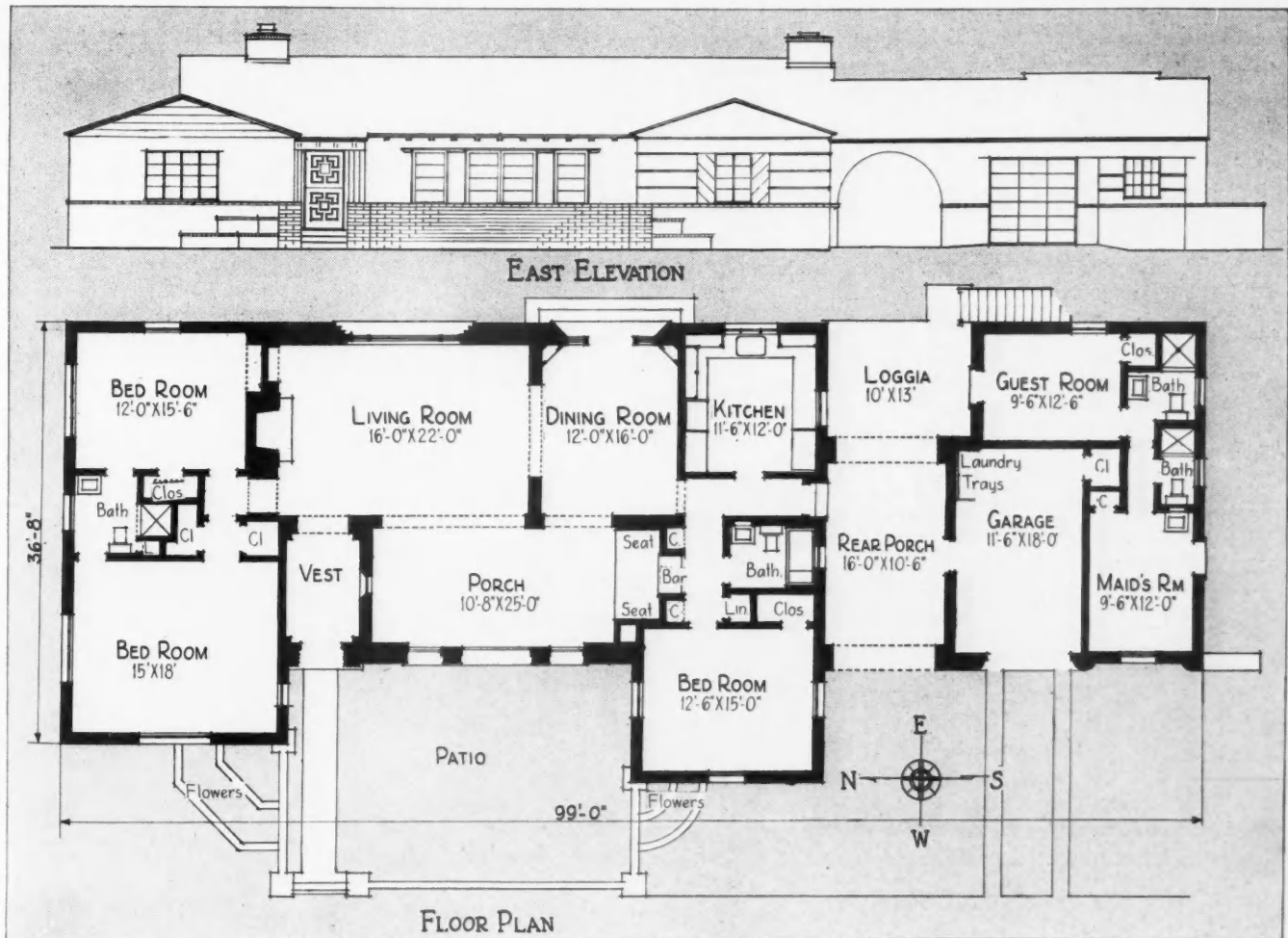
Cost Key is 1.225-138-1080-45-14-16





FLORIDA SPACIOUSNESS

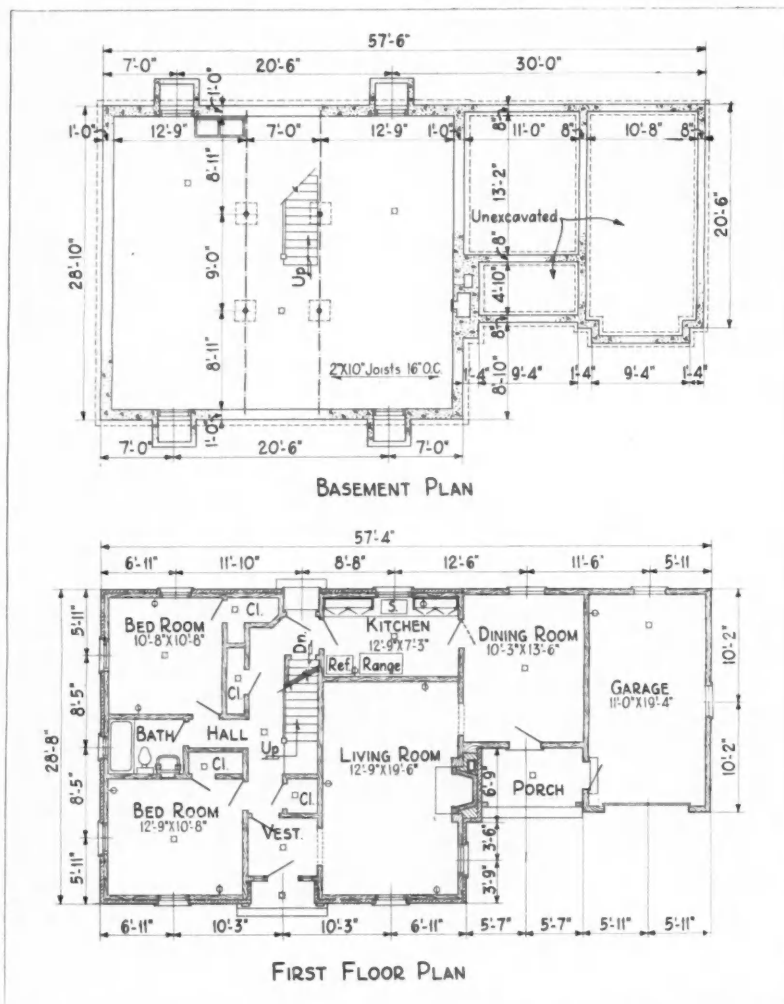
Geo. Batchellor, Coral Gables, Builder
Paist & Steward, Miami, Architect





UTICA, N. Y., DEMONSTRATION HOME

**James S. Benton,
Builder; H. B. Preston,
Architect; Charles C.
Kellogg & Sons Co.,
Lumber, Millwork
and Air Conditioning**



Cost Key is 2.034-172-984-43-22-21



"CHARACTER HOME"

Richmond, Va.

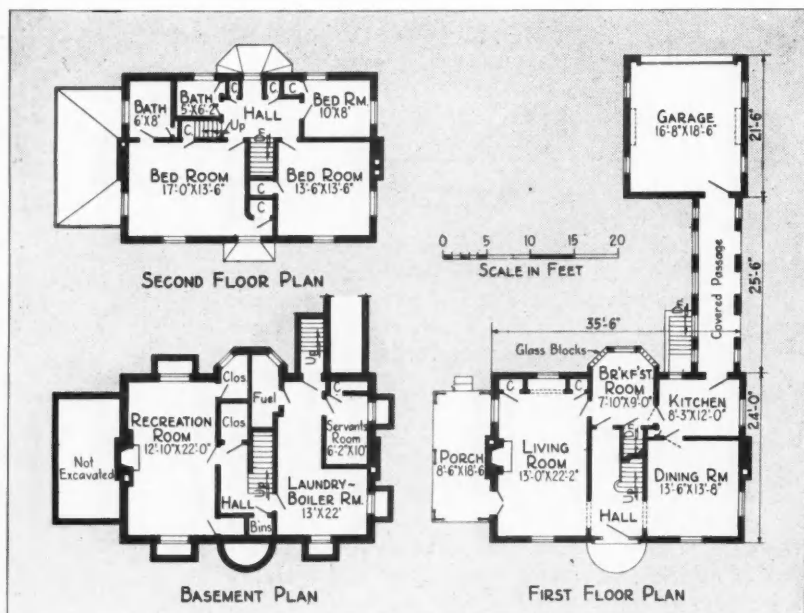
Hutzler & Carr, Inc., Builders

Edward F. Sinnott, Architect

QUALITY FEATURES

Firesafe concrete walls and floors
 Copper roof
 Glass brick used in bay in morning room.
 New modern plumbing fixtures including laundry trays
 Glass-tile wainscoting in master bath room
 Recreation room with tile floor
 Insulated exterior walls and second floor ceiling
 Plaster on metal lath throughout
 Flagstone paving
 Electric kitchen with furniture steel cabinets
 Conditioned air heating system with summer and winter domestic hot water supply
 Adequate electric wiring and concealed telephone conduits
 Bronze frame and bronze mesh window screens
 Weatherstrips
 Dust-proof closets
 New wall paper designs
 Attic stairs and floored attic

Cost Key is 2.391-258-884-42-43-24



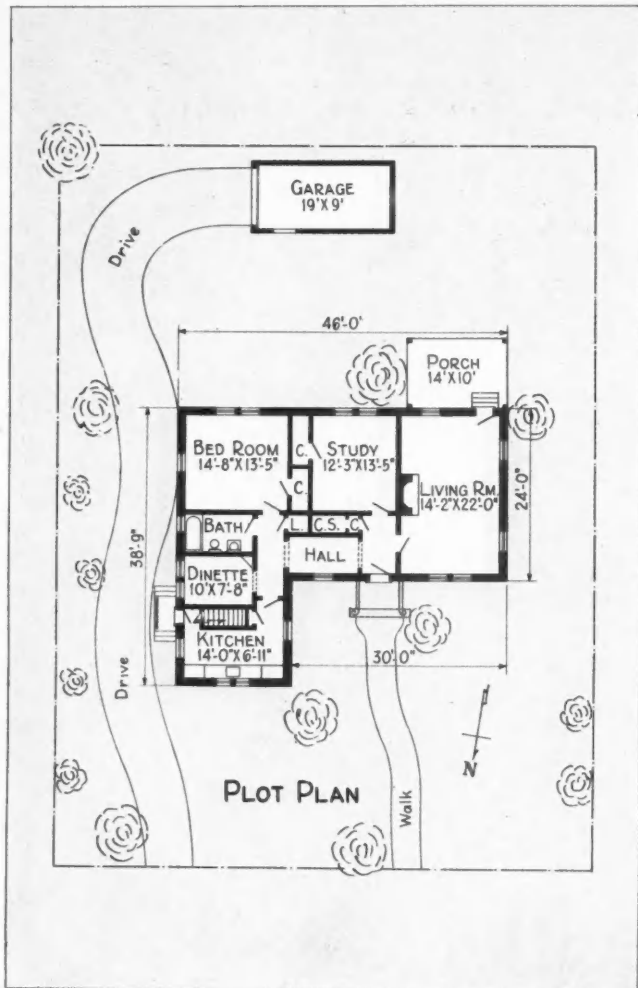


ABOVE: Richmond "Character Home." Shows view from rear garden with covered walkway to garage. Breakfast room alcove with glass brick panelling also shown. Note excellent ashlar wall construction.
BELOW: Richmond "Character Home" recreation room. Ornamented precast concrete joists exposed.

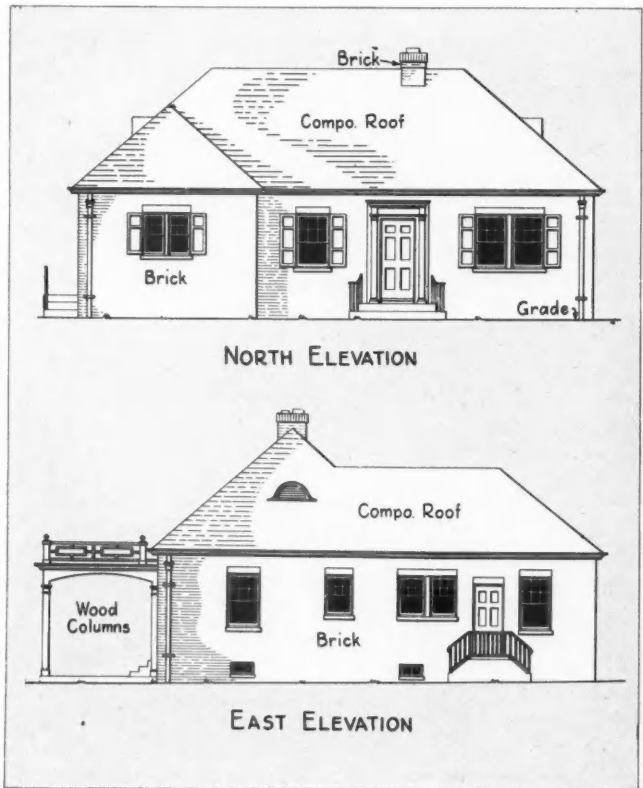




THIS STATEN ISLAND home was built among lovely trees without damaging or disturbing them.



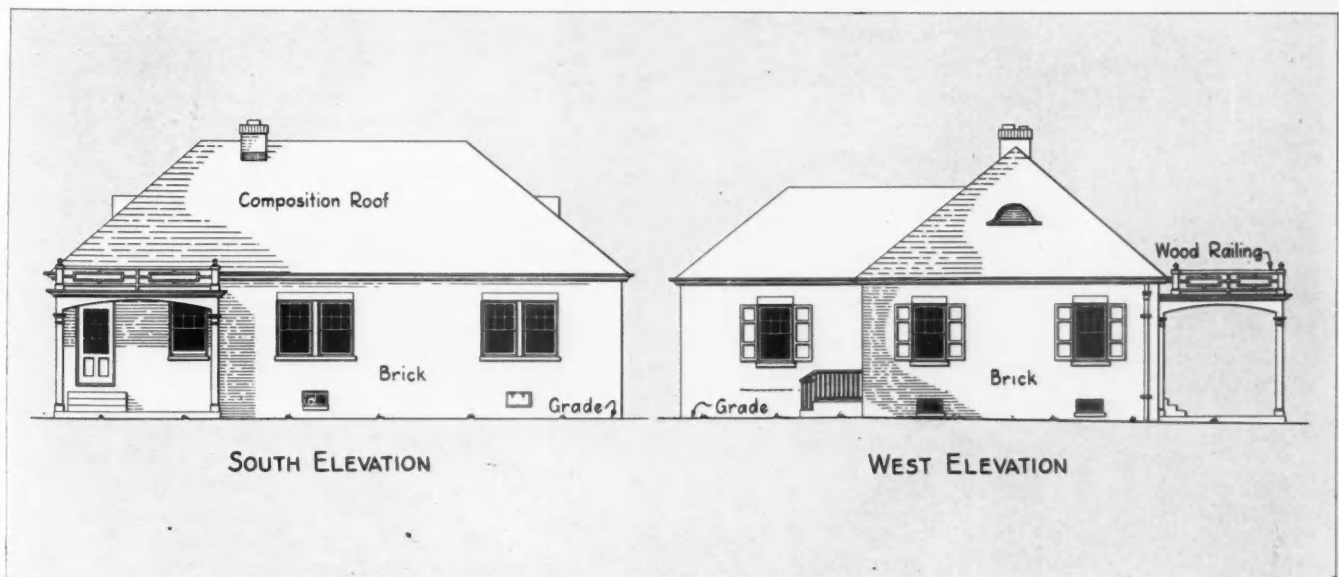
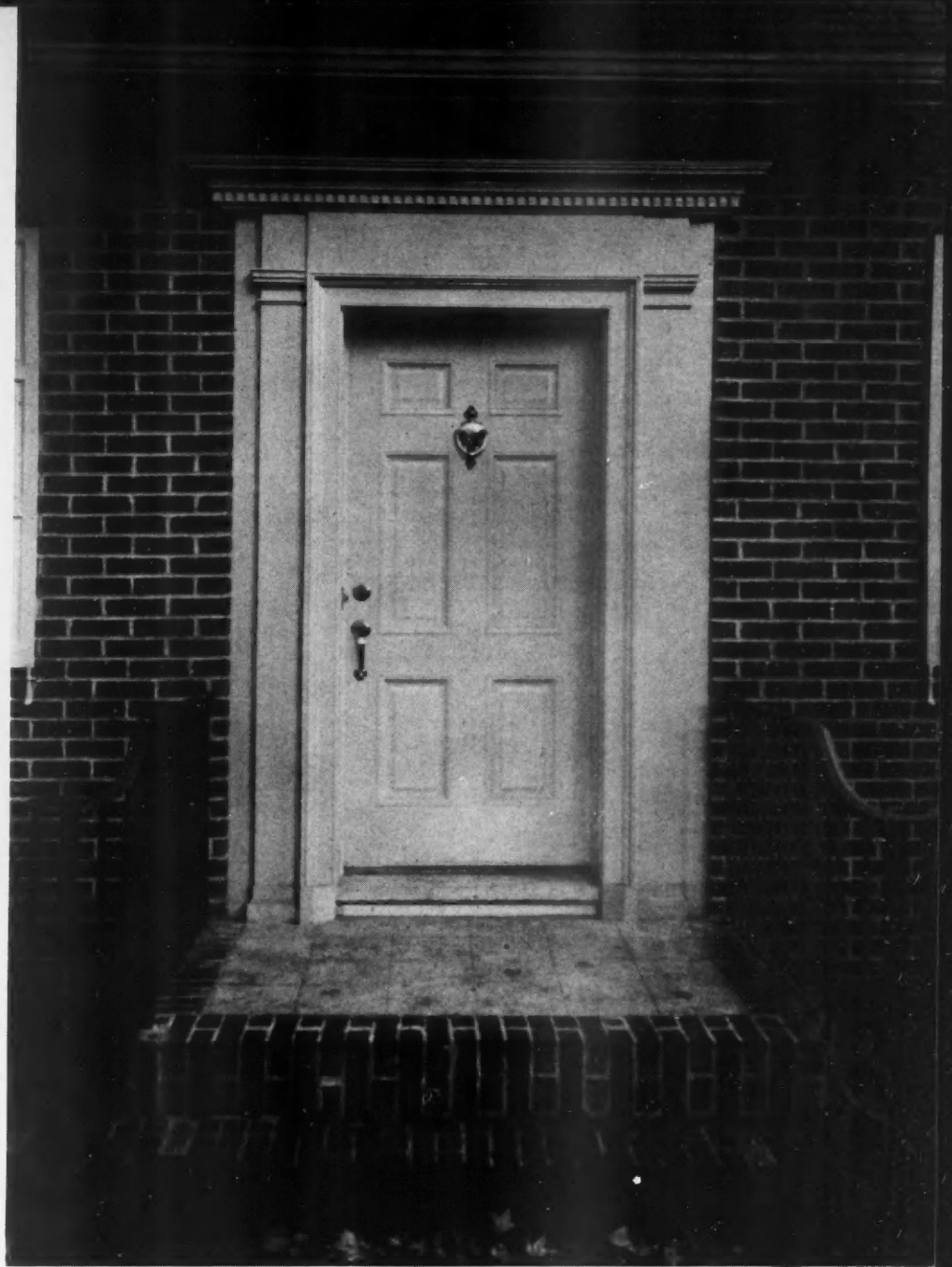
Cost Key is 1.493-169
-1340-159-16-20



BRICK HOUSE BUILT FOR TWO

ONLY two people were to live in this house, so particular attention was paid to get large rooms with plenty of sunny southern exposure. The bedroom and study are placed at the rear away from the noisy street.

TO provide for future expansion the reception hall is arranged so that future stairs may be built to the attic, where there is space for several rooms. Stair space would be provided by eliminating the cedar closet and coat closet now shown on the plan. The architect and owner is Stephen W. Molokie, and the contractor Stanley Kaczenowsky.





COMPACT COLONIAL DEMONSTRATION HOME

Built at Ivanhoe, Near Chicago, by Mills & Sons

H. F. Mitchell, Architect

Cost Key is 1.371-112-722-31-21-9



THE BRICK and sided Colonial design shown above is one of the seven sample houses of the first unit completed this year by Mills and Sons, Chicago, developers and builders, as a start in their construction program in the suburb of Ivanhoe—a 465 acre site opened in 1925 and recently inactive—where Mills are planning the eventual construction of 1600 homes. This sample house was recently opened for inspection as a model home, completely furnished. The two wide dormers give a full second floor area and allow for a most compact arrangement; however, the front elevation would have been more unified if the gable end had been carried up in brick to accent the repeated angle over the entrance.

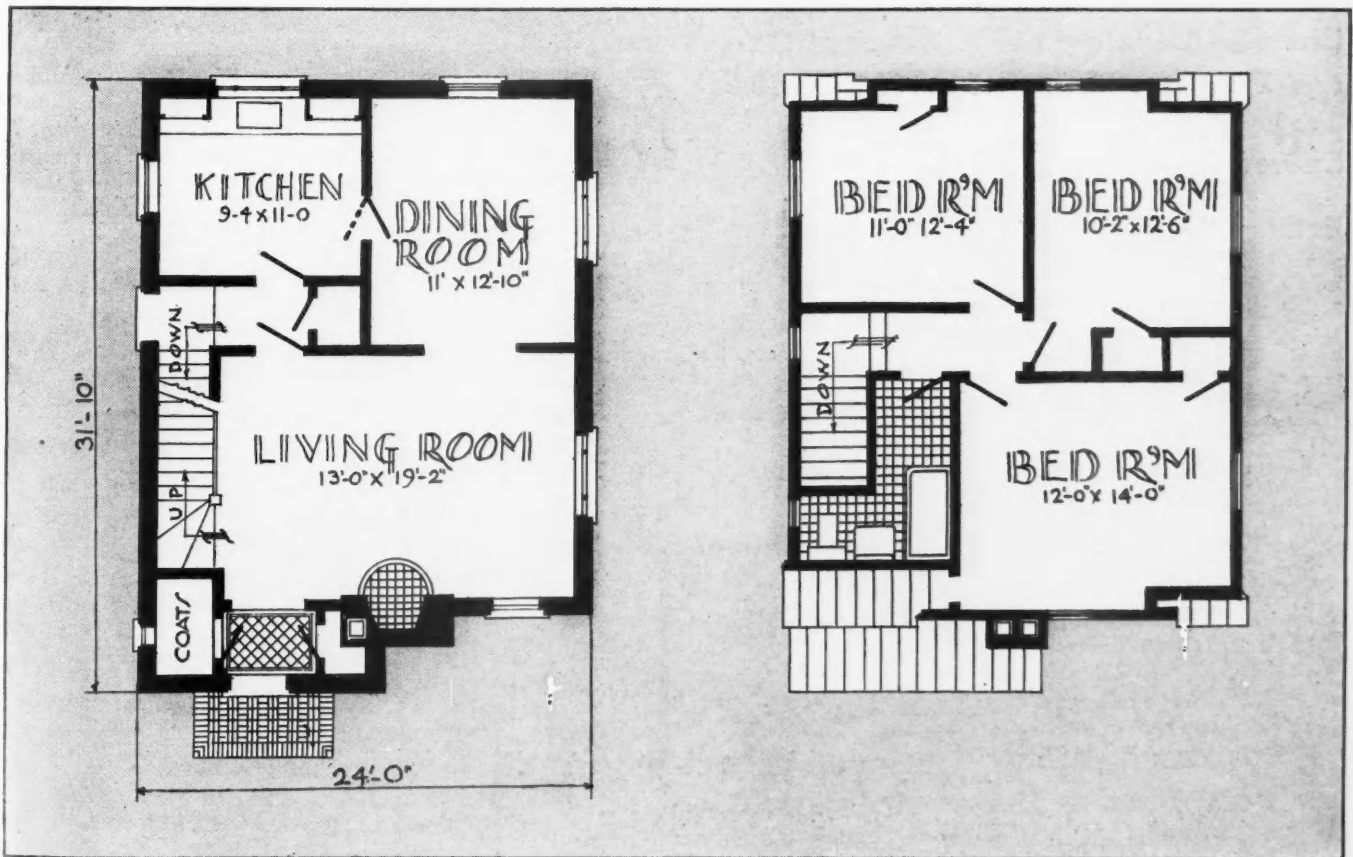
The bathroom of this house as seen at the left is one of the outstanding features—the wainscot is of two-color vitreous tile, lumiline lighting flanks the modern medicine chest and colored Standard Sanitary fixtures match the trim and recessed accessories. Other features include use of preshrunk lumber, Celotex insulation, 3 coat plaster on U.S.G. Rocklath, Fenestra steel sash with bronze screens, Ford interlocking asphalt shingles, red oak parquet floors in block and herringbone patterns, and a Niagara forced air heating system equipped with Iron Fireman.

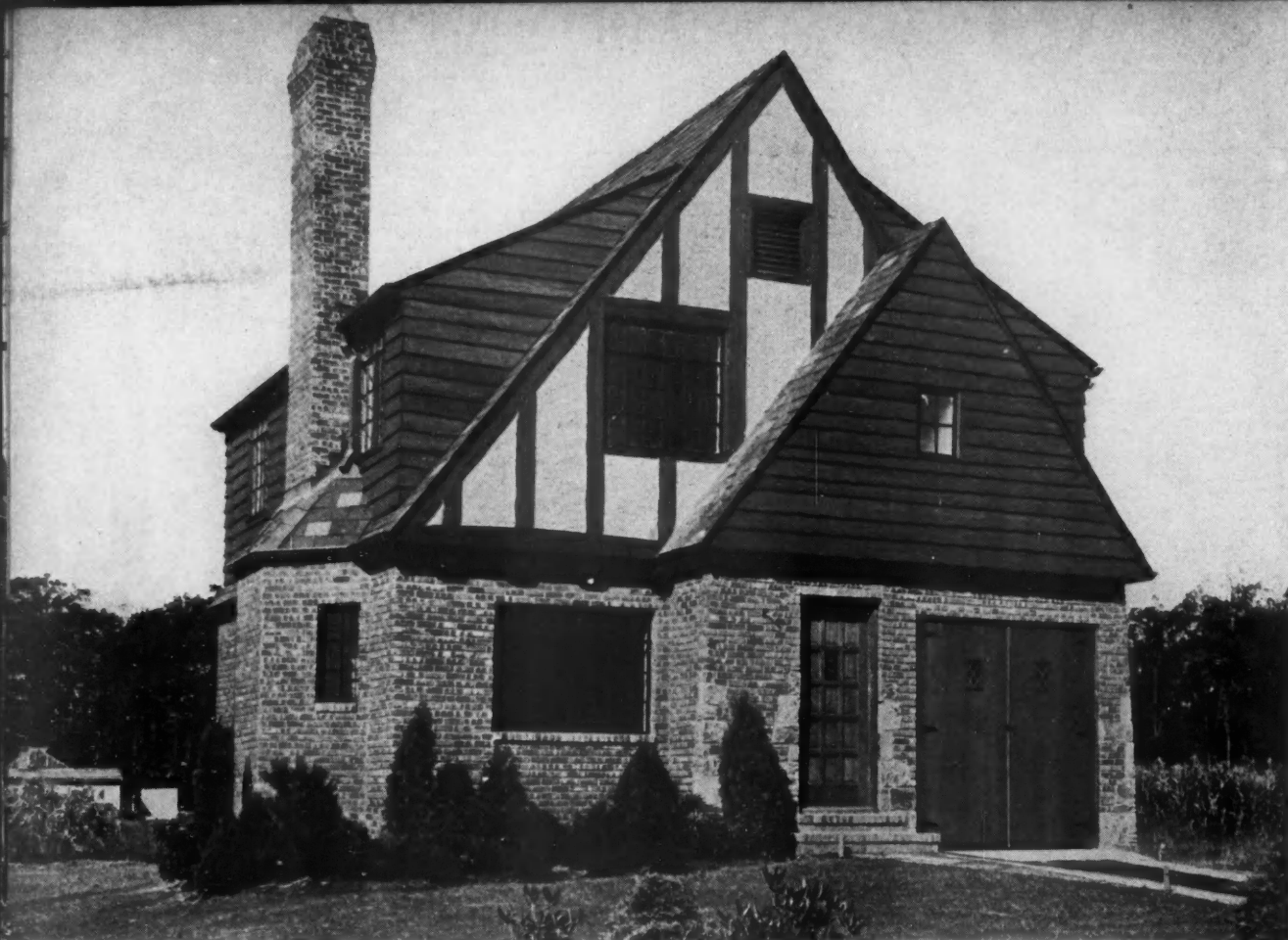


Light, colorful kitchen has blue enamelware double drainboard sink under wide casement window.

THE well lighted and ventilated kitchen above is of ample size and pleasing color. Walls are a combination of Armstrong Linowall, trimmed with chromium strips, and painted surfaces; inlaid linoleum floor has decorative border. Pacific Breeze ventilator is reversible type.

THE floor plan below is compact and efficient. The larger closet off entrance hall can be reasonably converted into first floor toilet room as it is located directly below bath. The second floor layout nicely accommodates three bedrooms and bath; extra storage is provided under gable.





FRENCH PROVINCIAL CHARM

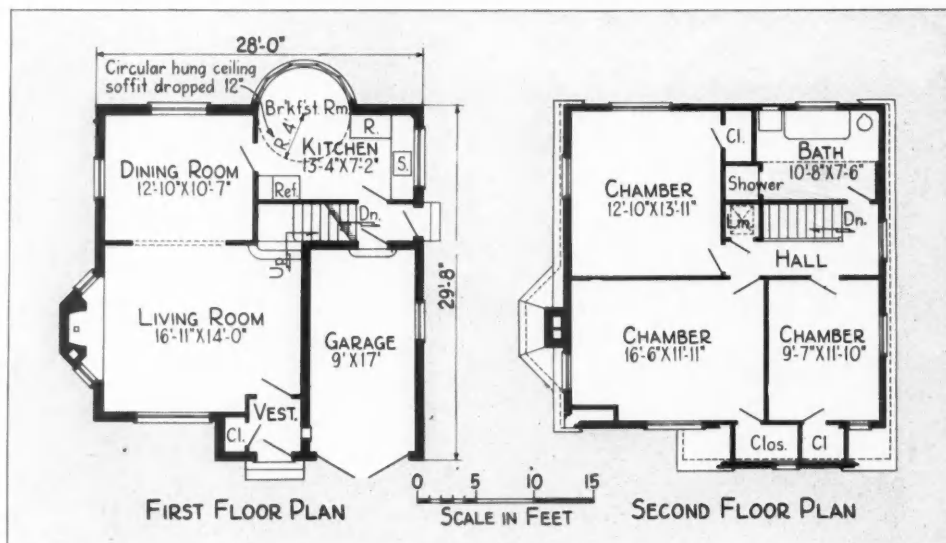
Circular Breakfast Nook, Attached Garage, Fireplace Niche Attract Housewives

Andrew A. Marjey, Architect

Arthur C. Brill, Builder

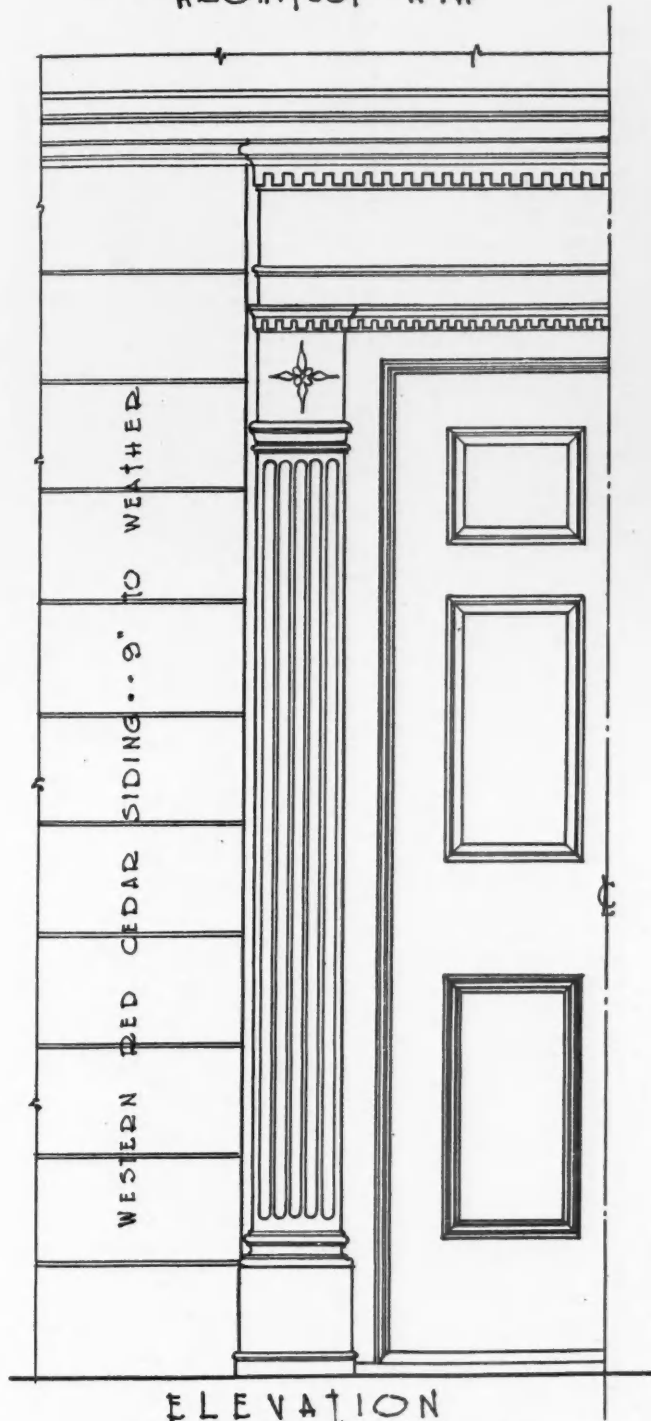
ARTHUR C. BRILL, president of Rockville Plaza Homes, Inc., says that this is a good and saleable home design. He built 6 houses of this general type on Long Island early this year and sold them all. Plans for this house were drawn by Architect Andrew A. Marjey of New York City. The house undoubtedly has many attractive sales features. One of the smartest is the circular breakfast nook off kitchen which will catch the morning sun. The built-in garage is another appealing feature, and an item that catches the eye is the fireplace, which is built in a niche at one end of the living room and has a window on either side. The rooms are of fairly good size and the kitchen and bath are large and attractively finished. The house has a radiator system with oil burner, slate roof, steel windows, dormers covered with adzed cedar siding painted in an attractive shade of silver grey.

Cost Key is 1.574—
132—860—37—23—12

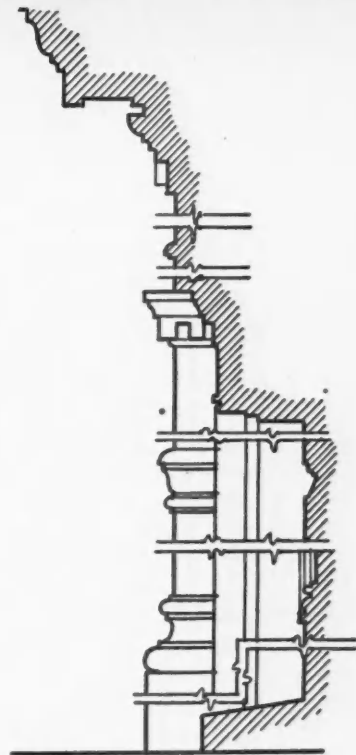
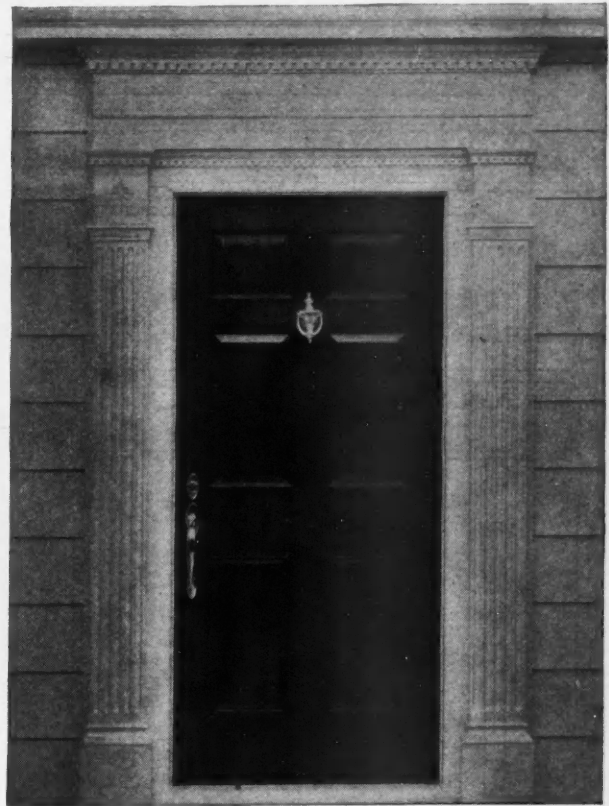


DETAILS OF A
WESTERN RED CEDAR
COLONIAL ENTRANCE

GEORGE WELLINGTON STODDARD
ARCHITECT A.I.A.



ELEVATION
SCALE $\frac{3}{4}'' = 1'-0''$

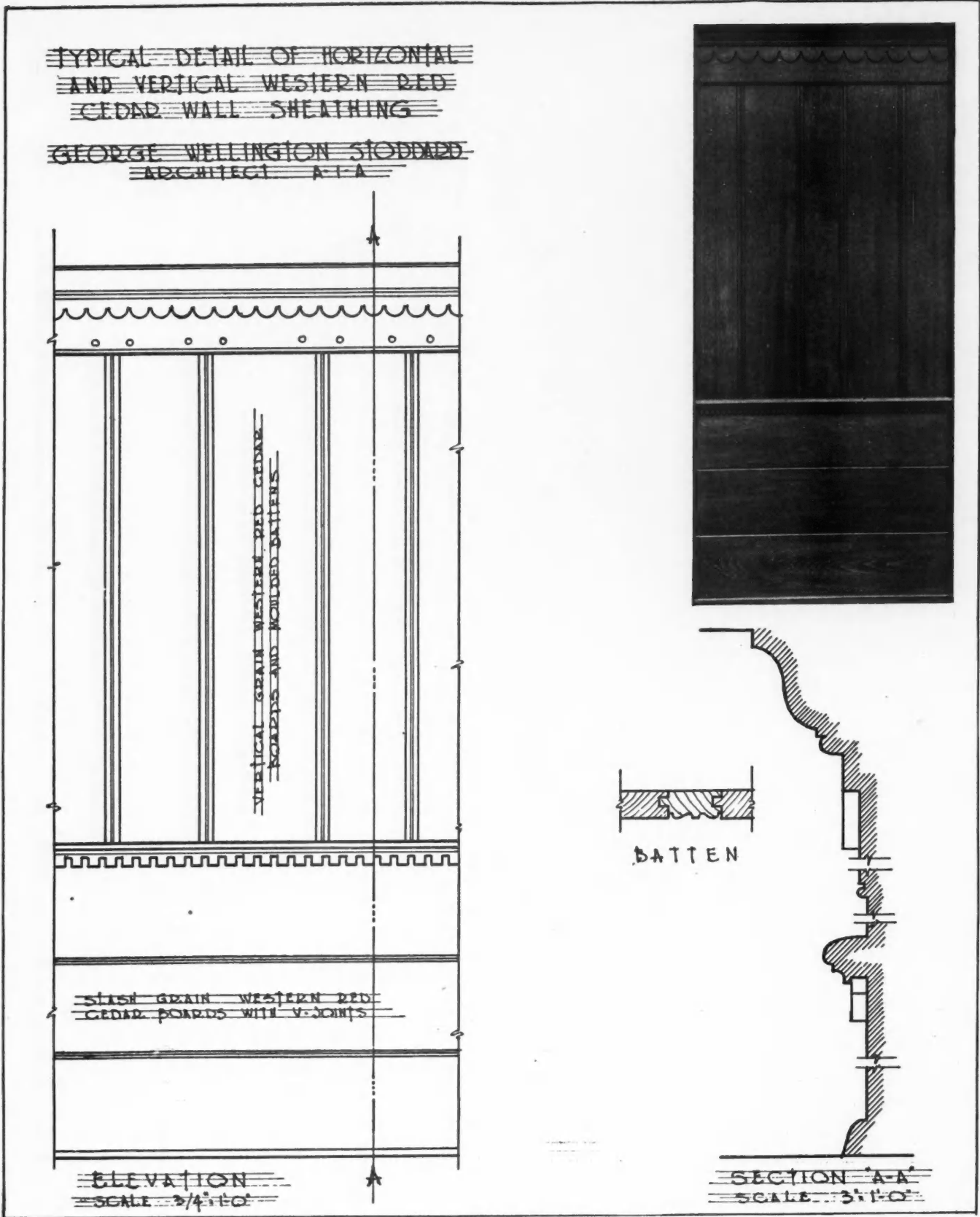


SECTION
SCALE $3'' = 1'-0''$

No. 8 of a Series
of Architectural Details that
help to sell homes

COLONIAL ENTRANCE

Impressive dignity is expressed
in the well-detailed entrance by
George Wellington Stoddard, architect



INTERIOR WALL PANELING

Vertical and horizontal red cedar boards with grooved battens produce this rich effect

Measured Drawings of correctly detailed house construction

Winter Heating Conditions and Equipment

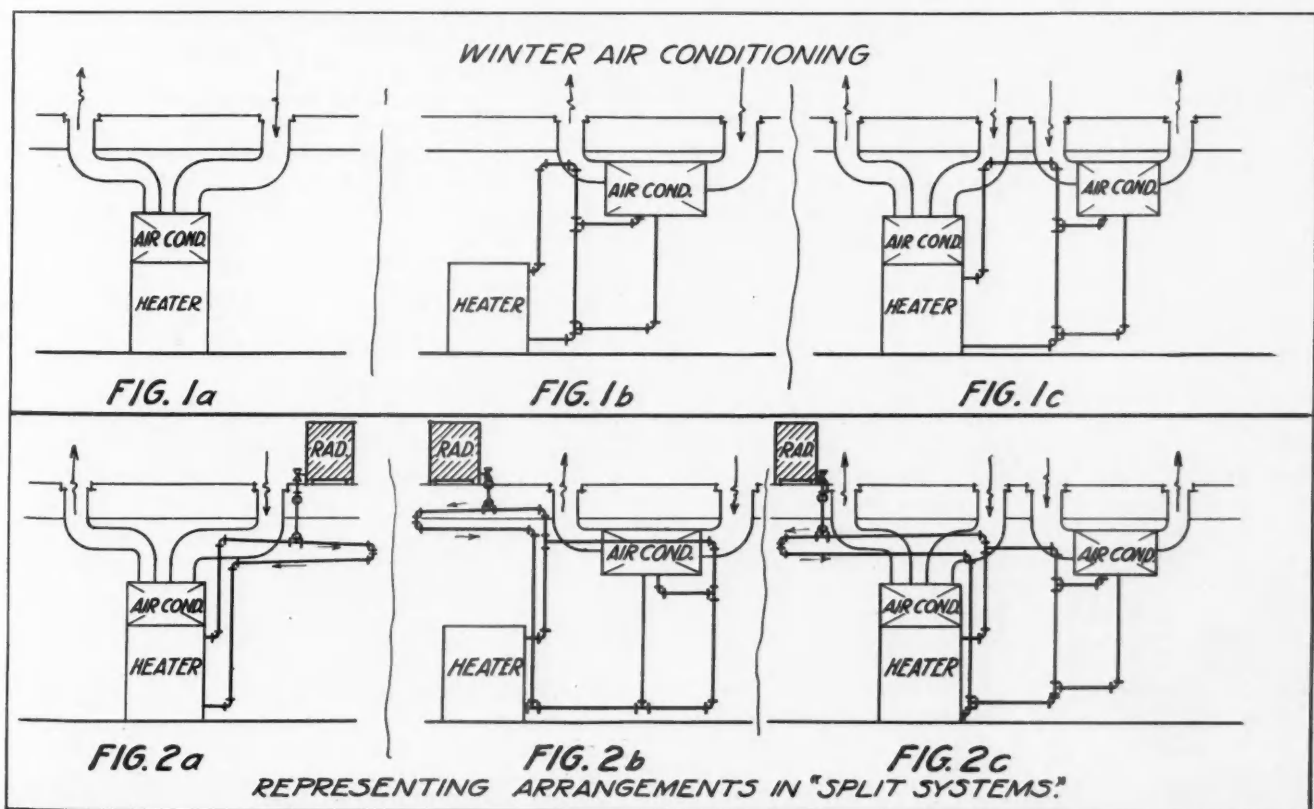
THE general building contractor is, in a measure, in the same position I am in regard to manufacturers of mechanical equipment and their selling agencies. The general building contractor is in a position to use whatever seems proven and best but is tied up with no particular phase in the industries. He can afford to sit and listen to the spokesman, or to sit and read what is printed. He can resort to his own experiences in case he wishes to argue, but being engaged for his own good as well as the manufacturers he is quite interested as a "party of the first part." The spokesmen have to talk turkey. And the interesting thing, to me, is that there really is plenty of turkey. The bird has grown tremendously in the last few years.

The other morning a specialist from one of the large valve companies was invited to deliver a talk before the engineering societies in joint meeting. Without knowing what the topic was about, but knowing that he was to talk before a large group of junior and senior engineering students, I supposed he would deal mostly with steam and water flow valves. But he didn't. He walked right into winter heating for residences and on into winter air conditioning. It would be to his credit to emphasize his modesty regarding his own line and I would give his name for an interesting speaker but for the fact that the manufacturers are not bitten by the bug of modesty yet. It is greatly to be hoped that they never will be because their insistent pushing of their just claims make for steady improvement in our equipment. They just

By V. L. SHERMAN
 Department of Mechanical Engineering
 Lewis Institute of Technology, Chicago

have to have the equipment to meet their claims if they are to stand on their feet. You will notice that the real ones are more firmly on their feet than ever before.

To get back to the speaker on valves as part of equipment and his modesty. He talked of piping, steam and hot water flow, temperature differences, and the proper types of valves to use for comfort's sake and economy. But if I had had his opportunity to speak on valves an hour's time would have been all too short. It is such a large element of the whole in its control of heating effectiveness that I would have left the rest of the subjects for someone else to talk about. Now it has seemed to me that the most interesting discussions possible at this time are about the various methods of winter air conditioning between authorities from among the different lines of heating. They have all got plenty to talk about, some of it very new to many of us, and very interesting because the newness comes from past experiences and thoughtful efforts toward improvements. Some recent work of the highest value comes from careful work toward rehabilitation of older systems of heating. When the discussion is carried along by men of experience and in-



MECHANICAL EQUIPMENT FOR 20-YEAR FINANCED HOUSES

telligence who have no thought of knocking one another, but of advancing their own points only, all of it is worth while. The more they argue the more they, and we, learn.

It has been said repeatedly that for dependable winter heat the heat must be directed from the spot most requiring the heat. And it has been repeatedly said that proper air currents and temperatures are the dependable factors. That the first system and the second system were the more economical. Since it is always wiser to choose the best from everything, it would not be so bad to take advantages from both these systems. That is being done right along.

In Figures 1 and 2 are shown two types of heating plants for winter air conditioning. (Hooked up with a refrigerating unit any of them would handle all year round air conditioning. But for the present we will consider just the former.) In Figure 1a is a conditioning unit we will say delivering up to 74,000 British thermal units (Btu) per hour with a floor space of 27 by 46 inches and stands 72 inches in height. It is oil or gas fired. Cooling coils are provided for. This unit provides for the entire house.

But supposing for the sake of argument that one or

more separately controlled units are desired rather than a single one. It might be occupancy, duct design, something special in the way of floor layout or necessity of economy in operation. Instead of having a single unit for air conditioning, one removed to a distance, or two or three could be used. In this way the heating coils are fed from the common boiler through a piping system and the conditioning unit is slung beneath the ceiling in the basement or, I have known such to be the case, from closet ceilings or other out of the way hangers. Some very clever work in air conditioning design has been done by remote units. Or it is possible as in Figure 1c to supplement the conditioner on the unit by another one at a distance.

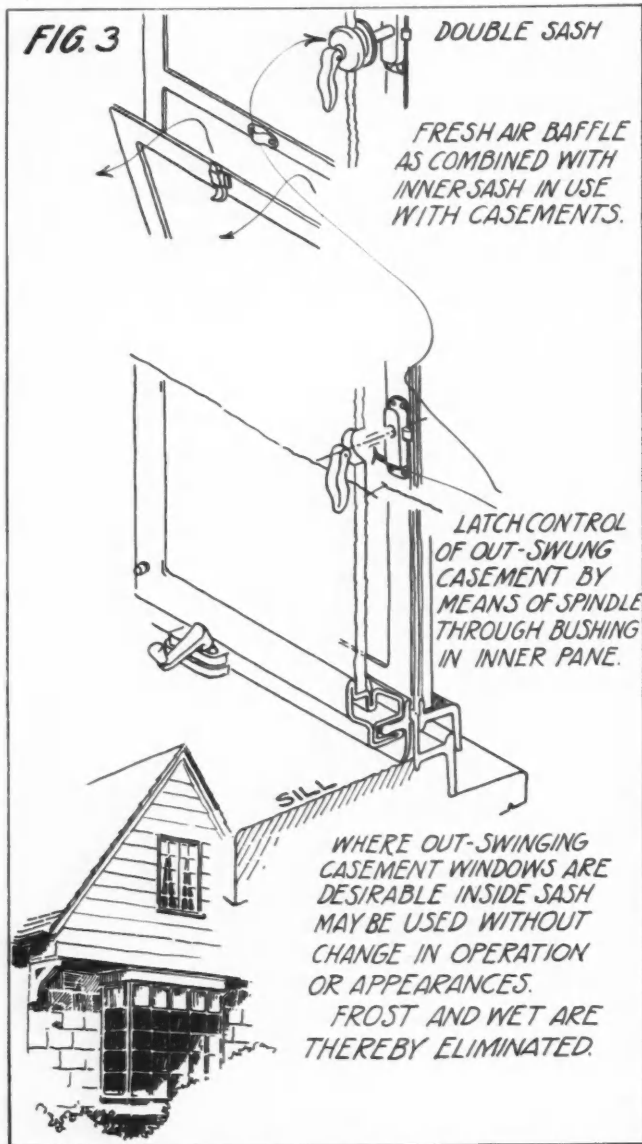
Such a suspended unit giving complete winter air conditioning and providing for summer cooling-coil space will give close to 50,000 Btu per hour and is 40 inches square by about 18 inches deep. That is not so large for the work it tends to.

As we tend to build now, with attached garages, air-exhausted bathrooms and kitchens, glazed porches of increasing size and so on, there is substantial advantage in the so-called split system of air conditioning and heating. Any room or space which of necessity is more or less open to the out-of-doors, or any room or space which should be heated although seldom occupied, or any room or space which can be more economically heated and conditioned for comfort through the use of direct heat should be provided with direct heat if in considering the entire first cost and the operating cost such heating is advisable. It often is. And the fact that manufacturers have realized the benefits of the "split system," perfected it, and marketed it is distinctly to the advantage of the home owner and the general contractor. Without the competition for results and the everlasting preaching of advantages of the various systems we would still be confined in our choices instead of being able to adapt a heating system to our plans.

And in these units integral with the heater or remote from it and in the air conditioning units of the split systems there is always the chance to add cooling coils for summer air conditioning.

This modest speaker on valves went so far out of his way as to emphasize very strongly the advantages of real insulation. Of course the lack of insulation would in common terms mean the increase of heating capacity required with its increase in radiation and valves. But he wisely plugged along for more and better jobs at really economical costs. He was interested in insulation genuinely if, perhaps, selfishly.

One of the greatest steps toward insulation, especially in air conditioned homes, is in the matter of windows. The use of what we still call storm sash will reduce the heat losses through window space approximately



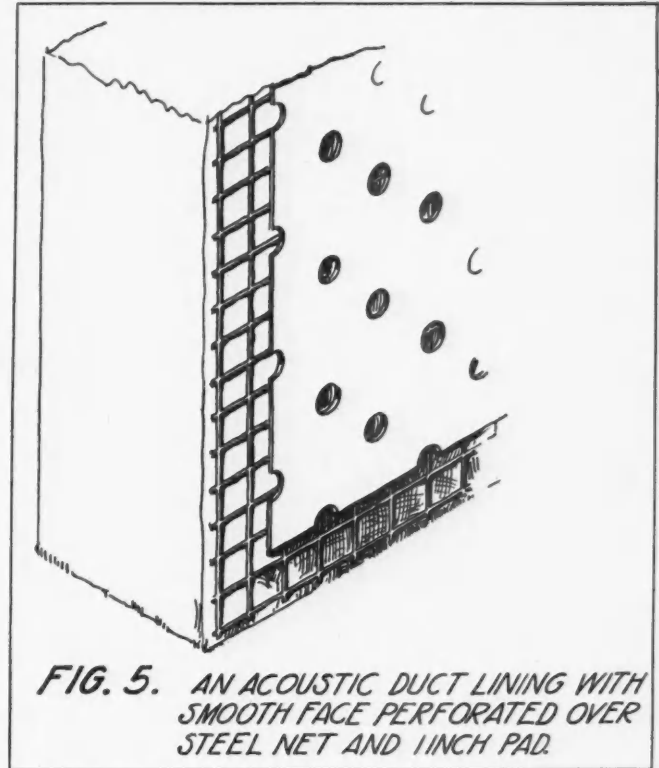
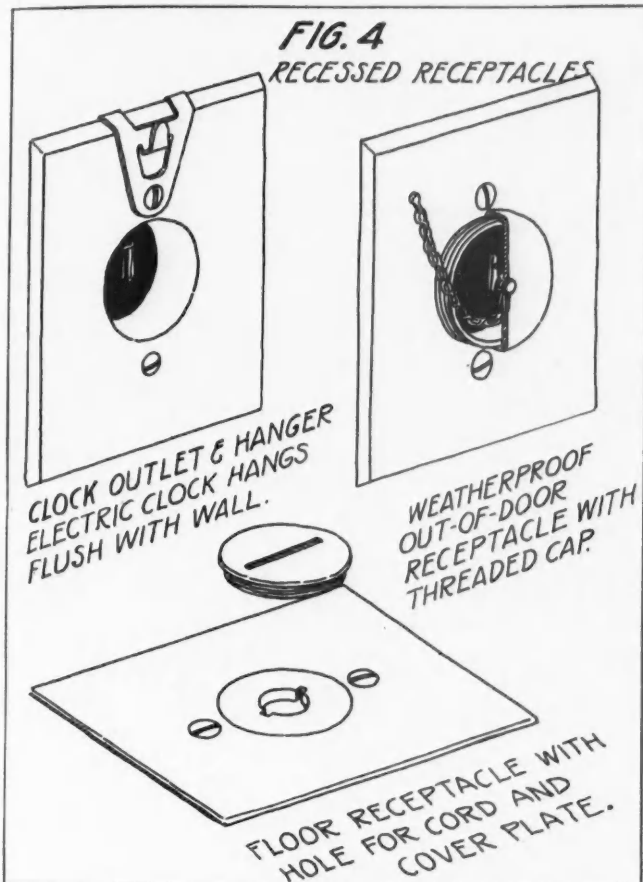
Not Too Cool on a Hot Day

After a year's experience with air-conditioning in our dining rooms, we've learned a few pretty important things about it as it affects you and your health. For instance, we've learned that the temperature inside should be variable according to the heat outside, and the difference between outside and inside temperatures should not be too great for the easy adjustment of your body. We've learned, too, that the amount of moisture in the air (humidity to you) directly affects your physical comfort and that the scientifically correct figure is that which we use. Now, all this care and attention for your well-being is pure selfishness on our part. Good health means good appetite. And good appetite, plus good food, has always meant good business for us.

hotel metropole
WALWAT, ABOVE SIXTH

CONGRATULATIONS
MR. SCHAFER.

HEATING-AIR CONDITIONING-PLUMBING AND WIRING



55 percent. Besides this it will reduce the heat extravagances from the heater to a great extent because it does away with the latent-heat losses suffered through condensation or frost on the window panes. You might add to this that no housewife enjoys mopping up sills when the frost on the window is defrosted by the sun. This also might be added. That the housewife who does not mop up the sills under single glazing is the one whose nerves suffer from squeaky furniture and other ills because there is little moisture in the air.

Casement windows opening out were perhaps first ascribed to English influence in architecture. It does not matter really how they came to be so popular, because they have since proved themselves so well in general use. They are a good type from all standpoints. The fact that the sash swings out instead of in is supposed by some to make it awkward for double glazing. This, however, is not the case. In Figure 3 is shown an outward-swinging casement with an entire inner "storm sash" which not only permits easy adjustment of the outer sash as before but does not in any way lose in appearances. The latch handle fits the inner pane through a bushing. The snugness of the sash within the frame is assured by closely fitting flanges. Thus in the lower sketch of Figure 3 one sheet of glass will eliminate a pack of troubles and cut the costs. And it should be remembered that for certain outward appearances the windows are better if they are light, out-swinging casements as in the case shown in the sketch. There are other instances where space necessities require them. Or increased glass areas may call for casements and floor areas require the out-swinging type. For winter air conditioning of even modest intentions these windows should be double

glazed. There is every reason not to leave them single. The modern home is built, we repeat, for comfort and convenience. It might not be improper to compare comfort and convenience in the modern home and its equipment and its cost to the modern radio. In making a deal a couple of weeks ago with a radio dealer I got off remarkably well. The radio had everything desired including some features in the short-wave line. It had everything a radio should have including a purchaser, and a modest price. Asking in a casual way just how high the dealer could go in a bona fide price for a radio I got quite a shock. But he assured me that the delicacy of the set which cost so very much and the exquisite finish made the price genuinely honest. Probably right. But it occurs to me that the average home owner in selecting a heating system or an air conditioning system is not out to acquire the atmospheric niceties of a testing laboratory. Nor is he concerned with the beauties of a heating element. What he wants is a result he can appreciate. And he gets them just as I do my radio set, all of the answers that his comfort can listen to at a moderate cost.

While we are on the subject of radios it might be well to remember that most of them plug in on the lighting circuits. And the ever ready manufacturers can sell you convenience here at a most modest cost. The one socket plate forgotten in Figure 4 is that of the radio outlet which gangs up the aerial, the ground, and the power. The plugs for these are fool-proof. You cannot get them in wrong. And for convenience, too, there is the weather-proof outdoor receptacle which in the days of last summer grew so popular. And the electric clock receptacle with its recessed face and hanger. And very important is the floor receptacle, having two cover-plates, one for use and another for sealing up.

It seems to me the developments along these lines of
(Continued to page 96)

Costs More Without Basement Than to Build in Regular Way

States **ALBERT E. BILL**
Builder, Detroit

THE house without a basement costs more instead of less than a house with a basement. I make this assertion out of my own experience as a practical builder in spite of claims that the elimination of basements is a means of lowering housing costs.

I have no quarrel with the theories and figures of others. I do know that I can build a modern house with a full basement in Detroit, for a lower cost than I can build one without a basement, if the same utilities and conveniences are to be provided for each house.

I know that there has been a lot of talk about basements being an unnecessary expense in house construction. In these days of oil and gas, heating plants can be placed in alcoves on the first floor level, the basementless house advocates point out. They would accommodate laundry tubs in the same way, thus doing away with the necessity for any basement.

These arguments sounded reasonable to me, until as a practical builder, I compared the actual cost of one house which I built with a basement, with the cost of another using the same set of plans except for the absence of a basement.

I found that instead of making a saving by eliminating the basement, the basementless house actually costs \$250 more than the house with a basement, or \$1.05 more per square foot of floor space.

I have built scores of houses, most of them with basements, but some without, and I find that in Detroit, it is much harder to sell a house without a basement.

This is probably true because besides a financial advantage, the owner of the house with a basement has a recreation room 28 feet long, ample space for heating plant and laundry, rooms for fruit and vegetable storage and a basement lavatory.

The house on which my figures are based sold for \$5,150, exclusive of lot and garage. The basement has an area of 760 square feet and a clear height of 7 feet from the floor to the bottom of the first floor joists.

Here are my figures on the cost of all construction below the first floor joists for this house and for one like it, without a basement:

Practically all of the excess cost in the house without



THIS house by Albert E. Bill, a very successful builder of moderate price homes in Detroit, was provided with a full basement at a saving of \$250.10 as compared with same house without basement.

| Items | House With Basement | House Without Basement |
|---|---------------------|------------------------|
| Trench Excavation | \$ 15.90 | \$ 38.70 |
| Cellar Excavation | 69.00 | |
| Concrete Footings | 68.00 | 68.00 |
| 12" Foundations (exterior)..... | 200.00 | 80.00 |
| 8" Foundations (interior)..... | 63.40 | 33.00 |
| 6" Foundations (terrace)..... | 23.00 | 23.00 |
| 4" Partitions | 12.00 | |
| Chimneys | 33.05 | 13.10 |
| 8"x8" Reinforced Concrete Column..... | 7.50 | |
| 8"x8" Reinforced Concrete Beams & Lintels..... | 19.60 | |
| Lintels over basement windows..... | 5.00 | |
| 4" Concrete floor..... | 91.00 | |
| Basement stairs..... | 35.00 | |
| Windows, Doors and Frames..... | 45.00 | |
| Electric Wiring and Fixtures..... | 24.00 | |
| Insulation for First Floor..... | | 61.00 |
| Added charges to Basementless House to provide space for utilities: | | |
| Utility Room—12x16 feet-10' high..... | | 384.00 |
| Extra plumbing vent stack for laundry tubs..... | | 38.00 |
| Tunnel for heating and plumbing pipes..... | | 72.00 |
| Extra for change in type of heating plant..... | | 128.00 |
| Contractor's profit (10%)..... | 71.15 | 93.90 |
| Total of cost items (including profit)..... | \$782.60 | \$1,032.70 |
| Excess cost of basementless house..... | | 250.10 |
| On a square foot basis, the comparison is as follows: | | |
| House with basement, \$5,150 divided by 2115 square feet— | | |
| Cost per square foot..... | | 2.44 |
| House without basement, \$5,400.10, divided by 1547 square feet— | | |
| Cost per square foot..... | | 3.49 |
| Excess cost per square foot of basementless house..... | | 1.05 |



RECREATION room in the basement of Albert E. Bill house. This beautiful and useful space was provided not only FREE but at a substantial saving, according to the builder's detailed figures, shown on opposite page.

a basement is due to changes necessary to provide for the heating plant and laundry facilities. The house with a basement has 568 square feet more floor area than the basementless house. This is represented by the total area of the basement, less the 12 ft. x 16 ft. utility room required when the basement is eliminated. This can be provided in only one of two ways. It must either be added to the first floor space, in which instance the area for other purposes is unchanged, or taken away from the floor space for other purposes, resulting in cramped quarters.

As a builder my job has been to build what people want. I try to give them all the house I can for the money. All my opinions in favor of houses with basements have come from the people who have bought my houses.

In my house on which I made the comparative cost figures, the basement included a large recreation room where the young folk can dance on a waxed concrete floor or play games. This saves wear on the living room rugs and furniture.

The same recreation room provides a winter or rainy day play room for the children. On winter washdays clothes can be dried in this clean basement room, and laundry work can be done without steaming up the first floor rooms.

Of course a basementless house presupposes the use of oil or gas for fuel, because it is difficult to provide coal storage space without a basement. A basement permits the use of coal or any other type of fuel. In the basement on which our figures are based, dust-tight con-

crete partitions around the coal bin prevent any dust from filtering into the laundry or recreation room.

The basement area also provides room for a work bench and tools, space for the storage of toys, bicycles, the baby carriage, and all the miscellaneous articles which any family accumulates. Then there is the unquestioned advantage of a comfortably warm first floor, when a basement is provided. A moderately warm basement saves fuel and increases the winter comfort of the first floor rooms. In northern climate special insulation is required to prevent cold floors where there is no basement.

People who buy homes in Detroit seem to want basements. In fact, they regard a basement as a very necessary part of the house, worth more even if it costs less.

"In the September American Builder appeared an article entitled '7 Out of 8 Choose House Without Basement to Save \$500' which all of us here have read with a great deal of interest and I may say in some cases with a great deal of perturbation. Naturally we are wondering if there is any basis for this alleged saving. It may be that it costs more to build a basement in some sections where bedrock comes close to the surface and it is necessary to do a lot of blasting. It has been our observations, however, that most of the people who think it costs them less to build a house without a basement are only kidding themselves.

"I wish you would take the time to read the accompanying article, written in our office from data supplied by Albert E. Bill a very successful builder of moderate price houses in Detroit. This article has been submitted to Mr. Bill who has returned it with his o.k."—W. G. Kaiser, Manager, Cement Products Bureau, Portland Cement Association.

QUAINT DICKEYVILLE—

"The Whole Town Modernized"

HERE is a modernizing story that carries this much talked of subject to the ultimate degree: a whole town modernized and re-built. What is more, it is being done on a practical profit-making basis and each house is modernized to order for the new home owner.

Five miles west of Baltimore's City Hall the little community of Dickeyville nestles in a pleasant valley. For years this historic little town has been dormant. It is one of the oldest communities in America, dating back to Revolutionary times.

Here was an ideal, quiet home community within easy reach of a large city. But modern city dwellers would not live in an ancient plumbing-less dwelling no matter how quaint and charming the community might be.

Arthur Lee Hoff, real estate man, builder and agent for the Maryland Title Securities Corporation of Baltimore supplied the answer. He decided to completely re-build Dickeyville, retaining its historic charm and providing modern comfort and conveniences for city dwellers he would lure out into his country community.

Before



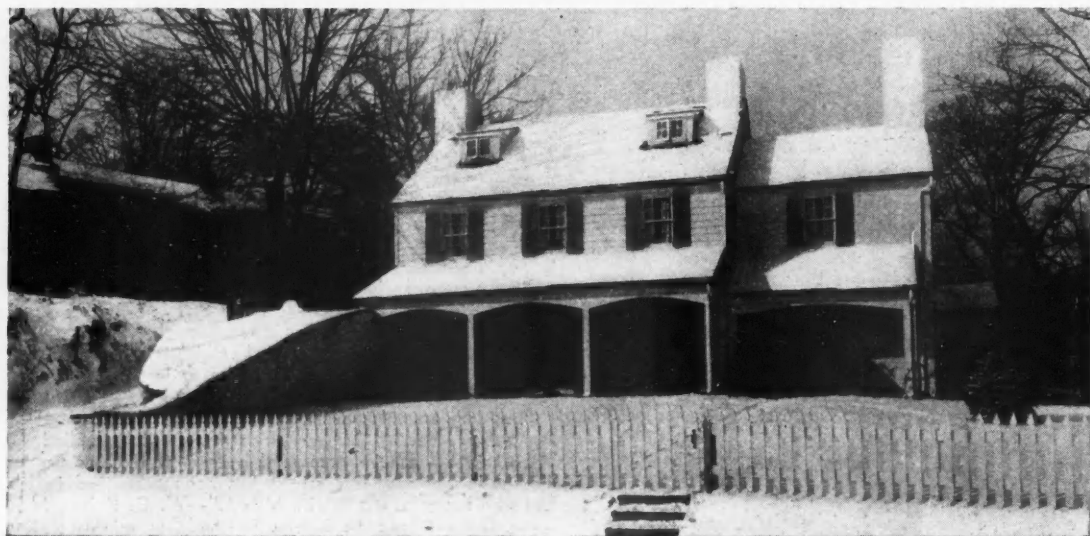
Historic town near Baltimore being completely re-built into a quaint modern home community. Modernized houses sell quickly.

Work was started last fall. At that time there were about eighty houses, two large mansion houses and three old mills which were located at a rambling stream known as Gwynns Falls. The property was within the city limits and water and sewer were available. A street car line was near by. In addition there were many suburban and rural advantages including a fine golf course near by. It required vision to go ahead with such a project. It was not until the middle of the summer that the remodeling work was far enough along for the public to see and understand the plan. Even so, four sales were made before the formal opening in September. Since that time nine more modernized houses have been sold and more recently sales have been averaging one a week.

The work is being done by Hoff and his associates themselves. The only subs are plumbing, heating and roofing.

The modernizing of the houses is being done in a very complete and thoroughgoing manner. The re-built constructions call for slate roofs, heavy insulation, tight weatherstripping, oil heat, at least two bathrooms and in most cases two car garages.

The dominant objective is to retain the charm and beauty of quaint Dickeyville at all times. The results achieved with some of the old structures have been truly amazing. Many of the old houses were box like, flat roofed structures with no character whatever. The basic structures, however, were sound and there was much heavy stone work which could be utilized. The "before" floor plan shown above is typical of many of the old

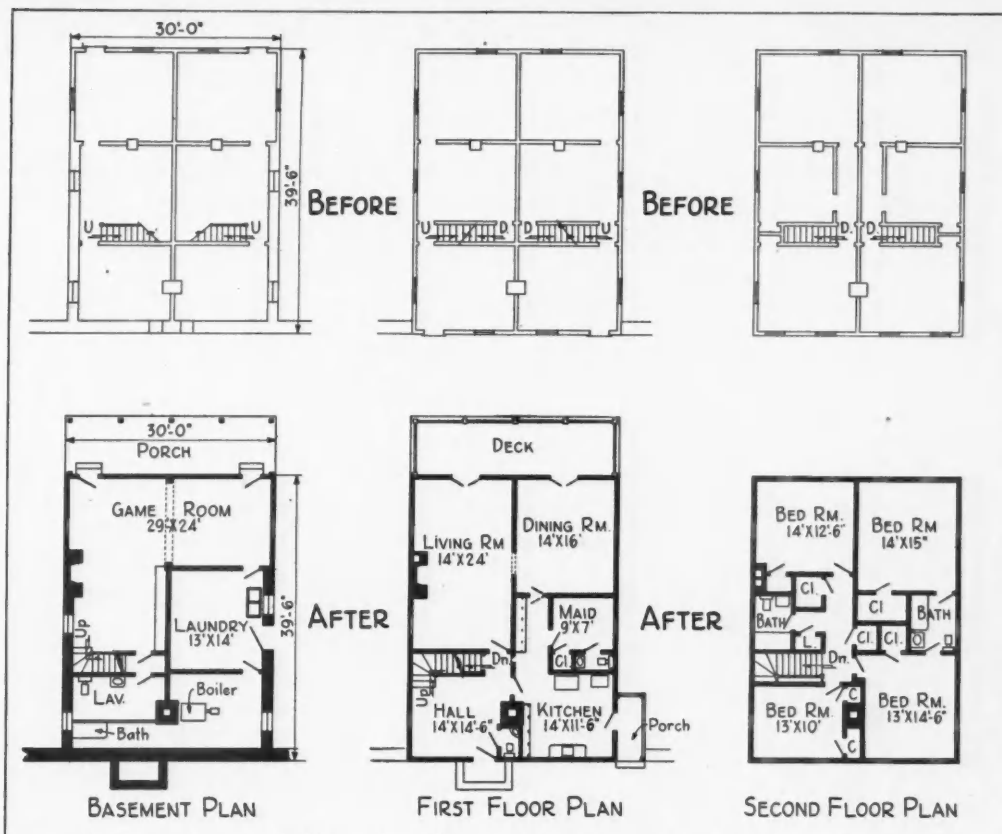


After

THE ancient square type structure above was modernized into the lovely Colonial below. Much of the old structure was saved but was completely altered and made to face a different direction.

Floor Plans

BEFORE and after plans of the house below show how to take an old fashioned plan, transform it into a good looking modern house. The before plan at top is typical of many of the old Dickeyville houses and is the same as the old house on the opposite page.



Before



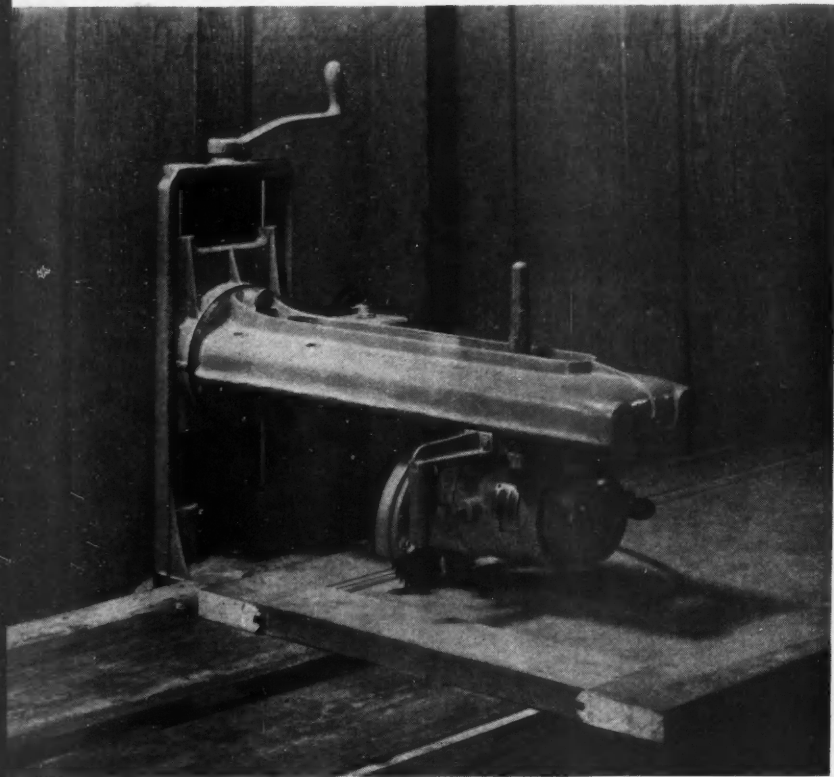
houses. The manner in which the awkward rectangular arrangement was transformed into livable, quaint colonial homes is interesting and illuminating. The modernized structure is provided with remarkable spacious quarters.

Modernization of Dickeyville suggests great possibilities for builders and real estate men in other communities. The venerable trees and shrubbery of this town, as well as its quietness, historic setting and rural comforts cannot be reproduced in any modern subdivision. By obtaining complete control of the town and subjecting it to a systematic rebuilding and modernization, the builders are able to make all of these lovely settings available to home owners together with comfortable modern homes at very low cost. There is much to be said for the claim of Arthur Lee Hoff and associates, "Dickeyville—the most interesting development in America."

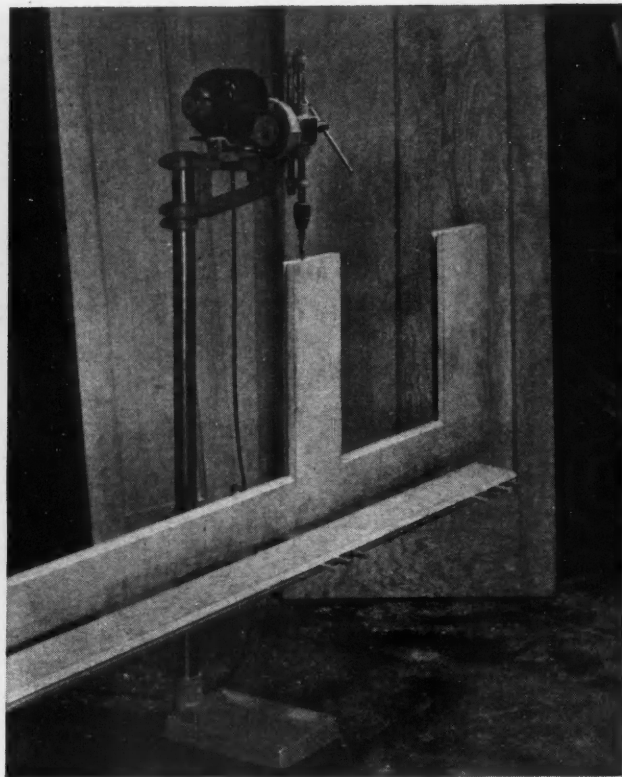
After

THIS modernized Dickeyville home is a commodious Colonial with great charm. Basic frame work of the old structure was retained but the house is given modern livability. The quaint Colonial character of the community was retained in all of the modernizing operations.





Step 1—Ripping off the stile



Step 2—Drilling out dowels from rails

Old Style Doors Modernized With Po

Simple Method for Cutting Down Doors from Standard Stock Sizes Developed. No. 7 in a series of Articles on Cost Cutting Methods with Modern Power Equipment

THE on-the-job photographs above illustrate how C. L. Ibsen, sash and door wholesaler of Chicago, recently rebuilt, through use of an up-to-date electric saw and drill, 1200 two-panel doors which had gone out of style.

The method used by Ibsen is interesting to builders, as well as dealers and sash and door men, because it shows how standard stock doors can be cut down or changed at low cost to meet special conditions.

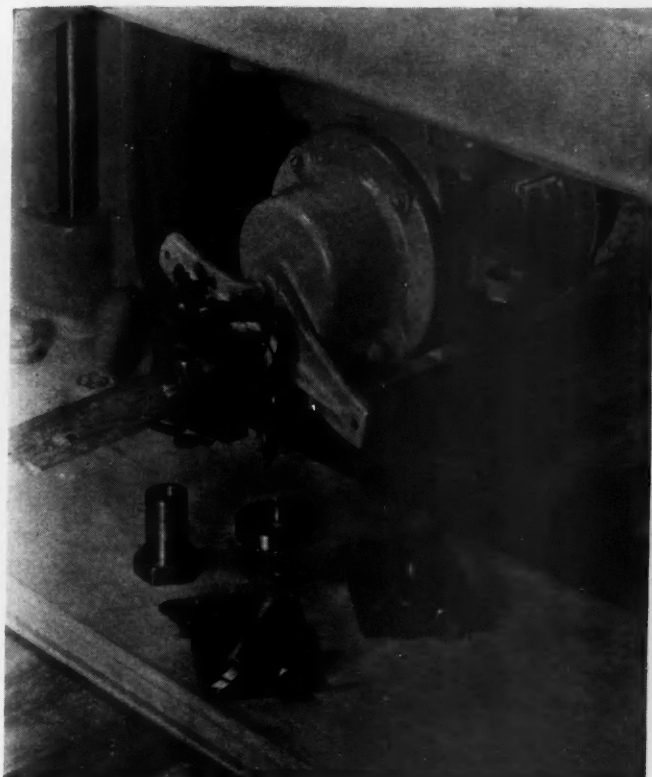
The 1200 two-panel doors had been held by the Ibsen Company for some years and had gone out of style. The original cost ranged from \$7 to \$12, but because they were too old style their value had depreciated so that they were carried at an inventory of \$1.75 each. By the simple process of changing these doors from the old two-panel to the one-panel type

which is now in demand, they made these doors saleable at a cost of less than \$1 per door. In addition to cleaning out old stock, the power equipment enables the company to fill special orders without reordering. Carpenters and contractors who frequently pick up odd size doors would be able to rebuild them in a similar manner.

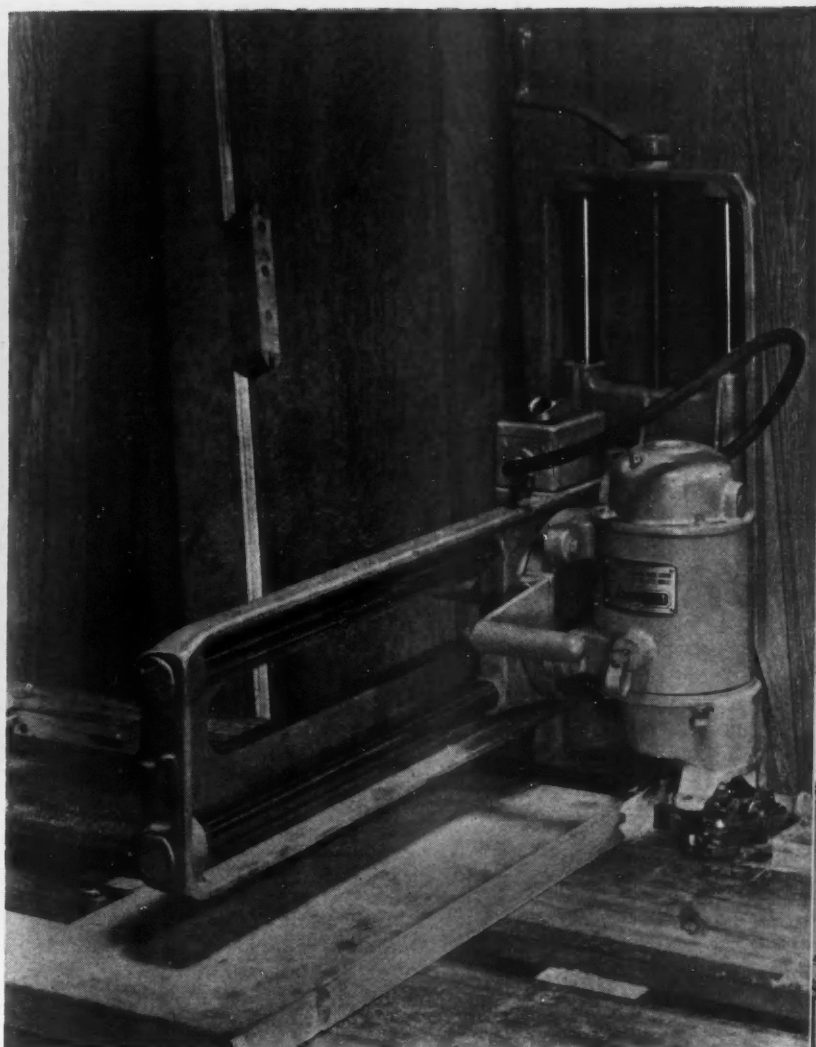
Equipment used by Ibsen on this job was a Wallace No. 1 Radial Saw and a No. 33-F Radial Drill. In step No. 1, above, saw is shown set up with the blade set for ripping off the stile. To do the job properly a rigid and accurate table, preferably of two-inch hardwood, should be built. It should be 20 inches wide, with a one and one-half inch fence at rear, and should be 14 feet long or twice the length of the longest door likely to be used.

The motor drive unit of the saw is set at the proper distance from the fence to cut off the stile and enough other material to reduce the door to the desired width. The operation is performed easily and quickly but must be done with care, using a hollow ground blade to prevent fraying edges of the doors, especially when they are of veneer.

In step No. 2 the door is shown in position for drilling out the old dowels which were cut off in the sawing operation described in step 1. The method adopted may be suited to the nature of the job. If only a few doors are involved, the simplest way would be to



Step 3—Setting up double cope head



Step 4—Coping the rails

Power Equipment

use a three-eighths inch drill to take the center out of the dowels and then clean out the holes with a chisel. Where there are a large number of doors to be made over, a special jig should be made which can be clamped on the rail to hold it in exact position for drilling out the full size hole. With a properly built jig it is possible to get the holes exactly in line and square in every way, with a minimum of trouble.

The stile which was cut off the door should, in the meantime, be prepared for its new use by cleaning off the old material, leaving the dowels projecting, as shown in the photograph.

In step No. 3, illustrated above, the drive unit of the power saw has been shifted at a right angle to the previous position. The saw blade and guard has been removed and a special two-part cope head attachment fitted to the spindle. The knives which are furnished for this cope head are shaped on one end to cut a one and three-eighth inch door and on the other end for a one and three-quarter inch door. Care should be exercised to set these so they will cut the required cope accurately. Since there are slight differences in the shape of the copes on many doors, it is sometimes necessary to touch up the knives slightly to fit a particular job exactly.

In the illustration of step No. 4 the drive unit of the radial saw is shown rotated to a vertical position. The head is in the proper position to cut the copes in

the rails to fit the stiles as they were in the original door. The fence on the saw table has been cut out as shown in the illustration to allow passage of the cope head.

In step No. 1 the door was cut off at the right width so that it is not necessary to cope the edges of the stock. The knives will project into it just enough to clean up. In the illustration of step 4, all of the cuts have been completed, and the door is entirely to the left of the head.

It is estimated that a careful workman of average mechanical ability can set up the two machines needed for a job of this type and turn out a remodeled door in less than an hour's time.

The striking results achieved by the Ibsen Company in cutting down and remodeling their 1200 doors serve as striking indication of the possibilities and cost saving and money making uses of power equipment. The cost of the power saw and drill used on this job, complete with such special equipment as the double cope head, coping knives and cast iron stand for the saw, as well as the mortising attachment for the drill, runs well under \$300. For the carpenter or builder, as well as the sash and door man, such an investment will more than pay for itself if used in an intelligent way. The demand for lower building costs, coupled with recent increases in labor costs, makes use of modern power equipment extremely important.

Good Materials and Construction Now Used in Service Stations

Substantial Structures of Good Design Are Replacing Outmoded Gas Shanties

FOLLOWING a period when the selling of gas to motorists merely required pump facilities and any type of building to shelter the attendant and his meager equipment, service stations of today have become as efficient and carefully planned as the cars which they serve. Competition has acted as a spur to better merchandising and consequently this field of retailing has developed selling units which are thoroughly planned in every detail.

The structure shown on these pages, which presents one of the finest of the independently owned service stations, was recently completed for Stephen Shimonek, Inc., in Wilmette, Ill., a high class Chicago suburb. It is reported to be the best constructed station of its size in the country, and incorporates many unusual design and construction features.

In design this station is well adapted to the neighborhood served. The mass of the central tower gives the building a commanding appearance. On the second floor the owner's office is located directly above the first floor waiting room. The service area is well lighted from all



CENTRAL tower has waiting room on first floor and owner's office above.

sides and has a clear floor area 50 x 50 feet since there are no bearing columns, the span being supported by two 30-inch I-beams.

Exterior wall surfaces are limestone carefully selected in full range of color; Ludowici handmade roof tile were chosen in shades of red and brown. Fenestra casements throughout are glazed with 1/4-inch plate. The three large service doors operate with Barber-Colman upward-acting type equipment.

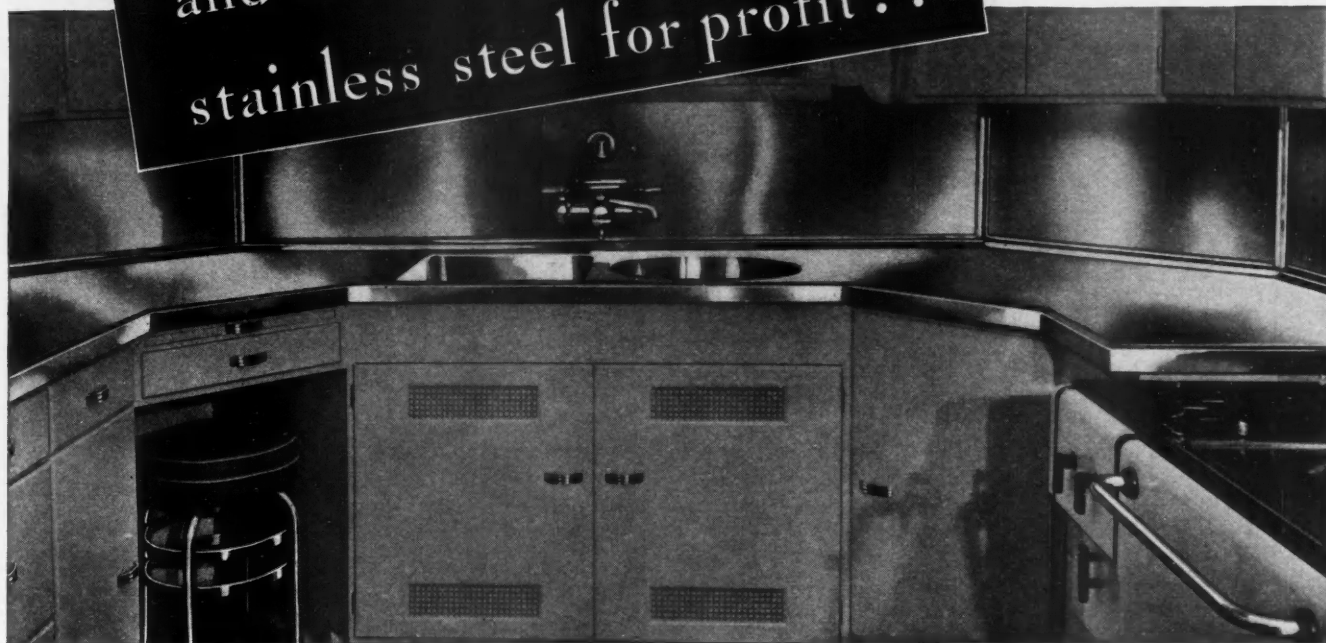
The drives and approaches have been particularly well



IMPRESSIVE service station built in Wilmette, Ill., is planned for high operating efficiency; wide approaches and large driveway areas allow easy access. Walls of selected limestone ashlar and handmade tile roof indicate the quality construction found throughout.

Leading hotels, restaurants
and stores use **ENDURO**
stainless steel for profit . . .

Licensed under Chemical Foundation
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"What's sauce for the goose is sauce for the gander." ENDURO Stainless Steel in the houses you build for sale or rent will increase profits for you, too. It is attractive and eye-appealing—clean and sanitary—tough and strong—resistant to corrosion—and its beautiful finish lasts indefinitely. The only cost is the first cost—it never needs refinishing or repair. Fabricators experience no difficulty in working it.

See Sweet's Catalog or write us for detailed information on ENDURO Stainless Steel.

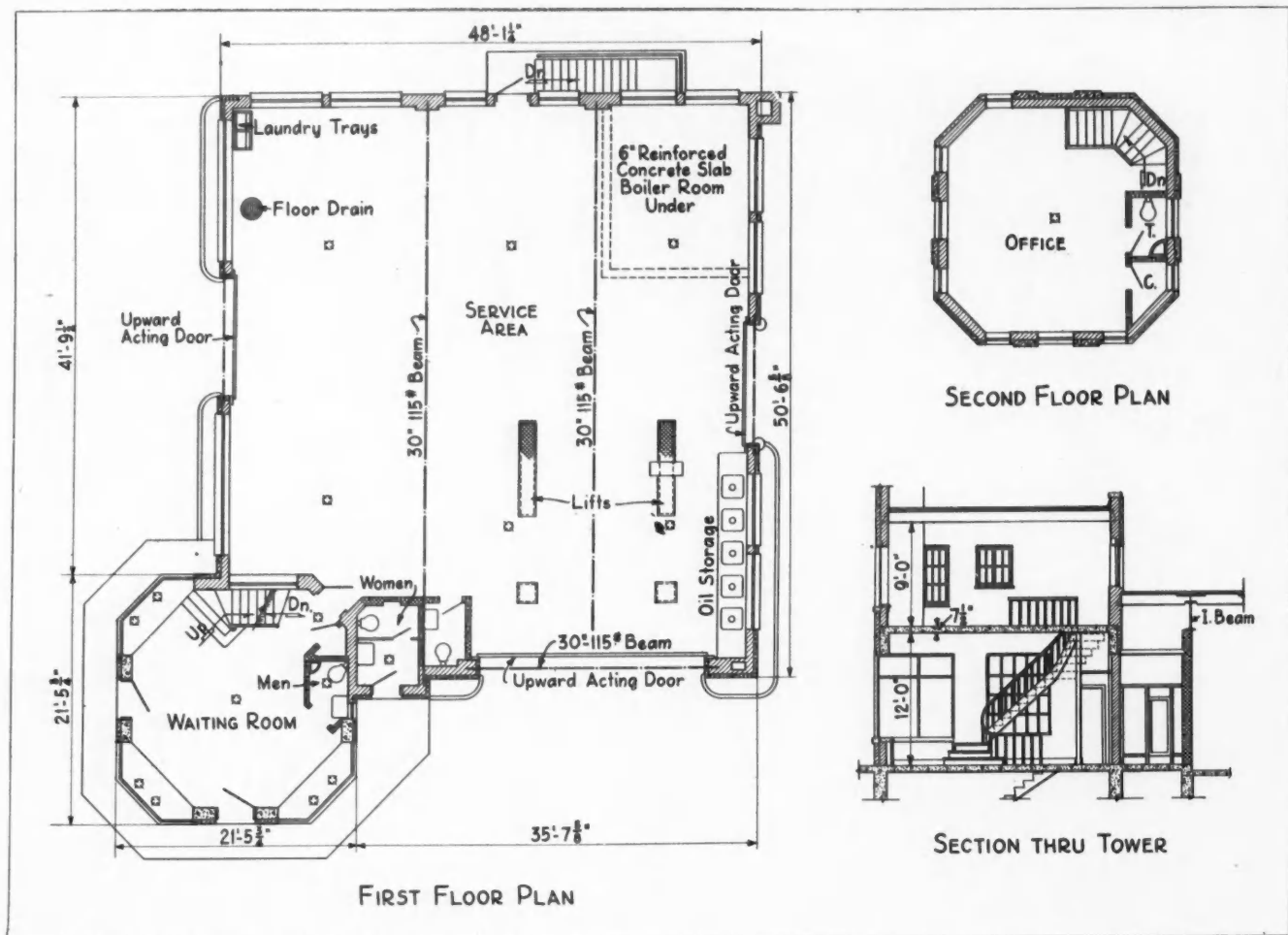
A FEW SUGGESTED USES FOR **ENDURO** STAINLESS STEEL IN THE HOME

- Air Conditioning Equipment . . .
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GOOD arrangement of toilets and equipment is shown in plan; below, plenty of windows light large, clear service room.

laid out and built. Combined width of the four approaches totals 275 feet for easy drive in; the area covered with driveways amounts to 20,000 square feet. These slabs are six-inch reinforced concrete laid over a six-inch layer of clean lake sand. During the severe winter of 1936 they showed no cracking. The storage tanks are also imbedded in lake sand to prevent corrosion. All piping under drives is laid in sewer tile conduit which, together with access through removable slabs, allows for any future replacement without breaking concrete.

Four toilet rooms provide adequate facilities for

patrons, shop and office. Concealed radiation is used in waiting room; the shop is heated by American Radiator suspended unit heaters. An 8,000 gallon car tank holds crank case and transmission drainage which furnishes a year 'round supply of oil to fire the Pacific steam boiler for heating and hot water requirements.

The footings and walls were built to support the weight of a second story as planned for future expansion. W. C. Huggins was supervising engineer and R. A. M. Anderson, the architect. Total cost of this well built and designed service station was about \$45,000.

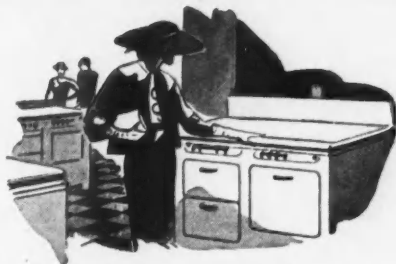


GAS—THE COMMON-SENSE CHOICE

for kitchens you want to stay modern

LIVABLENESS—the intangible quality that is the keynote of modern home design—takes tangible form, comes into the kitchen to *stay* when you specify up-to-date gas appliances.

For their very simplicity virtually guarantees long, trouble-free service from today's gas ranges and refrigerators. The proved economy and dependability of gas have already made it the established fuel in 15,000,000 homes. These time-proved appliances are as attractive in appearance as they are efficient in operation—and continuous development has given them a



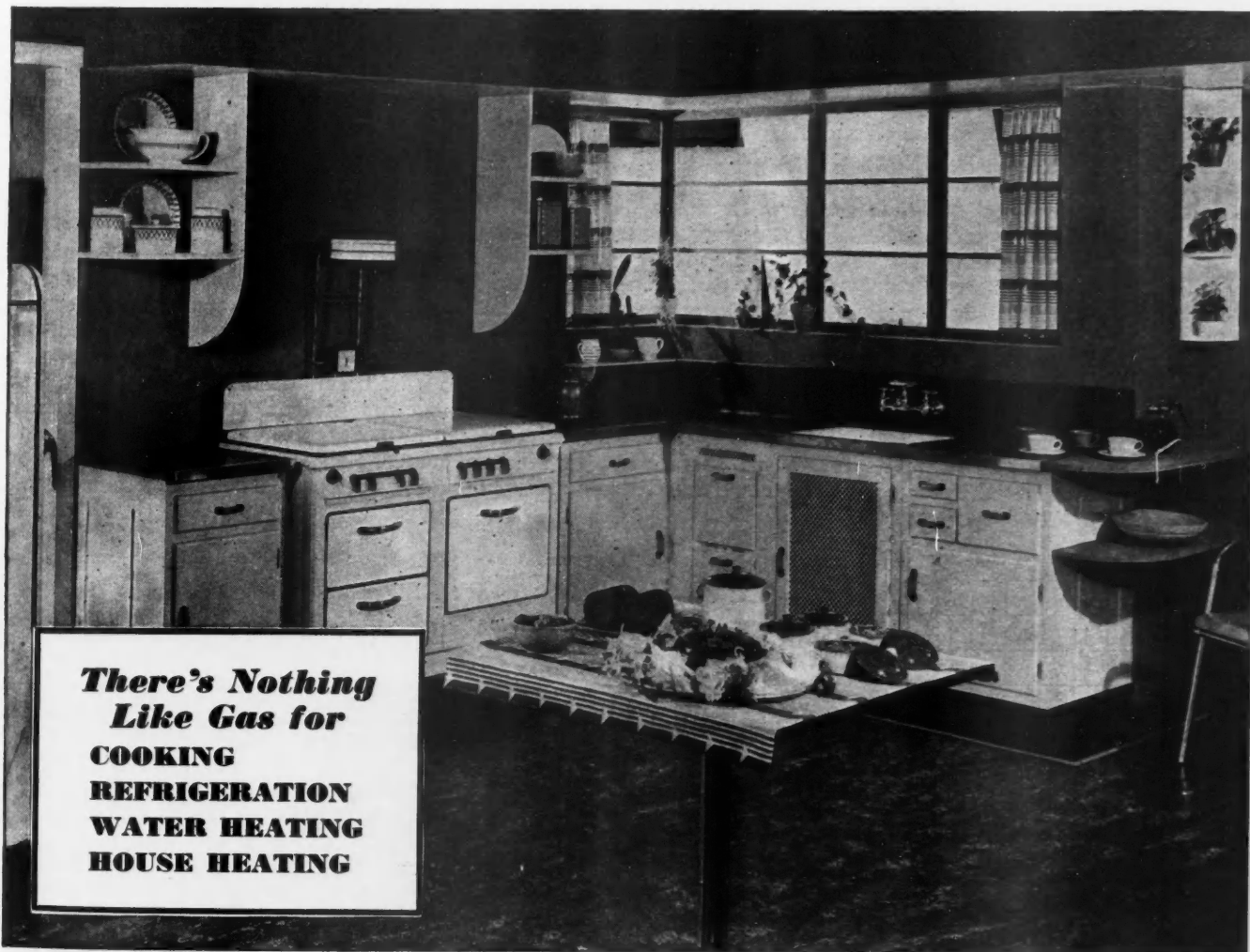
measure of *convenience* undreamed of ten, even five years ago. Automatic lighting, dependable oven heat control, and effective insulation make the gas range of today an economical and *speedy* servant rather than a task-master. And for truly silent, dependable operation, the gas refrigerator is unsurpassed.

This same time-tested dependability

plus the important advantage of truly effortless convenience extends to automatic gas equipment for water-heating and house-heating. And, in addition to its many other advantages, gas brings definite economies to homes completely equipped to use this perfect fuel for every heating need. Your local gas company will gladly cooperate with you in the selection and installation of up-to-date gas appliances.



**AMERICAN
GAS ASSOCIATION**



**There's Nothing
Like Gas for
COOKING
REFRIGERATION
WATER HEATING
HOUSE HEATING**

Model planned kitchen from an advertisement in the Gas Industry's "Modernize Your Home With Gas" campaign in national magazines of 14,000,000 circulation.

Fire Resistance of Open Web Steel Joist Construction

THE fire resistance of construction materials is a subject that has engaged the attention of our European neighbors for a period of over fifty years but it was not until 1905 that serious attention was given this important matter in the United States. In that year a committee of the American Society for Testing Materials was appointed to study the subject and two years later presented the first fire test specification of that society. The specification has been modified from time to time as progress occurred in the art of fire-testing and is today known as Standard Specifications for Fire Tests of Building Construction and Materials, A.S.T.M. Designation C19-33. This specification is the commonly accepted "yardstick" for measuring the fire resistance properties of construction materials.

As applying to floors and roofs, the standard fire test specification provides that the panel, with its applied load, shall be submitted to a fire and water test. Before the application of the hose stream, the furnace temperatures must be in accordance with the standard time-temperature curve as shown in Fig. 1. The conditions of acceptance impose the following requirements:

(a) The construction shall have sustained the applied load during the fire endurance test without passage of flame or gases hot enough to ignite cotton waste, for a period equal to that for which classification is desired.

(b) The construction shall have sustained the applied load during the fire and hose stream test, without passage of flame or gases hot enough to ignite cotton waste, or of the hose stream, and after cooling but within 72 hours after its completion shall sustain a total load equal to the dead load plus twice the superimposed load.

(c) Transmission of heat through the construction during the fire endurance test shall not have been such as to raise the temperature on its unexposed surface more than 250°F. (139°C.) above its initial temperature.

Tests by Columbia University Show Fire-safety of Typical Open Web Steel Joist Floor . . . Results Confirmed in Actual Fire at Midwestern Hospital

By **JAMES A. SCHAD**

Engineer, Steel Joist Institute

Since 1911, a number of fire tests on steel joist floor construction have been conducted. Some of these were tests carried out for individual manufacturers, while others were official tests made for various building departments. In May, 1932, a fire test was conducted by Columbia University for the Steel Joist Institute on a typical open web steel joist floor. In this test, the joists, covered with a 2" top slab of concrete, were fireproofed on the under side by means of an attached metal lath and gypsum plaster ceiling and the construction subjected to a fire endurance test in accordance with the above mentioned standard specifications for fire tests.

The floor area exposed to the fire was 14'x20' and formed the roof of the test house. The construction consisted of 12" steel joists (Steel Joist Institute Designation SJ 123) 15" on centers and spanning 20'-4" center to center of supporting steel I-beams. At each end, the joists rested on the upper flange of an 8" I-beam and were attached to it by beam anchors. Each I-beam was secured to the masonry wall of the test house by four 1/2" bolts framed into 6"x6"x3/8" anchor plates.

Two lines of standard diagonal bridging were used for lateral support of the joists. The reinforcement and

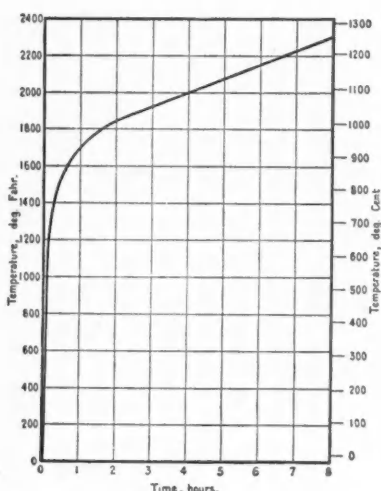


Fig. 1—Time-temperature curve.

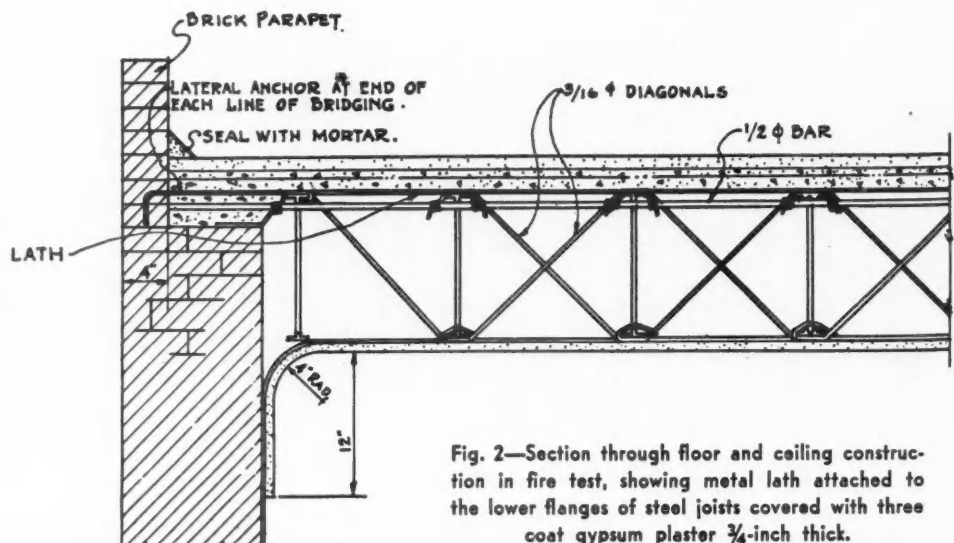


Fig. 2—Section through floor and ceiling construction in fire test, showing metal lath attached to the lower flanges of steel joists covered with three coat gypsum plaster 3/4-inch thick.



Sales Helps that Help you Increase YOUR ROOFING BUSINESS

Here in one complete 16-page folder are actual samples and representations of the comprehensive product literature Barrett supplies its roofing dealers. Included are beautiful, full-color folders on Barrett Shingles, Roll Roofings and Sidings, an assortment of attractive letterheads for dealer use, blotters, post-cards, envelope stuffers . . . the kind of material dealers find unusually helpful in promoting sales.

Barrett's product literature folder is typical of the completeness of Barrett's "5 out of 10 Profit Plan" which is the talk of the industry. Other folders present result-getting direct mail campaigns, the Barrett Farm Building Plan Service, newspaper advertising, telephone solicitation service, sound-slide film presentations . . . all the selling tools you need to cash in on today's unmatched opportunity to sell roofs.

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Fig. 3—Fire at a mid-western state hospital. Building in center foreground with roof burned off was saved because its floors were of fire resistive open web steel joist and concrete slab construction. Adjacent buildings not so protected were consumed.

centering for the floor slab consisted of $\frac{3}{8}$ " 4.0# rib lath placed across the top flanges of the steel joists and attached to them. The floor slab for half of the panel received a wood finish and the other half a cement finish.

In the case of the wood finish floor, screed chairs $1\frac{1}{2}$ " high were attached to the upper flanges of the steel joists 16" on centers and 1"x2" wood nailing strips were secured to the chairs. The space between the nailing strips was filled in with 2" of 1:2:4 stone concrete which was finished off $\frac{1}{2}$ " below the top of the nailing strips to form a $\frac{1}{2}$ " air space between the wood floor finish and the concrete. Tongue and groove 1"x2" pine flooring was nailed to the nailing strips and formed the finished floor. In the case of the cement finish floor, a 1:2:4 stone concrete was placed over the entire area to a depth of 2" and finished off with a 1:3 portland cement mortar about 1" in thickness. The slab was reinforced with $\frac{1}{4}$ " round bars spaced 12" on centers in each direction.

The plaster base for the attached fireproof ceiling consisted of $\frac{3}{8}$ " 3.4# rib lath fastened to the lower flanges of the joists. The fireproofing material was a three-coat gypsum plaster applied to the metal lath. The thickness of the plaster was $\frac{3}{4}$ ". A transverse section through the floor and ceiling construction above the fire is shown in Fig. 2.

All temperatures during the fire test were measured at frequent intervals by means of thermocouples. During the test, the floor was loaded with pig iron equivalent to a uniformly distributed load of 75 lbs. per sq. ft. The temperature of the fire was increased in accordance with the standard time-temperature curve, Fig. 1.

At the end of 30 minutes of fire, an average furnace temperature of 1553°F. had been reached, and the temperature of the lower flanges of the steel joists had increased from an average of 58°F. to 222°F. At the end of the first hour of fire, the average furnace temperature had reached 1745°F. at which time the average temper-

ature of the lower flange of the joists had reached 516°F. and the average temperatures of the upper surfaces of the floor were 140°F. and 149°F. for the wood and concrete floors respectively. During the second hour of firing, the temperature of the furnace rose slowly in accordance with the standard time-temperature curve and reached an average of 1882°F. at the end of two hours, at which time the average temperature of the lower flanges of the steel joists reached 878°F. and the average temperatures of the upper surfaces of the floor were 173°F. for the wood floor and 205°F. for the concrete floor.

The fire was kept burning for two hours and thirty-five minutes, reaching an average maximum of 1918°F. After two hours and thirty minutes of fire, the lower flanges of the steel joists had reached an average temperature of 966°F. and the average temperatures of the upper surfaces of the floor were 188°F. and 229°F. for the wood and concrete floors respectively.

At the end of two hours and thirty-five minutes of fire, a hose stream was applied to the underside (ceiling side) of the floor. The water completely washed off the plaster over about one-quarter of the area of the ceiling. Over the remaining area, only some of the brown and finish coat was removed by the water and considerable areas remained over which the plaster was intact except that it was completely calcined and checked in all directions.

The results of this test can be summarized as follows:

- (1) The test floor was subjected to a fire exposure lasting two hours and thirty-five minutes in accordance with the standard time-temperature curve.
- (2) The intensity of the fire exceeded the requirements by 1.32%.
- (3) The floor sustained the applied load during the fire test without the passage of any flame or gases.

(Continued to page 94)

DETROIT
lives in the
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DUCTS

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and home bu
coal or co

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THIS IS THE SIGN...



OF A HOME THAT SELLS



DETROIT, MICH.: Julius Nachman, builder, lives in this house he built. "I have found these systems by far the most satisfactory. When the temperature dropped to 6 or 7 below zero we didn't even know it was cold."



DETROIT, MICH.: Kitchen Building Co., Inc., through one advertisement featuring these systems, had fifty callers the first Sunday, six prospects and one immediate sale. They say: "We have had nothing but favorable comment."



ST. LOUIS, MO.: "The most satisfactory method of winter air conditioning from a standpoint of first cost, maintenance and permanence"... says Sam Rosen, St. Louis builder of fine homes.



TEANECK, N. J.: Homes of Tomorrow draws record crowds through newspaper advertising featuring new American Radiator Conditioning Systems... sold 9 houses in one month, many families paying extra for the extra advantages of Arco Air Conditioning.



ST. PAUL, MINN.: Because it "provides radiant heat so often demanded, eliminates objections to radiators, meets the demand for air conditioning," builder T. F. Chapman selected American Radiator Conditioning System for this home.

BUILD YOUR HOMES AROUND A SELLING POINT...

AMERICAN RADIATOR CONDITIONED COMFORT

THESE five builders who use American Radiator Conditioning Systems say, "Homes sell faster when the prospect sees this sign." He knows it's a sign of a home that's built for comfort. He knows it means dependability, reputation, lasting value — and all the comfort features that he wants and needs.

American Radiator Conditioning

Complete new American Radiator Conditioning Systems provide fresh air ventilation... humidification... air cleaning... air circulation... sun-like radiant heat... controlled heat distribution... year 'round domestic hot water... and a powerful selling point for you!

Systems will help you sell your homes too. For they give not only air conditioning, but sun-like radiant heat and automatic summer-winter hot water. All this is backed by nation-wide ad-

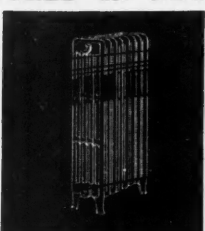
vertising. The sign above is part of a complete merchandising plan that is bringing profits to builders now. Before you build another home it will profit you to mail the coupon and get the facts.

AMERICAN RADIATOR COMPANY
DIVISION OF AMERICAN RADIATOR & STANDARD SANITARY CORPORATION
40 West 40th Street, New York, N. Y.

PRODUCTS FEATURED IN NEW AMERICAN RADIATOR CONDITIONING SYSTEMS



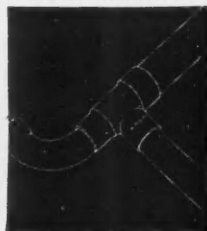
Boilers for the home burn oil, coal or coke.



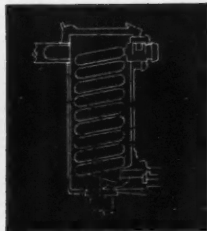
Arco Radiators and Convectors, space-saving, smart, efficient.



Arco Air Conditioner, the air conditioning part of the system.



Arco Copper Pipe and Fittings for heating as well as plumbing.



Domestic hot water... can be part of every system.

GET THESE FACTS
USE THIS COUPON

American Radiator Company
51 West 40th St., New York, N. Y.
Tell me how American Radiator Conditioning Systems will help me sell my homes.

Name _____
Address _____
City _____ State _____
A. B.-11-36

TEN IN! American Radiator Fireside Recital... every Sunday 7:30 P.M. E.S.T. WEA-F-NBC Network

SHOPCRAFTER'S Corner

Things To Build for Profit or Pleasure

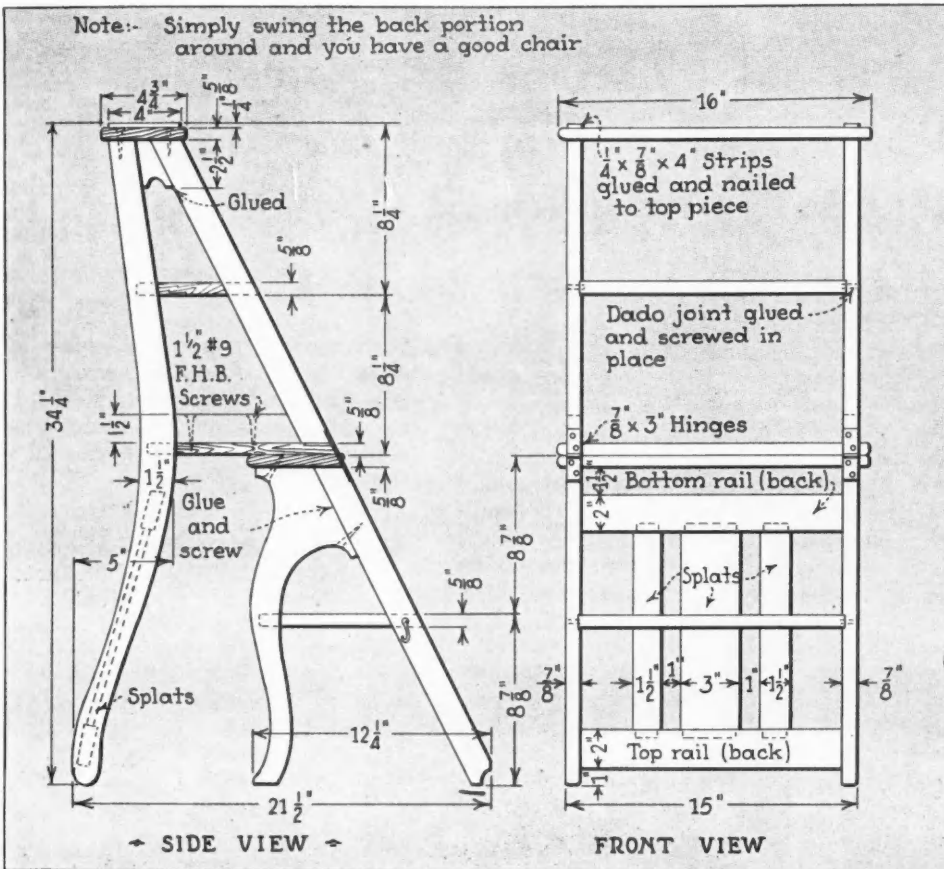
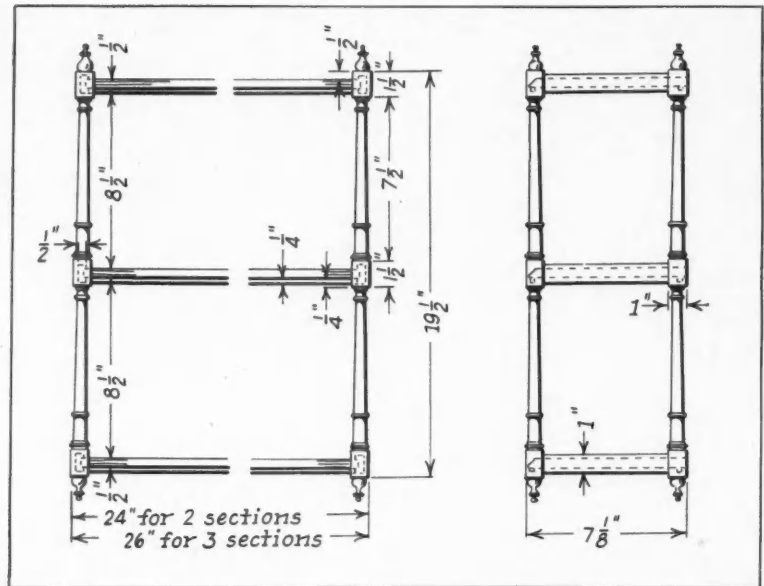
THE Shopcrafter's Corner this month turns to items of indoor interest now that the winter and holiday seasons are ahead; two projects suitable for the builders' use, as gifts or for profitable sale, are presented.

For the attractive, well proportioned wall bookrack, mahogany or walnut are the most suitable stocks. The main part of the posts should be turned in two sections as the vibration while turning in one piece would be excessive; the two sections are held together with a pinned joint, the pin being turned on one of the sections. The ends of the shelves are dadoed into crosspieces which are doweled to the square portions of the posts; 1/4-inch square strips are glued along the underside of the shelves to give a sturdier appearance. Small turned pieces on the top and bottom of the posts are made separately and glued into place.

The stepladder chair will be found handy around the house and makes a comfortable kitchen chair when not being used for its other

purpose. Odd pieces of lumber, preferably hardwood, can be utilized. All necessary dimensions are shown in the drawings at the bottom of the page; it is suggested that a full-sized layout of the side view be made to determine the correct angles and curves.

ATTRACTIVE hanging bookrack, decorative and useful in any home or apartment, is detailed in the drawing at the right. Design from Edward F. Worst.



AT THE LEFT, construction drawings show how to build a handy combination stepladder and kitchen chair, converted by swinging the upper part over and fastening with the hooks. Design from "Things to Make for the Home," William W. Klenke—Manual Arts Press.



Memo Re: BUILDER'S SUCCESS STORY IN READING, PA.

... For the benefit of progressive builders, Phillips, Mayer & Kershner of Reading, Pennsylvania, permit me to give a fact story of how they made a grand success of their Hollywood development. They think that any builder who is really in earnest about applying modern ideas to his operations can do as well or better.

... They have built some 500 houses in Reading in the past ten years, but they felt that even an old dog might learn a new trick or two. So when Fred Ludwig of the Merritt Lumber Yards, Inc., proposed that they tie up with him and the Reynolds Corporation under the Reynolds Cooperative plan, they decided to give it a trial.

... As a result their first Reynolds Specification House was impressively advertised in the local papers and sold before completion. Since then 24 more Reynolds Houses have been built and sold, ranging in prices from \$8,000 to \$18,000. The plan worked so well that they had to stop taking orders in order to catch up with their construction program.

... Phillips, Mayer & Kershner say that one of the main reasons for their success was that they were able to satisfy public demand for modern houses with Reynolds *Ecod Fabric, *Metallation, Air Conditioning and Metalumber. They also say that never before did they have such support from any manufacturer. And finally they say that they saved not only money but also wear and tear on their nerves by buying all of their materials from the Merritt Lumber Yards, Inc., with undivided responsibility.

... Builders who want to take full advantage of modern merchandising trends as applied to homes can get all the details by writing me. Our policy is to build our own business by building the builder's business.

Very truly yours,

General Sales Manager

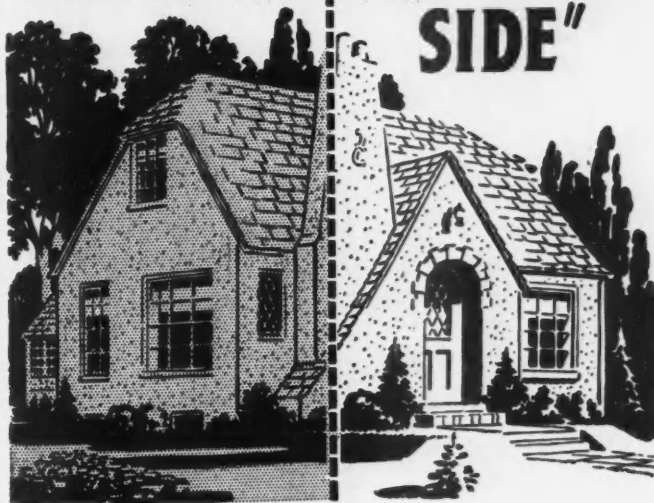
*Trade-Mark Reg. U. S. Pat. Off.

REYNOLDS CORPORATION
19 RECTOR STREET, NEW YORK

In Weatherproofing Stucco and Masonry

It's Important to

**"STAY ON THE ALKALINE
SIDE"**



WHITE ROCK WATER is right. It's wise to "stay on the alkaline side"—in building as well as in drinking. Stucco is alkaline—masonry is alkaline—Bondex is alkaline. No wonder they get along so well together!

Granted that it may be possible to dope a wall with an acid wash to counteract its alkalinity and produce a surface exactly suitable for an acid type of finish coating, why do the job the hard way?

Without any special preparation, Bondex may be applied direct to the original surface and a single treatment (two coats) both beautifies and preserves.

Bondex Also Ideal for Waterproofing Basements

The rainy season brings with it damp basements. Check this unhealthy, unnecessary condition with Bondex.

Send for New Illustrated Folder.

THE REARDON CO.

Chicago • ST. LOUIS • Los Angeles



Reardon's BONDEX
WATERPROOF CEMENT PAINT

Perma Sheen



Kitchen Cabinets topped with Tracy Perma Sheen Deluxe Linoleum Sink having an Enduro stainless steel bowl.

TRACY SINKS AND TOPS LEAD TO QUICKER AND BIGGER SALES

Alert merchandisers and builders know the importance of kitchen cabinets and cabinet sinks in both remodeling and new home sales. A Tracy sink or top adds the final "quality touch" that makes the cabinet and sink unit the "attention centre" of the entire kitchen layout.

Tracy Silvi Sheen Sinks and Tops are custom built to your specifications from Enduro Stainless Steel. They retain their silvery lustre permanently. A damp cloth is all that is required to clean them. They last a lifetime.

The Tracy Perma Sheen (Armstrong battleship linoleum composition) line includes the DELUXE style with Enduro stainless steel sink bowls and stainless steel trim; the IMPERIAL style with acid-resisting porcelain bowls and stainless steel trim. Thirteen attractive linoleum colors are available.

Tracy Silvi Sheen and Perma Sheen surfaces withstand the most severe wear, and cannot chip, crack, or craze.

There's a type of Tracy Cabinet Sink suitable for any home or apartment, regardless of the price class.

Progressive dealers and builders say it pays to capitalize on their utility and growing popularity.

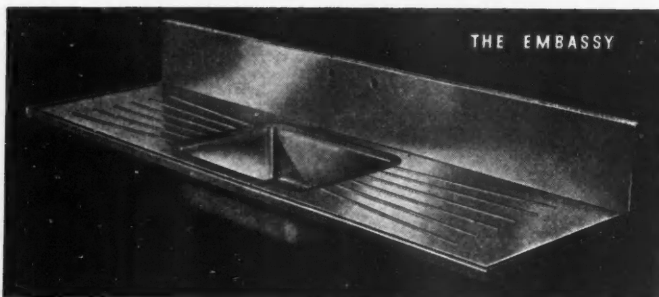
WRITE TODAY FOR NEW TRACY LITERATURE DESCRIBING AND ILLUSTRATING THESE BEAUTIFUL AND UNUSUAL PRODUCTS.

TRACY MANUFACTURING COMPANY

3125 Preble Ave., N. S.

Pittsburgh, Pa.

"FAMOUS FOR CABINET SINKS AND TOPS"



A Tracy Silvi Sheen Enduro Stainless Steel Cabinet sink with back splash and drain grooves.

Silvi Sheen

NEW PRODUCTS

FOR INFORMATION ABOUT any new product write American Builder Information Exchange 105 West Adams Street, Chicago, Ill.

Predesigned Air Duct System

A NEW Gar Wood duct system to carry air to and from the rooms of a home, and composed of predesigned, stock parts has been announced by Gar Wood Industries, Inc., Detroit, Mich. Run-outs from the trunk lines to the grilles of the Gar Wood duct system are limited to four sizes, all a single depth to fit a standard two-inch by four-inch partition. These sizes are maintained for the entire run without transformation.

Every trunk line is standardized. By means of a newly developed method of trunk design, the number of stock parts required has been reduced to one standard sized panel for each depth. If a single depth trunk is used, there is only one part employed.

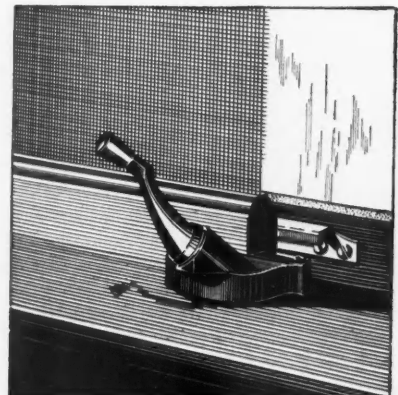


WORKMEN installing air duct system using stock parts.

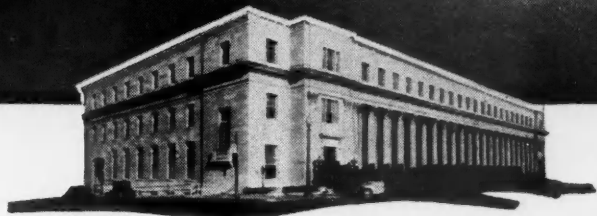
Wood Casement Window Operator

A NEWLY designed angle drive operator for wood casement windows is being manufactured by the Casement Hardware Company, 406 N. Wood St., Chicago, under the trade name of "Win-Dor." It works through the screen. The drawing shows the screen cut away in order to see the operator channel which is fastened to the casement. The inside screen is simply notched at the place where the operator fits halfway into it. The distance required between the screen and the window is 1½ inches.

This new operator is especially convenient for opening, closing and automatically locking wood casement windows where wide inside stools are used. It is also made adaptable for attaching to marble, tile and concrete window sills. The operator is reversible and fits any sash 15 inches wide or wider.



DRAWING with section of screen cut away to show how casement window operator channel is attached to sash; screen is notched around angle drive.



Supervising Architect, U.S. Treasury Dept. General Contractor and Plasterer, The Weitz Company, Inc.

OHIO WHITE and RITEWALL

Lime Plaster
for TULSA POST OFFICE

● Going up—all over America—more fine buildings which utilize the advantages of Ohio Hydrate Lime for plaster work. Ohio White Finish and Ohio Ritewall for basecoats, used in plastering the Tulsa, Oklahoma, Post Office, are highly plastic, cool, quick-spreading limes. Ideal for bright white walls and as a decorating base. All Ohio Hydrate Lime is 99½% pure dolomite, quarried in the world's lime center. Write for 12-page book, "Lime for Masonry Mortar and Concrete"; also 16-page book, "Lime for Plaster and Stucco." The Ohio Hydrate & Supply Company, Woodville, Ohio.

OHIO PRODUCTS SOLD EVERYWHERE IN FAMOUS ZIG ZAG BAGS
Ohio White Finish—Hawk Spread White Finish—Ohio Ritewall Fibered Lime Plaster—Ohio Sanlime Finish—Mastite Masonry Mortar—Ohio Masons Lime—Ohio Ground Lime.

Original **OHIO WHITE**
LIME FINISH

**WHAT
SAW
DO YOU SEE?**



How does the saw behave that cuts the building items on your jobs? Does it bind, wander, or cut slowly? Leave a ragged, fuzzy edge as it labors across the piece? Dull quickly?

Or does it sing through the wood, hew to the line do a clean-cut job in a few moments time? If that's the saw you see, the chances are you are using Idaho White Pine, Ponderosa Pine, or Sugar Pine.

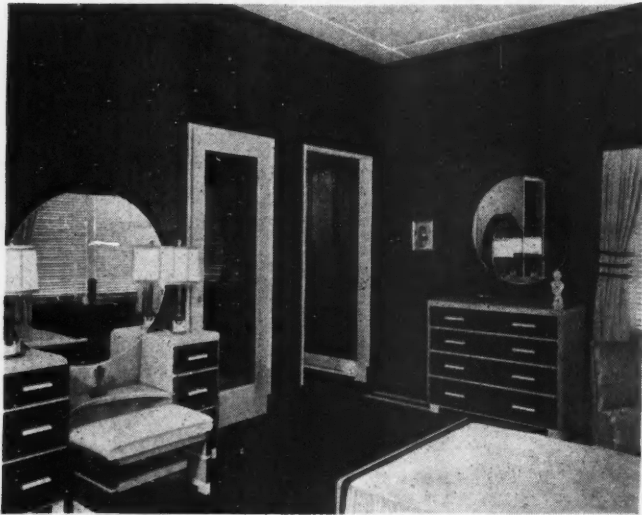
For it is the ease with which these Western Pines can be worked, the time they save on the job, that commend them so highly to builders, contractors, and owners. You can put them to a hundred and more uses with a firm conviction that they will do every job well.

There is a grade of these Western Pines particularly adapted to any of the many uses for which a softwood is desirable. Send for illustrated booklet, "Western Pines." Address Dept. B-12, Western Pine Association, Yeon Bldg., Portland, Oregon.

WESTERN PINES
Idaho White Pine • Ponderosa Pine • Sugar Pine



"I'm proud of
our beautiful
MASONITE
walls!"



From a woman's point of view, Genuine MASONITE Products are ideal building materials. They offer her beautiful, durable walls and ceilings that are easy to clean . . . easy to keep looking their best. And if she wants a change of color now and then, MASONITE Products can be painted or enameled by a regular painter. The handsome bedroom shown above has walls of MASONITE QUARTERBOARD with a dull paint finish. The grooved design gives an unusual large-slab effect. The ceiling is surfaced with MASONITE QUARTERBOARD and MASONITE STRUCTURAL INSULATION painted white.

"And I'm proud
of the money
we saved with
MASONITE!"



Men prefer MASONITE Products because they produce expensive-looking effects at unusually low cost. They are easy to install . . . reduce time and labor charges. They are moisture-resisting and, properly applied, will neither warp nor crack. MASONITE INSULATION, used as sheathing or for exposed surfaces, reduces fuel bills . . . adds strength to the building.



MASONITE

THE WONDER WOOD OF A THOUSAND USES
SOLD BY LUMBER DEALERS EVERYWHERE

Want to know more about Genuine Masonite Products?
Just mail the coupon below and we'll send FREE samples and additional information.

MASONITE CORPORATION, Dept. AB-11
111 W. Washington Street, Chicago, Illinois
Please send me FREE samples and further details about
Genuine MASONITE Products.

Name _____
Address _____
City _____ State _____

Decorative Indirect Lighting Fixture

A BEDROOM and sun parlor lighting fixture featuring new modern design in indirect illumination is being made by Lightolier Company, Jersey City, N.J. Decorated with sprays and drops of crystal balls which sparkle with brilliance, it adds an atmosphere of luxury to the room. A "Cheerio" glass bowl blends with the toned white and gold finish. There are three lights, and the fixture hangs 15 inches from the ceiling.

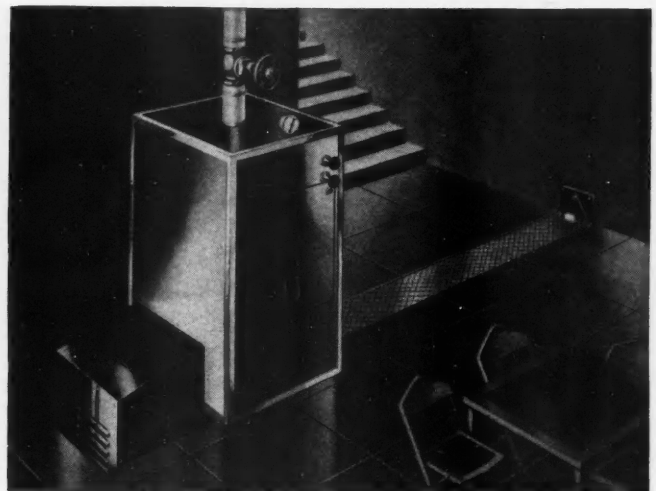


MODERN, indirect lighting for bedroom or sun parlor.

Bin Feed Kolstoker

THE Anchor Bin Feed Kolstoker, recently announced by the Anchor Stove and Range Company of New Albany, Ind., feeds the coal automatically from coal bin to burner, ending the personal handling of coal in the home.

This model is furnished in either the draw conveyor or the drive conveyor type. In the draw conveyor type, the screw conveyor draws the coal from the bin and conveys it under the floor through the feed tube to the burner; in the drive conveyor type, the power unit of the stoker drives or pushes the coal from the bin toward the boiler. The stoker power unit is located behind the bin. The bin itself functions as a gigantic hopper, holding several weeks' supply, as compared with ordinary several days' supply.



STOKER installation showing draw feed from bin to boiler.

Gar Wood

TEMPERED-AIRE



DOES A PROFESSIONAL JOB



An increasing number of architects and builders prefer Gar Wood Tempered-Aire air conditioning because of the thoroughly professional manner in which it is engineered into each home and, in consequence, the thoroughly professional job of air conditioning that results.

Gar Wood Industries assume full responsibility for the correct functioning of their air conditioning systems. Field engineers, operating out of branches and distributors' organizations, work with architects and builders, from the very framing of the house, through the layout and installation of the system, placing their vast experience at your disposal on each and every job.

Write for details, which should be in the office of every architect who has domestic heating and air conditioning problems.



Field engineers make an exact layout for every Tempered Aire installation.



They also supervise every step of the installation work.



They leave the job only when the unit is ready to operate.



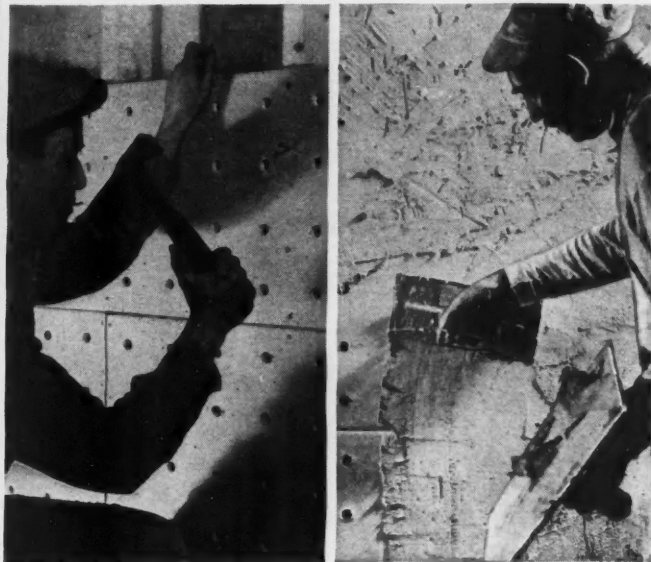
The result is a professional job of air conditioning and satisfied owners.

AIR CONDITIONING DIVISION
GAR WOOD INDUSTRIES, Inc.
DETROIT * MICHIGAN

PERFORATED ROCKLATH

THE FIREPROOF LATH

Has Unique Plastering Surface
PLUS
Extraordinary Fire Resistance



■ Perforated Rocklath* has four outstanding advantages: 1, It's easier to plaster over. 2, It holds plaster with a double grip. 3, It's made of gypsum. 4, It's fireproof as gypsum is fireproof.

At a test conducted at the U. S. Bureau of Standards a Perforated Rocklath partition, plastered with one-half inch of Gypsum Cement Plaster, was shown to have qualified for a one-hour fire rating.** Perforated Rocklath gives this remarkable protection at the low cost of gypsum lath.

WHY PLASTERERS PREFER PERFORATED ROCKLATH

The perforations in Perforated Rocklath are part of the reason for its stout resistance to fire. These same perforations help the plasterer to do a better job — they "slice" the plaster from the trowel. The plaster "keys" through the perforations. Plasterers say they like the new feel of plaster gripping the lath.

PROVED — BY 3 YEARS' USE IN WEST

Perforated Rocklath has been used for three years on the Pacific Coast. Millions of feet are now protecting thousands of homes against the dangers of fire.

Perforated Rocklath is patented and manufactured exclusively by the United States Gypsum Company. Readily identified by the USG label. Available everywhere through USG dealers. Mail coupon today for free large sample.

* Trade-mark

** Complete information on request.

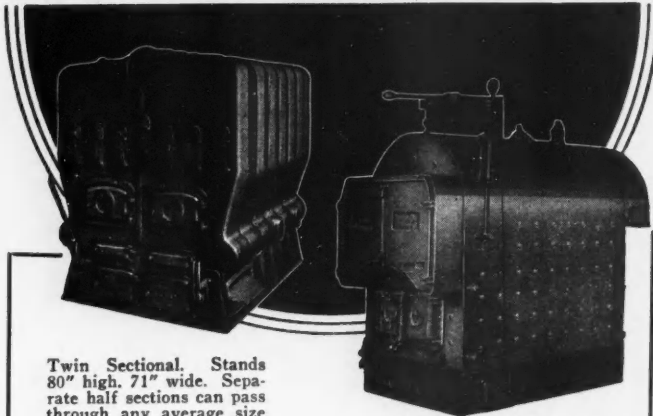
UNITED STATES GYPSUM COMPANY A.B.-11
300 West Adams Street, Chicago, Illinois
Please send me, free of charge, a sample of USG Perforated Rocklath.



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

UNITED STATES GYPSUM COMPANY

Burnhams



Twin Sectional. Stands 80" high, 71" wide. Separate half sections can pass through any average size door.

Welded Steel Boiler having a capacity from 1,800 to 42,500.

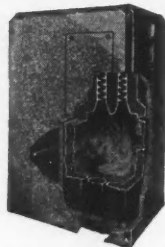
There's One for every Place and Purpose

This Ad, is frankly by-way-of-remindment. A sort of memory-jogger.

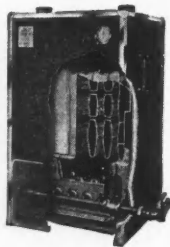
You may have used certain of our boilers and sort of placed us in your mind as not having other kinds. For instance a specially designed Gas Boiler. A heavy-duty high pressure Hot Water Supply Boiler. Likewise a Welded Steel one. Or a big cast iron Twin Section one, that is so largely used for replacements, as the sections can pass through any average size door. Does away with all tearing out cost and nuisance.

All of which boils down to the fact that Burnham makes boilers for all fuels and for every place and purpose.

Glad to send you our new catalog No. 74, covering all heating equipment.



A specially designed Built-In Oil Burning Boiler.



Gas Boiler. It has fully lived up on the job, to the test made at the plant. An excellent performance.



The dependable Round Boiler for regular heating. Also made for high pressure hot water supply.

Burnham Boiler Corporation

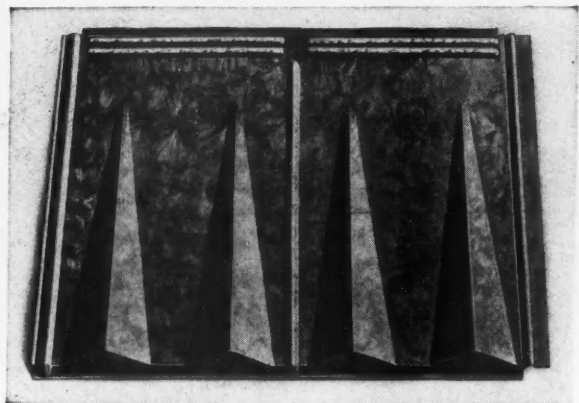
Irvington, New York
Zanesville, Ohio

Representatives in All Principal Cities
of the United States and Canada

Galvanized Twin Shingles

A NEW twin (2 in 1) metal shingle is being manufactured by The Edwards Manufacturing Company, Cincinnati, Ohio. The shingle is economical to apply, the 14 x 20 size reducing labor costs. It makes a positive covering, and protects from weather of every kind, from fire, lightning and high wind storms, even those of the tornado velocity.

Other features are as follows: oversize interlocking side seam; positively leak-proof; large nailing flange; nails and nail holes covered; two large beads and right angle water stop; rain or snow cannot blow through; high butts, heavy shadow lines; flat overlapping flange and unbroken lap lines. The center head guides the laying and because of the flat surface there is no danger of denting design where walking is necessary. The shingles are made in galvanized copper-bearing steel and galvanized open hearth steel.



TWIN type shingle of galvanized copper-bearing steel.

Reciprocating Sander

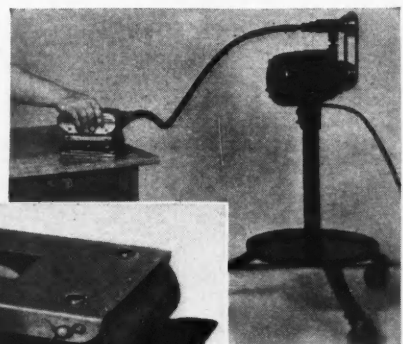
AN electric sanding and rubbing machine of reciprocating action has been developed by the Sterling Products Company, Detroit, Mich. The machine is driven by electric motor through a flexible shaft; the sanding action is reciprocal with $\frac{5}{8}$ of an inch travel of the sanding pad, at speeds from 1750 to 2800 complete oscillations per minute. This movement duplicates the natural back and forth motion of hand sanding and rubbing.

Flexible rollers of special composition rubber and fabric are attached floatingly by pins to the sander block. Due to this construction feature there is no restriction in the movement of the block and the machine is applicable to curved and flat surfaces.

The machine is designed for wet or dry sanding and finishing, as a water connection is provided with a series of openings on each side of the block, providing an adjustable spray. From one to five sheets of abrasive may be attached to the pad at one loading.

The machine is portable and may be operated from an electric outlet, either 110 volt or 220 volt; it is applicable for finishing work of all classes and delicacy wherever hand sanding is required. Three different types of mountings are provided—bench plate, ceiling suspended, and bench height pedestal.

RIGHT, reciprocating action sander with bench height pedestal type mounting; below, sander block and flexible roller attachment.



in One Easy Lesson...

**HOW TO PROTECT
CONCRETE and GIVE
IT WORKABILITY IN
WINTER WEATHER!**



It's an easy lesson if you learn *right now* that your concrete requires the extra protection of Solvay Calcium Chloride when temperatures reach 50°F or below. It's a tough lesson to learn through the experience of jobs spoiled by frost and sudden freezing temperatures!

Solvay Calcium Chloride put into the mix provides high early strength . . . accelerates the set . . . increases workability . . . permits a lower water-cement ratio that means a tougher, denser, more waterproof concrete. It serves as an added protection to your concreting operations by enabling jobs to be finished before night temperature drops can destroy them by "frost-bite."

A MONEY SAVING PROPOSITION!

And because of the quick set, you release forms earlier so that they can be used on other sections of your job. You eliminate overtime because finishing work can be done sooner. Less coke for salamanders, less canvas is required during the curing period. In other words, Solvay Calcium Chloride is a money saving proposition all the way through!

Don't run your winter concreting jobs without the protection of Solvay Calcium Chloride. Mail in the coupon today for complete details that will tell you exactly what proportions are required for the job and how simple and easy Solvay Calcium Chloride is to use.

BUILDING MATERIALS DEALERS!

Samples of a complete line of Solvay sales promotion material and folders will be sent to you on request. Please check coupon.

SOLVAY
TRADE MARK REG. U. S. PAT. OFF.
Calcium Chloride

MAIL TODAY

SOLVAY SALES CORPORATION

*Alkalies and Chemical Products Manufactured by
The Solvay Process Company*

40 RECTOR STREET NEW YORK

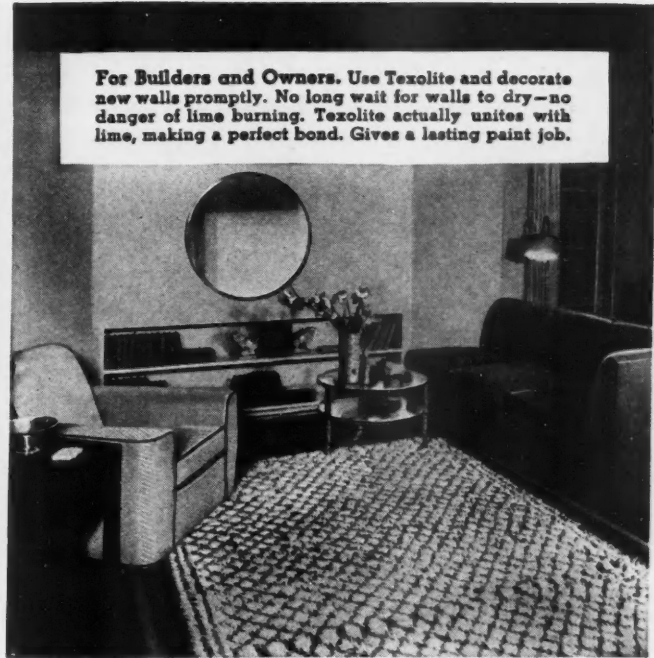
Gentlemen: Please send me complete information on Solvay Calcium Chloride for use in Cold Weather Structural Concreting

Architect Engineer Contractor Building Supplies

Name _____

Address _____

City _____ State _____



For Builders and Owners. Use Texolite and decorate new walls promptly. No long wait for walls to dry—no danger of lime burning. Texolite actually unites with lime, making a perfect bond. Gives a lasting paint job.

TEXOLITE

New-type Casein Wall Paint

**AND MODERN INTERIORS
NATURALLY GO TOGETHER**


■ For beautiful, modern interiors there isn't a more adaptable paint than Texolite*. Its unlimited range of exquisite colors provides gay, bright tints as well as soft, restful hues.

In addition, Texolite gives you 50 per cent more for your money. One gallon of Texolite makes one and one-half gallons of quality, ready-to-apply paint. One coat does the work of two coats of ordinary paint. And it saves on lighting; white Texolite reflects as much as 90 per cent of all the light that strikes it. Texolite is durable, too, it will not fade or yellow.


READ THESE ADVANTAGES

- 1. Hides in one coat.
- 2. Dries in one hour.
- 3. No paint odors.
- 4. Does not yellow.
- 5. No brush marks.
- 6. Reflects more light.
- 7. One gallon makes one and one-half gallons of ready-to-use paint.

PROVE TEXOLITE AT OUR EXPENSE

Before decorating interiors learn about Texolite. Just mail us the coupon and you will receive a full quart sample of Texolite with a sample tube of Texolite Deep Color. Prove to your own satisfaction that Texolite is the ideal paint for modern interiors. 

UNITED STATES GYPSUM COMPANY AB-11
300 West Adams Street, Chicago, Illinois

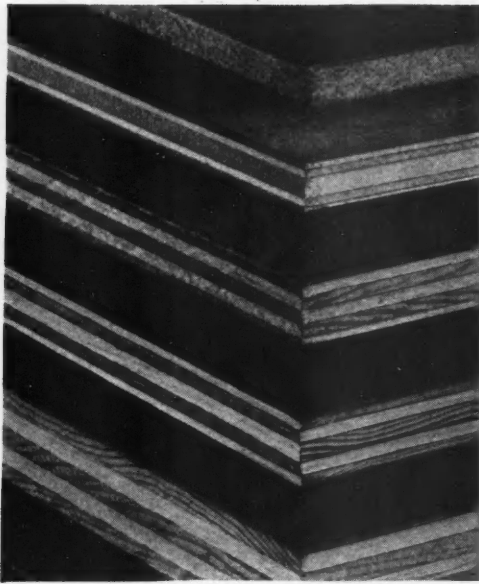
Please send me, free of charge, a sample full quart can of Texolite Paint, together with a sample of Texolite Deep Color and Handy Color Guide. 

My Name _____

Address _____

City _____ Phone No. _____

UNITED STATES GYPSUM COMPANY



TEGO-BONDING

MEANS EXPOSURE-PROOF
PLYWOOD

PLYWOOD that is really proof to water, weather and mold has become an established commercial product in the past two years.

Tego-bonding,—gluing with dry resin film adhesive,—has made the availability of such a material a fact.

Tego-bonded plywood offers not merely improved resistance to moisture and exposure breakdown. It offers permanent assurance against delamination due to glue deterioration, whether from water, climate changes or mold growth.

Tego Glue Film is manufactured by
THE RESINOUS PRODUCTS AND
CHEMICAL CO., Inc., Philadelphia.

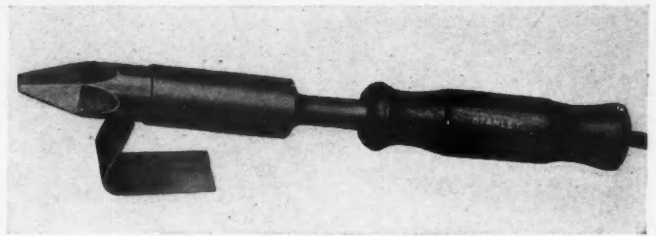
RESINOUS  PRODUCTS

Electric Soldering Irons

A NEW line of electric soldering irons of improved design, operated efficiently and economically on either A.C. or D.C. current, is being manufactured by Stanley Tools, New Britain, Conn.

Correctly proportioned and well balanced, Stanley soldering irons have adjustable, ventilated handles. By means of a lock collar and sleeve, the handle can be adjusted to desired length and rigidly tightened. Handle is also removable. Compressed pure copper tips, accurately machined for a valve-fit connection with the heating heads, assure effective heat conduction and protect metal connection surfaces from oxidation and flux corrosion. Hermetically sealed heating heads protect the "built-in" windings and solid copper cores from air, flux fumes and moisture.

There are eight different sizes of Stanley soldering irons, ranging from 52 watts with a 7/16-inch tip to 435 watts with a 1-9/16 inch tip. Each iron is equipped with a six-foot flexible heating cord and a metal resting stand.

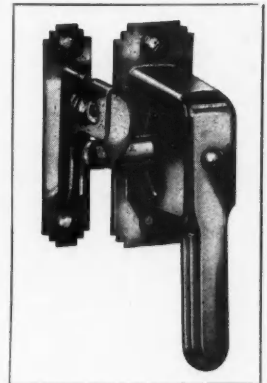


ELECTRIC soldering iron of improved design.

Reversible Cabinet Catch

A NEW and strikingly modern catch to be known as No. 301 has been added to their line of guaranteed builders' hardware by the Frantz Manufacturing Co., Sterling, Ill. Of all-steel construction, this item features being quickly reversible for right or left hand doors simply by removing a single screw and turning the handle. The strike likewise is adjustable for offset as well as flush doors. The No. 301 is available in all standard plated finishes.

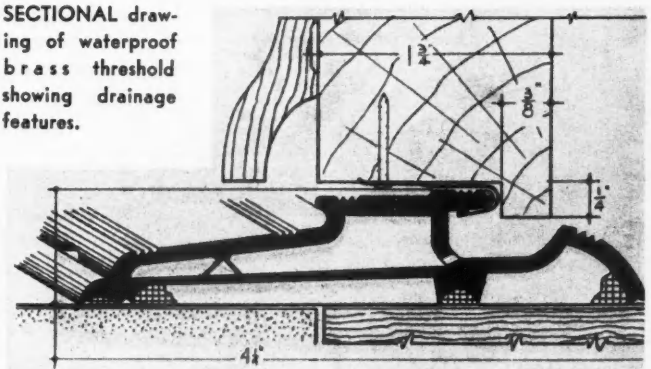
REVERSIBLE Cabinet
catch in modern pattern



Waterproof Brass Threshold

A WATERPROOF threshold of extruded brass, No. 43, is being marketed by Protex Weatherstrip Mfg. Co., Chicago, Ill. It is architecturally correct and has integral brass drainage plate with sufficient slope to facilitate drainage; exterior weep-holes are 1/4-inch above sill level to prevent clogging. Other features include correctly designed rear shoulder, universal size 4 1/4 x 7/8, allowance of 3/8-inch lip on door, provision for caulking under front edge and a trough of sufficient depth having rounded corners to eliminate dirt pockets.

SECTIONAL drawing of waterproof brass threshold showing drainage features.





Here's where you can make a
**SUBSTANTIAL
SAVING**

**... without sacrificing
one iota of quality**

Only an expert can tell Sloane-Blabon LinoFlor from genuine Inlaid Linoleum. It has a long-wearing, genuine inlaid surface. Patterns are of the same high-styled type found in the most expensive inlaid. Back is cushioned felt-base, accounting for the moderate price. Let us send you the name of the authorized Sloane-Blabon contractor in your city who will furnish you with samples and prices. W. & J. Sloane, Selling Agents Division, 295 Fifth Avenue, New York.

**Sloane-Blabon
INLAID
LINOFLOR**

CONSTRUCTION COSTS REDUCED $\frac{1}{3}$ *With* UNITS MADE ON THIS MACHINE

When modern buildings are being erected with $\frac{1}{3}$ savings in material costs, $\frac{1}{2}$ in mortar and $\frac{1}{3}$ in labor, it again furnishes definite proof that **DUNBRIK and DUNSTONE Build Better Buildings Cheaper.** In addition multiple sizes offer wide flexibility, permitting solid—vener—ashlar and hollow wall construction,—all in full range of color, shade and texture.

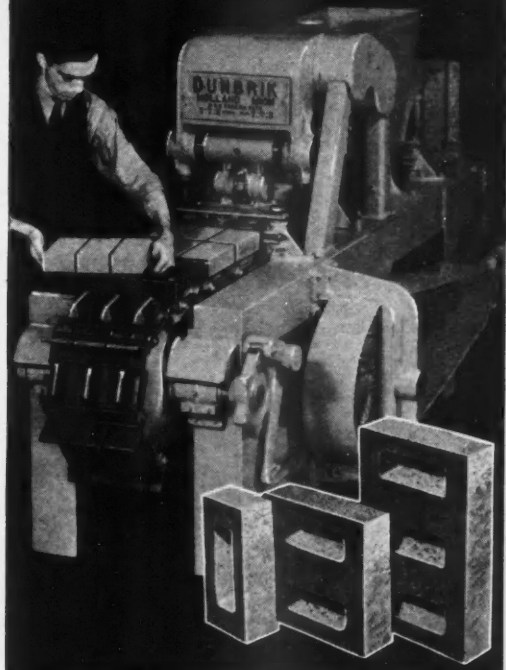
Manufacturing Opportunity

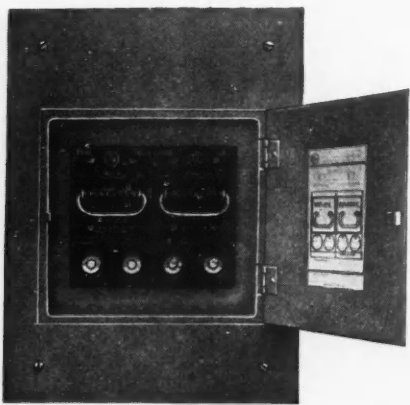
The manufacture of **DUNSTONE** offers big money-making possibilities for the man equipped to supply the building trade in his territory with this exclusive product. We equip you with new and revolutionary line production machinery, permitting large production with only one or two men. Equipment costs but a fraction of what would be required for other processes of equal capacity, and production costs are far lower.

INVESTIGATE

Write today. Ask for "4 Keys to Manufacturing Success," and let us show you how present **DUNBRIK** Manufacturers are making outstanding progress in a business that offers unlimited opportunity for growth, expansion and profit.

W. E. DUNN MFG. CO.
450 West 24th St., Holland, Michigan





Pulfuzswitch
Service Equipment
for
New Sequence
Meter Connection

Cat. No. SE63PF4-6XF Service Equipment with Main Switch, Range Circuit and four Lighting Branch Circuits.

FA quality construction—competitively priced!

This dead-front, safety type unit—designed for new sequence meter connection—is equipped with the New **FA** PULFUZSWITCH Unit, having silver-plated, trouble-proof contacts . . . Easy to make a neat workmanlike installation . . . Compact—occupies minimum space . . . From 2 to 8 circuits, with range feeder circuit or 2 to 12 circuits without range feeder circuit . . . Ample wiring space—plenty of knockouts . . . Send for details.

Frank Adam

ELECTRIC COMPANY
ST. LOUIS

DRAWER 22

DEPT. AB

ESSENTIAL TO HEATING EFFICIENCY



PEERLESS dampers

A Peerless Dome Damper installed in the fireplace not only assures perfect operation of the fireplace, but is essential to the efficient operation of the heating system—

because it seals the chimney flue when the fireplace is not in use, preventing unhealthful drafts and heat loss.

PEERLESS DOME DAMPERS are built of heavy stove plate cast-iron in all standard sizes and come in three models—Rotary, Poker or chain control.

OTHER PEERLESS PRODUCTS

Fireplace fixtures—ash dumps—coal windows—ash pit doors—garbage receivers, radiant gas heaters, Gas Conversion Burners and Stokers. Details and prices on request.

PEERLESS MANUFACTURING CORP.
1400 W. Ormsby Ave. Louisville, Ky.

News of the Month

Building Activities and Meetings

Residential Volume for First Nine Months Far Ahead of Last Year's Total

FOR the first nine months of 1936 residential construction totaled 23 per cent more than was reported for the entire year 1935; the full year 1936 promises to reach a volume three times the size shown for either 1933 or 1934, the low points of the depression. F. W. Dodge Corporation reports that this volume of residential building in the 37 eastern states during the first nine months of 1936 amounted to \$588,030,600 as against only \$338,907,500 for the corresponding nine months of 1935, making a gain of 73 per cent. Total construction figures for this same period in the 37 states amounted to \$2,041,627,200, for a gain of 71 per cent over the figure of \$1,191,697,700 shown for the corresponding nine months of last year. Both public works and private work contributed to make the large gain shown between the two years in total construction.

For September, 1936, alone the residential total was \$80,669,800 as compared with only \$41,810,800 for September, 1935, and \$100,522,500 for August of this year. Total construction work of all kinds started in the 37 eastern states during September amounted to \$234,270,500 as against \$275,281,400 for August and only \$167,376,200 for September last year. (A reduction in the volume of publicly financed construction largely accounted for the shrinkage between August and September of this year.)

| 37 Eastern States | Sept. 1936 | Sept. 1935 | Aug. 1936 |
|----------------------------|---------------|---------------|---------------|
| Residential | \$ 80,670,800 | \$ 41,810,800 | \$100,522,500 |
| Non-Residential | 69,098,700 | 49,420,100 | 80,379,900 |
| Public Works and Utilities | 84,502,000 | 76,145,300 | 94,379,000 |
| Total | \$234,271,500 | \$167,376,200 | \$275,281,400 |

Concrete Industries Meeting in Chicago

MANY of the branches of the concrete industry will gather in Chicago during the week beginning Jan. 18 when the Concrete Industries Exposition, together with the National Concrete Masonry Convention and the first National Conference of Concrete Contractors, will be held at the Sherman Hotel; present general headquarters are located at Room 1934, 400 West Madison Street, Chicago. Three other associations in the concrete field—the Cast Stone Institute, the American Concrete Pipe Association and the National Cinder Concrete Products Association—are also planning to meet in Chicago during the same week.

Milcor Shifts Christman to Chicago

J HARRY CHRISTMAN, formerly sales manager at Milwaukee, has been put in complete charge of the Milcor Steel Company's Chicago plant. His installation as manager of the Chicago Plant will bring him in closer contact with the many accounts which he has developed in this territory.

Mr. Christman has a long record of service with Milcor, having been with the company since 1913. He became sales manager in 1918, holding this position until his recent appointment. His activities among dealers in all parts of the country have made him one of the most widely known men in the sheet metal industry.



J. HARRY CHRISTMAN

THE BEAUTY OF WOOD PANELING
AT WALLBOARD PRICES WITH
SHEETROCK
THE FIREPROOF WALLBOARD



Pre-decorated
Surface
SAVES
on Cost of
Interiors

■ Now you can build rich, expensive-looking interiors and still keep costs down to your customers' paying ability with economical Wood Grained Sheetrock.*

By an exclusive process United States Gypsum Company transfers the true graining, burling, color—the individuality of choice wood panels to Sheetrock, the fireproof wallboard. Wood Grained Sheetrock may be used plain—just like lumber—or finished with easily procurable stock mouldings for panel treatments. It is used to build distinctive interiors in homes, offices and stores.

COMBINES BEAUTY WITH FIRE PROTECTION

Wood Grained Sheetrock is fireproof—it will not burn nor support combustion. It protects as well as it beautifies. Comes in standard wallboard sizes and in four finishes—Knotty Pine, Douglas Fir, Walnut and Matched U.S. Walnut. Mail coupon today for free sample cut from stock board. *Registered Trade-mark.

UNITED STATES GYPSUM COMPANY AB-11
300 West Adams Street, Chicago, Illinois
Please send me, free of charge, sample of Wood Grained Sheetrock.

Walnut Knotty Pine Fir

Name.....

Address.....

City..... State.....



UNITED STATES GYPSUM COMPANY



**SAMSON SPOT
SASH CORD**

When an architect wants to be sure that the most durable and economical material will be used for hanging windows, he specifies Samson Spot Sash Cord. He knows from long experience that it is the one cord he can always depend upon to be of the same high, uniform quality. He knows that it is made in only one grade positively protected against substitution by the Colored Spots—our trade-mark.

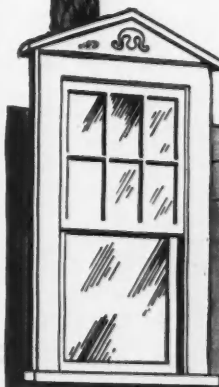
Architects everywhere hold Samson Spot Sash Cord in high esteem, because it merits their confidence with its longer service—often extending to more than twenty-five years. It has greater toughness than ordinary cord due to the great number of fine three-ply yarns in each strand—no cheap roving is used—no loaded center—it is all yarn. It resists wear longer over pulleys because its surface is firmer, smoother. It does not stretch. It is noiseless.

Specification data showing sizes and actual wear tests gladly sent upon request.



**SAMSON
CORDAGE
WORKS
91 Broad St.,
BOSTON**

*durability · efficiency
· · · economy · · ·*

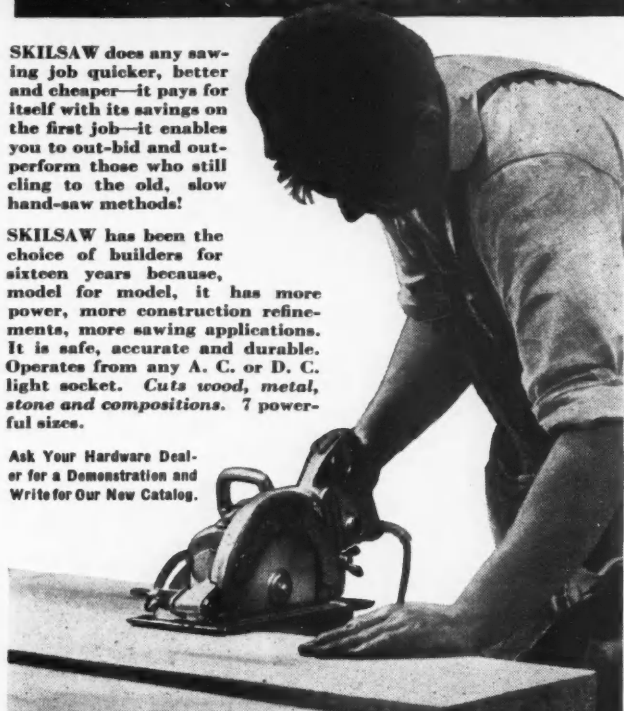


SAW 10 TIMES FASTER with SKILSAW!

SKILSAW does any sawing job quicker, better and cheaper—it pays for itself with its savings on the first job—it enables you to out-bid and out-perform those who still cling to the old, slow hand-saw methods!

SKILSAW has been the choice of builders for sixteen years because, model for model, it has more power, more construction refinements, more sawing applications. It is safe, accurate and durable. Operates from any A. C. or D. C. light socket. Cuts wood, metal, stone and compositions. 7 powerful sizes.

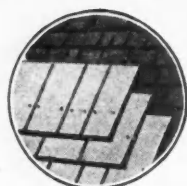
Ask Your Hardware Dealer for a Demonstration and Write for Our New Catalog.



SKILSAW, INC.

3314 ELSTON AVENUE, CHICAGO
210 E. 40th St., New York — 52 Brookline Ave., Boston
312 Omar Street, Los Angeles
Sales & Service for Canada: 85 Deloraine Ave., Toronto

HERE'S HOW TO KEEP VOLUME UP THIS WINTER!



Over-roofing: Old roofs can be restored to newness by applying Certigrades right over the old covering. No mess or litter. Insulation and protection doubled.



Double-coursing: For ultra-beauty and smartness, double-coursing is recommended. Certigrades No. 1 for the outer course, No. 2 for the under course.

Talk Certigrade over-roofing and double-coursing now. These building jobs can be done during winter months. New Certigrade Red Cedar Shingles right over the old roof or side walls. And, of course, for new construction, too. Certigrades are in demand the year around for their beauty and insulation value. They'll help keep up your building volume too! Red Cedar Shingle Bureau, Seattle, Wn.; Canadian office, Vancouver, B.C.

Insulate as you decorate!

Certigrade 

RED CEDAR SHINGLES

Guthrie Leaves FHA Post

HENRY A. GUTHRIE has resigned as chief of the Exhibit Section, FHA, to become a partner with the McDonald Brothers, operators of home shows and expositions, who staged some of the most successful home shows in the country last year.

Mr. Guthrie has had wide experience in this field, having formerly managed many shows and expositions. His new address will be 1209 Architects' Building, Philadelphia, Pa.

Hold Kelvin Home Presentation

THE formal presentation to the American public of the completely air conditioned and electrified Kelvin Home, Kelvinator Corporation's new and scientific contribution to American home building standards, was made October 14. Ceremonies took place at a luncheon held at the Detroit Athletic Club by The Kelvin Home Celebration Committee for local, state and national leaders in business, industry, public health, building, architecture, home economics, and allied fields interested in the advancement of American living conditions. This was followed by an inspection tour of Kelvin Homes recently completed in Detroit. Guest speakers included such nationally known authorities in their several fields as Peter Grimm, president, William A. White & Sons, and former president, Real Estate Board of New York; Lulu G. Graves, consultant in nutrition and organization of dietary departments; Francis Keally, architect; Dr. Shirley W. Wynne, formerly health commissioner of New York City; and George W. Mason, president of Kelvinator Corporation.

Celotex Buys Calicel Company

THE Celotex Corporation has announced the purchase of the business of the Calicel Company, Marietta, Ohio, manufacturers of a mineral fireproof acoustical insulating material.

This company manufactures a synthetic stone-like material produced in tile form in various sizes and thicknesses from mineral substances, and used as acoustical control, sound control, and in some instances, thermal insulation.

Also Celotex is now marketing a new product called Vapor-seal insulating sheathing. This improved Celotex 25/32-inch sheathing is protected from the added moisture present in air conditioned walls by the application of a coating on both sides and all edges of a special moisture-resistant asphalt. In addition to this coating, one side is treated with a bright reflecting aluminum compound, to give vapor protection.

Offers Cement User's Manual

THE Marquette Cement Manufacturing Company, 140 S. Dearborn St., Chicago, has recently published a new 72-page manual on High Early Strength Cement which contains thoughts and suggestions on how to save time and money and how to produce a better concrete more easily. The book is offered free to those interested. The information and material, which is illustrated with 75 actual photographs and many graphs and tables, was assembled and written by the men whose practical experience with this high early strength cement dates from its introduction in the concrete field a number of years ago.

Some of the material found in its helpful pages is as follows: The purpose, characteristics and description of this type of cement—why it is used to obtain earlier use of structure, secure quicker re-use of forms, reduce cost of curing and make easier handling concrete, obtain earlier returns on the investment, produce a more durable concrete, meet emergencies and reduce freezing hazards in winter; how to use Marquette High Early Strength Cement requiring no special treatment on the job—information for the owner and builder, the engineer and architect and the concrete products manufacturer, and the stucco and terrazzo contractor.

NEW 72-page Marquette Cement Users' Manual.



A SILENT SANDER THAT SPEAKS VOLUMES:



Clean Air

● Every day Dust-Stop equipped heating and air-conditioning units in new or modernized homes are proving to be an increasingly important factor in the closing of sales.

Dust-Stop's assurance of clean walls, drapes and furniture, and better health through the arrestment of dust, pollen, lint and dust-carried bacteria, quickly wins the nod of approval and starts the prospective home buyer down the path to the dotted line.

That's merchandising! That's the reason why builders are demanding that blowers, air-conditioning units and warm-air furnaces be equipped with Dust-Stop Air Filters. Owens-Illinois Glass Company, 303 Madison Avenue, Toledo, Ohio.

MORE AND MORE Contractors Are Using REID-WAY PROFESSIONAL

This powerful, speedy, ultra-modern floor surfacing machine is built exclusively for contractors and professional floor men. If you want to do cleaner, faster work — if you want a sander on which there is practically no maintenance cost, you will also become a user of the Reid-Way Professional "8."

"8"



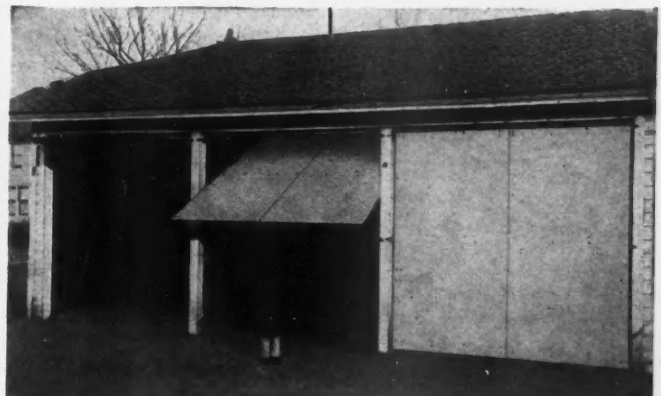
Outstanding Exclusive Features

More and more contractors are choosing Reid-Way because it is the only floor surfacing machine that has the following exclusive features:

1. Only Two Moving Parts (Sanding Drum and separate Vacuum Motor)
2. No Gears, Belts, Chains or Pulleys
3. Works Directly Up to Quarter-round on EITHER SIDE of the machine

Write for full information on this sensational new floor sander.

The Reid-Way Corporation
2932 First Avenue, S. E.
CEDAR RAPIDS, IOWA



WILLIS E'ZIE-LIFT Garage Door Hardware

Economical . . . Convenient . . . Dependable

For OLD Garage Doors

Easily applied to any type of present door . . . 1, 2, or 3 section doors connected into a sturdy, solid 1-piece unit. Result . . . a perfectly balanced door that a child can operate.

. . . or For NEW Construction

Counter-balanced . . . no springs . . . ball-bearing rollers and pulleys . . . no binding . . . door rests snugly on floor and flush with sides . . . all mechanism inside garage. Easy to install . . . no complicated cutting or fitting. Reasonably priced.

WRITE FOR CIRCULAR AND PRICES

THE WILLIS Manufacturing Co.
Galesburg, Illinois

*"Standard Products for
Almost Half a Century"*

"O K" say MOTT BROS.

All ceilings in the six-room homes in Mott Bros. "Surrey Lane" Development at Hempstead, N. Y., were decorated with one coat of MURAL-TONE. And the new owners as well as builders are well-pleased. All the homes are occupied.

The speed, economy and coverage of MURAL-TONE appeal to the shrewd developer, contractor and master painter, and the velvet-flat beauty of the MURAL-TONE finish pleases tenants and prospective buyers.

The perfected blending of casein and lithopone is the secret of MURAL-TONE'S success... plus powerful advertising every month in the right national magazines and newspapers.

Write today for "FACTS FOLDER," Color Chart, etc. Play the winner and make money. Please address THE MURALO CO., 568 Richmond Terrace, Staten Island, New York. Branches: Atlanta—Chicago—Boston—San Francisco.

mural-tone

The Money-Saving Paint in the Orange Can

- DRIES IN FORTY MINUTES
- ADHERES TO UNSEASONED PLASTER
- SINGLE COAT COVERS ON MOST SURFACES
- WILL NOT LIME-BURN
- CUTS COSTS 25%



ADVERTISED IN:
 American Builder • American Paint & Oil Dealer • Factory • Architectural Forum • Pencil Points • National Painters Magazine • Sweet's Catalog

Founded 1894

BETTER WHITE
 BETTER LIGHT

A MURALO PRODUCT

ANNOUNCING THE NEW "LITTLE AMERICAN" FLOOR SANDER

The new and entirely different floor sander has been designed specifically for the contractor and builder. It is light in weight, low in price, dustless, fast, efficient, good-looking and does a real professional job.

The man who runs a "Little American" soon finds that it is a great little money-maker. Never in the history of floor surfacing has such a fine, high-quality sander been offered at such a low price.

Write for complete details and prices to-day. They will be sent without cost or obligation to you. A Free demonstration will be gladly arranged at your request.

AMERICAN FLOOR SURFACING MACHINE CO.
 511 So. St. Clair St.
 TOLEDO, OHIO



USG Makes Personnel Changes

THE United States Gypsum Company has appointed W. L. Keady as vice president in charge of sales, to succeed Charles F. Henning, who died Oct. 3 following an automobile accident. Mr. Keady, who assumed his new duties Oct. 19, formerly was vice president in charge of operations for USG, is a member of the company's board of directors, and is widely experienced in all phases of the company's business.

L. H. Atkinson, formerly assistant to the vice president in charge of sales, has been appointed general sales manager. In addition to his experience with USG, Mr. Atkinson has been sales manager of the Wood Conversion Company, and before that vice president and general manager of the Red Top Steel Post Company, a subsidiary of the Inland Steel Company. M. H. Basquin, formerly divisional production manager, has been appointed general manager of operations.

Domestic Stoker Sales Increase

RETAIL sales of domestic stokers will reach an estimated \$25,000,000 this year, and domestic stoker sales in the first seven months of 1936 were 102 per cent ahead—figures given to show a trend both in the United States and in Canada toward automatic coal heat on the part of large-scale home builders. This information was reported at the annual convention of the New York State Retail Solid Fuel Merchants Association at Lake Placid in September.

Fenestra Orders Show Upward Trend

DETROIT Steel Products Company has received what is believed to be the largest casement window order on record; shipment of more than 13,000 windows is called for, to be installed in the Ten Eyck housing operation, U. S. Government housing development in the Williamsburg section of Brooklyn, N.Y. The steel casements will be shipped with steel casings attached, eliminating the usual "window trim" and assuring speed and economy of installation.

An interesting feature of the Ten Eyck project is the use of "security windows" on the basement floor, providing a new kind of "burglar-protection."

Two other large orders for Fenestra steel windows have recently been placed—the first by General Motors Corporation for a plant, factory office and loading dock at Linden, N.J., is said to be the largest order for industrial steel windows let in this country since 1929; the second calls for Fenestra steel windows for the Rockland State Hospital, Rockland, N.Y.

Station Waiting Room for Banquet

CONVERTING the waiting room of the Union Station in Washington, D.C., into a temporary banquet hall recently presented an interesting spectacle. When the Third World Power Conference met in that city, it was necessary to find a room large enough to seat the three thousand delegates at a banquet. No ballroom in the city could hold the entire group so plans were made to convert the station waiting room, which has a clear width of 120 feet and is 219 feet long with a 96-foot ceiling, into what was probably the largest banquet hall ever provided. Large panels of Nu-Wood board were set up to screen in the area in which the tables were set; the completed appearance of the hall is shown in the illustration below.

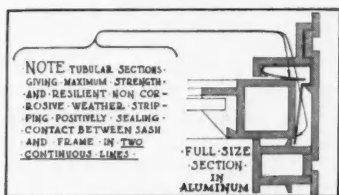


UNION Station waiting room being used as banquet hall.

Now the latest in WINDOWS

for Homes of Moderate Cost
as well as for
Towering Buildings
in **BRONZE** or **ALUMINUM** by
GENERAL BRONZE

Superior windows of Bronze and Aluminum heretofore were only considered on the more costly and monumental buildings. These new patented windows—in both casement and double hung—are now within the budget of homes of moderate cost.



AIR-TIGHT
RUST, DUST and RATTLE-PROOF
STURDY CONSTRUCTION
EASY OPERATION LOW UPKEEP

Particularly desirable
in air-conditioned buildings

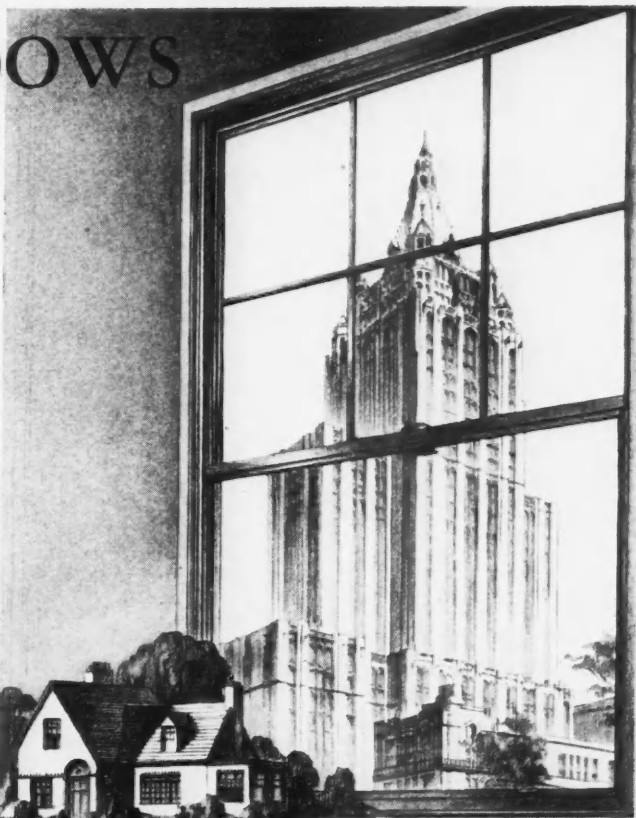
PERMATITES WINDOWS

DOUBLE HUNG

CASEMENT

GENERAL BRONZE CORPORATION
34-19 TENTH ST., LONG ISLAND CITY, N. Y.

Full data in new catalogue. Send for your copy or see Sweet's 1937 Catalogue.



A SMALL RESIDENCE indicated above, contains over 2600 General Bronze windows installed in 1928. Cass Gilbert, Architect

"SURPRISING how quickly
we can
set up..."



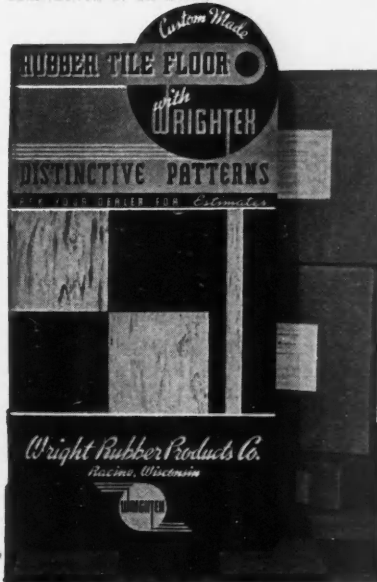
"It is surprising how quickly we can set up for making special bevells, cuts, mouldings, etc.," writes a DeWalt user from Chicago. "We have not as yet found a job which could stump this machine, in spite of the fact that many new problems come up every day."

QUICK change over from one job to another means lower costs on the job—extra profits. A DeWalt often pays for itself on the first job. Write for completely illustrated folder showing its many operations.

DEWALT PRODUCTS CORPORATION
265 Fountain Ave., Lancaster, Pa.

WRIGHTEX A NEW IDEA LOWERS PRICE OF RUBBER TILE

Opens a new, profitable market in rubber tile flooring. Wrightex is offered in wide range of colors and designs—for modernization or new construction of all kinds.



FELT SET

Wrightex is pre-set on high grade felt. Saves money, time and labor on every installation.

A FLOOR IN A BOX

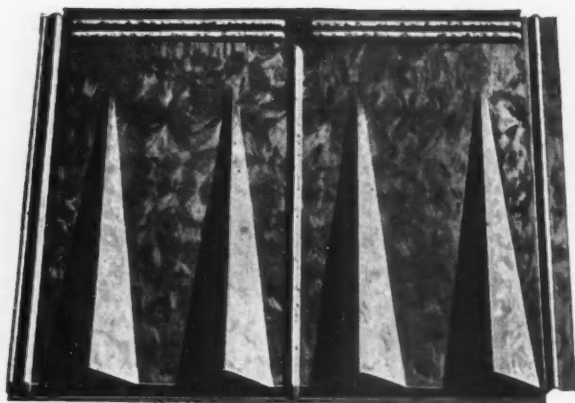
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Although we made the first announcement of these revolutionary shingles less than two months ago, one contractor had already applied 125 squares of them by the first of October, with three more jobs in sight. Each Twin covers as much roof surface as 12 wood shingles and requires only 2 nails. Interlocking seams, double storm beads and vertical water stop make them wind and weather proof. Competition simply can't touch them.

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Write for details and prices.

THE KINNEAR MFG. CO.
 1560-80 Fields Ave. Columbus, Ohio

LETTERS from Readers
on All Subjects
 Facts, opinions and advice
 welcomed here

White Collars Preferred

Los Angeles, Calif.

To the Editor:

Your editorial on page 38 of the July issue of *American Builder* came to my attention when I returned to school in September.

The story you tell is not a new one to us. We have made an intensive study of this situation; in fact, in the next issue, I believe, of *Industrial Education Magazine* you will find a detailed article on this problem, entitled "American Youth and American Houses." I mention this merely that you might refer to it and get our slant on the problem.

I desire to raise one question with you on a statement in your editorial and quote as follows: "With the large numbers of fine American boys looking for anything to do, however, the establishment of such training should be given serious consideration."

I am concerned in this paragraph with your statement that American boys are looking for *anything* to do. Unfortunately, I cannot agree with you. Our experience here is that youth is looking for anything to do provided it has a white collar attached to it.

I would not have you think I am pessimistic on this problem, but I somehow feel that the construction industry must take definite steps to make the building work attractive to these fine American boys. Just how this can be done I do not know; however, we *do* know where the boys are to be found, and that is in our high schools. Publicity material of the right kind from the industry itself and presented to these young men, I believe, would do much to give our youth information as to the advantages in learning a building craft.

We take the *American Builder* and have used it constantly over a period of years for our students; all have found it invaluable as reference material.

J. DOUGLAS WILSON,

Head, Building Trades Dept., Frank Wiggins Trade School.

Blarney from Cork

Cork, Ireland.

To the Editor:

I take this opportunity of offering my congratulations on your fine *American Builder* monthly, and also "1936 Homes." They are invaluable to people engaged in the building industry. The one regret I have is that I cannot avail myself of some of the very modern equipment advertised, which I must admit is in advance of us on this side.

RAYMOND HURLEY.

Wants Effective Slogan

Richmond, Va.

To the Editor:

Every industry has some expression that applies to it, and expresses the essentials behind that industry as a whole. Such as, "Save the surface and you save all" used by the paint industry.

We are interested in finding the expression that is applicable to the building material business. Any suggestion you can offer will be greatly appreciated.

D. D. STAPLES ASSOCIATES,
 Advertising Engineers.

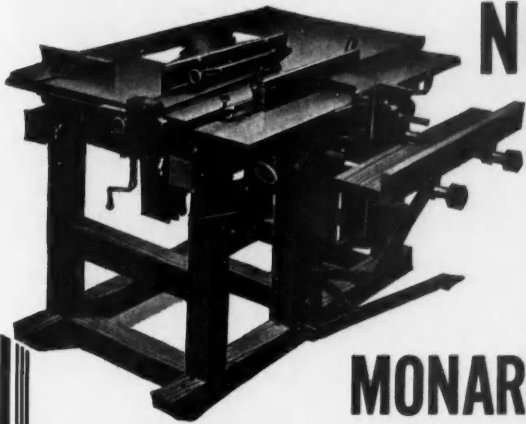
Wants Estate Designs

Canton, Ohio.

To the Editor:

Your *American Builder* has been one of the greatest helps to me as an architectural student. One of my drawing instructors
 (Continued to page 92)

INSTALL THIS MONEY-MAKER NOW!



MONARCH VARIETY PORTABLE WOODWORKER

There is economical operation in every feature. It is a great time, space and money saver. Four men can use this machine at one time. Can be supplied with saw table, jointer, borer and mortiser, band saw and other attachments. Improved new saw-guard

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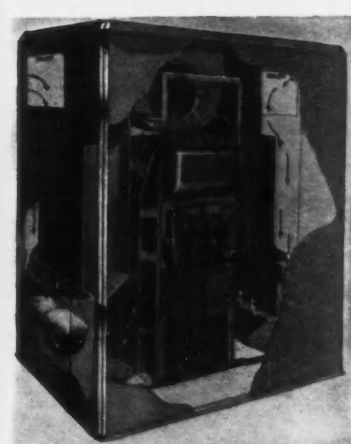


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Ask for details without obligation.



Letters Dept.

(Continued from page 90)

at school is building a new home, and has found some of the designs to be very practical. Your book service section has been a great help to me in building up a wonderful file. Summing it all up—it's one great magazine.

One suggestion—have a section of it devoted to large estates, consisting of plot plan, floor plans, pictures and details. Have one in each month. Use this title: "The Estate of the Month, the country estate of"

CHARLES BOYER, Jr.

Fool's Paradise

Sarasota, Fla.

To the Editor:

We would also like to take this opportunity to assure you that the editorial in the June issue entitled, "Fools' Paradise" accurately outlines an everyday nuisance encountered by us, and hope your editorial will help right that fault in other publications.

FIREPROOF PRODUCTS CO.,

By Paul W. Bergmann, Pres.

Farm Buildings Wanted

Sidney, O.

To the Editor:

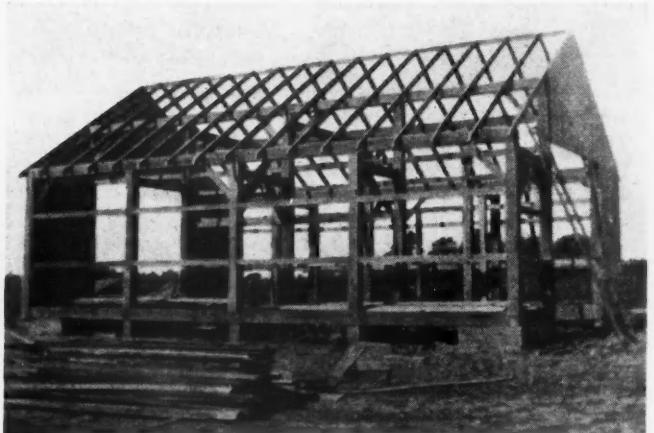
In the past year due to the return of prosperity we have had more than our share of farm buildings and improvements.

We fail to find much literature in your magazine in this line of work, and wonder why.

Enclosed you will find a picture showing a granary we constructed showing the kind of frame we use in our buildings.

We trust we will see more literature concerning this type of work in future issues and also several good plans of farm buildings, including barns, houses, and other out buildings.

WM. HULSMEYER & SON.



Rural Electrification

Ada, Okla.


To the Editor:

We are readers of your good magazine and are members of a rural electrification project sponsored and financed by REA authorized by the Federal Government, and we will need electric appliances for some 60 farm homes in the near future, as well as other farm house improvements. We have clipped from your magazine and inserted a number of catalogs we can use with our electrical program and you will please to assist us.

We feel sure that your publication will approve the REA electrical farm plan. You will do a great good by giving this great service plenty of publicity. The plan not only brings to the farm the greatest servant of mankind but it also opens an unlimited field for appliances of all kinds and thus starts more electric companies to making and moving their products. It in no way competes with private utility companies. The plan under REA goes where these companies cannot or will not go, and if the United States Chamber of Commerce as well as its various branches would approve and back this and other great efforts by the present Administration they would do untold good for our country.

My company will be in the market for more than 60 electric refrigerators and various other appliances on wholesale basis in the near future.

E. N. JONES, Attorney-at-Law.



for business or pleasure
THE STEVENS
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The VICTOR IN-BILT VENTILATOR
sold my wife on your home!



●Of course it did! That's why the builder installed it. The gleaming, smartly styled grille stops 'em and a brief explanation of the advantages of ventilation sells 'em. Every woman wants a home free from disagreeable cooking odors and greasy fumes. A Victor In-Bilt changes the air in all the rooms on a floor—eliminates stale odors and tobacco smoke—keeps the kitchen cool and comfortable in hot weather, and adds the "prestige" touch, that women particularly appreciate.

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Victor In-Built construction makes installation easy in walls of any type or thickness. Wall sleeve and shutter are one assembly—fan and grille the other.

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Kitchens SELL Homes - Ventilators SELL Kitchens

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 and Income Tax Record
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A bound book for easy bookkeeping by small contractors. It contains ruled sheets for keeping detailed records of contracts, job cost accounts, sub-contract accounts, material dealers' accounts, monthly totals of all expenditures, job profits and losses, and a Complete Statement and Profit and Loss Sheet for making up an income tax return. It records everything the contractor needs to know about his business accounts.

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SMITH MIXERS
 THE BOULDER DAM MIXERS

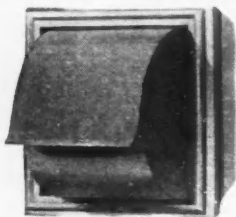
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Architects, Builders, and Home Owners appreciate the advantages of this new idea. Expense of installation is very low, as any construction man can install these fixtures. Modern, fully-equipped bathroom has an added selling appeal.

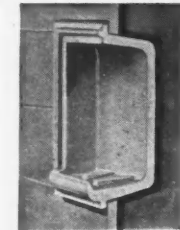
These fixtures are low in price but not "cheap." Made of high-fired Vitreous China, sanitary and everlasting. Immune from crazing or cracking, will not stain, tarnish or rust. WHITE and BLACK available from stock. Can be supplied in colors to meet decorative needs.

FOR ANY KIND OF WALL
Cut hole—insert piece, in cement

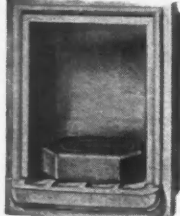


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CITY..... STATE.....

Fire Resistance of Steel Joists

(Continued from page 72)

(4) The transmission of heat through the floor raised the temperature on its unexposed surface after two hours and thirty minutes of fire to 188°F. for the wood floor and 229°F. for the cement floor.

(5) The test floor resisted the passage of the hose stream of water applied to the ceiling immediately after the fire application test.

(6) Within twenty-four hours after the fire application test, the floor supported a total load equal to the dead load plus twice the design load.

From the above description it is seen that the construction met all conditions of acceptance required by the A.S.T.M. Standard Fire Test Specification. In passing, it might be noted that whereas the standard specification permits an increase in temperature on the unexposed surface of the floor construction of 250°F. above its initial temperature, in this test, the temperature rise above the initial temperature of 68°F. was only 120°F. for the wood floor finish and 160°F. for the cement floor finish.

Open web steel joist construction has proved its worth many times under the most severe actual fire conditions. A recent example was in connection with a fire which completely gutted several building units of a mid-western State Hospital for the Insane as illustrated in Fig. 3. One building, although in the direct path of the fire, was hardly damaged. In it the architect had specified open web steel joists and metal lath manufactured by a member of the Steel Joist Institute.

The manner in which open web steel joist construction defied the attack of fire makes an interesting story. Briefly, these are the facts:

This particular building was erected as an addition to the hospital group in 1931. The other buildings were much older and were erected prior to the advent of the type of fire-resisting construction available today. The building, 88'x170' in size, contained four floors and attic. Open web steel joist construction was employed for each of the first three floors and the attic. Metal top lath was applied over the open web floor joists and on each of the first three floors a 2" concrete floor slab was poured. The attic floor slab was 2½" thick.

Above the attic floor was erected a pitched wood roof, over which natural slate shingles were applied. This roof construction was supported by approximately seventy 4"x4" wood members which extended down through the attic floor slab to the beams below.

During the course of the fire which completely destroyed the adjoining building, only the wood roof construction of the building under discussion was destroyed. In this building, the attic floor slab of concrete completely resisted further progress of the fire.

Following the fire, and upon investigation by the state architect, it was found that the entire building below the attic concrete slab was practically undamaged. With the exception of a few minor cracks and the need for some redecoration in the rooms, the building was ready for immediate occupancy, following erection of a new roof. According to the architect, this new roof construction will be an 18 gauge copper bearing steel deck supported by open web steel joists.

This type of floor construction is most widely used in light occupancy buildings such as hospitals, asylums and similar institutions, apartment houses, hotels, residences, schools, colleges, academies, stores and office buildings. For roof construction, open web steel joists are adaptable for use in all kinds of buildings.

(Continued to page 96)

Figure That Job With— The Old Builder's Estimator

By E. L. Gilbert



This new pocket-sized booklet contains a complete estimating form for figuring one complete house or one contracting job of any size. There is also a helpful check list with more than 300 items, seven pages of helpful estimating data, memo sheets for checking the arrival of material on the job and blank pages in the back for any other information you may wish to record. Included in the Data Section is an unique Monthly payment table and advice on how to figure radiation. A double-page table of multiplication is included as an aid in checking your estimate figures.

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STATEMENT of the ownership, management, circulation, etc., required by the Act of Congress of March 3, 1933, of AMERICAN BUILDER AND BUILDING AGE, published monthly at Chicago, Illinois, for October 1, 1936.

State of Illinois)
County of Cook's

Before me, a Notary Public in and for the State and county aforesaid, personally appeared Bernard L. Johnson, who, having been duly sworn according to law, deposes and says that he is the Editor of the AMERICAN BUILDER AND BUILDING AGE, and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management, etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, embodied in section 411, Postal Laws and Regulations, printed on the reverse of this form, to wit:

1. That the names and addresses of the publisher, editor, managing editor, and business managers are:
Publisher, American Builder Publishing Corp., 105 West Adams St., Chicago, Ill.

Editor, Bernard L. Johnson, 105 West Adams St., Chicago, Ill.
Managing Editor, Joseph B. Mason, 30 Church St., New York, N. Y.
Business Managers, Robert H. Morris, 105 West Adams St., Chicago, Ill.

2. That the owners are:
Simmons-Boardman Publishing Company, 30 Church Street, New York, N. Y.; Simmons-Boardman Publishing Corporation, 30 Church Street, New York, N. Y.; Stockholders of 1 per cent or more of the total amount of stock are: I. E. Simmons, 15 Hillcrest Dr., Pelham Manor, N. Y.; F. A. Lee, Hopatcong, N. J.; Henry Lee, Hopatcong, N. J.; E. G. Wright, 398 N. Walnut Street, E. Orange, N. J.; S. O. Dunn, 105 West Adams Street, Chicago, Ill.; C. E. Dunn, 3500 Sheridan Blvd., Chicago, Ill.; L. B. Sherman, 375 Sheridan Road, Winnetka, Ill.; Mae E. Howson, 105 West Adams Street, Chicago, Ill.; Spencer, Trask & Company, 25 Broad Street, New York, N. Y. General partners of Spencer, Trask & Company are: E. M. Bulkley, Acosta Nichols, Cecil Barret, C. Everett Bacon, William R. Bassett, F. Malone Blodget, Henry E. Allen, Henry M. Minton, William Kurt Becker, Arthur E. Gilbert, all of 25 Broad Street, New York, N. Y. Percival Gilbert, William E. Stanwood, both of 59 Congress Street, Boston, Mass. are General Partners, Henry A. Colgate, 25 Broad Street, New York, N. Y., Special Partner, and S. Bayard Colgate, Special Partner, 15 Exchange Place, Jersey City, N. J.

3. That the known bondholders, mortgagees, and other security holders owning or holding 1 per cent or more of total amount of bonds, mortgages, or other securities are: None.

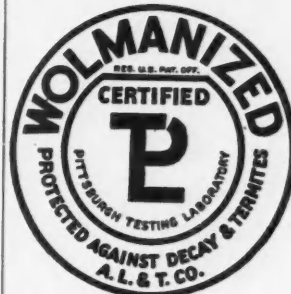
4. That the two paragraphs next above, giving the names of the owners, stockholders, and security holders, if any, contain not only the list of stockholders and security holders as they appear upon the books of the company but also, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting, is given; also that the said two paragraphs contain statements embracing affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner; and this affiant has no reason to believe that any other person, association, or corporation has any interest direct or indirect in the said stock, bonds, or other securities than as so stated by him.

BERNARD L. JOHNSON,
Editor.

Sworn to and subscribed before me this 5th day of October, 1936.
ANNE A. BOYD.

[Seal]

(My commission expires Dec. 10, 1939.)



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Handles, works and paints just like untreated stock. Yet it lasts for years in the structure, because this treatment provides certified protection against decay and termites.

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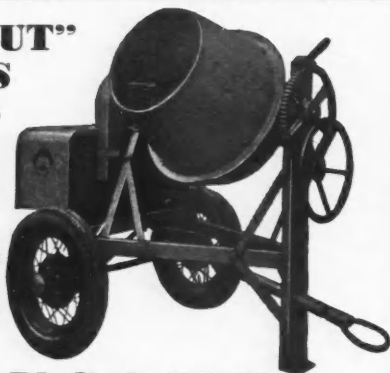
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Send measurements showing your requirements and we will forward illustrations suitable for your enclosure.

Cincinnati Iron Fence Co., Inc.

3410 Spring Grove Ave.
CINCINNATI OHIO

Fortunately, data are available to determine the fire hazard involved in buildings of the above classes of occupancy. This information is supplied through the "burn-out" tests conducted several years ago at the National Bureau of Standards, Washington, D. C., by S. H. Ingberg. The results of his tests are given in a paper "Tests of the Severity of Building Fires" which appeared in the July, 1928, Quarterly of the National Fire Protection Association. His method of procedure was to equip a small building of fire resistive construction with known quantities of combustible furniture and records, ignite the contents and then observe the temperatures which obtained, the duration of such temperatures and the resulting damage. Dr. Ingberg found that the maximum effect in a building containing such combustible contents, as expressed in terms of a standard fire test, varies with the weight of the contents as follows:

| Combustible Contents (Weight of furniture, flooring, trim, etc.) Lbs. per sq. ft. | Max. Fire Hazard (Destructive effect equivalent to standard fire test) Hours |
|--|---|
| 10 | 1 |
| 15 | 1 1/2 |
| 20 | 2 |
| 30 | 3 |
| 40 | 4 1/2 |
| 50 | 6 |
| 60 | 7 1/2 |

The combustible contents to which the above table refers represent the total weight of all combustible furniture, flooring, trim, etc. The maximum fire hazard indicated represents the period during which an equivalent destructive effect would be produced by a fire regulated to correspond with the standard time-temperature curve illustrated in Fig. 1.

For a structure to resist safely a complete burn-out, it is only necessary that the construction should safely sustain a fire of slightly greater intensity than the maximum which the combustible contents would produce. Usually a factor of safety of one and one-half (1 1/2) is used, in which case a two-hour floor construction would give more than an ample factor of safety.

From the test described and performance of this type of floor in an actual fire, it is evident that open web steel joist construction with a ceiling protection of 3/4" metal lath and gypsum or portland cement plaster affords more than ample fire resistance for buildings in the light occupancy class.

Winter Conditions and Equipment

(Continued from page 59)

comfort and convenience have come through a mixture of desire and method. The old conventions of living for convention and appearances has been relieved by a faith in comfort and convenience. At the same time our methods of attaining these ends have undergone the same change. To live "well" used to be considered, and was expensive. Today it is not. The market for convenience has spread to a much less expensive field, and the increase in the amount of business has justified an ever increasing improvement in the product.

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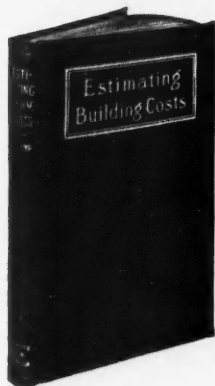
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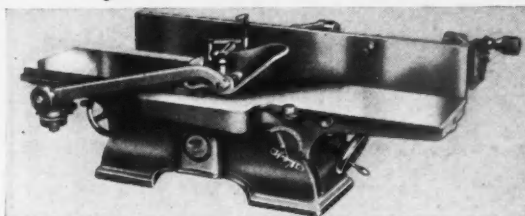
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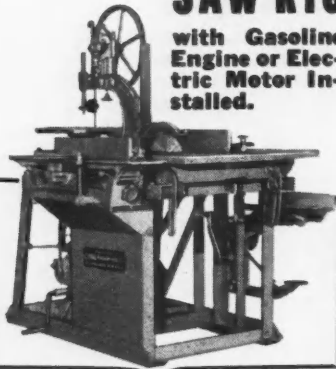
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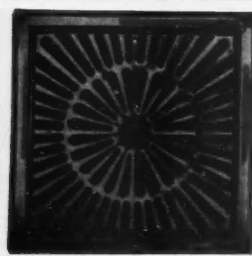
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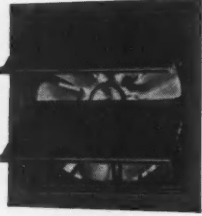
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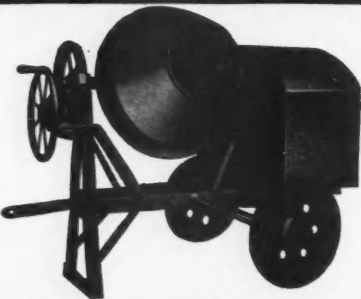


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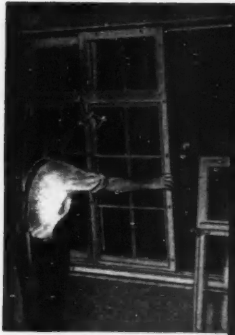
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Detroit Builders Market Complete Homes

(Continued from page 37)

ture. Many carry special inscriptions such as, "Open—Model Home—Will Duplicate." Contractor-builders not only use unoccupied model homes, but make arrangements with owner-occupants to show "sold jobs" as models. Many have prepared "standard" specifications which are used when model houses are duplicated.

The model house, as presented by Detroit builders, offers prospective owners the advantages of both a ready-built and custom-built dwelling, with few of their disadvantages. A prospective owner can place his house on the lot of his choice. He knows in advance exactly how it will look, inside and out, and what it will cost. Standard specifications show what he will get for his money, yet provide a choice of colors in bathroom fixtures, choice of design in electrical fixtures, choice of color for trim and interiors.

Model houses give a builder the advantages of semi-standardized production, for they minimize costly changes and extras during construction. By scattering them over a reasonably wide area he gets variety, yet keeps all work within easy reach, and eliminates costly supervision of widely separated projects.

One of the principal advantages of selling from model houses, according to Detroit builders, is that the selection of materials and equipment is simplified and few costly changes occur. Many of the builders, regardless of whether they sell from model houses, prepare "standard" specifications indicating the type of bathroom and plumbing fixtures that will be used. Owners have a choice of colors. Electrical fixtures usually are selected by owners on an allowance, from sources designated by the contractor-builder. Practices vary on finish hardware. In some cases the contractors buy hardware in quantity; others select it for owners, or set up an allowance. Contractor-builders buy paint and have owners decide on color schemes.

The type of heating plant used depended largely on cost of the house. Dwellings costing less than \$6,000 usually have coal-fired warm air plants, some with forced circulation systems. Houses costing more than \$6,000 usually are heated by oil or gas, and include winter air conditioning. Contractor-builders usually guide owners in selection of heating plants.

Refrigerators and ranges are included in many of the houses costing more than \$6,000, sometimes as part of the house, sometimes as an extra. Contractors recommend mechanical equipment and conveniences more frequently than ever before. One told how he advocates the use of steel porcelain kitchen cabinets, with drain-boards of factory-applied linoleum in his first interviews with prospective clients, when kitchen equipment is discussed, with the result that these items are usually installed in his houses.

Another told how he wrote to the people for whom he built last year for copies of their fuel oil bills during the past heating season, which was unusually severe. One owner heated his home for only \$65. Another spent \$110 for the season. The contractor shows these unbiased experience reports to his prospective clients, to prove efficiency of the heating plant that he recommends and installs in his homes.

The practice of presenting "standard" specifications is especially effective. One builder summed up the experience of those who use this method when he said, "Clients accept our specifications 100 per cent. We do not invite changes and we do not get them." Another added that while his floor plans and color schemes may vary considerably, he builds "practically the same house for all clients."

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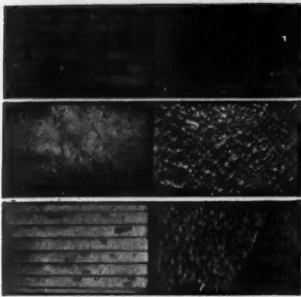
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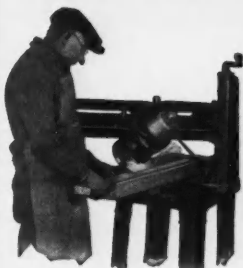


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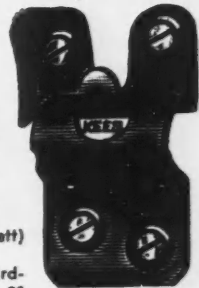
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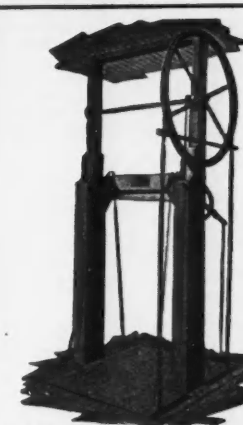
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216—**Colorcrete Stucco Spraying Machines and Materials**—"Confidential Book No. 6" presents inside information on concrete stucco spraying with 12 pages of photographs, examples and data on actual work and on this labor-saving equipment. Information also available on concrete molds for producing ornamental pottery and garden furniture; also sewer and culvert pipe, roofing tile, concrete block and Brikcrete, the thin brick unit for over-coating with brick veneer.—COLORCRETE INDUSTRIES, Inc., Holland, Mich.

217—**Circular and Band Saws**—Catalog No. 54 is a profusely illustrated catalog of 116 pages describing various kinds of circular saws, band saws, dado heads, cutter heads, etc.—HUTHER BROS. SAW MFG. CO., Inc., Rochester, N. Y.

218—**Lufkin Tapes and Rules**—General Catalog No. 12, recently revised, gives the most complete showing of high grade steel and woven measuring tapes, steel tape rules, folding wood, steel and aluminum rules, and many other items extensively used in the building field; 256 pages, copiously illustrated, full indexed, bound in tough Fabrikoid cover.—THE LUFKIN RULE CO., Saginaw, Mich.

220—**Boss Concrete Mixers**—New Catalog D-34, complete with prices, illustrated and describes the Boss concrete mixers, hoists, roller bearing concrete carts and gravity type dump bodies.—AMERICAN CEMENT MACHINE CO., P. O. Box 404, Keokuk, Iowa.

American Builder,
105 W. Adams St.,
Chicago, Ill.

(November, 1936)

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OCCUPATION*.....

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Index to Advertisers

NOVEMBER, 1936

| | | | |
|--|-----------|---|-----------|
| A | | M | |
| Accurate Metal Weather Strip Co..... | 96 | Maple Flooring Manufacturers Association..... | 8 |
| Adam Electric Co., Frank..... | 84 | Marquette Cement Company..... | 19 |
| Allmetal Weatherstrip Co..... | 99 | Masonite Corporation..... | 78 |
| Aluminum Company of America..... | 3rd Cover | Mueller Furnace Co. L. J..... | 99 |
| American Builder..... | 16-17 | Muralo Co. Inc., The..... | 88 |
| American Floor Surfacing Machine Co., The..... | 88 | | |
| American Gas Association..... | 69 | N | |
| American Radiator Company..... | 11-73 | National Manufacturing Company..... | 4th Cover |
| American Saw Mill Machinery Co..... | 91 | New Jersey Porcelain Co..... | 94 |
| American Telephone & Telegraph Co..... | 4 | | |
| B | | O | |
| Barber Asphalt Company, The..... | 18 | Ohio Hydrate & Supply Co..... | 77 |
| Barrett Company, The..... | 71 | Overhead Door Corporation..... | 27 |
| Bilco Mfg. Co..... | 97 | Owens-Illinois Glass Company..... | 87 |
| Bradley Lumber Sales Company..... | 20 | | |
| Briggs Manufacturing Company..... | 21 | P | |
| Bruce Co., E. L..... | 22 | Parks Woodworking Machine Co., The..... | 95 |
| Burnham Boiler Corp..... | 80 | Peerless Manufacturing Corp..... | 84 |
| | | Pittsburgh Plate Glass Company..... | 6-7 |
| C | | Porter-Cable Machine Co..... | 92 |
| C. H. & E. Mfg. Co., Inc..... | 98 | Portland Cement Association..... | 25 |
| Celotex Corporation, The..... | 2 | | |
| Cincinnati Iron Fence Co., Inc..... | 96 | R | |
| Clarke Sanding Machine Co..... | 91 | Ransome Concrete Machinery Co..... | 96 |
| Colorcrete Industries, Inc..... | 99 | Reardon Company, The..... | 75 |
| | | Red Cedar Shingle Bureau..... | 86 |
| D | | Reid-Way Corporation..... | 87 |
| Dail Steel Products Co..... | 91 | Republic Steel Corporation..... | 67 |
| Detroit Steel Products Co..... | 30 | Resinous Products and Chemical Co., Inc..... | 82 |
| De Walt Products Corporation..... | 89 | Reynolds Corporation..... | 75 |
| Dunn Mfg. Co., W. E..... | 83 | Ruberoid Co., The..... | 24 |
| | | | |
| E | | S | |
| Edwards Manufacturing Co., The..... | 90 | Samson Cordage Works..... | 85 |
| Electrovent Corporation..... | 98 | Sherwin-Williams Company, The..... | 23 |
| | | Sisalkraft Co., The..... | 9 |
| F | | Skilsaw, Inc..... | 86 |
| Farley & Loetscher Mfg. Co..... | 98 | Sloane, W. & J..... | 83 |
| Fordyce-Crossett Sales Co..... | 95 | Smith Company, The T. L..... | 93 |
| Fox Furnace Co., The..... | 11 | Solvay Sales Corporation..... | 81 |
| | | Southern Pine Association..... | 97 |
| G | | Stanley Works, The..... | 28 |
| General Bronze Corporation..... | 89 | Stevens Hotel, The..... | 93 |
| General Electric Company..... | 12 | | |
| | | T | |
| H | | Tile-Tex Co., The..... | 97 |
| Honeycutt Mfg. Co..... | 92 | Timken-Detroit Axle Co., The..... | 15 |
| | | Tracy Manufacturing Co..... | 76 |
| I | | Truscon Steel Company..... | 3 |
| Insulite Company, The..... | 5 | | |
| | | U | |
| J | | United States Gypsum Company..... | 79-81-85 |
| Jaeger Machine Co., The..... | 91 | United States Steel Corporation Subsidiaries..... | 32 |
| Johns-Manville Corp..... | 13 | Universal Atlas Cement Co..... | 32 |
| | | | |
| K | | V | |
| Kawneer Company, The..... | 97 | Victor Electric Products, Inc..... | 93 |
| Keasbey & Mattison Company..... | 10 | | |
| Kees Mfg. Co., F. D..... | 99 | W | |
| Kimball Bros. Co..... | 99 | Walker-Turner Co., Inc..... | 97 |
| Kinnear Manufacturing Co., The..... | 90 | Wallace Co., J. D..... | 99 |
| Kwik-Mix Concrete Mixer Co..... | 98 | Warren-Knight Co..... | 97 |
| | | Western Pine Association..... | 77 |
| L | | Weyerhaeuser Sales Company..... | 14 |
| Libbey-Owens-Ford Glass Company..... | 26 | Willis Mfg. Co., The..... | 87 |
| Lightolier..... | 96 | Wood Industries, Inc., Gar..... | 79 |
| Lincoln-Schlueter Floor Machinery Co..... | 94 | Wright Rubber Products Co..... | 89 |
| Lloyd Floor & Wall Tile Co..... | 99 | | |

NOTICE TO ADVERTISERS—Forms for the December number of the American Builder and Building Age will close promptly on November 16. New copy, changes, orders for omissions of advertisements must reach our business office, 105 West Adams St., Chicago, not later than the above date. If new copy is not received by the 20th of the month preceding date of publication the publishers reserve the right to repeat last advertisement on all unexpired contracts. AMERICAN BUILDER AND BUILDING AGE.



THE HOMEOWNER



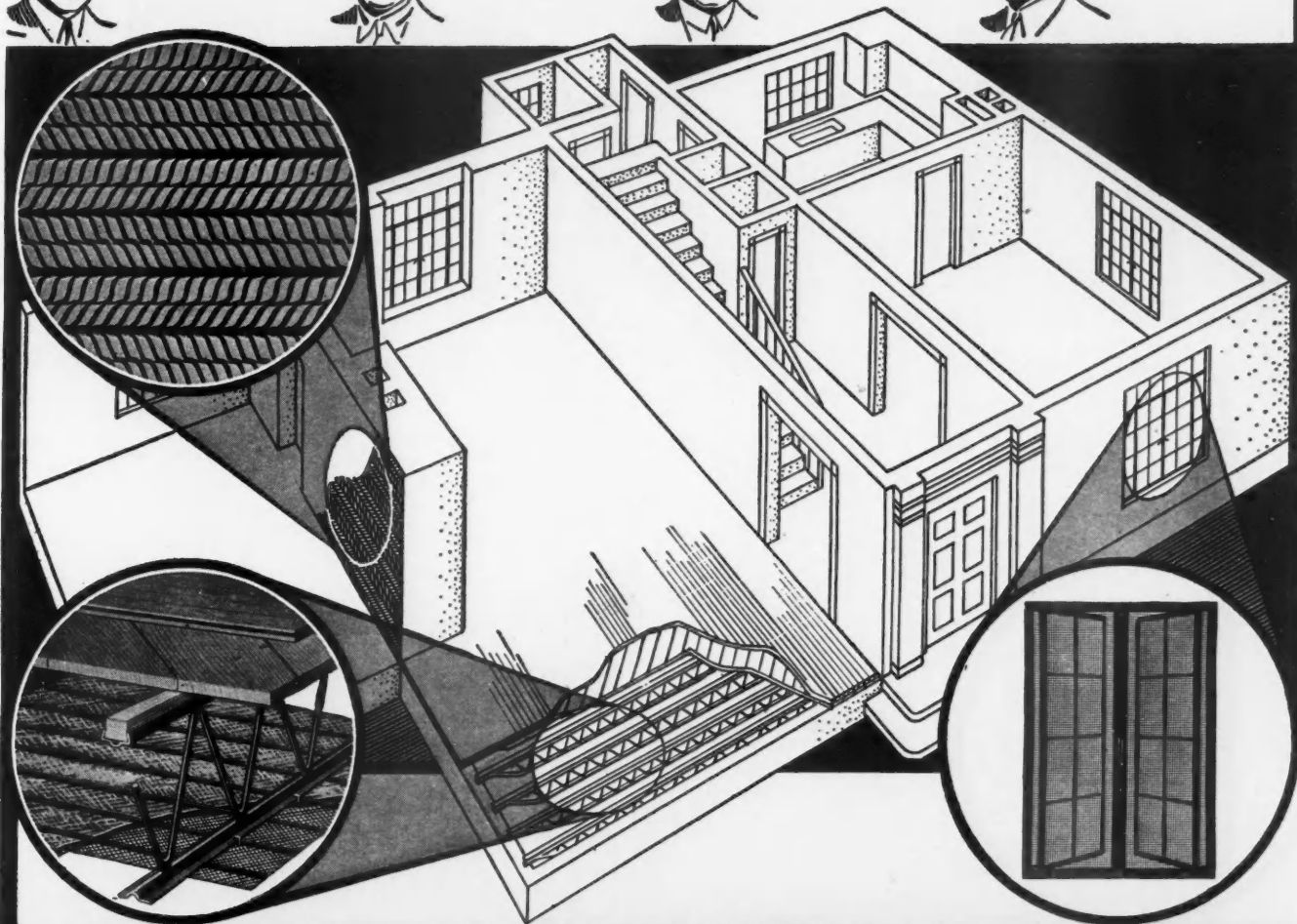
THE BUILDER



THE DEALER



THE ARCHITECT



● None question the beauty, utility, ease of operation and durability of Truscon Steel Casements... the squeak-proof, fire-resisting advantages and structural strength of Truscon Steel Joists... the protection afforded plastered walls and ceilings against unsightly cracks and other defects when Truscon Metal Laths are used as a base. Good construction is good business because everyone

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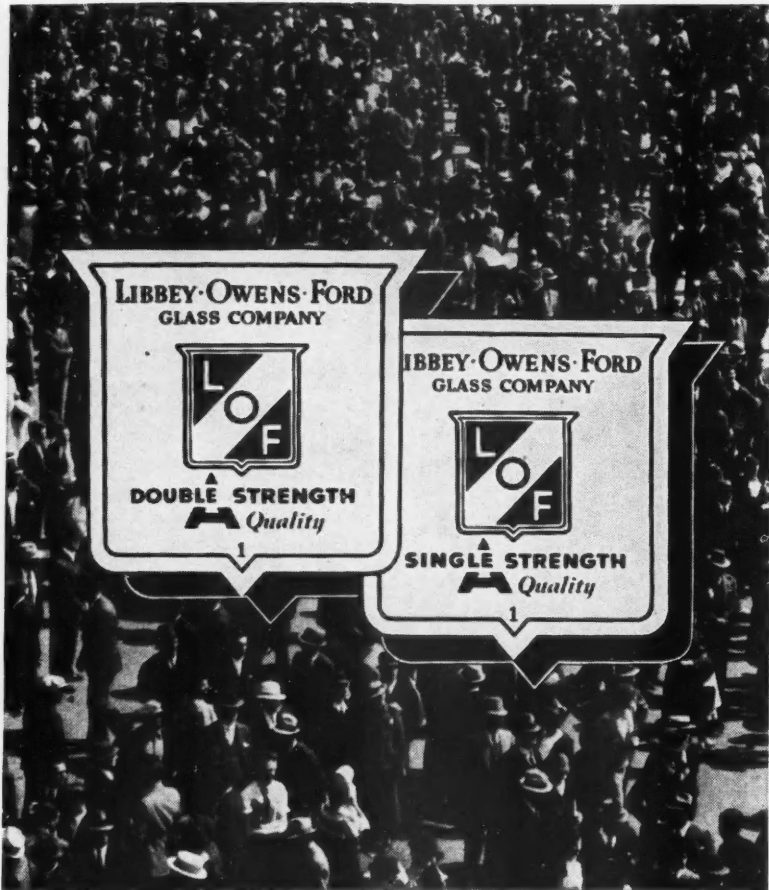


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YOUNGSTOWN, OHIO



WELL-KNOWN

to the public because of years of consistent national advertising, the L·O·F label stands as a familiar symbol



of superior quality. Many alert builders turn this universal recognition into a real sales tool.

They use L·O·F Quality Glass for all glazed areas and leave the labels on while the house is being shown. Prospective buyers, seeing them, know that the glass is of the very highest quality obtainable and naturally assume that everything else measures

up to a similar high standard. With people in this frame of mind, selling is much easier.

Libbey·Owens·Ford Glass Company . . . Toledo, Ohio.

LIBBEY·OWENS·FORD
Quality Glass

The INSULITE WALL OF PROTECTION

GIVES DOUBLE INSULATION

AND MAKES HOMES EASIER TO SELL



OUTSIDE

BILDRITE SHEATHING

INSIDE **LOK-JOINT LATH**

Insulite's two great materials of primary construction... Bildrite Sheathing and Lok-Joint Lath... enable you to *insulate* as you *build*, and at the same time build faster, build better, and make more profit on every job. • The name INSULITE, the world's oldest and time-tested structural insulation, is known everywhere as a mark of quality, creating confidence in every job in which it is used. It is a better structural material because it is made from wood. Note these outstanding advantages:

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1. Four times the bracing strength of ordinary wood sheathing.
2. Far greater insulation than lumber.
3. No open joints or knotholes... windproofed walls.
4. Thoroughly waterproofed all the way through—every fibre protected by asphalt.
5. Lower application cost.
6. One solid piece... easily applied.
7. Moderately priced.

A WORD ABOUT WATERPROOFING

Bildrite Sheathing is waterproofed all the way through... every fibre is treated with asphalt.

LOK-JOINT LATH

1. Easily and rapidly applied.
2. Effective insulation.
3. Eliminates lath marks on walls and ceilings.
4. Assure greater freedom from plaster cracks.
5. Low in cost.

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THE INSULITE COMPANY
Dept. AB106, Minneapolis, Minnesota

Please send me without cost or obligation samples of Bildrite Sheathing and Lok-Joint Lath, together with complete information.

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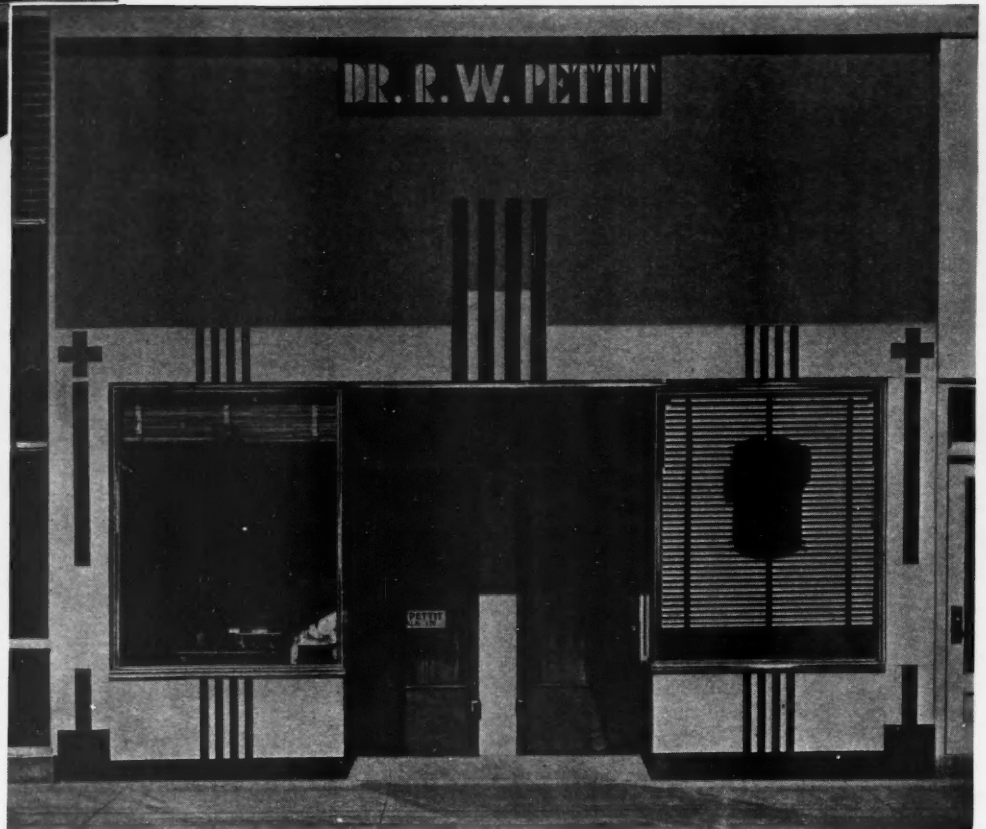
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INSULITE

THE Original WOOD-FIBER INSULATION BOARD

YOU CAN BE PROUD OF YOUR STORE FRONT JOBS . . .

when you use
Pittco Store Front Products



IN the widespread movement to modernize main street with up-to-date store fronts, you will find that the use of Pittco Store Front Products results in jobs you can be proud of.

Further, your *clients* are pleased with a Pittco job. They like its good looks, its individuality. They see what a powerful aid it is in attracting business for tenants, in boosting rentals for property-owners. And consequently, you get fewer complaints, have the benefit of their enthusiastic word of mouth advertising for your work, get more similar jobs from other prospects.

Let us send you our booklet on Pittco Store Fronts, which contains photographs, facts and figures on Pittco-remodeling throughout the country. It will give you complete information . . . and will serve as a good means of persuading potential store remodelers in your territory to use your services in their Pittco-modernization plans. To get this free

Here is a store remodeling job in Junction City, Kansas, done by Builders Supply Company. What client wouldn't be pleased with the transformation this contractor made in the property by the use of Pittco Store Front Products?

booklet . . . sign and mail the coupon.
PITTSBURGH TIME PAYMENT PLAN

Use the Pittsburgh Time Payment Plan in selling prospective clients on Pittco-remodeling. This plan gives them up to 2 years to pay for their new store front . . . 20% down and

the balance in easy monthly installments at low F. H. A. rates. But you get your money immediately upon completion of the installation!

Listen to "The Music You Love" rendered by the Pittsburgh Symphony Orchestra and distinguished guest artists every Sunday from 2 to 2:45 P. M., E. S. T., over Columbia Network and associated stations.

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| CARRARA STRUCTURAL GLASS | PITTCO STORE FRONTS | PITTSBURGH PAINT PRODUCTS |
| PITTCO STORE FRONT METAL | | POLISHED PLATE GLASS |
| PITTSBURGH MIRRORS | <i>glass...metal...paint</i> | TAPESTRY GLASS |
| PRODUCTS OF | | |
| <i>Paint</i> | PITTSBURGH | <i>Glass</i> |
| PLATE GLASS COMPANY | | |

Pittsburgh Plate Glass Company,
2368 B Grant Bldg., Pittsburgh, Pa.

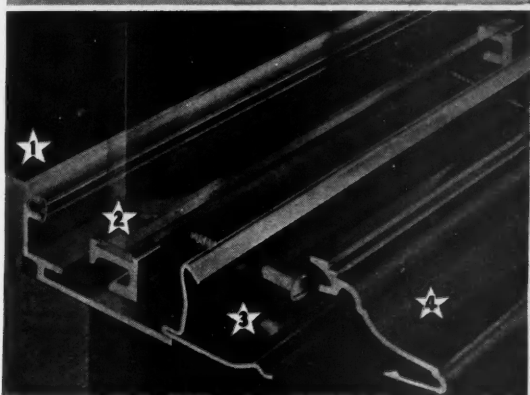
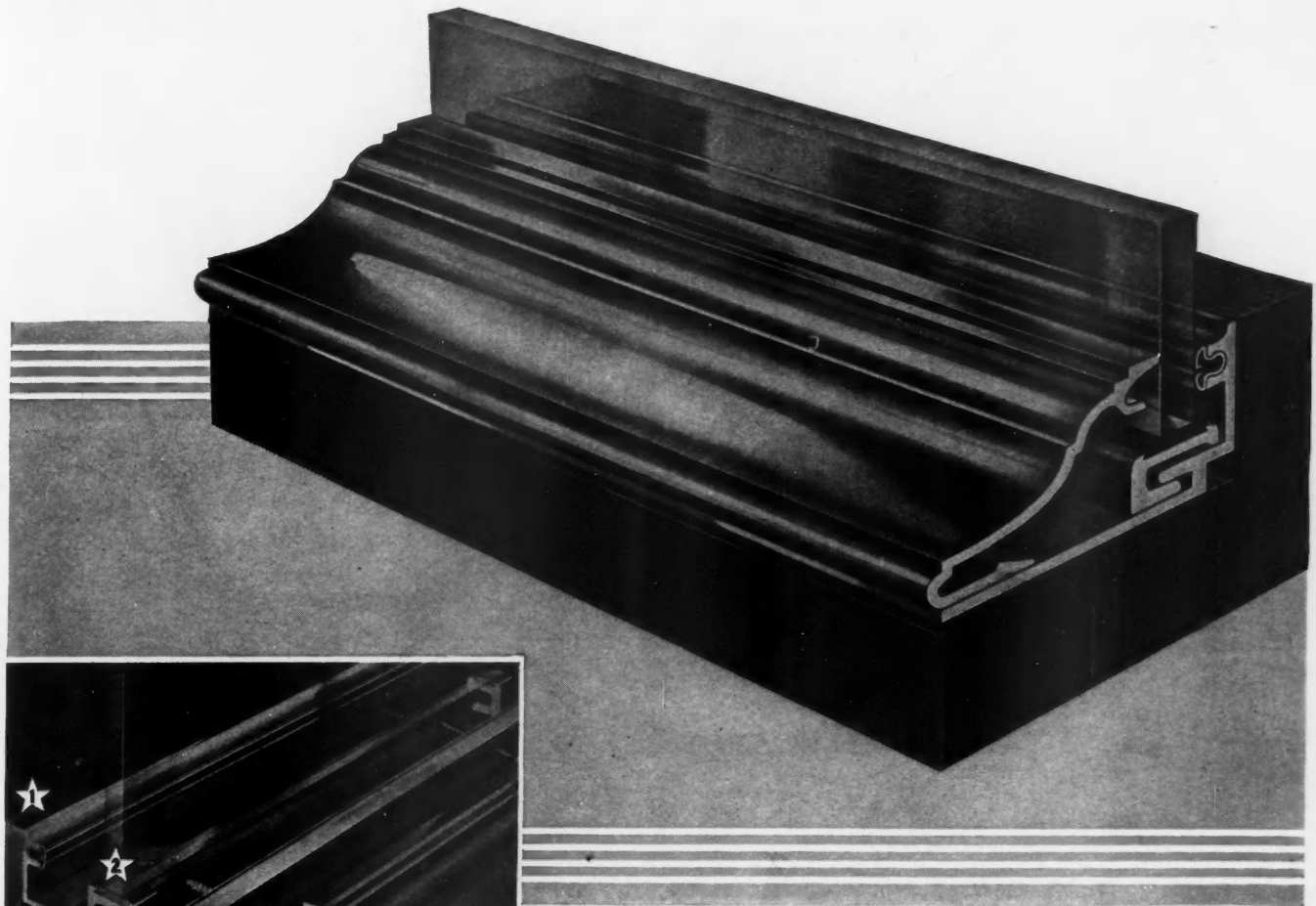
Please send me, without obligation, your new book entitled "How Modern Store Fronts Work Profit Magic."

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FIRST the inner member (1) is set; then the setting block (which is actually 2½" long) is pressed into its groove and the glass (2) lifted into place (cross section above shows setting block in final position); then the glass holding member (3) is installed; and finally, the face member (4) snaps on to finish the assembly.

A BETTER-LOOKING STORE FRONT METAL

Set Entirely from the Outside

THESE are two of the reasons why Pittco Store Front Metal, in the brief time it has been on the market, has received such a warm welcome from contractors, builders and architects everywhere.

Pittco Metal is better looking, with its clean-cut, graceful lines, its harmony of design, and its close relationship between all members.

And all Pittco members are set entirely from the outside. Examine the assembly sketch shown here, and see for yourself. This saves time, saves trouble, saves money.

The fact that glass is installed from the outside makes replacement easy and quick should it ever become necessary.

No contractor interested in store

front construction should fail to investigate Pittco Store Front Metal. Ask the nearest Pittsburgh Plate Glass Co. warehouse to give you a demonstration. And send the coupon below for our folder of full and quarter size details showing various applications of Pittco Metal including its use with Carrara Structural Glass. There is no obligation.

PITTCO
STORE FRONT METAL

Pitt PITTSBURGH *Glass*
PLATE GLASS COMPANY

Listen to "The Music You Love" rendered by the Pittsburgh Symphony Orchestra and distinguished guest artists every Sunday from 2 to 2:45 P. M., E.S.T., over Columbia Network and associated stations.

Pittsburgh Plate Glass Company
2359B Grant Bldg., Pittsburgh, Pa.

Please send me, without obligation, your folder containing full information on Pittco Store Front Metal and detail drawings.

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City.....State.....

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best in asbestos

**KEASBEY & MATTISON
COMPANY** AMBLER, PENNA.

Your reasons for using K & M Asbestos Building Materials are the reasons why they are recognized leaders in the field. Rigid quality-control, from the raw fiber to the finished product, gives them uniformity and durability. More than 60 years of pioneering with asbestos materials backs them. The line is complete . . . and it is priced right.

The K & M Line is complete:

- Asbestos Roofing and Siding Shingles**
in various styles, sizes and colors
- Asbestos Heat Insulating Board**
- Asbestos Flexible Wallboard (Sheetflextos)**
- Asbestos Decorative Walltile**
- Asbestos-Cement Structural Board and Sheathing**
- Amroc (Mineral Wool) Insulations**
for the home

FORD INTRODUCES FOR 1937 2 V-8 ENGINE SIZES

85 HORSEPOWER FOR HIGH
SPEEDS OR HEAVY DUTY

60 HORSEPOWER FOR LIGHT
DELIVERY SERVICE



CHOICE OF POWER TO FIT YOUR NEEDS

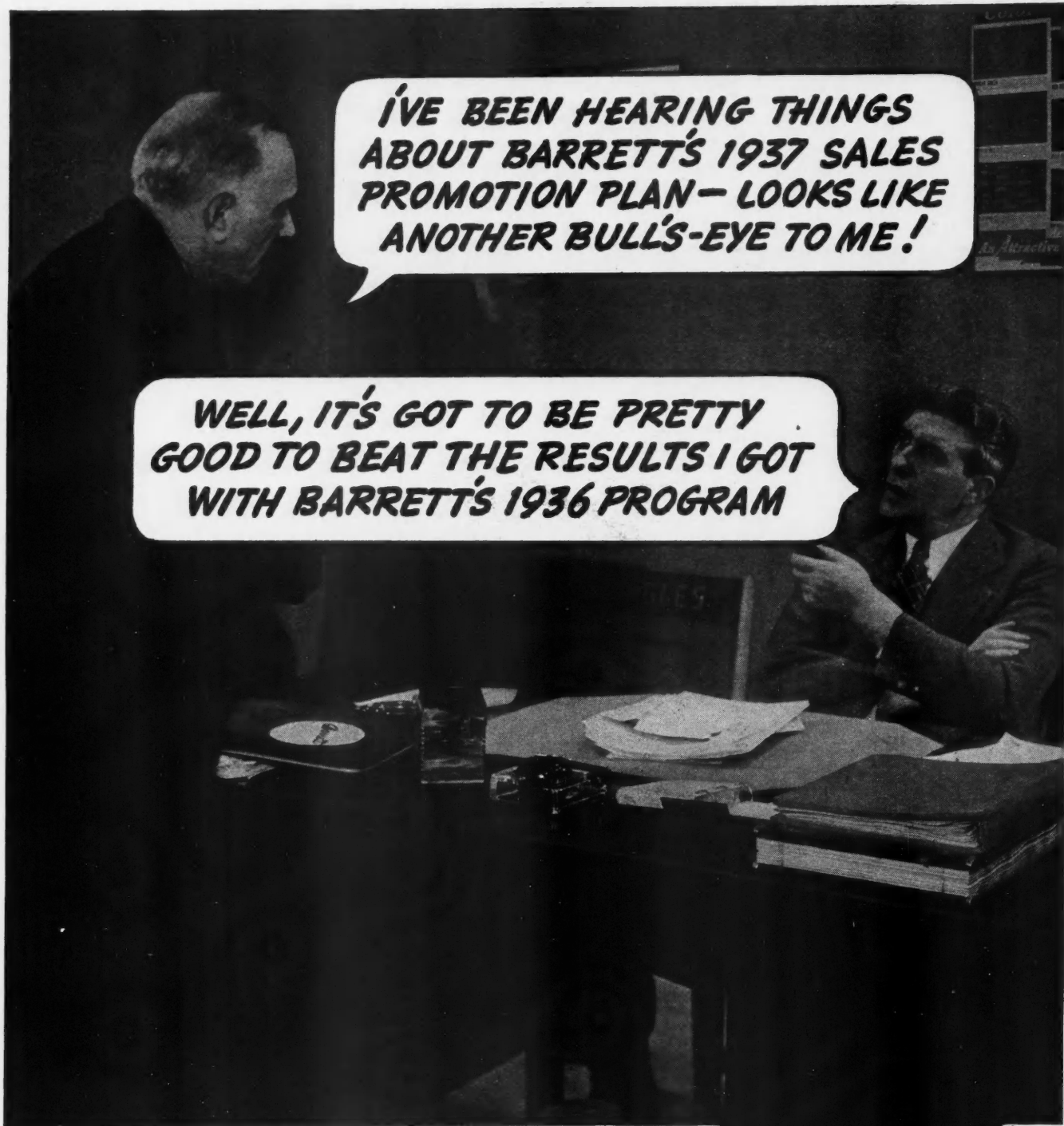
With these two great V-8 engines, Ford offers a full line of optional equipment to apply power with greatest economy and to meet individual load requirements. These options make many combinations available, one of which will do your hauling or delivery job at the lowest cost. No compromise truck can give you such economy.

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Matching the **HIGHEST** in Quality . . . Selling with the **LOWEST** in Price



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THE BARRETT COMPANY

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Birmingham, Alabama



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BETTER PLUMBING FIXTURES FOR BETTER HOMES

The people of America are demanding beauty more than ever before. Their sleek motor cars are beautiful. Their new home decorations are beautiful. And Briggs Beautyware leads this modern trend—makes the bathroom and kitchen the brightest spots in the house. For Briggs Beautyware gives you beauty—striking beauty of color and design in addition to advanced safety, utility and sanitary features.

Builders, who realize that enthusiastic customer satisfaction makes rentals and sales easier, will seize upon Briggs Beautyware. Here are soft, rich colors and two-tone combinations to thrill the feminine eye.

Here are charming line and shape. Then, too, of practical advantage is a higher-lustre, acid-resisting surface that's easier to clean. There's greater strength and far lighter weight for ease of handling. There's a patented lip flange on Beautyware tubs for perfect plastering or tiling-in. There's the Safety Tub with embossed serpentine bottom and broad, flat safety seat.

All these superiorities of design and construction are available without extra cost. Small wonder that builders from coast to coast are enthusiastic about Briggs Beautyware. Your Master Plumber can give you full information and show you Beautyware. Or write direct to Briggs, Detroit.

BRIGGS MANUFACTURING COMPANY • PLUMBING WARE DIVISION • DETROIT, MICHIGAN

101 Park Avenue, New York City

177 N. Michigan Ave., Chicago, Illinois

657 Lincoln Road, Miami Beach, Fla.



A Word on the Obligation of LEADERSHIP

IN nearly every field of manufacture there's a Quality Leader . . . usually a pioneer not content to rest on his reputation for making a better product. For he who maintains a position of leadership, cannot even pause in his stride. Always he must keep his eye on what's still to be done, and direct his efforts accordingly.

There are many among the building profession who consider BRADLEY a Quality Leader in the manufacture of hardwood flooring. To them BRADLEY acknowledges an obligation. For, although they have recognized improvements which originated with Bradley, still further improvements must follow, in order that Bradley shall deserve their continued recognition.

It is only through such diligence that BRADLEY won this recognition; it is only by continued diligence that "BRADLEY BRAND" can safeguard that recognition, always advancing the quality of its product as the Standard of Comparison. So through careful study and research, the makers of "BRADLEY BRAND" are dedicated to constant betterment by developing refinements in hardwood flooring manufacture which keep pace with modern trends.

"BRADLEY BRAND"
Hardwood Flooring is produced in Oak and Beech in both standard and "Nail-Seated" strip flooring; also in Oak Plank Flooring in both V and flush joint design, the latter with optional plugs and butterflyes, as illustrated here. "BRADLEY BRAND" products are available at local distributors anywhere in the United States and in many foreign countries. If yours cannot supply you, write for prompt assistance in filling your requirements.

BRADLEY LUMBER SALES CO.

WARREN, ARKANSAS



Gas means modern Convenience

THROUGHOUT THE YEARS TO COME



Illustration from an advertisement in the "Modernize Your Home With Gas" campaign in national magazines of 14,000,000 circulation.

THE homes you'll be proud of five, ten, perhaps fifteen years from now are the ones into which you've built the kind of lasting convenience that modern gas appliances give.

As a nucleus for truly workable kitchens, you have a wide choice of types and sizes of gas ranges and refrigerators. Steady, intelligent development has made these appliances fully automatic in operation. Thanks to gas, they operate at the lowest cost and with the least upkeep. They are as modern in appearance as they are efficient—and the dependability and convenience of gas have made it the preferred fuel in more than 15,000,000 homes.

Among the many conveniences of today's gas ranges are



thoroughly effective insulation, automatic lighting and dependable oven-heat control. Gas brings to refrigeration, water-heating and house-heating a silence, freedom from moving parts and long life unequalled by other methods. Worth considering, too, are the new developments in gas air conditioning equipment that insure modern, effortless comfort the year round. In addition, very definite economies are available to homes equipped to use gas for every heating need.

Your local gas company will gladly cooperate with you in the selection and installation of up-to-date gas appliances of all types.



Be sure the gas appliances you install carry the Blue Star Seal of the American Gas Association Laboratory.

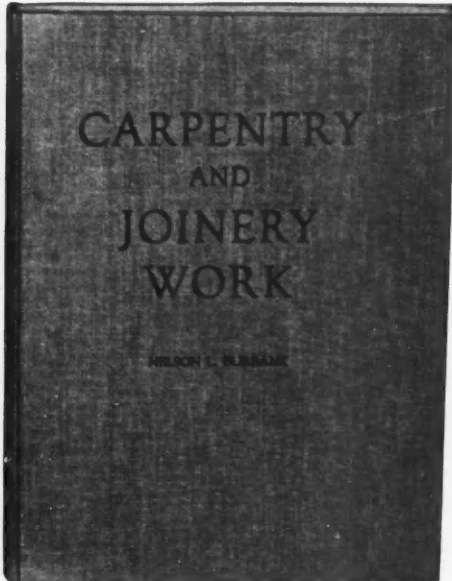
AMERICAN GAS ASSOCIATION

Now Ready

CARPENTRY and JOINERY WORK

By Nelson L. Burbank

Instructor, Building Vocational High School, Cincinnati, Ohio



The manuscript was carefully checked by a former contractor and ex-editor so that this book combines the practical outlook with the author's trade teaching experience. The cardinal principles of modern residential construction are set forth simply and logically with the aid of many photographs and line drawings. The technique of steel framing and sheet steel siding construction is explained as well as the older and more common methods.

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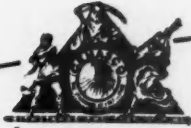
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Tools and Equipment—Tool Boxes—House Plans—Excavations—Foundation Forms—Foundations—Sills—Girders—Floor Joists—Sub-Flooring—Outside Framed Walls—Inside Framed Walls—Plumbing Framed Work—Sheathing Walls—Ceiling Joists—Roof Framing—Roof Sheathing—Cornices—Roofing—Porch and Bay Framing—Exterior Wall Covering—Interior Wall Covering—Stairs—Interior Trim—Windows—Doors—Hardware—Closets and Shelving—Finish Flooring—Finishing—Index.

280 pages, illustrated, 8½ x 11 inches. In Stiff Paper Binding, \$2.50; Cloth Bound, \$3.00.

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American Builder and Building Age
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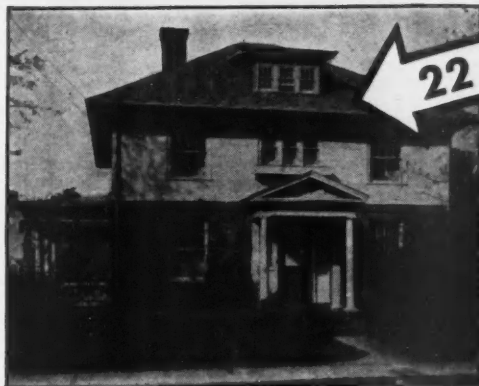


Long-life Genasco Roofs insure full profits



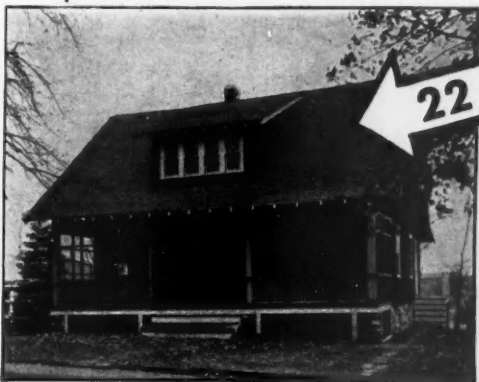
23 YEARS

Genasco Asphalt Shingles applied in 1913 to this home of Mrs. A. F. Paden, Galesburg, Ill. Still in excellent condition.



22 YEARS

Home of S. A. Bailey, Northampton, Mass., roofed with Genasco Asphalt Shingles in 1914. In excellent condition after 22 years.



22 YEARS

A. M. Esterbrook's home, Haverhill, Mass. Genasco Asphalt Shingles applied in 1914. "Still good. Some more years before they will need replacing", says the owner.



20 YEARS

No signs of wear after 20 years service from Genasco Asphalt Shingles. Applied in 1916 to this roof of Mrs. James Martin's home, Greenville, O.

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Because Genasco Asphalt Shingle Roofs last so long and give trouble-free service without call-backs for further attention. There's no dwindling of your profit on this kind of a roofing job. Genasco Asphalt Shingle Roofs are well worth-while for your customers because of their long life and satisfying service . . . and well worth-while for you because they prevent profit shrinkage.

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To give your customers full roofing satisfaction, and to insure *your* full profits, protect them with roofs of Genasco Asphalt Shingles.

Genasco

INC. U. S. PAT. OFF.

Asphalt Shingles

Waterproofed with
TRINIDAD LAKE ASPHALT CEMENT
THE BARBER COMPANY, INC.

Philadelphia

New York

Chicago

St. Louis

Sign and send this coupon now!

AB12

The Barber Company, Inc., Philadelphia.

Please send me the folders describing the shingles checked below:

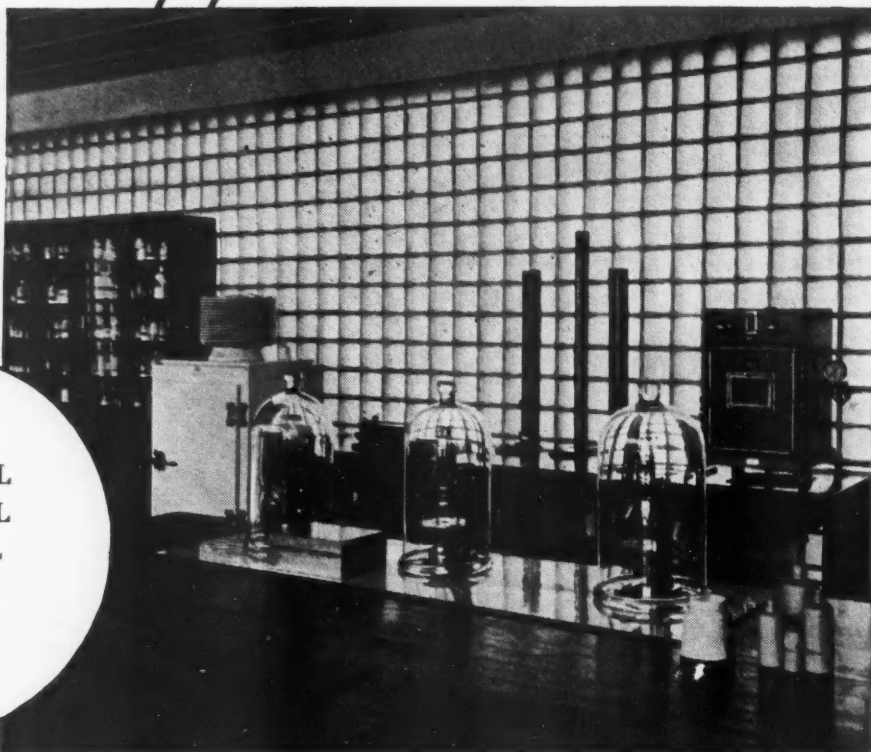
- Genasco Latite Shingles
- Genasco Sta-Rite Shingles
- Genasco Sealbac Shingles
- Genasco Hexagon Strip Shingles
- Genasco Barb-Lock Shingles

Name.....

Address.....

WALLS OF Daylight

FOR
RESIDENTIAL
COMMERCIAL
INDUSTRIAL
AND PUBLIC
BUILDINGS



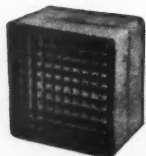
Insulux glass block squarely meets present-day and future demands for a building material that is strong and clean—that resists fire, retards heat, deadens sound and withal,—*admits light*. Architects and builders everywhere are turning to Insulux because it is thoroughly practical, and because it offers unlimited opportunities for the design and erection of Walls of Daylight for beauty or utility or both.

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Glass Masonry

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ADMITS LIGHT

Displayed in your Houses...



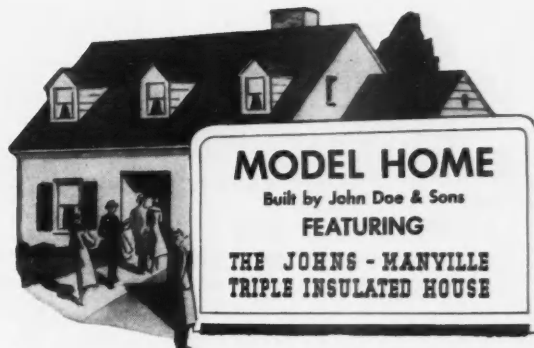
THIS J-M SEAL helps you sell... protects your profit!

Here's how the J-M Seal tells your prospects the advantages of Triple Insulation and the quality materials you have built into your house

INSULATED—The attic and exterior walls are insulated with Ful-Thik Johns-Manville Home Insulation Batts. This rock wool product keeps rooms up to 15° cooler in summer . . . saves up to 30% fuel in winter . . . cannot burn, rot, corrode.

FORTIFIED—The plaster throughout this entire house is applied on Johns-Manville Steeltex Plaster Base. It provides plaster walls and ceilings reinforced with steel . . . stronger, thicker . . . no lath marks . . . highest fire rating.

PROTECTED—Both the roof and sidewalls are made of Johns-Manville Asbestos Shingles. These shingles are fireproof . . . they will not rot or wear out . . . have the charm of the finest wood plus the permanence of stone.



TODAY your biggest problem in building quality houses for sale is to compete successfully with cheap construction. To get a fair profit, you must have more to offer—and you must *make your prospect see why*. Triple Insulate your next house with J-M Asbestos roof and siding shingles, J-M Home Insulation, J-M

Steeltex. They give you three major advantages that prospective home owners want: (1) a house that is comfortable in any weather while saving in fuel bills! (2) a house that is protected against fire! (3) a house that will not easily show wear and that will save on maintenance expense! Ask your J-M representative

about this. Also learn how any builders using any J-M products can capitalize on the J-M name with the new J-M product plaque.

COUPON BRINGS FULL PARTICULARS

JOHNS-MANVILLE
22 East 40th Street, New York
Please send me full particulars on the new J-M Seal and J-M product plaque.

Name

Address

City..... State.....

JOHNS-MANVILLE **Johns-Manville** **BUILDING MATERIALS**



NEEDLESS LABOR

NEEDLESS WASTE

Both cut deeply into profit!

There's no money in waste for anyone! Above you see a typical building scene, before Weyerhaeuser 4-Square lumber came into the building picture—needless piles of profitless wasted lumber—needless hours of profitless wasted time spent trimming, squaring and fitting lumber on the job. These wastes represent money—money that rightfully belongs to you as legitimate profit.

It appears now that next year there will be a shortage of good carpenters. Therefore every available working hour of the men you have should be spent productively. Why not give them lumber that is easy to use—lumber that eliminates a vast amount of trimming, squaring and fitting—lumber that enables them to get from one job to the next quickly.

Weyerhaeuser 4-Square is such lumber. It is delivered with perfectly squared, smooth ends, in exact standard lengths. Much of it never touches a saw from the time it leaves the mill until it reaches its place in the house.

That is building economy—actual savings that find their way into greater contracting profits. When you talk to your 4-Square Lumber dealer, you'll find that this improved, ready-to-use material costs no more than ordinary lumber.

WEYERHAEUSER SALES COMPANY

SAINT PAUL

4 WEYERHAEUSER
4-SQUARE
LUMBER

MINNESOTA

A profit note
for Builders

MORE SUNBEAM AIR CONDITIONING SYSTEMS

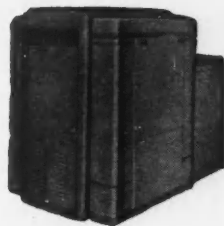
*were installed in homes
in 1936
than any other make*



All reports right now show a tremendous public preference for Sunbeam Air Conditioning. Latest news available indicates that more Sunbeam Air Conditioning Units than any other make have been sold for homes.

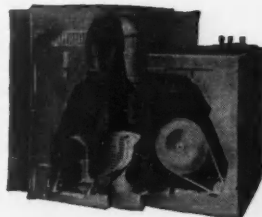
This important fact means profits for builders. Wise builders follow public demand and include the sales value of Sunbeam Air Conditioning in the homes they build. They make the advantages of Sunbeam *their own* advantages.

Let Sunbeam engineers plan the air conditioning for the homes you're planning now. It is a free service offered to builders and architects. Mail the coupon today for the details, and for the facts on Sunbeam Air Conditioning and how it helps to sell.



A MODEL FOR
EVERY HOME
AND NEED

Series D
Sunbeam
Air Conditioning for
gas



Series 200 (left)
Sunbeam Air
Conditioning for
oil



Series 20 (right)
Sunbeam Air
Conditioning
for coal

SUNBEAM AIR CONDITIONING

HEATS IN WINTER • COOLS IN SUMMER
THE FOX FURNACE COMPANY
ELYRIA, OHIO

Division of American Radiator & Standard Sanitary Corp.

THE FOX FURNACE COMPANY, ELYRIA, OHIO

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Tell me
about your
free air con-
ditioning
layout serv-
ice and
about Sun-
beam Air
Condition-
ing Units.

Name
Address
City
State

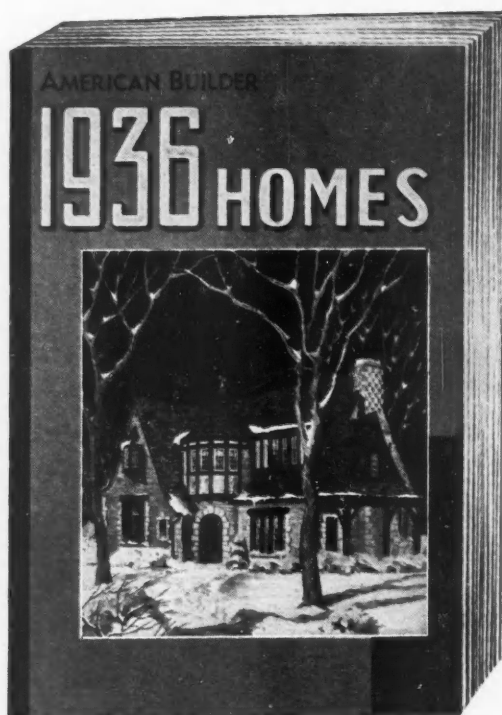
Homes for 1937 Living

172 pages
300 illustrations
12 pages printed in 4 colors
Bound in heavy enameled paper, cloth-strip reinforced.

The 5 Chapters

Foreword—4 pages

1. Forward-looking Home Designs—24 pp.
2. Home Designs of Tested Worth—34 pp.
3. Low Cost Home Plans—34 pp.
4. Modernization—New Value through Re-Styling—34 pp.
5. Country Homes and Farm Building—34 pp.



Such homes, to have popular appeal and to meet the universal 1937 demand, must embody the latest and best in architectural design, coziness, charm, equipment, materials and construction methods. Such homes are generously displayed, in advance showing, in this issue of the American Builder. As you preserve this copy for constant reference throughout the year, you will find of equal value to you as a guide to modern home building possibilities the Plan Book illustrated below. "American Builder 1936 Homes" is in such perfect step with the procession of new home ideas that it might well be called "American Builder 1937 Homes." Among the many thousands of designers, constructors and merchandisers who will dominate the 1937 building picture and who have become the proud owners of this Plan Book are upwards of 1,500 of the leading Operative Builders of the country—men who are experts in the knowledge of home values and who appreciate and use every idea that makes for the enhancing of those values.

SPEAKING of Operative Builders—one of the most valuable features of "American Builder 1936 Homes" is the large number of Model and Demonstration Homes which it describes and illustrates. In the aggregate millions of people visited these homes when they were opened for display, thousands were sold on them and many thousands more will buy their duplicates during the coming season. These homes are the advance guard of the big 1937 Home Parade. They may well be followed. No such collection of them will be found anywhere, save, of course, in the columns of the American Builder. Some of them are listed below.

Forward-Looking Home Designs

Iowa Streamlined House of concrete units and double walls, with working drawings showing how it was constructed and arranged . . . G-E New American Demonstration Home on Long Island, sensible, modern and low cost Washington Shop-Cast Polychrome House Chicago builder features Ultra-Modern Home . . . Suburban Chicago Home, modern in design, practical in plan, with plans, elevation and details . . . G-E Experimental House in Nela Park, with charming interior views . . . Yonkers Model Home, with specifications and interior views . . . Grand Prize Homes, large and small, for North and South . . Dayton's English Georgian Home of Today . . Marblehead New American Home, with airconditioning layout and views showing automatic heat, livable basement and scientific kitchen . . . 4-level house with excellent floor plan and lowered costs.

Home Designs of Tested Worth

Silver Star Sample House . . . Manhasset Model Home . . . Virginia Exhibit Home . . . Lancaster Realty Board Model Home, with marvelous kitchen . . . Some inexpensive but most charming New Jersey Homes . . . Airconditioned Cotswald Cottage . . Triple-insulated Time-Proof Home, with construction details . . . Carefree Cottage, with working plans . . . Kansas City Home of 6 rooms . . Connecticut House for Country Living . . Well Designed Cape Cod Colonial . .

Modernization

Page after page of new ideas for getting new value by turning old houses into new homes—giving a modern touch to interiors . . . imparting new splendor to kitchens, baths and basements . . . attracting new trade with a remodeled tea room—renting houses long idle by making them over at little cost . . . etc., etc.

Low Cost Homes Will Loom Large in the 1937 Market

"American Builder 1936 Homes," described on the preceding page, is fairly alive with them. Chapter 3 is devoted to them exclusively. All are expertly planned, to get the utmost value out of every dollar invested—in uptodateness, comfort, conveniences and enduring construction. Here are a few of the many Low Cost Homes presented in this section: Low Cost Built In, 3 rooms can grow to 4 . . . Carefully planned Curtis Home, providing every modern comfort . . . Curtis Key Home, designed to use cost-cutting stock materials throughout . . . Attractive Colonial in "Low Cost Harmony" with alternate exterior . . . Weathertight 4-room home suggesting comfort and hospitality in every line . . . A thrifty "Build Now, Finish Later" . . . Southern Home for the slender pocketbook, broad and airy . . . Modernism in Brick, a new style Bungalow well liked for its simple, substantial honesty . . . Substantial 4-room dwelling of cement masonry and modern elegance and distinction . . . Low Cost Brick . . . For Narrow City Lot, featuring strength with simplicity of design . . . Northwestern Economy Houses . . . A bunch of attractive Outing Cottages . . .

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The Farm, Too, Goes Modern

No builder can afford to neglect his rural clients. The farmer has the same itch for modernity as his city brother. The farmer, too, has more money to spend now than he has had for many a long year. Go after him with the splendid sales material provided in Chapter 5, "Country Homes and Farm Buildings." Here are given plans and views of Low Cost Homestead Houses, new Homestead Barns, Farm Profit Buildings, Shed Roof Hennyery, Open Front Poultry House, Concrete Hog House, Firesafe Smokehouse, Concrete Dairy Stable, instructions for laying out a High Corn Crib, a Wind-Proof Gothic Barn, with Master Material List, and many other farm structures.

Miscellaneous Features

Many new, clever ideas in Garages . . . What can be done on a Half-Acre Lot . . . How to get Better Homes for Less Money . . . How to get a higher FHA rating . . . How to work the Cost Keys (one of which is attached to every design in the book) . . . Where-in the Small House of Today is entirely different from the Low Cost House of Yesterday . . . Some airconditioning layouts . . . The use of Arkansas Pine Paneling . . . Veneering job brings happy ending . . . The construction advantages of Enameled Sheets for Wall Finish . . . Plenty of new Modern Kitchens, Bathrooms, Basements, Entrances, Staircases, Living Rooms, Built-In Breakfast Nooks, Bookcases and Bar . . . A 4-page Shop-crafter's Corner . . . New Ideas in Recreation Rooms, Studies and Open Halls . . . Today's Small House requires new Methods and Materials . . . Planning Farm Improvements.



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One of the Nine
BRUCE PLANTS

Modern Plants—Improved Materials Mark New Building Era

The lumber industry has not stood still during recent years of decreased building. It has been preparing for the opportunity which is now at hand. New products have been developed, old ones improved. Invention and research—the tools of America's great industries—have been utilized to give the contractor, architect and dealer superior materials with which to rebuild America.

For over twenty-five years E. L. Bruce Co. has been manufacturing hardwood floorings and lumber products. But it has been within the past few years that the greatest improvements have been made in the Bruce line. Bruce products have always measured up to the most exacting standards. Today some of them offer important features which no other manufacturer can duplicate.

The average home-builder knows little about the technical qualities of building materials. That is why he depends on expert advice. When he chooses a contractor his selection is based upon his confidence in that contractor's ability to select the right materials and to see that they are properly installed. But the home builder does have a strong preference to certain "brands" which have become by-words in the building industry.

Your customer needs no "selling" on Bruce products. When you recommend them, you insure satisfaction with the completed job and with your services.

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FLOOR FINISHES
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