



Graceful Colonial entrance to modernized home, Glen Ellyn, Ill. R. Harold Zook, architect.

AMERICAN BUILDER and BUILDING AGE, with which are incorporated National Builder, Permanent Builder, and the Builder's Journal, is published on the first day of each month by the

**AMERICAN BUILDER PUBLISHING CORPORATION**

105 West Adams Street,  
Chicago, Ill.

NEW YORK  
30 Church Street

CLEVELAND  
Terminal Tower

WASHINGTON, D. C.  
National Press Building

SAN FRANCISCO  
55 New Montgomery Street



Samuel O. Dunn, Chairman of Board; Henry Lee, President; Bernard L. Johnson, Robert H. Morris, Delbert W. Smith and R. E. Clement, Vice-Presidents; Elmer T. Howson, Secretary; John T. De Mott, Treasurer.

Subscription price in the United States and Possessions and Canada, 1 year, \$2.00, 2 years, \$3.00, 3 years, \$4.00; foreign countries, 1 year, \$4.00, 2 years, \$7.00, 3 years, \$10.00. Single copies, 25 cents each.

Member of the Associated Business Papers (A. B. P.) and of the Audit Bureau of Circulation (A. B. C.).

[A Simmons-Boardman Publication]

**AMERICAN BUILDER**  
and Building Age

NAME REGISTERED U. S. PATENT OFFICE AND CANADIAN REGISTRAR OF TRADE MARKS

**FEBRUARY, 1936**

58th Year

Vol. 58—No. 2

Spending Toward National Ruin—Samuel O. Dunn .....	37
Editorials .....	39
A New Service—to Bring Better Planning to Home Builders	
Lower Costs from Better Tools	
Another Census of Construction	
Frontispiece—Improved Tools and Equipment Cut Costs for Today's Builders	41
Re-Equipment Key to Profits .....	42
Survey Shows Possibilities in New Power Machines	
Cutting Costs with Power Saws .....	44
The Beginning of a New Series of Constructive Articles on Cutting Costs with Up to Date Equipment	
Building and Motor Cars .....	46
W. J. Cameron of the Ford Motor Company Tells of Surprising Building Activity Created by the Ownership and Use of Automobiles	
Selected Home Designs .....	47-62
Sixteen Pages of Choice Examples of the Builders' Art Presented on Special Coated Paper Stock	
Manhasset Model Home by Levitt & Sons, Builders	
Washington, D. C., "Silver Star Model Home;" Monroe Warren, Builder	
"Washington Post" Home at Falls Church, Va.; Joseph Kefauver, Builder	
Lancaster, Pa., Realty Board Home; Melvern R. Evans, Architect	
New Midwest Modernism Near Chicago; R. Harold Zook, Architect	
Two Colonial Homes at Allendale Park, N. J.; Bullard Co., Builders	
Air Conditioned Cotswold Type Home, Detroit; Harry J. Durbin, Builder	
February "House of the Month;" Little & Slaughter, Builders, Kansas City, Mo.	
"Time-Proof Home," New Rochelle, N. Y.; Oscar A. Ettari, Builder	
Operative Builders Department .....	63
10 Houses Sold in 10 Days Demonstrating	
Modernization Department .....	68
How One Job Leads to Another in Restyling Old Basements	
A Lesson in Roof Framing .....	70
B. T. Allyn, Building Contractor, Portland, Me., Shows How to Lay Out a Roof	
Home Equipment Department .....	72
V. L. Sherman Discusses Problems Raised in Letters from Subscribers	
Aluminum Celebrates Fiftieth Anniversary .....	75
Many Uses Achieved in Building Field	
Where, Why and How to Use Treated Lumber in Home Building and General Construction .....	78
Southern Colonial Home, Northwest Construction Co., Washington, D. C.	80
Specifications, February "House of the Month"	81
Construction Features, Lancaster Model House	82
Shopcrafter's Corner .....	83
Practical Job Pointers .....	84
New Products Department .....	86
News of the Month .....	90
Letters from Readers on All Subjects .....	102
Catalog Service—Tools and Equipment .....	114
Advertisers' Index .....	117

**BERNARD L. JOHNSON**  
Editor

**JOSEPH B. MASON**  
Eastern Editor

**H. F. LANE**  
Washington Editor

**A. W. HOLT**  
Contributing Editor

**ROBERT H. MORRIS**  
Business Manager

**R. E. SANGSTER**  
Associate Editor



Method of installing in solid brick or block construction.

Chief misconception of window costs lies in the idea that a window is merely frame and sash. In double hung wood windows, labor and extra materials in addition to the frame and sash may run as high as 75% of the total cost. In Fenestra, the cost of labor and extra materials is much less.

Detroit Steel Products Co.,  
2243 East Grand Boulevard, Detroit, Michigan.

Please send me FREE your "Check Sheet" showing various items of installed window costs.

Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_

## What's "News" on steel windows

### ANSWER—THEIR LOW COST OF INSTALLATION

Here's news—good news—for the contractor who is up against an increasing shortage of finish labor:

Fenestra Steel Casements with the new Fenestra Steel Casings already attached, cost far less for installing than do double hung wood windows.

No scaffolding. No bracing. No fitting or hanging of sash. No weights nor cords to attach. No tedious mitering and fitting of interior trim, stops, back bands, stools or aprons.

You just slip the complete Fenestra Casement into place, plumb and wedge it and the whole job is done.

No wonder contractors are realizing, at last, that steel windows often cost less than double hung wood — save time, work and worry.

A Detroit builder erected two houses from the same set of plans. Double Hung Wood Windows in one cost 13% more than Fenestra Casements in the other.

A Baltimore contractor, averaging the cost on several story-and-a-half cottages found Double Hung Wood Windows averaged \$29.83 each; Fenestra Casements, \$25.11 each.

BETTER WINDOWS THAT COST LESS

# Fenestra

## SPENDING

# TOWARD NATIONAL RUIN

**T**HE American people should *begin now* to face the question whether their governments will spend them into ruin. It is a question which should be faced most seriously by the great middle class, which must pay the bulk of all taxes.

Both houses of Congress, by overwhelming majorities, recently voted payments of veterans' bonuses of about two billion five hundred million dollars. The writer's father and his father's father both died in the service of their country; and he favors fair treatment of its veterans. But there could be no worse time than now for the nation to have its expenses increased by such a huge amount.

The bonus legislation was not passed because of any immediate necessity. Those who voted for it did so to prevent those seeking bonuses from voting against them at the next election. It was dictated entirely by political considerations.

**T**HIS is but an example of many things occurring in Washington, in every state capital and in many municipalities. It is of vital importance to bear in mind *that every expenditure made by any of our governments must be paid now or later in taxes; and that every increase of government expenditures for whatever purpose means sooner or later an equal increase of taxes.*

Including the bonus, the *deficit* of the federal government alone in the year ended June 30, 1936, will be *five billion, seven hundred million dollars*, or \$190 for every family. In the five years ending June 30, 1936, its *deficit* will be *seventeen billion, one hundred million dollars*, or \$570 for every family.

*Do not be deceived. You must ultimately pay your share of these deficits in TAXES.* And the huge expenditures of government responsible for them *will continue and increase* until the American people stop them. And increases of the taxes you and everybody else must pay will continue until government expenditures are *greatly reduced.*

**T**HERE is only one way you can help to stop this saturnalia of government spending. This is, to ascertain whether *your* senators and representatives have been voting for it; tell them, if they have, that for *this reason*, regardless of party, you are going to vote against them; and then *vote against them.*

Continuance of it can result only in *national ruin.* It can be stopped only by replacing the wild spenders in public office with men who will not only *preach* but *practice* real economy in all government.

*Samuel O. Drun,*

CHAIRMAN

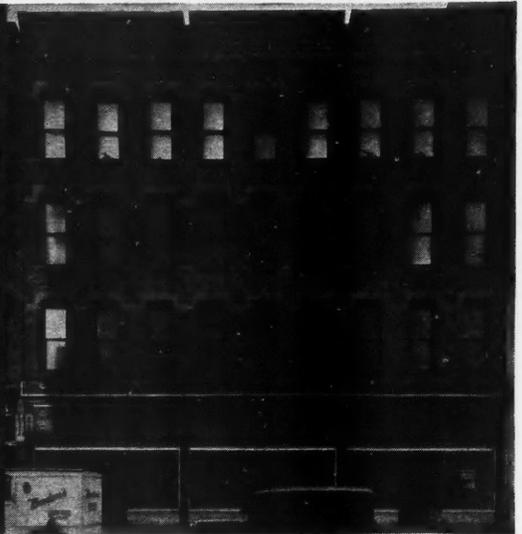
AMERICAN BUILDER PUBLISHING CORPORATION  
SIMMONS-BOARDMAN PUBLISHING CORPORATION

WHAT A DIFFERENCE  
A GOOD  
"Face-Lifting"  
MAKES!



A  
FACTORY  
PREPARED  
STUCCO IS  
PREFERABLE

After modernizing. Fine apartments and stores that rented rapidly. Architect for Studio Apartment Building, 1393 Sixth Avenue, New York City—William L. Rouse. General Contractor and agent, Klein & Jackson Construction Co., Inc. Plastering Contractor, Morell Plastering Co., Inc., all of New York City. Cream colored exterior stucco furnished by Artstone Rocor Corporation of Brooklyn.



Before modernizing. An old undesirable Sixth Avenue tenement.

● From an old Sixth Avenue tenement to fine, rentable, studio apartments and stores! That's what happened in this splendid modernization job.

The interior was completely modernized. The interesting facade was worked out in black glass, stainless steel, and Atlas White portland cement.

The beauty of *white* portland cement stucco is that you can get just the right color to fit the architectural design—from pure white, through pastel tints of cream, salmon, tan, pink—to rich warm yellows, browns, greens, and other shades.

Atlas White is economical to apply on new buildings as well as old. Permanent. Firesafe. Weather-proof. Requires little or no upkeep.

For the full story write Universal Atlas Cement Co. (United States Steel Corp. Subsidiary). 208 So. LaSalle Street, Chicago.

STUCCO *—made with—* ATLAS WHITE  
PORTLAND CEMENT



## AMERICAN BUILDER AND BUILDING AGE

### A NEW SERVICE—

#### To Bring Better Planning to Home Builders

**W**ITH this issue *American Builder* inaugurates a new department of home designs and residential architecture; sixteen pages of special coated paper stock; photographs and drawings large and clear; a regular every-month feature from now on. The purpose of this new service is to assist *American Builder* readers to become more competent in the exercise of their home planning and designing functions, by laying before them examples of the best current work.

The buying public is "design conscious" today more than ever before. Home seekers demand style, economy and convenience. A new science and art of domestic architecture has sprung up; and the old technique of drafting out a plan on the side of a white pine board, or of changing around an old blueprint, is a thing of the past. The home building industry of today must become thoroughly proficient in architectural practice, so that all new homes, both those in the cities and those in the small outlying towns, will be competently planned.

**S**TEPHEN F. VOORHEES, prominent New York architect and president of the American Institute of Architects, released a statement to the press early in January in which he included this searching question:

"How to improve the poor quality of design so evident in the average American small house has been the concern of the American Institute of Architects for many years. Efforts to find a way to apply the architect's talents in this field have met with little success."

The remedy, so far as improving the quality of small house design is concerned, lies, we believe, in interesting the men actually engaged in the home building industry to become more adept at planning and of more cultivated taste in the matter of home design. This is a "big order" of course; yet with home building starting up in more than fifty thousand communities it is evident that any more limited program would have but little effect.

It is idle to talk of regular individualized service by professional architects either in the low and medium cost home field or in the average small town. The property owners will not pay the price, neither could a professional architect afford to take the time required to

serve such clients even if they were willing to pay his regular scale of fees. Two ways are open: one—the use of stock plans and, second—competent architectural planning combined with other construction functions.

Some of the best examples of good residential architecture have come out of the practical experience of home building contractors and from the drafting departments of seasoned operative builders. These men have given much study to matters of design, at the same time squaring their drafting board activity with their knowledge of construction and their first hand familiarity, as new homes salesmen, with that important factor, "what the people want."

**A**S stated in an editorial in the January *Builder*, it has become a grave question as to where really competent designing service for home building can be obtained today. In the cities such service from those who specialize in architecture is costly and difficult; in the smaller towns it is non-existent. The alternative seems to be for the men now actually engaged in the home building business to take a still more active interest in the architectural side of their work and to increase their own competency in planning and design.

The organized ranks of the A. I. A. architects have been seriously disrupted and dispersed by the depression. Many architects have entered government service; many have gone into contracting; many have hired out to building developers, loaning institutions, construction firms or material dealers. Some, formerly engaged in large work, are now turning to the residential field. The *American Builder* welcomes these as readers and students, feeling that it is broad enough in its editorial scope and big enough in its circulation to reach those widely scattered architectural men and give them sound home building guidance.

**A**ND so this new home design department is added—illustrating some of the best of current work. Sounding a keynote of increased architectural competency in home designing procedure, for the benefit of any and

all architectural craftsmen regardless of official title or position, *American Builder* through this department seeks to serve all architecturally-minded interests.

In the realm of home building and remodeling and of small commercial construction the functions of selling, planning, specifying, buying and constructing are inseparable. So the editors urge careful study of the entire content of this publication from the angles of planning and design as well as of buying and construction performance. The entire home building industry must become more skillful in all the arts of design and performance if it is to measure up to the style and standards of today.

## Another Census of Construction

**A**NATION-WIDE Census of construction is being made by the U. S. Census Bureau beginning Jan. 2 and covering 1935 operations. The first Census of Construction was made in 1929 and has been widely used in connection with the problems of the construction industry. Figures will be secured for the number of persons employed by contractors, man-hours of work in 1935, disbursements for salaries and wages, value of contracts and orders received during 1935, value of construction work performed, and expenditures for material.

To augment the value of the construction statistics, some further information will be collected in detail at the request of the industry. Two sets of figures, for example, will be secured for persons employed. One will give an analysis of employees by broad occupational groups for a stated one-week pay period (that ending nearest Oct. 26 has been designated). The other will present the total count of employees on the 15th of each month of 1935. As to work performed, the schedule form is arranged to show five separate types of construction, further classed as new construction or remodeling, repairs and maintenance. Private construction and public construction are also to be reported separately. With these breakdowns, it will be possible to present a statistical picture of construction activities in sufficient detail to be of real value to the industry.

### Forms Kept Simple

In designing the report form to be used for the Census it would have been very easy to list a large number of questions for the contractors to answer. The policy, however, was to limit the questions to the ones that are of fundamental importance. Valuable assistance in this was secured from a number of the leaders of the construction industry that were available for consultation. It is believed that as a result of this procedure the report form provides for the essential basic facts of the industry, yet is not so lengthy as to require an unduly large amount of work on the part of the contractor.

The present Census will secure reports for all contracting establishments regardless of size and location. Hence, the Census will afford a comprehensive background against which the industry's current statistics can be built up so that their usefulness will be further increased.

The 1929 Construction Census was made, for the most part, by mail. For the 1935 Census, field men of the Bureau of the Census will make personal calls upon contracting establishments. These men will explain the report forms and assist the contractors to make their reports.

Every effort will be made, the Census Department assures this publication, to complete the field canvass in three months. This will make it possible to issue the first results by July. *American Builder* readers are asked to co-operate and lend their support to this important business census.

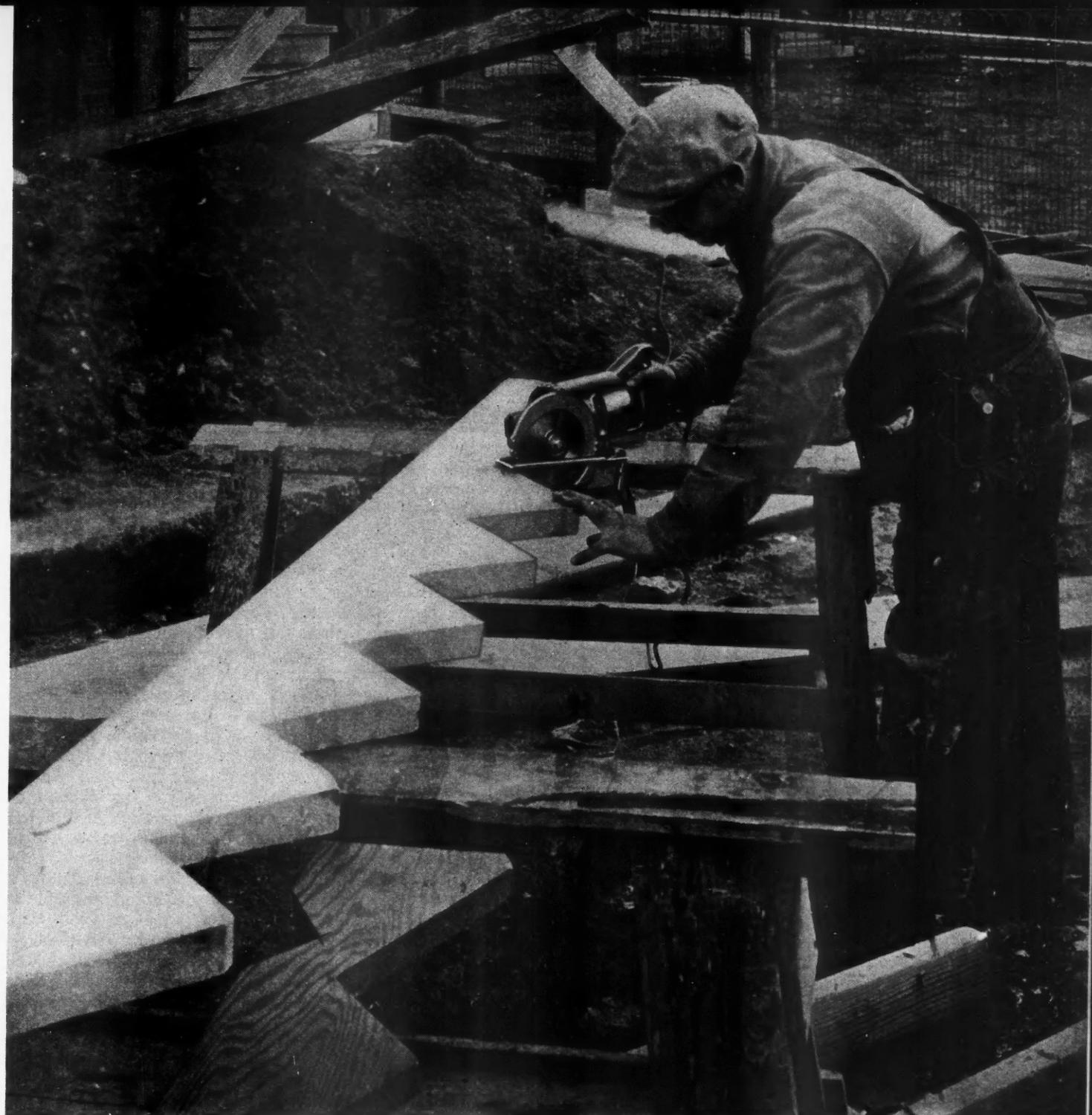
## Lower Costs from Better Tools

**T**HE never-ending competitive struggle between building contractors goes on grimly; intensified, in these days of close buying, by the public's insistence on lower building costs. The construction outfit that makes the low bid gets the job and the other bidders wonder, "How can he do it?"

The answer probably is that the "low man" was better equipped with labor-saving tools and machinery that would permit his organization to be on top of the job at all times, crowding it through to earn a profit. In these days of short working hours and threatened shortage of skilled men, contractors realize that they must depend more on efficiency tools and equipment to speed along the job and cut costs.

E. M. Craig of Chicago, veteran secretary of the Building Trades Employers Association, is authority for the statement that house building costs are already 7 per cent higher than a year ago. He has compiled wage scales in 40 key cities and finds that the highest paid craft today are the hoisting engineers in Elizabeth, N. J., getting \$2.25 per hour, and the structural iron workers in the same city, on a \$2.00 per hour rate. All reporting cities are unanimous, he says, in predicting a steady increase in building activities in 1936. And in view of these expanding construction activities, Mr. Craig states that contractors are, or soon will be, faced with the grave problem of obtaining sufficient skilled help to man their jobs adequately.

In such a situation prudent builders are checking over their tools and machines, and are looking into the new rigs on the market this year. Many improvements have been made by the equipment manufacturers. It is an absorbing study: how much can a builder afford to invest in tools and plant?—how much can he afford *not* to have when profitable jobs are being let and competition is intense?



## **IMPROVED TOOLS AND EQUIPMENT CUT COSTS FOR TODAY'S BUILDERS**

**The 1936 Upturn in Building Will  
Mean a Shortage of Skilled Labor;  
Multiply Your Efficiency with Power.**

# Re-Equipment Key to Profits

## Survey Shows Possibilities in New Power Machines

**F**OR more than eight years the purchases of new equipment of all types by builders have been at a standstill. During that time old equipment has deteriorated and disappeared, and during that same period new machines and new devices of all kinds have been perfected which will revolutionize building practice.

In practically every division of contractor's equipment, new devices and improved operation have been perfected. These machines will be a powerful aid to lower building costs. It can be said with authority that the first to re-equip will be the first to higher profits.

One of the factors bearing on the contractor equipment market is the predicted shortage of skilled labor that will take place with any degree of return of normal building operation. For more than six years, practically no new skilled workers have entered the industry. There has been little chance for them to get practical experience. During the same period thousands of the best and most experienced men who were well along in years have permanently retired. Many others have gone into other types of work. The result is that with any marked increase in general construction there is bound to be shortage of skilled workers. In such a situation, power equipment, particularly such equipment as power saws, sanders, woodworkers and electric hand tools, becomes increasingly valuable.

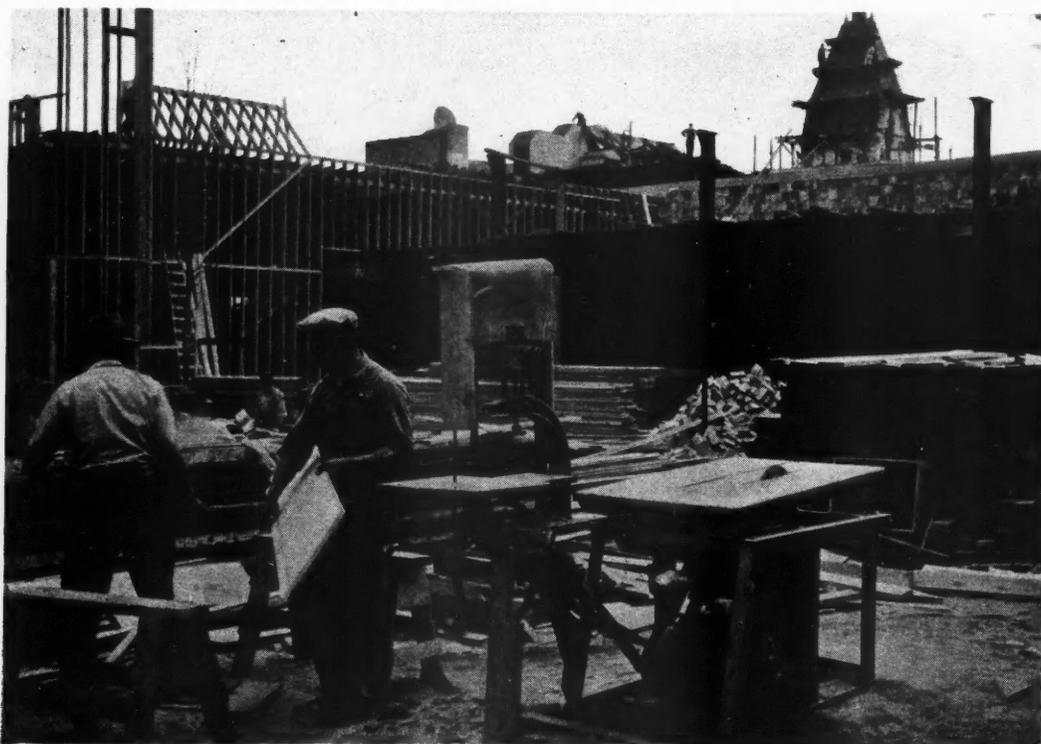
Many builders are today studying their organization setup to see how they can make the most of the building that is already getting under way and the increases expected in 1936. They are reviewing every building operation to see how it can be better organized and

operated. From the digging of the foundation, through framing and intermediate operations, to the application of the roof, there are new machines and new methods that will help reduce costs and increase efficiency. It is not so much a question of reducing the number of men employed as increasing the efficiency of those already working, to the end that more jobs can be done in the limited building season. The following brief survey will show highlights of some of the new developments that should be of value to builders today:

**TRUCKS:** The keynote of the current new models in trucks is economy and service. The new models have been strengthened for rugged, long life, but at the same time with an eye to economical operation. The increasing sales of the lighter-weight trucks to contractors, for runabout and quick delivery uses, shows that many who have been getting along without a truck or using an extremely old model are now speeding up their operations. A new factor in the use of trucks is the increased range of distance over which builders operate. There are fewer builders today, but they are operating over a wider range of territory. This is true both in the suburbs of the cities, where one builder will operate in half a dozen small communities, as well as in the rural sections where a contractor in a county-seat town will operate throughout the entire county.

A fast, efficient, economical truck is indispensable to such work.

**CONCRETE MIXERS:** Improvement in the field of concrete mixers has been very great. New models are lighter, more easily handled and more efficient. Two developments are particularly interesting to resi-



**POWER EQUIPMENT** was a great factor in the speedy construction of the Chicago World's Fair. Here is a scene during construction of the English Village in 1934, showing use of a popular power machine with band saw attachment, which more than paid for itself on this one project alone.

dential builders, the lightweight, handy type of portable mixer and the rubber-tired trailer type. Both of these are suitable for use on widely separated jobs and are easily transferred and quickly put into operation. Incidentally, their costs have been brought to very low figures.

**LEVELS AND TRANSITS:** Of all the equipment capable of reducing costs and preventing mistakes that run into money, levels and transits are the most important. They are also the most neglected. To meet the needs of the average contractor and residential builder, most of the leading manufacturers of levels and transits have brought out low-cost, easy-to-operate instruments that are extremely useful and helpful. The combination level and transit and the new type tilting level are valuable for the run of building work.

For laying out foundations and setting the proper levels it is an invaluable time saver. Even in small residential jobs the use of these instruments is of great importance and help in lining up brick work, window frames, corner posts or columns, laying "off" angles or irregularly shaped foundations. Running lines and establishing grades with a surveying instrument is much quicker and less expensive than the old line and level methods.

**POWER HANDSAWS:** Power handsaws have been improved, strengthened and reduced in cost to the point where they are an indispensable tool on every job. A whole new system of planned cutting is made possible which eliminates a major part of the waste of time and materials accompanying haphazard cutting. Some idea of the savings made possible by the power handsaw are given in the table on page 45.

The new power saw models are worth inspection by every builder. They will rip, cross-cut, cut angles, dado and cut tile, brick and marble as well as lumber.

**WOODWORKERS:** The portable woodworker which can be set up on the job and used for bulk cutting of joists, rafters, framing materials, trim, etc., is particularly important on large projects or on groups of houses. Several improved models which are quickly transportable and easily set up are on the market. One of the developments of the past few years that has attracted wide attention is the combination woodworker machine which does a large variety of operations

and is almost a complete workshop in itself. Such a machine is useful not only in connection with the average run of building work but can be put to valuable use during "off" hours in the making of wood products of all kinds for general sale. Many profitable side lines have been set up by carpenters and builders as a result of the use of machines of this type.

**FLOOR MACHINES:** Floor sanding and sanding of all kinds by hand is one of the most laborious and expensive operations in building work. Improved construction methods make the new model electric sanders more rugged, speedy and serviceable than ever before. Efficiency has been increased without a proportionate increase in cost of the equipment or its weight.

**MISCELLANEOUS TOOLS:** The combination electric hammer and drill is a useful instrument that is valuable to builders in many different ways, such as cutting holes, or chipping or scaling concrete masonry or plaster. An interesting recent example is the use of one

*(Continued to page 116)*



**SPEEDING** up the job. Combination hammer and drill used by F. & H. Construction Co., Chicago, for rapid installation of floor sleepers.



**FAST,** light but powerful trucks are meeting the increased hauling needs of builders and dealers. Here is shown one of the 1 1/2-ton models with 136 in. wheelbase.



# Cutting Costs with POWER SAWS

No. 1, of a  
New Series

---

THIS is the first of a series of constructive articles on cutting costs with up-to-date equipment. Later articles will take up specific operations showing the detailed methods used by successful builders to reduce their costs — Editor American Builder.

---

**A**NALYSIS of the production methods used by builders who have thoroughly studied the operations involved in the building of a house shows that cutting costs through use of power equipment is made doubly effective by advanced planning. The builder who achieves economical operation plans as many of his cuts as possible in advance. This is not nearly as difficult as it may sound, for upon thorough study most of the cutting operations in home building can be grouped into a comparatively few simple operations.

Much has been written lately about the need for "machine methods" in building homes. There is talk of

"factory-built" houses. No one as yet has been able to devise a way economically to build houses in a factory and still supply a satisfactory home to meet local conditions. But there is an answer to the expensive, haphazard, single-operation hand methods of the past. This is carefully planned machine methods on the job.

For the purposes of this discussion we will take a typical gable roof, two-story, eight-room and bath, frame dwelling with front porch and small rear stoop. A fairly exact analysis has been made of the cutting and saving operations involved in this typical house, and these operations are listed in the table on the opposite page. They show an actual saving of some 23 hours work. But the actual saving, as we will show, runs much higher than this.

**EQUIPMENT REQUIRED:** Considerable thought should be given by the builder to the selection of the proper type of power saw for his operation and to the providing of a satisfactory workbench where the cutting operations may be centered. Where a hand power saw is used, a low, sturdy bench long enough to accommodate joists and rafters should be erected. A detailed plan for such a saw bench will be given in a subsequent

article in this series. Where a portable bench saw is used certain supports for joists and rafters may be set up to facilitate their handling.

In the smaller residential jobs it is frequently customary to centralize most of the planning and cutting in the hands of the carpenter foreman or the builder himself. Or if one of the carpenters shows an especial ability along this line he might well be delegated to do this work. An experienced man who has learned how to handle the electric saw and how to make the necessary cuts in multiples rather than single operations, can turn out an extraordinary volume of work. Most of the power handsaws operate on an ordinary electric light socket, and it is suggested the simplest way to arrange for current is to offer to pay a neighbor family's electric bill for a month or so in return for permission to plug-in to their basement light.

As much cutting as possible should be done at the lumber pile and should be done in multiples as far as possible. For example, joists may be squared up by placing one on top of the other, with one end against a bench stop, and setting the saw so that when the top joist is cut it makes a mark on the joist below. Thus, when the top joist is carried away, the one below is ready-marked. Other operations such as notching the ends of joists, notching for ribbons, etc., may be done in this same fashion.

Most of the manufacturers of power handsaws also make a bench attachment with a radial arm, which facilitates use of a saw at a bench for making difficult angle cuts. In subsequent articles in this series detailed descriptions of popular and practical cutting methods will be given as aids to increased efficiency.

In the table below, the average costs for a fairly simple house are indicated. It is estimated that twice as many cuts as indicated would be made in addition in cutting the bridging, nailing blocks, chimney holes, headers, and trimmers, flooring between joists for tile floors, grounds, cellar partitions, etc. Figuring labor at \$1 per hour, the savings on actual sawing of this house would thus be approximately \$44.

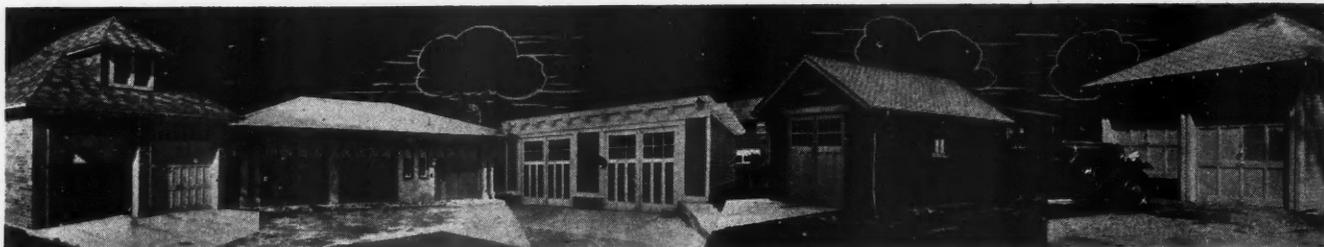
The above figure does not, however, include all of the savings achieved by a well-managed power saw. High speed production methods in handling the work account for greater increased efficiency. The savings indicated in the table are in each individual cutting operation only. By advanced planning and multiple production methods in which all of the joists or rafters are cut at one time, an additional saving in time equal to the actual minutes shown in the table is made.

In addition to the above savings in framing and cutting, a large item of expense is reduced in the cutting of interior trim. For this work a portable bench saw or a saw table attachment for the power handsaw is recommended. On the basis of the above estimates, including the efficient operation on interior trim, a saving in excess of \$150 is indicated for the typical eight-room house described above. Varying conditions, labor costs, and the methods of operation make this an approximate sum, and it is probable that with skillful planning and operation by a man who knows how to make the most of the equipment the saving might run far in excess of this figure.

In later articles in this series, suggested cutting methods and details of operation for reducing costs will be described. Watch for these worthwhile features.

### How Saving Counts up on Typical 8-Room House

		Hand per cut	Saw per cut Saving	Total Min. Saving
<b>Double Forms for Concrete Foundation:</b>				
Studs 2x4 .....	58 cuts	20 sec.	2½ sec.	17
Sheathing 1x8 T&G .....	268 cuts	25 sec.	2 sec.	103
Stakes 2x4 .....	22 cuts	42 sec.	20 sec.	8
Sills 4x6 .....	20 lap joints	100 sec.	8 sec.	30
Center Girder 6x8 .....	4 cuts	240 sec.	90 sec.	10
Joists 2x8 (1st and 2nd Floor) .....	106 cuts	80 sec.	5 sec.	133
2x6 (attic) .....	50 cuts	45 sec.	4 sec.	34
2x6 (porch) .....	57 cuts	45 sec.	4 sec.	40
Studs 2x4 .....	176 cuts	20 sec.	2½ sec.	45
partition 2x4 .....	240 cuts	20 sec.	2½ sec.	70
Plates 2x4 doubles .....	72 cuts	20 sec.	4 sec.	20
Rafters 2x6 .....	128 cuts (aver.)	50 sec.	16 sec.	73
Gable End Studs 2x4 .....	60 cuts (aver.)	28 sec.	4¼ sec.	24
Porch Frame 2x4 .....	87 cuts	20 sec.	4 sec.	24
Door and Window Framing 2x4 .....	300 cuts	20 sec.	4 sec.	80
Sheathing Sides 1x8 T&G .....	384 cuts	25 sec.	2 sec.	164
Sub-Floors 1x8 T&G .....	342 cuts	20 sec.	2½ sec.	100
ripping last board .....	96 lin. ft.	30 sec.	2 sec.	45
Roof Sheathing 1x8 T&G .....	246 cuts	20 sec.	2½ sec.	72
ripping last boards .....	72 lin. ft.	30 sec.	2 sec.	34
Sawing up the Rakes .....	64 lin. ft.	40 sec.	3 sec.	40
Sawing Edge of Porch Floor .....	54 lin. ft.	40 sec.	3 sec.	34
Cutting Stair Strings 2" .....	128 cuts	61 sec.	15 sec.	100
Cornice Lookouts .....	56 pcs.	65 sec.	15 sec.	47



## Buildings and Motor Cars

THE way one activity influences another, is a fascinating study; for example, the effects of the motor car on our manner of living. What some of these are will readily occur to the observer. But there are other effects that probably would not suggest themselves to every mind because they are too close for most of us to see, and one of these is the tremendous effect of the automobile on housing, on building, on the entire construction industry.

Summon to your mind a picture of the old-time alley. Two rows of unpainted wooden slant-roofed woodsheds, built "lean-to" style, with board doors and a window-like half door to receive coal. Two rows of garbage boxes, ash piles, rain barrels. The alleyway unpaved and rutted, strewn with tin cans and refuse. To add piquancy, an occasional horse-barn. Such was the typical pre-automobile alley in city or town—some more tidy, others less tidy, but all essentially the same. Compare the typical alley in city and town today. Two rows of neat garages, well built, painted, doored, glassed, floored, electric lighted; the alley paved, drained, clean and unobstructed—a well kept private driveway.

Can you realize the significance of those garages to the carpenter and builder? Consider the work and material required to build the more than 15,000,000 garages that stand on the home lots of this country—garages worth from \$200 up, replacing \$50 and \$75 woodsheds—an immense building contract of at least three billion dollars. The humble private garage is a veritable construction Cinderella! Take leave of her a moment and regard the house—the home.

Men argue whether the hen or the egg came first; there will be no argument whether the improved road or the motor car came first—the car did. And, mark you, road-building is construction work, intimately connected with house-building. When roads were improved for the motor car and pushed in all directions, young married people and growing families discovered that cheaper land for home sites could be had farther out. Three miles, five miles from downtown (prohibitive distances once) meant nothing—they had a car. Formerly impassable roads of spring and winter were no hindrance—the car had improved them. And so hundreds of thousands of new-built homes converted country fields into residence sections, and each section soon had its own business center—a building revival of huge extent.

The motor vehicle did more than extend the building area, it affected building costs and methods. It hauled bigger loads of lumber, bricks and stone longer distances in less time at lower costs than horse teams. In

**15 million private garages, 170 thousand filling stations, 30 thousand sales rooms, 58 thousand repair garages—are only a part of the auto's contribution to building.**

**By W. J. CAMERON**

*of the Ford Motor Company*

excavation, the slow, expensive wheelbarrow gave way to the swifter, cheaper self-dumping motor truck, which also allowed the economy of power shovels formerly used on big jobs only. And so the costs went down and houses went up, out where the air was clear and the day and night were quiet. The part the motor car had in this is very vivid. It explains why Ford cars alone carry three times the number of passengers and twice the amount of freight of all the railways.

But even that does not tell all the influence of the automobile on the building industry. Service followed the car as commerce follows the flag. Builders got the job of erecting 170,000 filling stations, 30,000 salesrooms, 58,000 independent repair garages. You pass one of these places every few minutes as you drive—they were all built by the motor car. Houses took on different design—with garages built in or attached. Congested street parking is compelling apartment buildings to house the car as well as the tenant. Streets are widened and pavements thickened—incessant building operations. Super-highways gridiron the country. Super traffic bridges span our rivers. Grade separations are becoming universal. Vehicular tunnels beneath rivers and railways, elevated highways like the 4-mile Pulaski Skyway, constructed under the compulsion of traffic necessity, constitute most stupendous building operations.

And all the time more garages: public garages with concrete ramps running from floor to floor, and garages built underground; hotel and office-building and department store garages; bus depots and taxi garages. Sixteen years ago only 10 per cent of the automobiles were closed cars. Now 99 per cent are closed cars. That change alone built glass factories, made better upholstery feasible, and built textile factories. All-the-year-round driving used more gas, tires, lubricants—these extended business and called for yet more building.

Though at first glance nothing would seem more unrelated than the general building industry and the motor car, these facts illustrate how closely related they are.



## SELECTED HOME DESIGNS

Graceful winding staircase in Model Home at Manhasset, L. I., N. Y., built by Levitt & Sons. Exterior and plans on next page.

16 Pages of Choice Examples of the Builders' Art; Presented on Special Coated Paper Stock



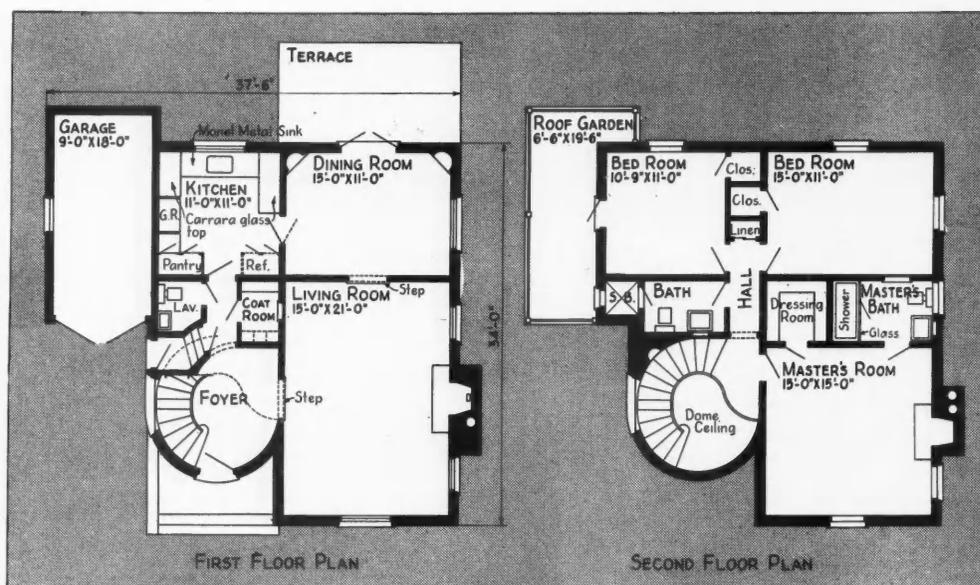
## MANHASSET MODEL HOME

Levitt & Sons, Builders

Cost Key is 1.926-150-880-38-27-14

Levitt & Sons of Manhasset, L. I., successful home builders, offer this "American Home" demonstration, modified Georgian in style. The house is completely insulated by Johns-Manville. The oil burning furnace and refrigerator are by General Electric. The radiators and enclosures are by the American Radiator Co. The Pittsburgh Plate Glass Company supplied the Carrara glass and all mirrors.

EACH room in this "American Home" is distinctive by itself. The living room with its walnut walls and white pilasters; the dining room with its green linoleum floor and electrically lighted corner cupboards; the kitchen with its Carrara table tops, its Monel-Metal sink; the master bedroom in scenic wallpaper, an open fireplace, its private wardrobes and bath.



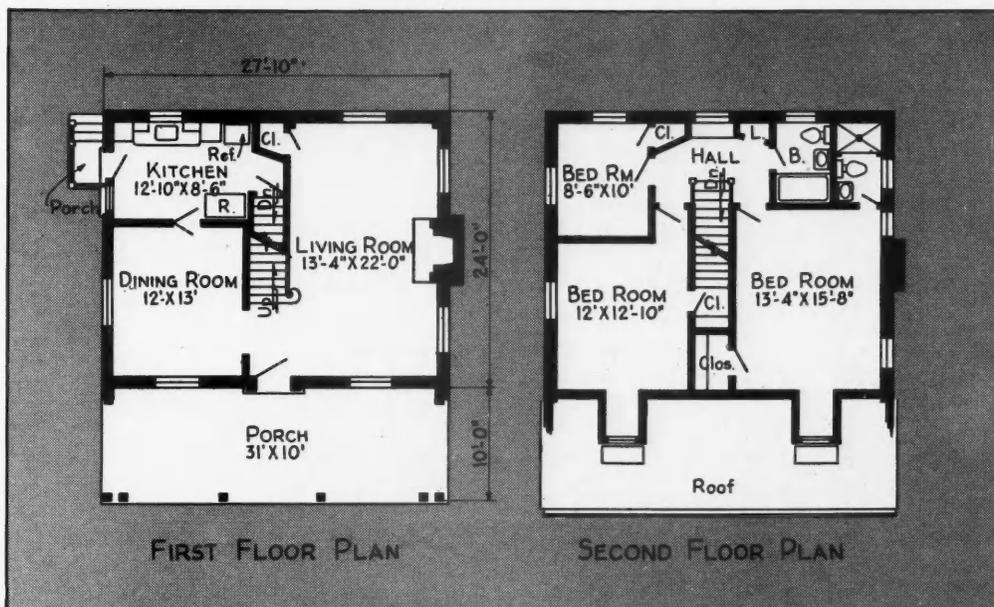


This house completed early last fall in a Washington suburb by Meadowbrook, Inc., of which Monroe Warren is the head, was awarded a trophy by "The Evening Star," a Washington newspaper, through its Model Home Committee. Constructed of brick painted white, this dwelling has graceful lines with a wide roof that sweeps down to form the covering of a large, comfortable porch.

## "SILVER STAR" SAMPLE

Monroe Warren, Washington, D. C., Builder  
Harvey P. Baxter, Architect

Cost Key is 1.512-110-744-32-23-16.



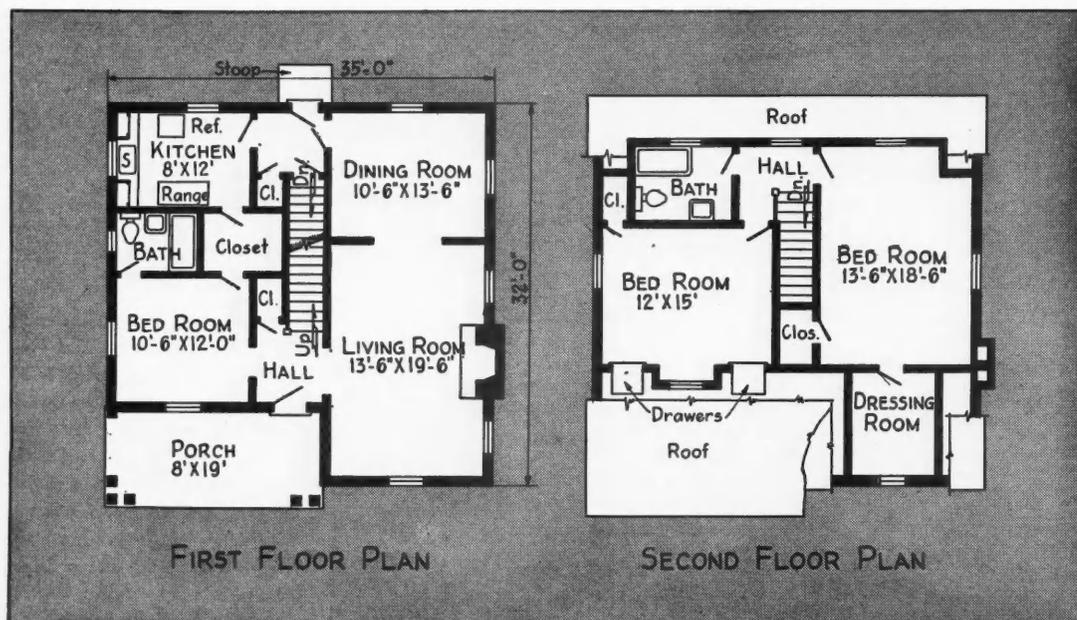
There are six rooms, including three bed rooms and two baths. The selling price, \$10,750, is considered a good value in comparison with prevailing prices of real estate in the Capital. It has the appointments of an expensive home, including gas heat. The home is well insulated with a 2-inch balsam wool blanket, which makes heating economical.



# EXHIBIT HOME AT HILLWOOD, FALLS CHURCH, VA., Washington Suburb

**Joseph Kefauver, Builder**

Cost Key is 1.658-132-968-40-20-17.





"The Washington Post" has sponsored an "exhibit house" of unusual charm across the Potomac from Washington at Falls Church, Virginia. It is a six-room house erected by Joseph Kefauver. It is of all-brick construction in English Colonial design. It contains three large-sized, comfortable and cross-ventilated bedrooms and two baths, with an additional shower and lavatory in the basement.

The basement is full-sized and well-lighted, with ample space for heating and laundry facilities. Its hospitable recreation room equipped with built-in bar is admirably adapted to the entertainment and play hours of both young and old. Here the family may have their pleasurable "at homes" or hold enjoyable entertainment for their friends.

BELOW is shown the stately pine-paneled living room with large and welcoming fireplace which is one of the special features of this home.





## LANCASTER REALTY BOARD MODEL HOME

**Melvorn R. Evans, Architect**

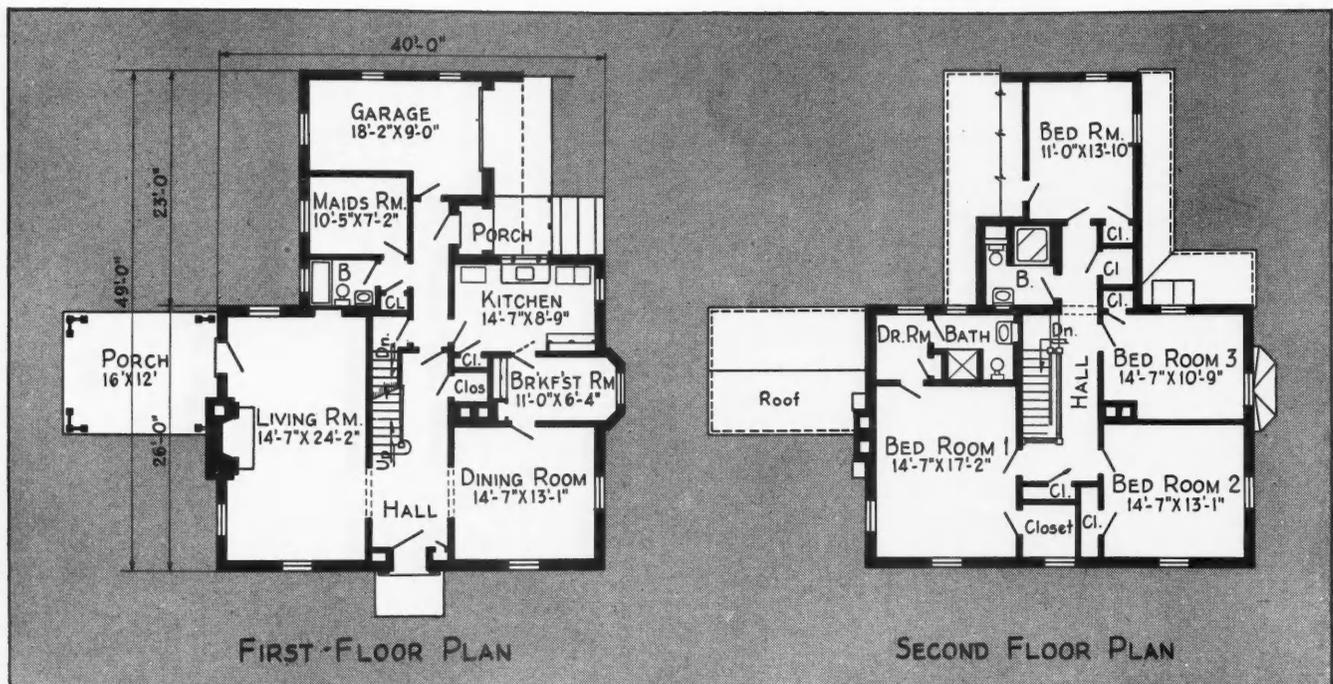
**Built at Grandview Heights, Lancaster, Pa.**

Cost Key is 2.721-182-1290-54-33-24.

The Real Estate Board of Lancaster, Pa., built this house to stimulate interest in home building, and it has received the praise of thousands of visitors. The style is a modernized Early American.

The house is thoroughly insulated with four inches of Rock Wool and is completely air conditioned with a cooling unit and oil burner heating unit. Colonial fixtures are used throughout, as well as indirect lighting. Washable wallpaper is featured. There is extensive use for linoleum floors.

Specifications and further planning data given on page 82.





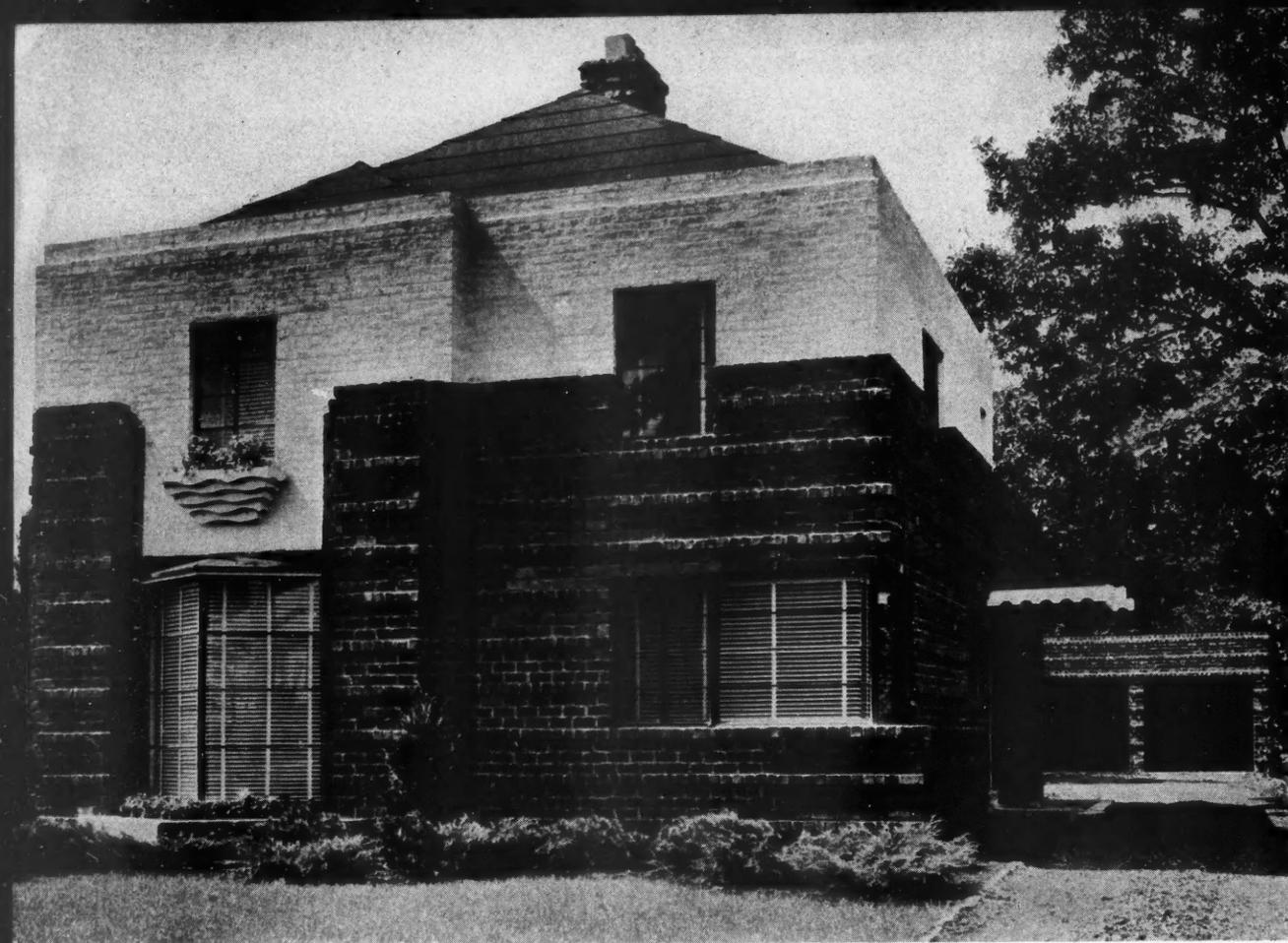
**DIRECT AND INDIRECT LIGHTING**, large windows, built-in book cases and a cheerful color scheme make the living room attractive. Venetian blinds add to the effect.—Lancaster, Pa., Realty Board Home.



This truly modern kitchen is the most important part of the Lancaster, Pa., Real Estate Board house, and proved very popular.

Equipment includes metal cabinets, Monel metal sink and utility table, concealed exhaust fan, direct and indirect lighting, inlaid linoleum floor and linoleum on lower half of walls. Upper half of walls is washable coated fabric.

The kitchen is unusually well lighted and planned, and Venetian blinds add to its attractiveness. Electric service buzzers connect with rumpus room, living room and master bedroom. A telephone is also installed.



## MODERN IN DESIGN PRACTICAL IN PLAN

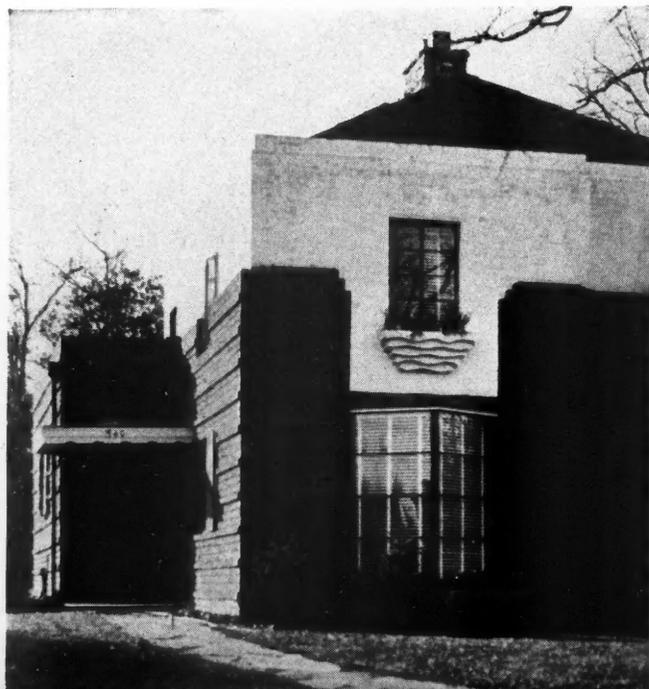
**R. Harold Zook, Chicago, Architect**

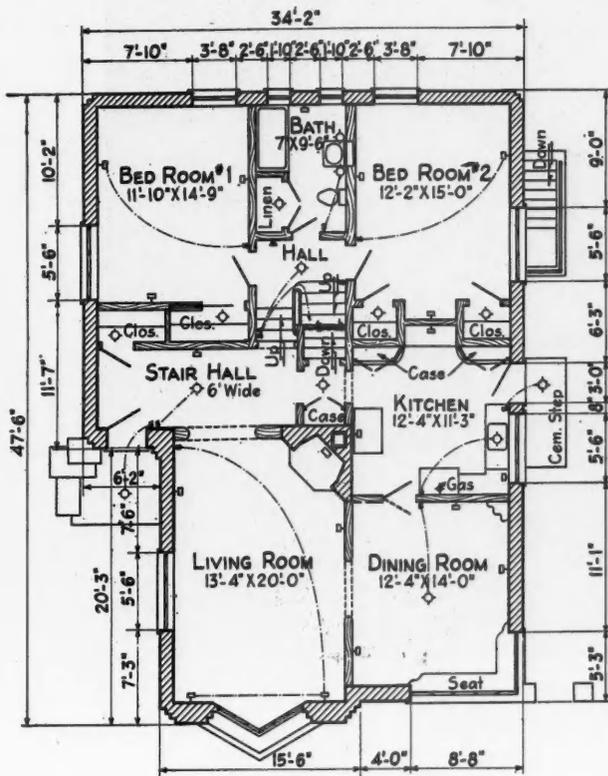
**Henry J. West, Oaklawn, Ill., Builder**

Cost Key is 2.294-164-(1512)-(62)-29-17

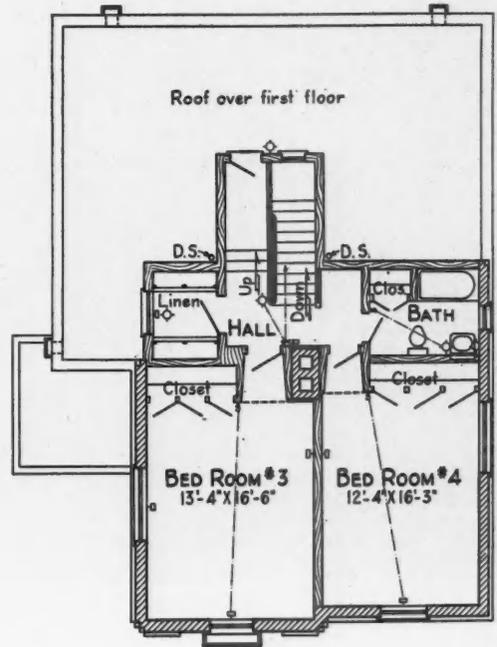
Although this home built at Hinsdale, a Chicago suburb, is modern in detail and line, the proportions are Georgian in character, thus eliminating the severity of the more extreme practices of modernism. The projecting courses of reclaimed paving brick in the lower story give a horizontal line repeated in the wide roof sections. Second floor windows and the interesting detail over the living room bay tie the two contrasting sections together. A large corner window in the dining room adds a modern feature which is popular in present planning and gives large interior areas of unbroken wall space. Equipment includes a system of year 'round air conditioning with a Gar Wood oil fired plant. Common brick veneer of the upper story is painted with Bondex paint; Rock Wool between the studs and Red Top Rocklath provide the necessary insulation; Fenestra casements are used throughout.

The plans, elevation and details shown on the opposite page present an unusual planning treatment of the staggered floor level problem. Excavated only under the rear portion, this basement space is used for boiler and recreation rooms, maid's quarters and laundry. Four good sized bedrooms fit into this compact layout with a large sun deck over the two on the lower level. Closet space is ample and the three baths are convenient to the rooms served. The stair detail shows a successful method of arrangement as worked out in this plan.

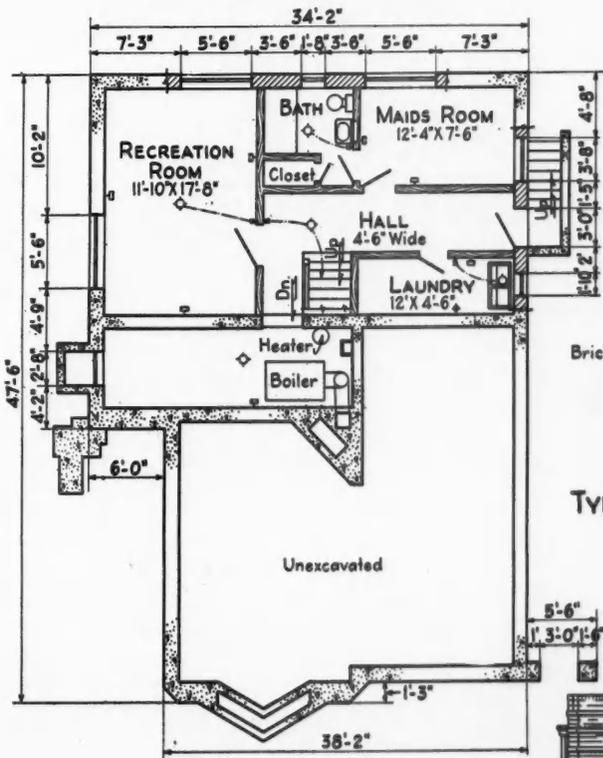




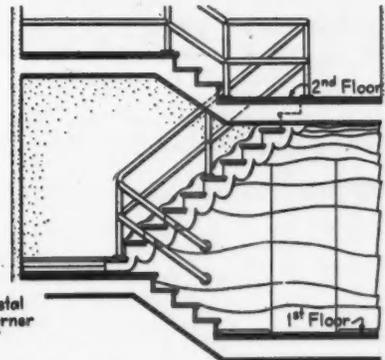
FIRST FLOOR PLAN



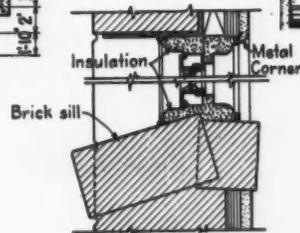
SECOND FLOOR PLAN



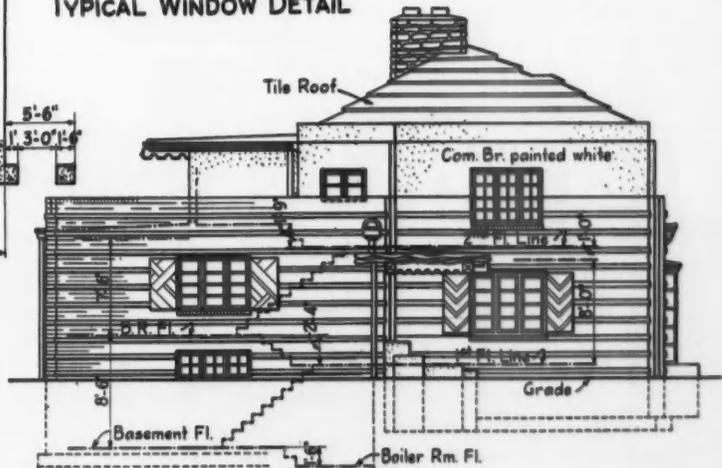
BASEMENT PLAN



STAIR DETAIL



TYPICAL WINDOW DETAIL



SOUTH ELEVATION

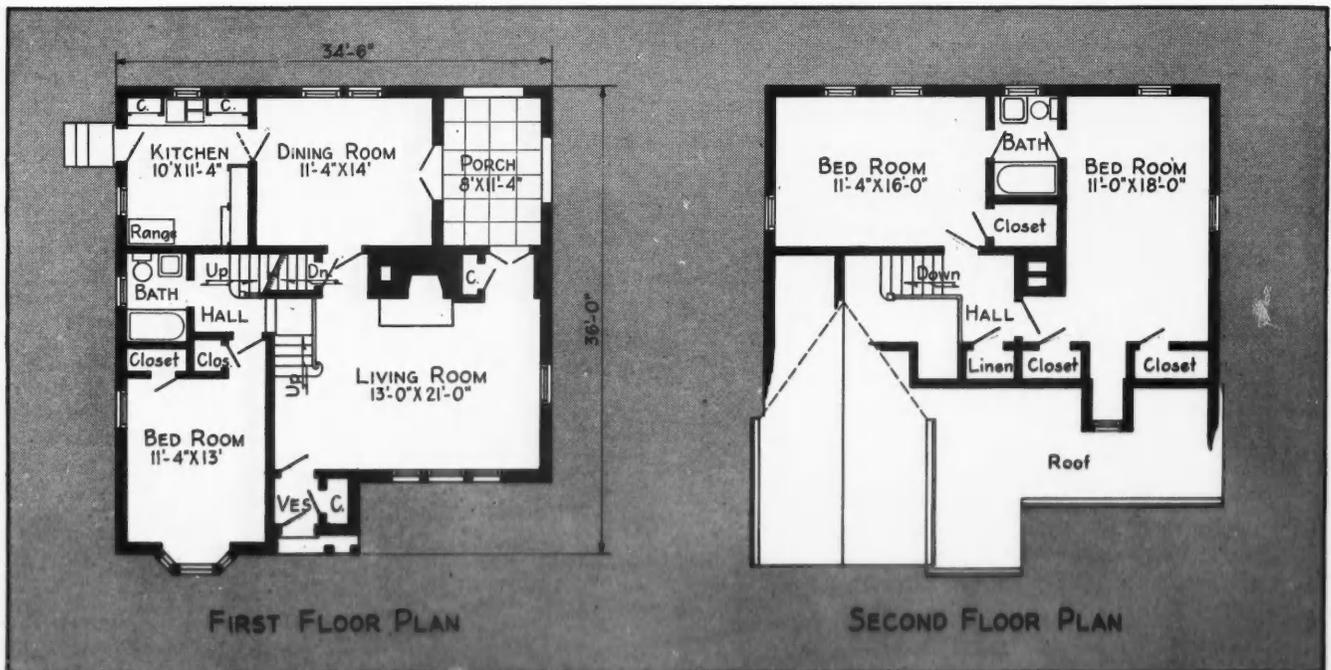




FOR THE SUBURBS OR  
OUT IN THE COUNTRY

**Bullard Company, Allendale Park, N. J., Builders**  
**Bowden & Russell, New York City, Architects**

Cost Key is 1.876-141-1143-48-23-17



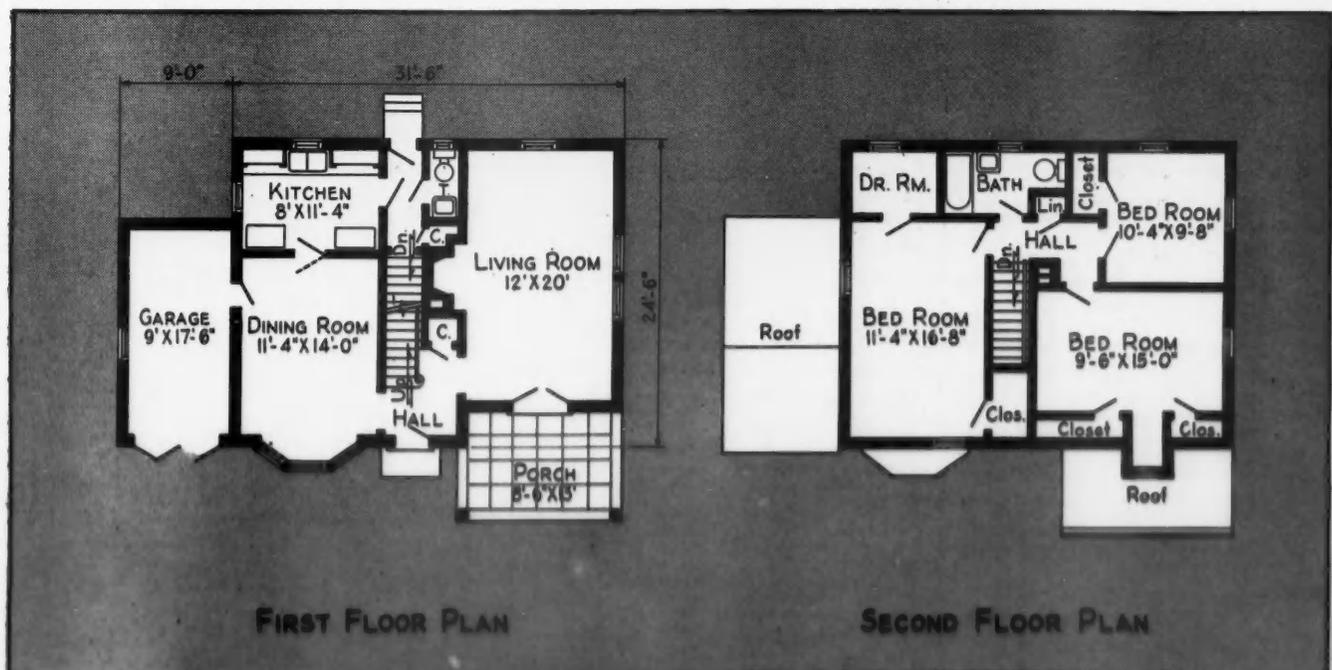


The Homes on this and the opposite page are popular styles being built by the Bullard Company in semi-suburban country at Allendale Park, N. J. Priced around \$8,000, these houses have air conditioning, slate roofs, Curtis woodwork, Reynolds Metallation, Monel metal streamlined sinks, colored bathroom fixtures, with built-in tub and shower. They were designed for the Bullard Company by Bowden & Russell, New York architects. In all cases an attached garage is included, and the popular size is 6 rooms, 2 baths. Open porches are considered important. The Bullard Company plans to build 25 this year, most of which are financed under FHA.

## 25 of This Type To Be Built This Year

**Bullard Company, Builders**  
**Bowden & Russell, Architects**

Cost Key is 1.781-132-752-33-28-13



# COTSWOLD COTTAGE FEATURES AIR CONDITIONING

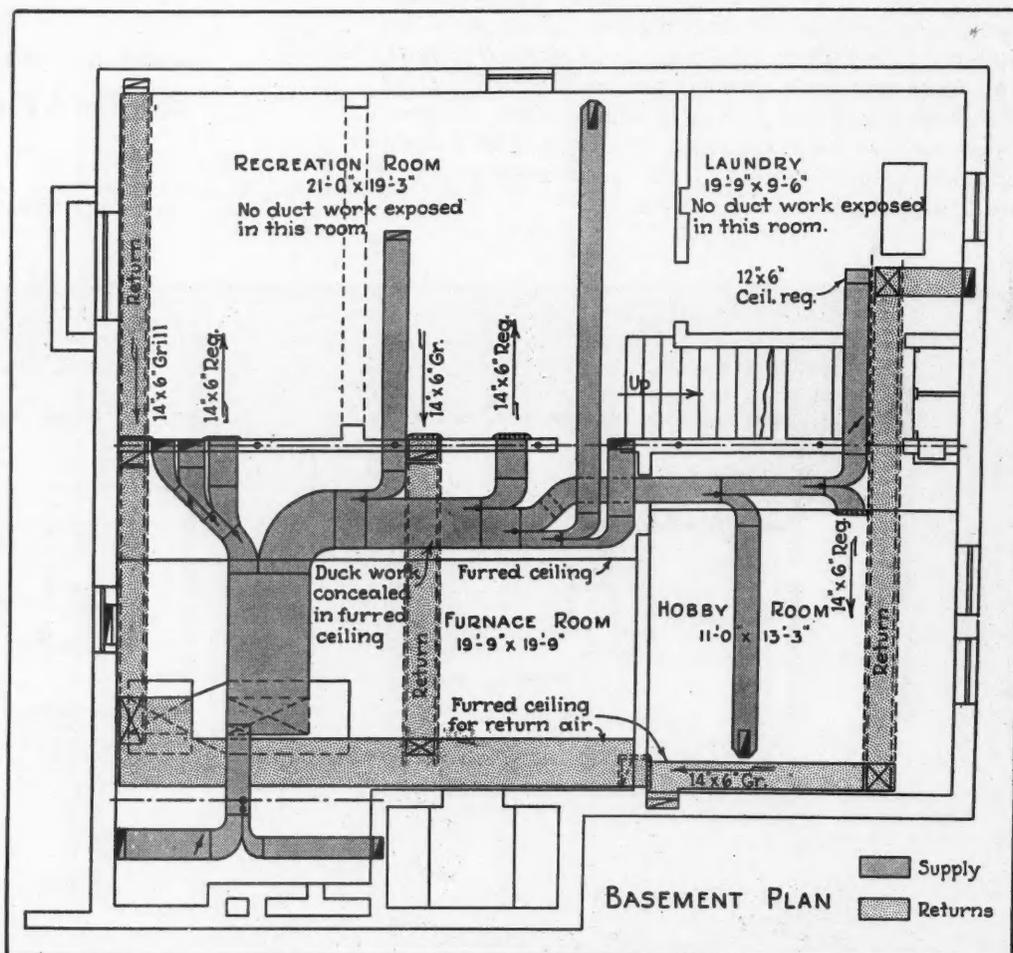
Harry J. Durbin, Detroit, Builder

When the 1935 Builders' and Realtors' show was held in Detroit, they selected a six-room Cotswold-type dwelling for the 1935 Ideal Home. It represented their choice of a home for the typical small family and was stamped as the official model home during the show period. Harry J. Durbin was the builder. A Gar Wood heating and air conditioning furnace was specified and installed, the duct work and registers arranged as indicated on the accompanying plans. It is estimated that this dwelling, equipped with the "Tempered-Aire" system, will cost less than \$65.00 to heat for the entire seven-month heating period. This type of installation occupies so little space in the basement, and is so cleanly in operation, that the furnace room can be used as a recreation room, hobby room or billiard room. There are no ducts or pipes to take up headroom. Every portion of the basement becomes as comfortable, clean and attractive as a modern kitchen.

SUGGESTION for developing a basement play room where a clean fuel heating plant is installed. This view is of the "rumpus room" in the Lancaster, Pa., Realty Board home.

Cost Key is 1.212-131-1024-43-16-18

LAYOUT of basement with warm air supply and return ducts for Gar Wood air conditioning plant. Rooms are left unobstructed.







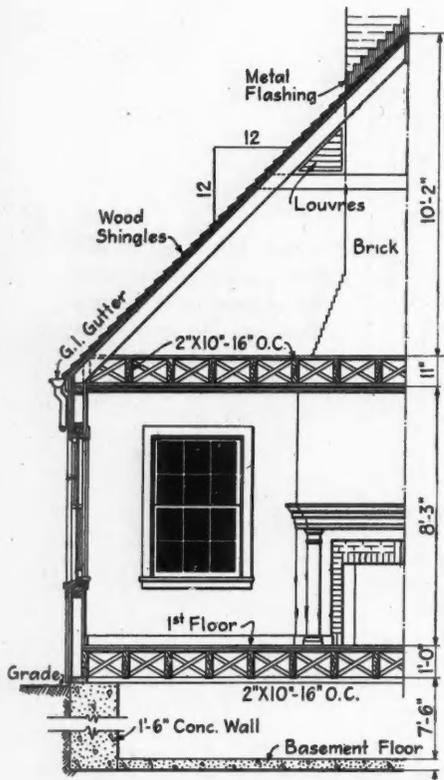
# HIGH ON A HILL TOP

Six-Room Colonial in Kansas City, Mo. chosen as February House of the Month.

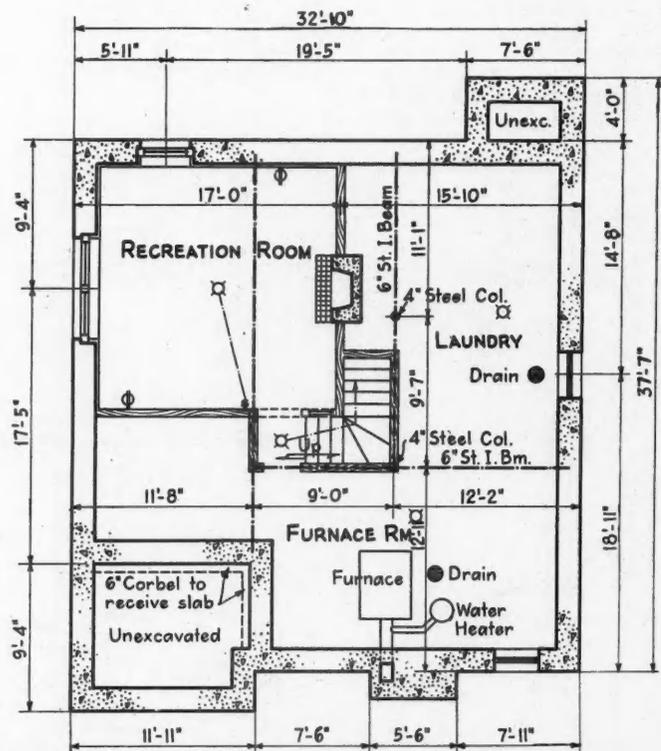
Cost Key (including future bedroom) is 1.831-141-1088-46-33-15.

Little & Slaughter, Kansas City, Builder  
William S. Loth, Kansas City, Architect

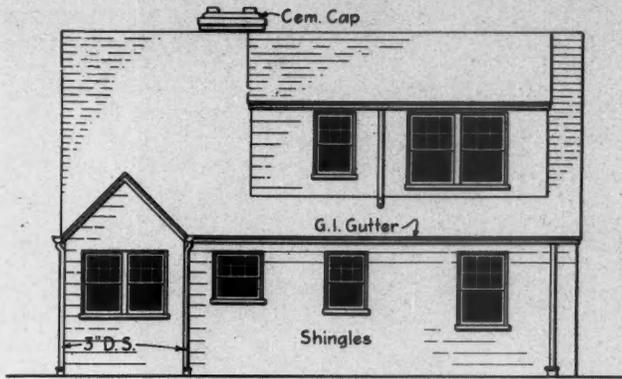
For Specifications See Pages 81 and 82



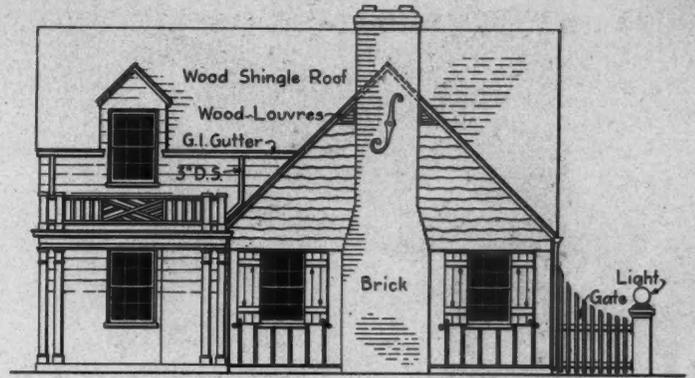
HALF SECTION THRU LIVING ROOM



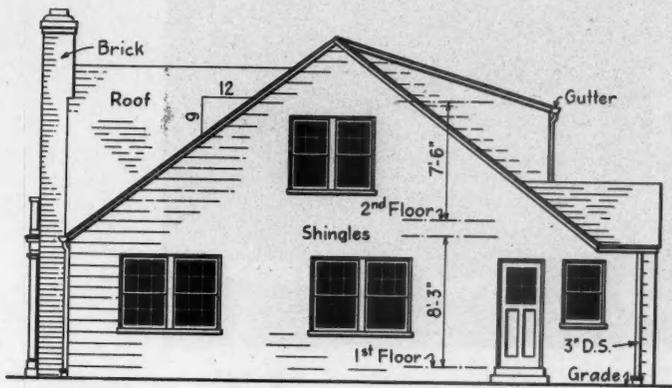
BASEMENT PLAN



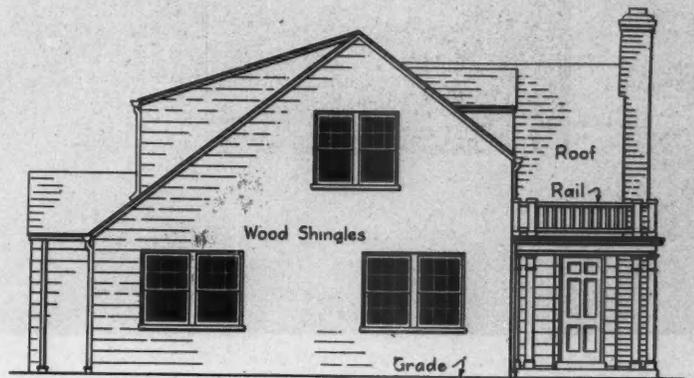
REAR ELEVATION



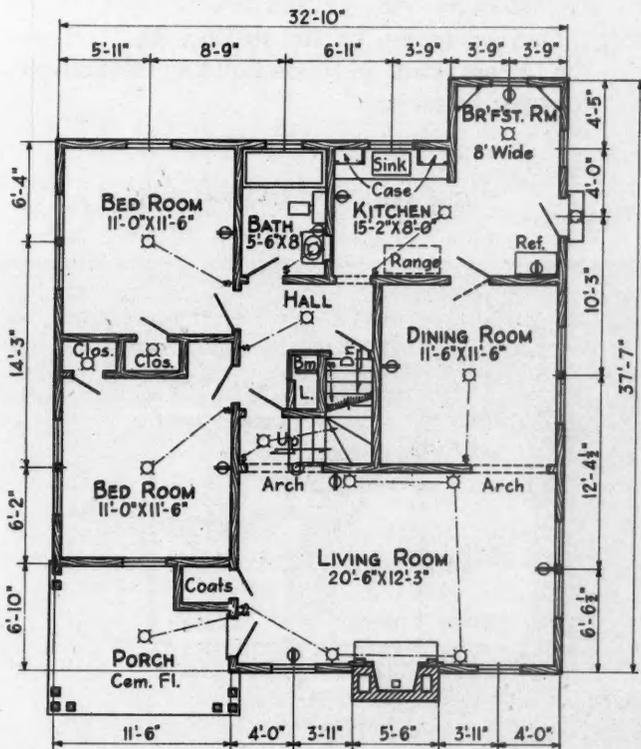
FRONT ELEVATION



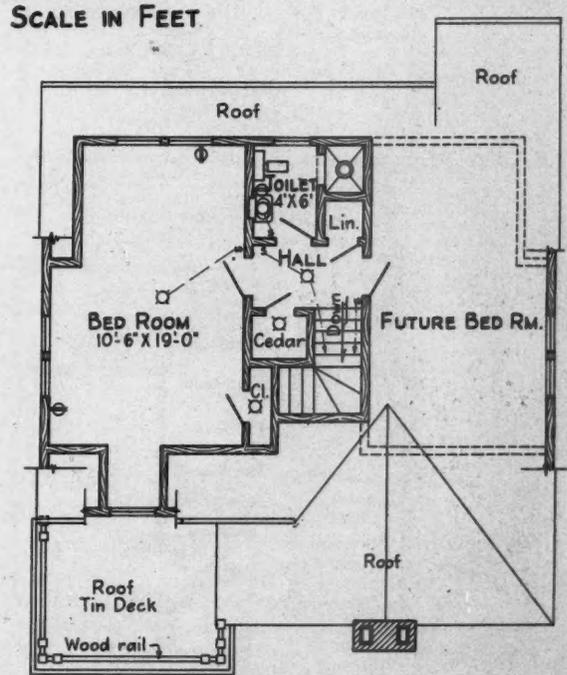
RIGHT SIDE ELEVATION



LEFT SIDE ELEVATION



FIRST FLOOR PLAN



SECOND FLOOR PLAN

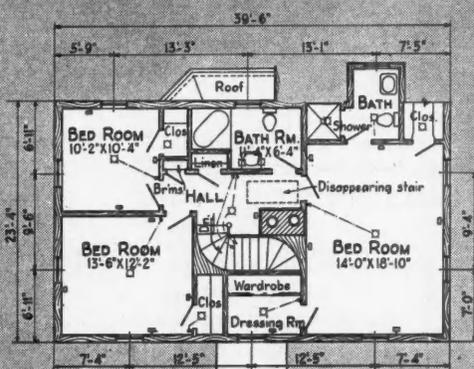


## "TIME PROOF" HOME

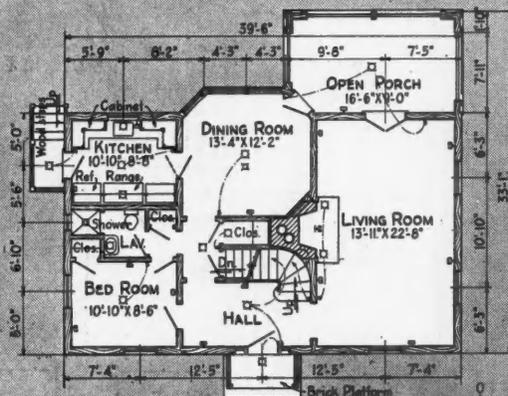
Oscar A. Ettari, New Rochelle, N. Y., Builder  
Hall & Paufre, Bronxville, N. Y., Architects

Opened to the public on Dec. 30, 1935, as the "latest word" in Home Building. Details on 5 pages following.

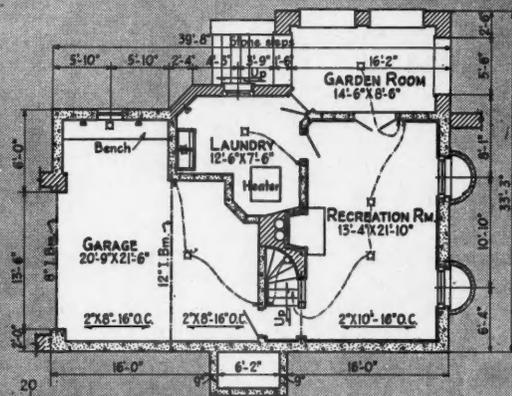
Cost Key is 1.983-128-948-40-23-16.



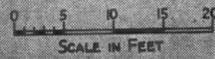
SECOND FLOOR PLAN



FIRST FLOOR PLAN



BASEMENT PLAN



# OPERATIVE BUILDERS

A Monthly Department for the Men Who Plan, Erect and Equip Homes for Sale

10 Houses Sold in 10 Days Demonstrating

## Triple-Insulated Time-Proof Home

By JOSEPH B. MASON

THE spectacular demonstration home opened December first at New Rochelle, N. Y., by Oscar A. Ettari, president of Time Proof Houses, Inc., has put the spotlight on an improved type of construction and a powerful sales argument for builders.

In the first ten days definite leads for ten similar houses resulted from the demonstration. Thousands of people passed through the house admiring its Colonial charm and its triple-insulated construction.

The house is a demonstration home built in co-operation with Johns-Manville, making use of the housing research of this firm's engineers to achieve protection against the three major threats to houses: fire, weather and deterioration. The architects were Hall and Paufve of Bronxville, N. Y.

Operative builder Ettari is a builder of long experience who has operated for many years in Westchester County, N. Y. He is now developing a neighborhood known as Wykagyl Crossways near New Rochelle. He has organized Time Proof Houses, Inc. to construct the houses in this development.

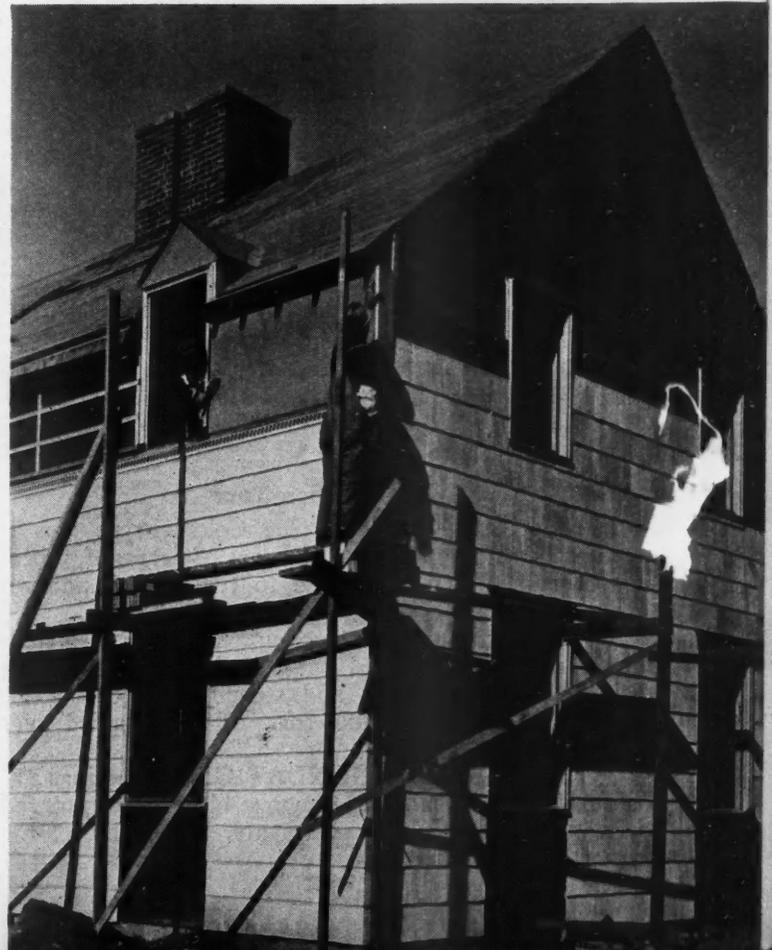
The value of the demonstration way of selling houses is amply proved by this model home. The American people are visually minded: if they can see the latest ideas in materials and methods concretely illustrated in

a well-designed home, they can be convinced. Ettari believes that the advent of the twenty-year installment loan calls for houses that will not deteriorate or show the effect of time. In co-operation with Johns-Manville, the "triple-insulated" idea was worked out. The house is a spectacular demonstration of the use of fire, weather and time-defying products.

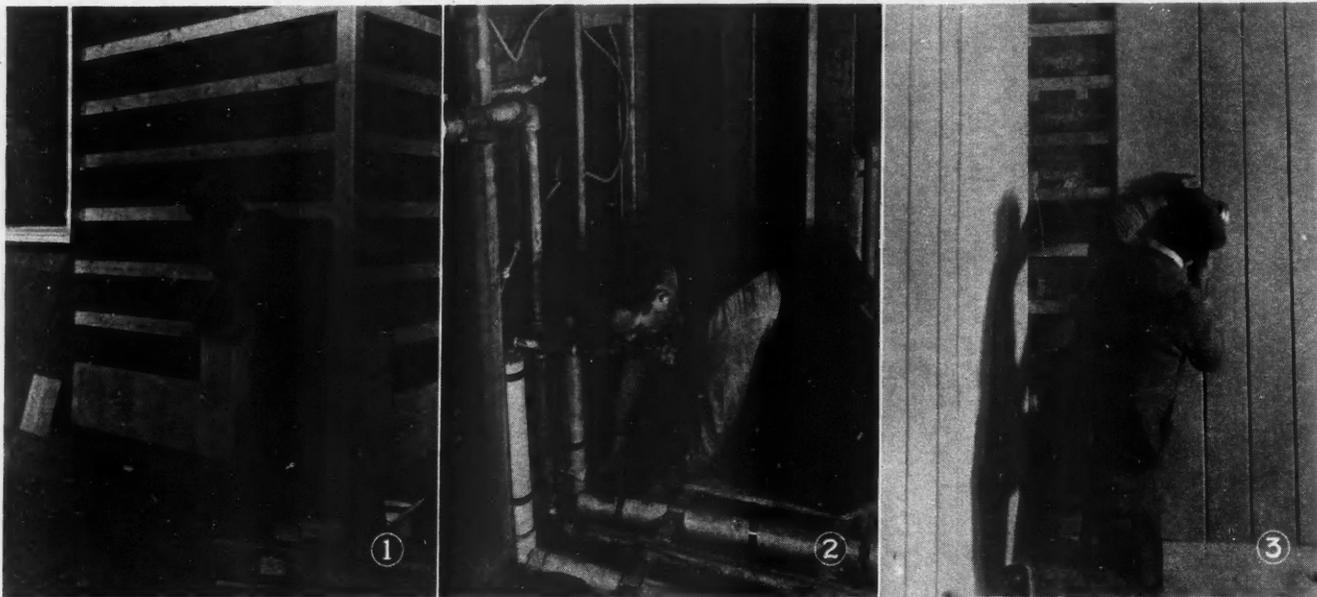
Incidentally, it is a demonstration of the fact that houses can be built in winter just as efficiently as in summer.

In addition to the demonstration features of the house itself, a specially built exhibit in the basement recreation room, using cross sections and scale models, shows the "hidden features" of sound construction. People who visit the house are given a graphic demonstration of the materials and methods used. Their comments have indicated that permanence, imperviousness to fire, weather and decay are potent points in their concept of house values. The following "specification tour" of this model home will give builders a picture of its design and construction features.

TIME PROOF HOUSES, INC. put up this model home in the middle of winter. Workmen are seen fitting 3-foot cement-asbestos panel into the frieze which makes interesting the upper walls.



## CONSTRUCTION DETAILS AND METHODS USED IN



THREE CONSTRUCTION SHOTS on triple-insulated house: (1) Applying asbestos weathered shingles which are fireproof, need no painting; (2) applying pre-shrunk wool-felt pipe covering over hot and cold water lines; (3) bevel plank insulating board in random widths, being applied in basement recreation room.



BATHROOM TILING COSTS reduced: (1) Applying rose-colored asbestos cement flexboard in bathroom; (5) applying tile-finish asbestos wainscoting; (6) stainless steel beads are applied at joints of tan-colored asbestos panels in main bathroom.

### Specification Tour

**EXTERIOR**—Johns-Manville Colonial-type weathered asbestos cement siding. Roof is of fireproof, asbestos cement shingles, textured to represent handhewn Salem shingles.

**WALLS**—Frame construction with J-M insulating board sheathing, covered with 20 lb. asbestos roofing felt. All exterior walls and second story ceiling insulated with 4" rock wool bats. Plaster applied over Steeltex.

**FOOTINGS AND FOUNDATIONS**—Footings 24" wide, 8" thick. Walls 12" concrete block, waterproofed with J-M Aquadam. Footings are drained by 4" tile

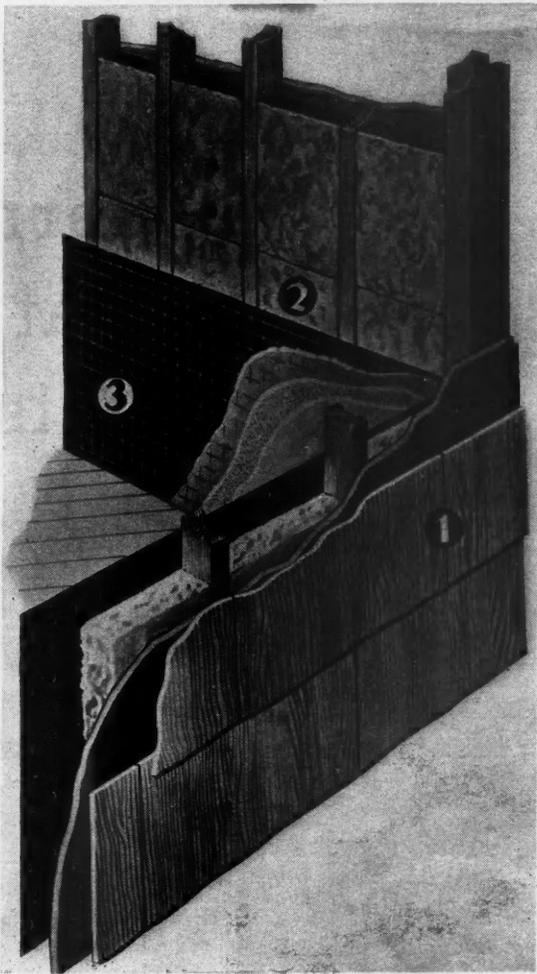
pipe leading to cesspool at rear of the building site.

**BASEMENT RECREATION ROOM**—Masonry walls furred with 2" x 2" strips, over which is applied J-M beaded bevel planks, random widths. Ceiling, J-M decorated ceiling tile. Floors, heavy duty asphalt tile.

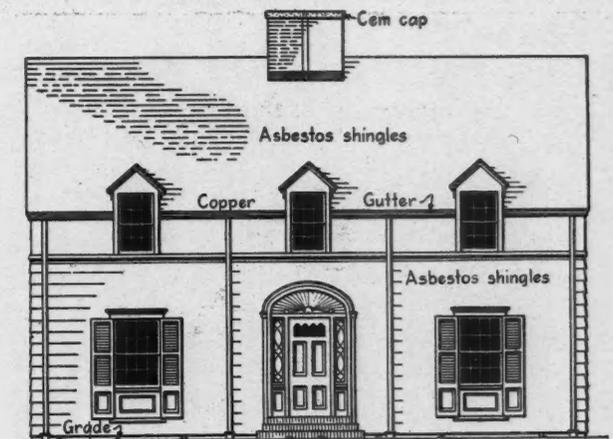
**HEATING**—Delco oil-fired, warm air, with humidifier, filters and fan, system guaranteed 1 yr. Humidistat and thermostat controls. Rectangular galvanized ducts with 1/8" x 1 1/2" strap iron braces extending 8" either side of duct wherever it cuts into framework. Space between floor joists and studs used for returns. Oil tank, 550 gals. with copper tube connection to burner.

**PLUMBING**—Standard Sanitary fixtures. Waste

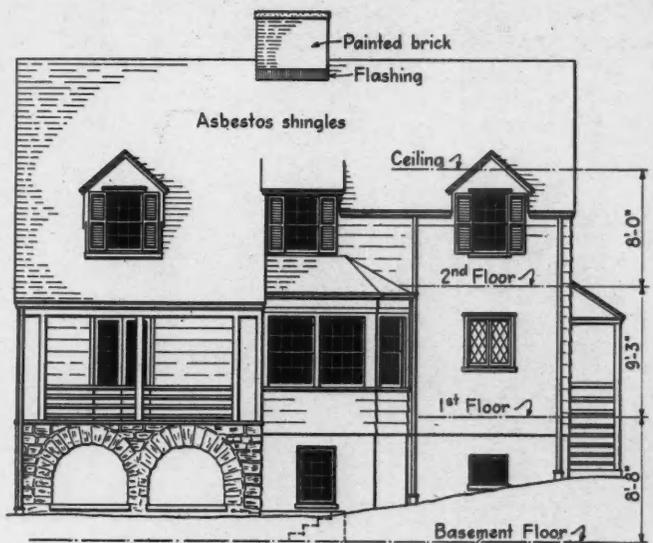
# BUILDING TRIPLE-INSULATED TIME-PROOF HOME



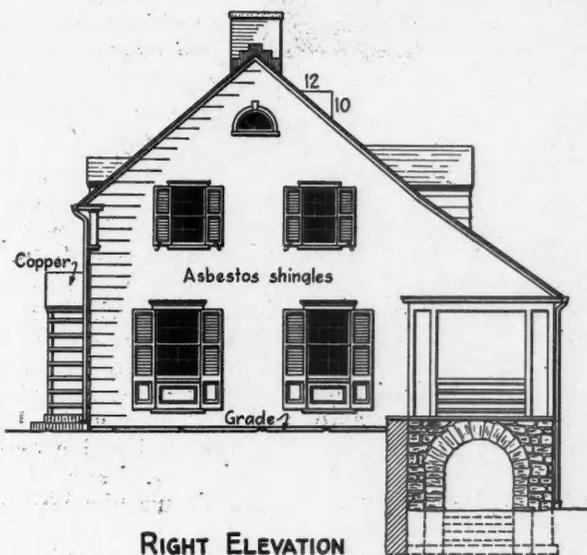
CROSS SECTION of the triple-insulated model home, showing: (1) Firesafe asbestos colonial shingles; (2) rock wool insulation, also fireproof; (3) reinforced metal lath mounted on heavy building paper.



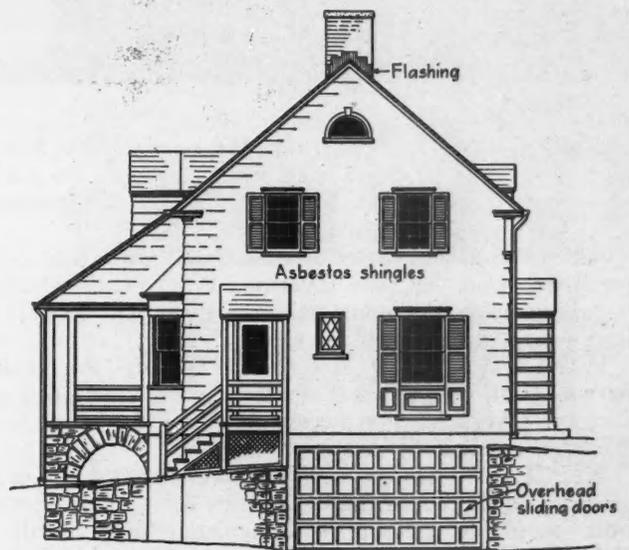
FRONT ELEVATION



REAR ELEVATION



RIGHT ELEVATION



LEFT ELEVATION

DETAILS of time-proof model home. Oscar A. Ettari, builder. Hall and Pufve, architects.



## Charm that Lasts

THE YOUNG COUPLE in this model home are obviously pleased with its charm and beauty. But operative builder Oscar Ettari goes further than that in his selling appeal. He points out that the charm of this time-proof triple-insulated model house lasts. It is well built with materials that will suffer a minimum amount from the ravages of time.

and soil pipes 4" EH cast iron. Waste pipes 2". Vent pipes 1½" and 2" galvanized iron. Water service 1" lead pipe. Water mains, brass 1", risers ¾", branches ½". Gas pipe ¾" black iron.

All hot and cold water lines covered with J-M ¾" preshrunk wool-felt pipe covering. Where exposed this is painted with aluminum paint. Shower pan of heavy lead sheets turned up 6" at sides.

**WINDOWS AND BRONZE DOOR**—Andersen narrow trim, double hung windows, weatherstripped at factory. Overhead type garage door by J. J. Wilson Co. Package receiver by Majestic Co.

**KITCHEN**—Entire wall surface finished in unscored J-M flexboard, light green in color, with aluminum moulding. Floor is Congoleum-Nairn Sealex. Cabinet and work table Napanee unit, with black linoleum top, stainless steel trim, acid-resisting enamel bowl. Diehl electric exhaust fan.

**LIVING ROOM**—A large room well lighted with

attractive Colonial fireplace with black slate slab.

**STUDY**—This is an attractive small room finished in deep brown tempered hardboard. The ceiling and trim are oyster white, making a pleasing contrast. Ceiling is of J-M perforated insulating board in 12" squares.

**BATHROOMS**—The entire wall surface of the main bathroom is covered with ivory-colored J-M asbestos wainscoting with mouldings of stainless steel. There is a square type Standard tub. Hood rubber tile floors. Another one of the bathrooms has an asbestos wainscoting of marbled design in dark green and black which contrasts pleasantly with the light green J-M flexboard on upper walls. The flexboard and cement-asbestos wainscoting were applied in large sheets. Walls and floors of bathroom are heavily insulated with rock wool to eliminate noise.

**HALLS**—J-M cement flexboard in buff color is used to line the walls of the hall stairs leading from first floor to basement. It is also used in laundry room.



## New Ideas in Recreation Room, Study and Bath



AT TOP OF PAGE is shown the basement recreation room which is finished in bevel-plank insulating boards left in their natural buff color.

THE BATHROOM illustrated directly above has a square-type tub with shower and is finished in tan asbestos panels with stainless steel bead.

STUDY at left is finished in natural color hardboard walls, the dark brown of which contrasts pleasantly with the white trim and wicker finish insulating board ceiling in 12" squares.

# MODERNIZATION

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

## One Job Leads to Another

**I**NTERIOR remodeling is like a dollar ice crusher I saw being sold in a Chicago department store just before Christmas. It sells itself, if—and this is one of those times when "if" is a big word—the prospect sees a demonstration.

The merchandising scheme for the ice crusher was simple. It was based upon the fact that the gadget really worked. To prove this to a skeptical public, girl demonstrators were stationed at tables scattered about the store.

In the pre-Christmas rush, every one of these tables was ringed with customers standing two and three deep to get a peek at the ice crusher in action. Apparently, one look satisfied them for three or four salesgirls were kept busy taking orders at each of the tables.

This simple bit of merchandising probably quadrupled the sales that would have been made in the ordinary way. The ice crusher really sold itself. The demonstration merely gave it a chance to show what it would do.

Exactly the same thing is true of interior remodeling. It will sell itself if it has the proper opportunity to do so. During the past three or four years, I have seen records of hundreds of instances of homes and commercial remodeling that were sold *entirely* on the basis of demonstration.

### Harold Knapp of Celotex Corp. Tells How Builders and Dealers Make Money Re-Styling Old Basements

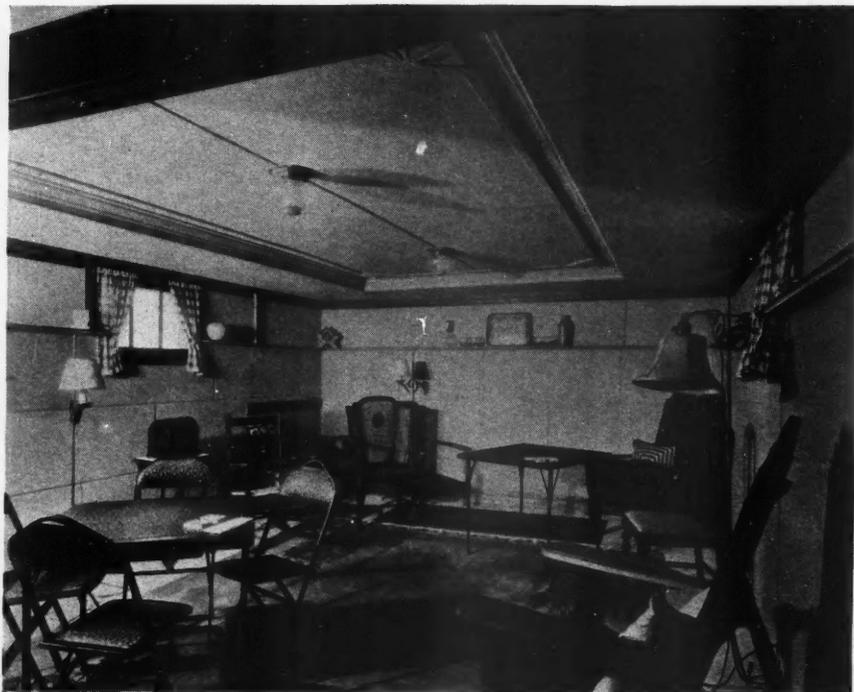
In some cases the demonstration was accidental. In others it was carefully planned by a lumber merchant or a contractor or by both of them, working together.

The success of the demonstration method is based upon the obvious fact that prospects for home or commercial remodeling are not interested in *materials*. They are interested in finished jobs. If a man is mildly interested in having a recreation room in his basement, the way to bring him to the action-point is to show him a finished recreation room in somebody else's basement. This helps him visualize a basement room of his own and the pleasure he will derive from it. Giving him an opportunity to do this helps him to sell himself.

From the lumber merchant's standpoint, this method of selling materials for interior remodeling is both effective and inexpensive. In most instances, the dealer only needs to help a contractor get his first job.

A fine example of how this works was experienced by the Michigan Shore Lumber and Supply Company of Coloma, Mich., near Benton Harbor. One of the company's men showed a carpenter, Carl Carlson, how to apply Celotex as interior finish on a house job. From this first job, Carlson has sold enough interior finishing and remodeling work to keep him busy for more than a year, and the Michigan Lumber and Supply Company has enjoyed the steady flow of material purchases.

The sales power of demonstration is indicated even more clearly by the case of Fred Wilkie, a contractor in Elmhurst, Ill. Wilkie has had one job grow out of another



THE Kleiser basement recreation room, designed and erected by Fred Wilkie, enterprising and active contractor of Elmhurst, Ill.

so rapidly that it is difficult to keep track of them.

During the summer of 1933, Wilkie installed a recreation room in the home of J. L. Jernegan, in Elmhurst. Before this he had done only a couple of interior remodeling jobs with Celotex.

Among the many friends of the Jernegans who enjoyed the recreation room was Hugh M. Kleiser, also of Elmhurst. After a few months, he decided to have a room built in his own basement and called in Wilkie, who made the installation in December, 1933.

These two jobs immediately sold another—to Wilkie, himself. He built a handsome room in his own basement in January, 1934. In February, came another job as a direct result of the work he had done in the Jernegan basement. This time the customer was Dr. Richard J. Quiter. Dr. Quiter was a friend of the Jernegans and had admired their room. So he called in Wilkie and a recreation room was built in the Quiter basement.

As a result of this experience with interior finishing and remodeling, Wilkie was called in to install new Celotex ceilings in a factory for F. W. Swett & Sons in Chicago.

When, in June, 1934, Wilkie was called in to figure on a large tavern in Elmhurst, his previous work got him the job. He took his prospect to see several of the recreation rooms. They clinched the tavern job for him.

By this time Wilkie's work was becoming well-known in the locality, and it was only a short time later when he was called in by Daniel J. O'Malley of Glen Ellyn. Mr. O'Malley called on Wilkie at his home and saw his recreation room. This visit resulted in the installation of a recreation room in the O'Malley home in December, 1934.

In January, 1935, the Elmhurst tavern job, which Wilkie had done in the summer of 1934, brought him another customer, Joseph Sutton of Elmhurst. The Suttons liked the treatment used in the tavern and had their basement recreation room done in a similar fashion.

Wilkie's next job was the installation of a room as part of a Home Owners display put on by dealers and contractors to foster building and remodeling. Michael Kross, a local attorney, saw the room and had Wilkie install Celotex walls and ceilings in the dining room and one of the bedrooms in the Kross home.

Wilkie's next sale was the direct result of a job which he had installed in 1931. In that year, he built his first basement recreation room in the home of Albert H. Glos in Elmhurst. Last year Mr. and Mrs. Glos decided to enlarge and remodel their dining room and called in Wilkie. They were so pleased with the result that they immediately had him also refinish the ceiling of their living room.

Currently, Wilkie is building two bedrooms and a study in the attic of the George Doering home in Elmhurst. Mr. Doering was sold after he had seen the Suttons' recreation room, which, you will remember, was sold by Wilkie's work in the Elmhurst tavern.

Wilkie's experiences are not unique. Neither do the jobs I have described include all the work he has done. These jobs are simply the *plus* business Wilkie has obtained by demonstration, by letting his prospects see how interior remodeling improves other homes and business establishments.

Lumber merchants who help contractors of Wilkie's calibre sell one key remodeling job are using the best and simplest merchandising method for selling materials for this type of work. They are winning *extra* material sales that might otherwise never go on their books.



### New Ceilings Add Charm

**M**ANY old buildings are structurally sound, and are in locations that justify fine modern apartments and homes. Higher rentals would, of course, be realized if such buildings were brought up to date and the rooms made modern and attractive. In many such buildings the ceilings are high and there is enough head room to suspend a formed ceiling, or otherwise completely change the appearance of the walls and ceilings.

Whether such old buildings are of wood frame or other construction, an entirely new interior can be installed by use of the light steel and metal lath construction. The accompanying illustration of an entry way in the Heidelberg Restaurant, Chicago, is formed entirely of light steel channels, metal lath and plaster. Plastering contractor, Harold Sutton; general contractor, Krahl Construction Co.; architects, Graham, Anderson, Probst & White, all of Chicago. Although this entry would not be appropriate for a home, it does illustrate the possibilities of architectural form with this construction.

The only reason we show no residential installations of this kind is that such modernization of apartments and homes have been too few. Stores, theatres, restaurants, office buildings and other types of occupancies have learned the value of such interiors, both from the economy point of view, savings in decoration and repairs, and also those values less readily measured, of greater patronage, less vacancies, higher rents. But builders and owners of residential properties still fail to adopt this already well known construction to any great extent.

It is for such modernizing that metal lath and plaster, or better still if the property justifies the investment, light steel and metal lath, already commonly used for this purpose in commercial occupancies, should be installed to entirely and permanently modernize the interior.

# A Lesson in ROOF FRAMING

By **B. T. ALLYN**,  
Building Contractor, Portland, Me.

**I**N VIEW of the fact that somewhere in the near future we are going to have a resumption of building, and also that we will then have a new crop of young mechanics with us, it would seem advisable at this time to revamp and revive some of the problems of roof framing.

With that in mind, I offer the following, with the hope that some of the aspiring young mechanics may glean a few pointers that may be of help to them.

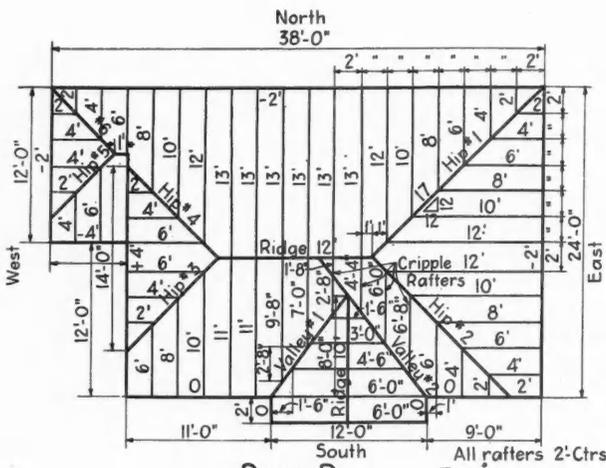
I have often heard it said that it is not necessary for a carpenter to be a draftsman. That is probably true; however, a mechanic who is a draftsman certainly has an advantage over one who is not. An inexpensive set of drawing instruments, a drawing board, paper, etc., are within the reach of almost everyone, and the knowledge to be gained will be well worth the effort. With the present trend in building, it would seem more necessary than ever to be able to lay the work out on paper.

When I have a roof to frame, I take the architect's blueprints, find the pitch or pitches, the different plate

**More Money in the pay envelope is offered here! Get out your steel square and drafting tools and work this out.**

levels, take the outside dimensions of the building at the outside plate line, and lay out a plan of the complete room as shown in Fig. No. 1.

The rafters are to be spaced 2 feet on centers; the plates are of different heights. Call the plate on the south side zero; the plates on the east, north and part of the west side are 2 feet below the south plate, or minus 2 feet. The 14 foot plate on the west side is 4 feet above the south plate, or plus 4 feet, etc. Space out the rafters so that the jacks will come opposite one another where they meet the hips or valleys, when possible. Draw the center line of the rafters and ridges as shown. The hips, where the pitches are equal, will be at an angle of 45 degrees with the plates.



ROOF PLAN FIG. NO. 1

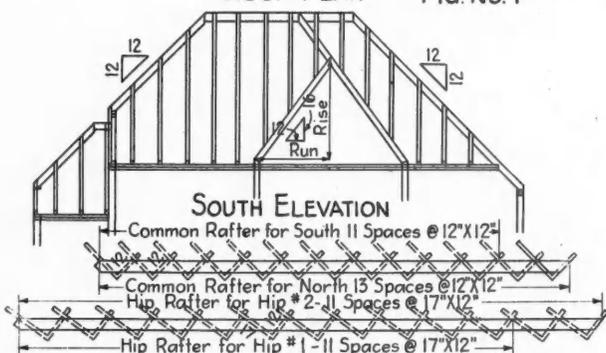


FIG. NO. 2

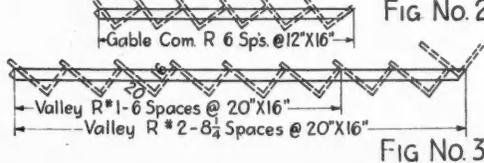
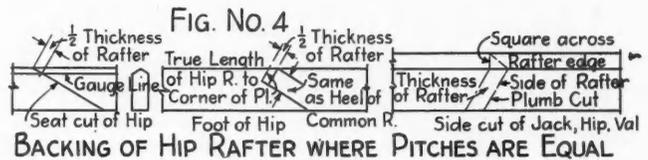
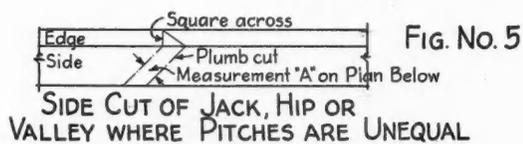


FIG. NO. 3



BACKING OF HIP RAFTER WHERE PITCHES ARE EQUAL



SIDE CUT OF JACK, HIP OR VALLEY WHERE PITCHES ARE UNEQUAL

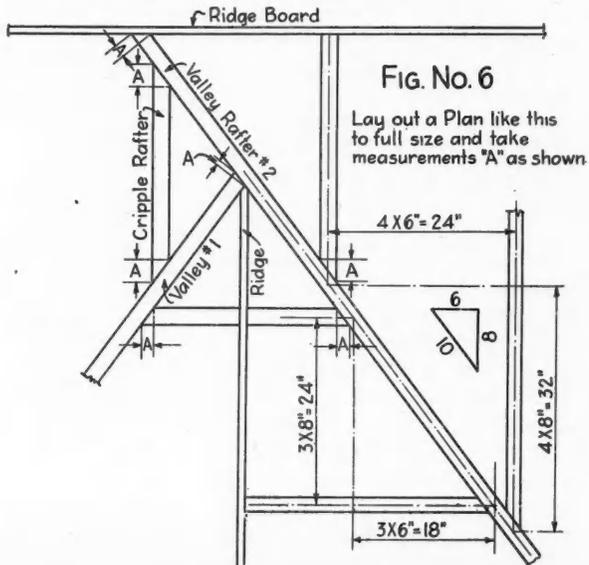


FIG. NO. 6

To get the position of the valleys where the pitches are unequal proceed as follows: The pitches of the main roof are 12 inch rise to 12 inch run, and of the south gable 16 inch rise to 12 inch run. The south gable ridge will be 6 times 16 inches, or 8 feet in height, the main roof having a rise of 12 to 12 run. Then the ridge will meet the main roof back 8 feet from the main south plate line.

The next thing to do is to get the run of the various rafters and mark same with their respective lengths as shown. There should be no trouble to get the run of the rafters and jacks where the pitches are equal. To get the run where the pitches are unequal, refer to Fig. No. 6. It will be seen that the valley rafters run 8 inches north and south to each 6 inches east and west; therefore the cripples on the gable side will each be 1 foot 6 inch run shorter than the next one, and on the main roof side they will each be 2 foot 8 inch run shorter than the next one. The run of valley No. 1 will be the diagonal of 6 feet and 8 feet, which is 10 feet. As the run of valley No. 1 is 10 feet to 8 feet north and south, it would be 120 inches divided by 8, which would be 15 inches for each 12 inches; and as the Valley No. 2 runs 11 feet north and south, then the run of the valley will be 11 times 15 inches, which equals 165 inches, or 13 feet 9 inches.

After we have the run of the various rafters, we proceed to lay out the patterns of same. The lengths of the rafters may be obtained in various ways. Most all of the framing squares have a rafter scale which will be useful in getting the lengths or they may be run with the square, as shown in Figs. No. 2 and 3. It will be seen that in running the lengths of the hips where the pitches are equal, we use 17 inches for each 12 inch run of the common rafters, for the reason that 17 is the diagonal of 12 and 12, or nearly so. This will make the lengths a trifle long; in fact, it amounts only to about one-half inch in 20 feet.

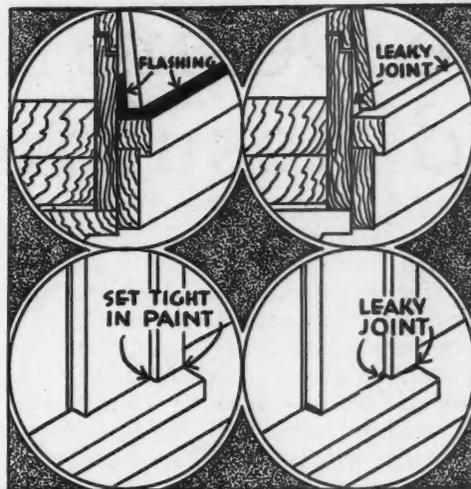
Where the pitches are unequal, it will be seen that valleys Nos. 1 and 2 run 20 inches to each one foot run of the gable rafters, so we use 16 inch rise and 20 inch run six times to get the length of valley No. 1, and eight and one-fourth times to get the length of valley No. 2.

In laying out the various patterns, don't forget to take off one-half the thickness of the ridge or hip or valley, as the case may be; also be sure to make the plumb height of the rafters all the same where they intersect the plate line. If the hips are cut to their full lengths and set to the outside corner of the plate, then it will be necessary to cut the heel of the rafter as shown in Fig. No. 4.

To get the side out of the hips, valleys or cripples or jacks where the pitches are equal, refer to Fig. No. 4. Simply mark the plumb cut on the side of the rafter, measure back, square with the cut, the thickness of the rafter and square across the top edge of rafter. Connect the two points and you have the proper cut.

Where the pitches are unequal, make a full size draft as shown in Fig. No. 6 with the rafters in their proper positions. Square over as shown; take the measurements as at "A" and use these measurements as in Fig. No. 5.

There is nothing about roof framing that cannot easily be solved with a reasonable amount of study and application. While some of the explanations given above may seem complicated at first, if you will persevere, most anyone ought to be able to frame any ordinary roof in a short time, and after accomplishing this, the way will open up to almost any problem you may encounter.



The illustrations above to left show how flashing should be installed at headers and how squared ends should be set in paint to prevent admittance of water. To right are shown the same unprotected, resulting in leaky joints, the cause of many paint failures.

### Keep the Moisture Out!

STRUCTURES made of steel, cement, brick, or lumber may all be subject to certain types of defects if water gains admittance to unprotected areas during certain seasons of the year. On the other hand, buildings made of these materials are of long life if they are properly constructed. For instance, high grade lumber siding will last indefinitely if kept well painted. Striking illustrations of the truth of this statement are afforded by the excellent condition of those century old colonial dwellings of lumber that have been properly cared for.

On the other hand, it is necessary that good workmanship go into any building if it is to be maintained in a sound condition. At least 90 per cent of paint failures on wood surfaces may be due to moisture caused by faulty methods of construction. Two common points of attack that must be guarded are illustrated. It is recommended by Henry A. Gardner, director, Scientific Section, National Paint, Varnish and Lacquer Association, Inc., Washington, D. C., that these facts be brought to the attention of all building trades, as well as the house owner, so that preventive measures may be taken on new construction work and obvious defects may be corrected in existing structures.

Here are the painting pointers stressed by Mr. Gardner:

1. Siding should be protected from rain when it is delivered on the job.
2. When siding is in place it should be dry when the priming coat of paint is applied.
3. See that the plaster in the new house is thoroughly dried out by providing adequate ventilation before painting the siding.
4. The carpenter should be careful to join square ends closely together after sealing with paint. Ends of siding should be tightly joined against door and window casings.
5. See that all metal flashings over windows or headers have been properly installed to prevent rain from getting in.
6. Do not apply paints during cold, damp periods.
7. Carefully follow the manufacturer's directions on the paint container.
8. Paints of the highest quality, made by reputable manufacturers and sold by dealers in whom you have confidence, should be selected if you wish to give your property the best protection against the elements.
9. Don't forget that there are many lumber dwellings in America, that are from 200 to 300 years old, that are still in good condition, and that they have been preserved and decorated through the use of high quality paint. Properly constructed and painted lumber structures are good for generations.

# The Desire for Information— and Resulting Profits

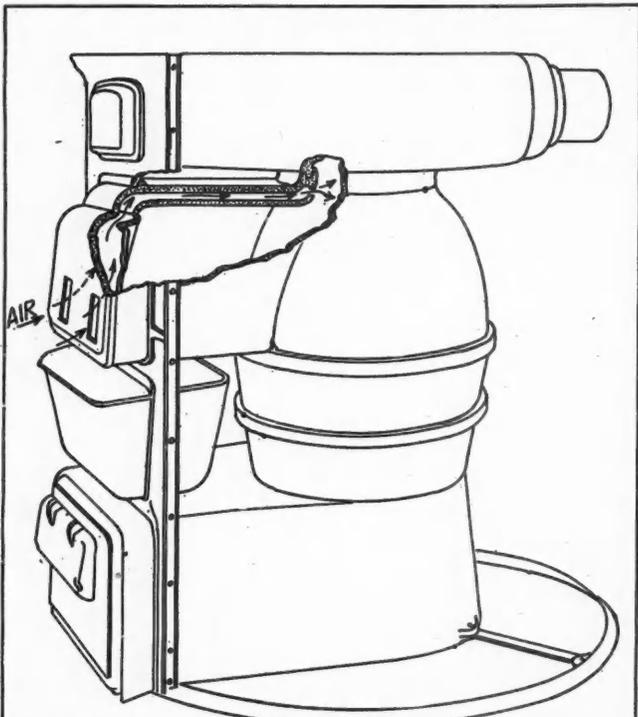
By V. L. SHERMAN

Department of Mechanical Engineering,  
Lewis Institute of Technology, Chicago

JUST a year ago this department started off with the notion that building contractors would be in the market for information about newer and better types of mechanical equipment to provide for the improvements essential to building under the provisions of the Federal Housing Administration. There has been little doubt as to whether or not they were in the market for such information. I suppose that just as a radio or moving-picture performer delights in the quantity of "fan mail" he gets so do I appreciate personal inquiries regarding subjects dealt with in these articles. Only, there is this to say regarding such inquiries, there is certainly nothing imaginary about their interest.

But a year is long enough to stay completely away from correspondents. This time we will introduce a few, and work out an article along their lines. This first inquiry is from a builder who wishes to use a coal-fired warm-air furnace of the standard type but is skeptical because of previous experience with less expensive coal in his local market. He says the furnaces, from the fire pot and to the chimney top become too sooty. Of course he knows that the proficiencies in firing have much to do with the state of the furnace, but is there any furnace built which might improve on ordinary combustion?

Such a furnace is built in a district where coal is a popular fuel because of the low freight rates. This furnace, as shown in Figure 1, is typical in design, perhaps, except for a feature that is very striking. Above the firing door is a passage broad and flat which runs



**FIG. 1.** A FURNACE WHICH PROVIDES FOR ADMISSION OF PREHEATED AIR ABOVE THE FIREPOT TO SECURE MORE COMPLETE COMBUSTION AND THEREBY REDUCE SOOT.

to the top of the firing chamber. This passage when open to the air will draw air through to the firing chamber which, being warmed first, acts as a distinct help to complete unfinished combustion. First there is the air drawn to the best location. The fact that it is preheated makes the action still more effective. Proper air supply is most necessary to the furnace or boiler that does not have more than casual attention, which is likely to be the case in most hand-fired domestic furnaces.

It is hardly possible to isolate any inquiry regarding the possibility of proper humidification, with steam or hot water heat, direct from the radiator. That question is everlastingly asked. There are many answers. Pans, pans with wicks, jets, are some of the answers. But just as in almost every case where there is a want there is a supply. The radiator shown in Figure 2 has a trough cast in the top of every section of radiator. These troughs are connected throughout the length for water supply just as are the steam sections connected for steam supply. The water is supplied by tapping the supply line, and the flow to the radiator tops is controlled by a valve. Enough moisture can be supplied from one radiator to take care of a number of rooms. The troughs are carefully covered, as is shown at the farthest section, and the entire radiator is cased and grilled to improve its appearance and efficiency.

Now we'll go a bit deeper. With improvements coming to the fore and with improved health and comfort conditions there is a need to watch the health of the house as well. Some of our old mistakes in construction are going to catch up with us if we are not reasonable.

"The house is a five room cottage or bungalow type. A sun parlor on the south side and an enclosed porch on the north. There is a full basement except under the sun parlor and back porch. The heat is a warm-air furnace. The house is recently built and modern.

"He has a complaint that, around the edge of the wall at the floor line, the wood-work is covered with frost. This is on the back porch which is not plastered or ceiled. This also occurs between the double studding on either side of the outside door.

"The condensation on the windows of the sun parlor where there are no storm windows is so profuse that ice accumulates. Even before cold weather there seemed to be an excessive amount of moisture on the glass."

The general answer might be cold air currents outside the house, within the house, and in the walls. And the general remedy would be insulation. But if the cold air currents are stopped within the walls and double glazing is used it would take a very cold day to bring the air along the walls down to the dew-point.

If the house air in this case has access to the back porch, even if only occasionally, the moisture will be deposited rapidly. It seems certain that the furnace humidifier is taking its proper part. The fact that frost strikes the studding at the door frames is a bad indica-

## MECHANICAL EQUIPMENT FOR 20-YEAR FINANCED HOUSES

tion. If it isn't frost then it is moisture. One of the two always.

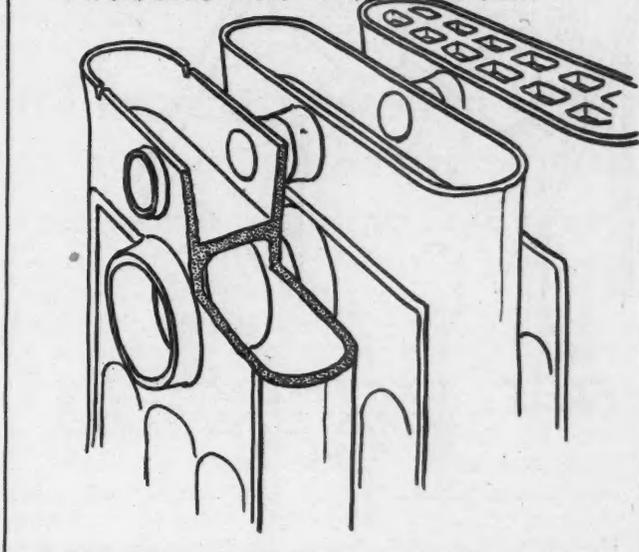
But there is another point which is sometimes neglected. If there are air currents within the walls there is special danger from fire. The clipping in Figure 3 is typical of these winter months. "The house was old and had no fire stops anywhere." The house did not need to be old not to have fire stops. Fire stops are an advantage. But they are often cut through for one reason or another, and they do not stop drafts within the walls.

There are so many ways of providing substantial insulation within the walls of new homes, and sure ways of providing insulation within the walls of old houses that there is no reason for neglecting it. Insulation varies in makeup, but the purpose of furnishing tiny enclosed air cells is essentially the same in all of the packed type. One large company, we will say, markets both the bats that can be cut to fit as in Figure 3 or that are sprayed through a large hose as is shown in Figure 4. Figure 5 shows the stock sized bat that can be inserted between rafters or joists or studs.

The matter of insulation for hot or cold pipes, ducts, walls, roofs, or floors is too important to neglect merely on account of expense in material and labor. It means constant loss of heat, sometimes sensible heat which is obvious, sometimes latent heat which is apparently a nuisance but is actually more expensive and often very harmful in any type of building. Latent heat means moisture and frost and deterioration.

Plumbers are not averse to repairing any job occasioned by frost or freezing, but their personal recollections of having to rip out floors, ceilings, and walls in order to get at the location of a break does not lead them to soften their repair bill. One first class plumber was recently bewailing the fact that one owner had called him on four different jobs for the same house in all of which he had to break through to effect a repair and then try to pack insulation as best he could. He wasn't losing any money on the work, but a good healthy kick for the builder for "running water supplies and soil stack up a wall of an outside entranceway without full insulation" would afford him great satisfaction. The insulation used in Figure 4 would solve

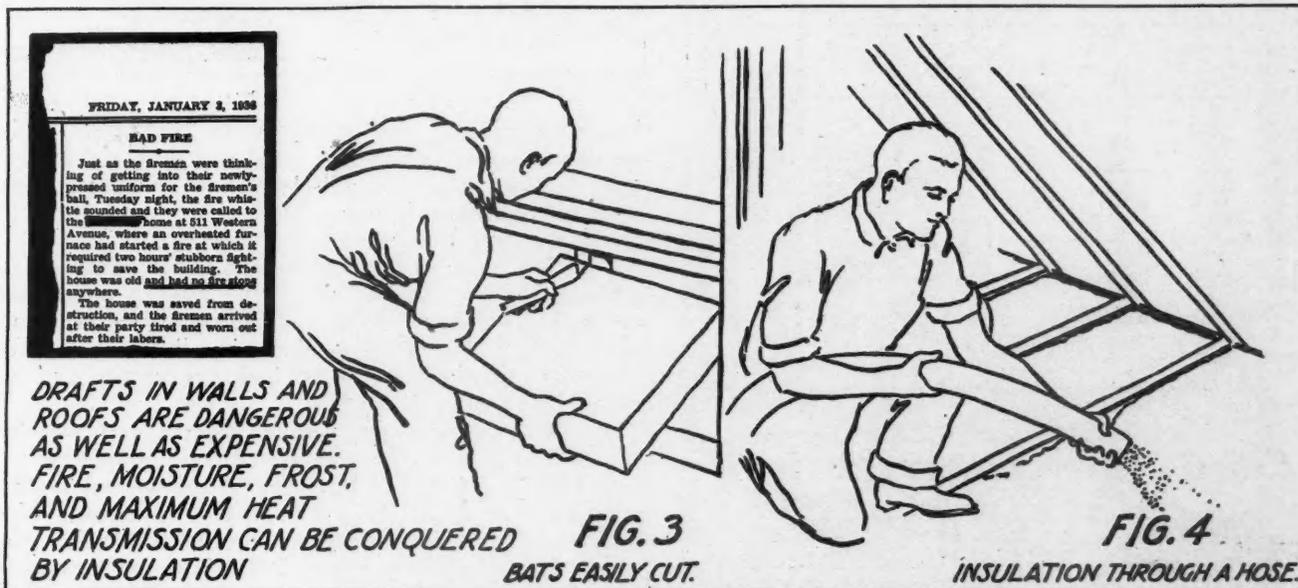
**FIG. 2** A RADIATOR WITH ITS OWN WELL REGULATED HUMIDIFIER CONNECTED WITH WATER SUPPLY.



this problem.

Besides there is always the danger of wall stains where moisture strikes. I am of the opinion that the use of insulation is not fully appreciated. Take the one instance of the soil stack which runs up a partition. Warm weather will furnish enough moisture in many cases to give this relatively cold stack a plastering of moisture that will drip. But worse still the plaster close by will be sufficiently chill to accumulate its own share of the moisture.

"Am planning a home for my own use and would like to get started right on air conditioning. The size of the house will be 28'x50', one story. Any information you can give me will be appreciated as I want a stoker and all year round air conditioning and want good equipment and sizes that will do the job properly. Air conditioning is new in this territory and I realize that I might make serious mistakes."



FRIDAY, JANUARY 3, 1936

**BAD FIRE**

Just as the firemen were thinking of getting into their newly-pressed uniform for the firemen's ball, Tuesday night, the fire whistle sounded and they were called to the scene. A fire at 511 Western Avenue, where an overheated furnace had started a fire at which it required two hours' stubborn fighting to save the building. The house was old and had no fire stops anywhere.

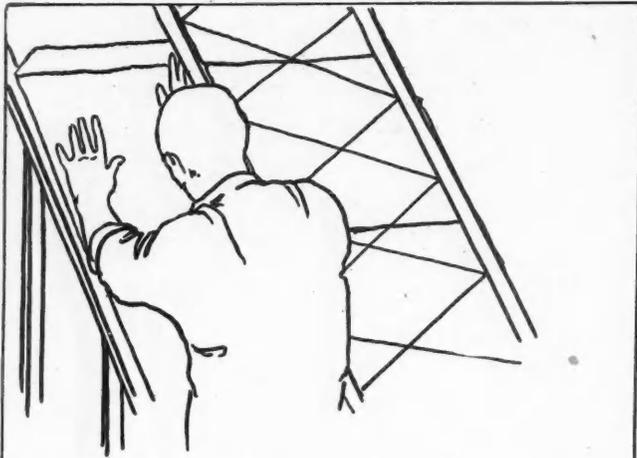
The house was saved from destruction, and the firemen arrived at their party tired and worn out after their labors.

**DRAFTS IN WALLS AND ROOFS ARE DANGEROUS AS WELL AS EXPENSIVE. FIRE, MOISTURE, FROST, AND MAXIMUM HEAT TRANSMISSION CAN BE CONQUERED BY INSULATION**

**FIG. 3**  
BATS EASILY CUT.

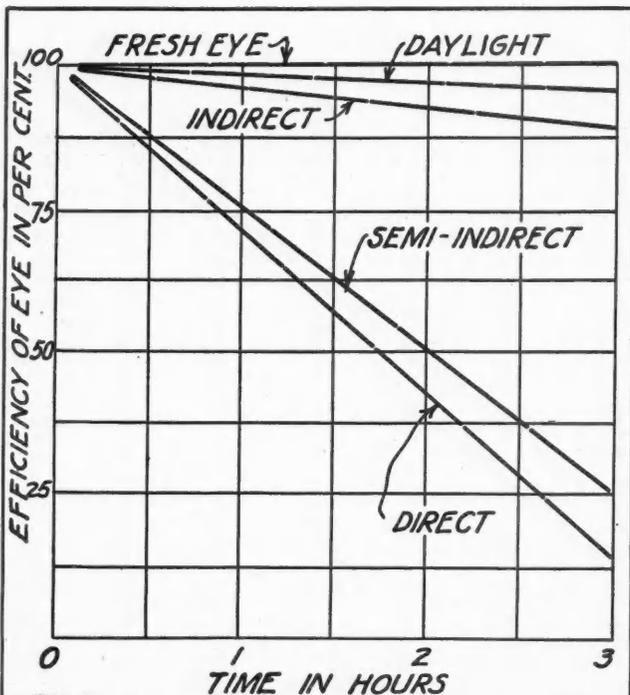
**FIG. 4**  
INSULATION THROUGH A HOSE.

HEATING—AIR CONDITIONING—PLUMBING AND WIRING



**FIG. 5** ROCK FIBRE BATS EASILY INSERTED BETWEEN RAFTERS AND STUDS.

Evidently from the cheaper coal markets and wise to pick a stoker. There are several excellent stokers and the firms which make them think enough of their reputations to anticipate against failure through miscalculation on size. The firms building air conditioning equipment are many. The firms that are building the best equipment are just as jealous of their reputations, and will calculate and provide for ample capacity. These firms have every intention of continuing to build such equipment and a mistake would rankle them much more than the owner. He might alter the installation, but



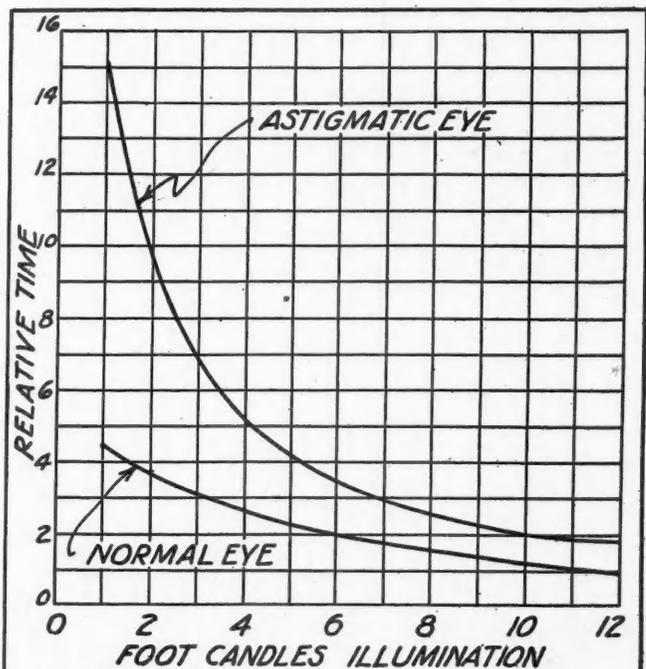
**FIG. 6** GRAPH SHOWING LOSS OF THE EYE EFFICIENCY THROUGH 3 HOURS OF VISUAL WORK UNDER VARIOUS SYSTEMS OF LIGHTING. FROM FERREE AND RAND.

they cannot alter their reputation in such short order. "As secretary of this association I have a number of inquiries in reference to air conditioning for houses such as we build in this part of Florida.

"The conditioner you describe in Figure 3 seems to me to be a very practical one for this territory because we cannot have cellars and basements in this country on account of the high water table."

The conditioner he inquired about is not only adequate but just fitted for this type of construction. From my own experience the people in Florida are proportionately outdoing the rest of us in the study of air cooling and conditioning equipment. They have taken advantage of every phase of nature and are going at it in a really big way.

"You have a diagram of an oil-burning unit that looks to be very economical in its operation, and I was



**FIG. 7** COMPARISON OF TIME AND AMOUNT OF LIGHT REQUIRED FOR VISION. FROM FERREE AND RAND.

just wondering if you would be so kind, etc." This gentleman picked a real one. And to repeat, the particular installation is especially economical because of its designed insulation features. Heat transmission is effective just where it is desired.

Now we come to one which asks about lighting fixtures. He says that "no doubt the utilities appreciate the multiplication of outlets, and the possibilities thereby afforded. But what is there in all this new talk about illumination, good and bad, eye strain, and so on?"

An illuminating engineer would say that our portioning of expense in the way of fitting illumination is, at present, ridiculous. But then I am not an illuminating engineer, so I do not think it is ridiculous. Not only could our illumination in homes be worse, but it is a good deal improved of late. It seems to me the manu-

(Continued to page 116)

# ALUMINUM Celebrates Fiftieth Anniversary

**H**AD Martin Van Buren, upon his election to the presidency, decided to renovate the White House and replace the window frames with similar ones of solid gold, he would have been able to gratify his wish, no matter what the country would have thought of this meaningless ostentation. But if his choice had fallen on aluminum, he would have been sorely disappointed on two counts: first, there was not enough metallic aluminum in the world to make the frames for even one window; and second, if available, the price of the metal would have been so high that the most lavishly extravagant Croesus of that period would have hesitated before committing himself to such an expense.

Today, a hundred years after Van Buren, a window frame of aluminum attracts no attention. There are thousands of them in existence, to match the tens of thousands of aluminum architectural applications in use everywhere. From a metal of rarity and high cost, aluminum has become one of abundance and low cost.

In those early days, aluminum could not be extracted inexpensively from its ores. That problem was solved by Charles Martin Hall, a twenty-two-year-old graduate of Oberlin College, who, in February, 1886, found a way by which the manufacturing cost of aluminum could be lowered to an inconsiderable fraction of its former price. Thirty-four years previously, aluminum had sold for as much as \$545 a pound; a short time after Hall's discovery, aluminum sold for a dollar a pound, and today the going price is about twenty cents a pound.

Many are the fields which aluminum entered as a

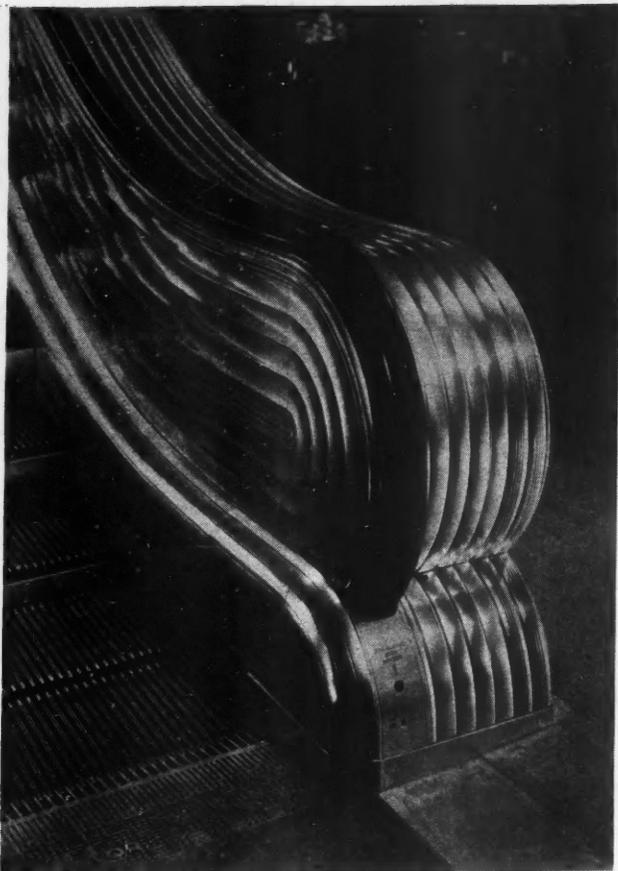
**A rare and expensive metal in 1886, aluminum now enjoys everyday use. Great expansion in building field seen.**

result of Hall's endeavor. It is widely used in the transportation industry, in airplanes and streamlined trains, in bus and truck bodies, in the engines of motor cars, in bicycles and motorcycles, in outboard motors and the hulls of pleasure cruisers. The chemical and food industries find aluminum useful; it is an important factor in paint and in the construction of precision instruments; it is used in cooking utensils and in jewelry. Applications of aluminum in the structural field are many, and architecture has a versatile handmaid in aluminum.

The cap of Washington Monument, placed at the obelisk's tip in 1884, was possibly the first recorded use of aluminum as an architectural metal. A number of architectural applications were made in the nineties, such as the railings, mail chutes, kick plates and elevator grilles for the Venetian, Isabella and Monadnock buildings in Chicago, but then the time was not ripe for a general acceptance of aluminum as an architectural metal. Red metal still prevailed, and did not give way to the white until the necessary impetus for this change was given by the Paris Exposition of 1925. As a result of alloy development and the perfection of numerous finishes, aluminum was ready for the new vogue.

**G**LISTENING strips of aluminum make the entrance to a small store most attractive, particularly if they carry out a good design. This small shop has taken advantage of aluminum in order to increase its appeal.





CLOSE-UP view of a well executed escalator rail. The metal has been finished by the Alumilite process.

Office buildings and other public structures were among the first to use aluminum during the building movement of the last ten years. The first use of the new metal was entirely decorative; it was confined principally to spandrels which, with their even tones of gray, lent a new charm to buildings executed in the modern manner. The metal provided an admirable avenue of escape from the commonplace; and its appeal was instantaneous. If aluminum added so much to the tone of a building by its mere use in spandrels, then that tone could be intensified if more metal applications were aluminized. And so it came about that aluminum was used for store fronts and ornamental grilles, clock cases and building directory frames, marquises, windows, doors, fascias, cashiers' cages and inlay work. For aluminum is not only a metal for exteriors; it can be used in the interior also. Enthusiasm for aluminum did not stop with office buildings and public structures; it travelled from larger buildings to the smaller; it made its appearance in Main Street and in the home.

Aluminum fits naturally into the requirements of building construction. It is a metal which can be formed easily into many shapes and patterns; it has uniform physical and chemical properties; it is light and easy to handle; it is workable; and it is readily available in all forms of the metal-working art. Such forms include plate, sheet and foil; bar, rod and wire; forgings, tubing, structural shapes and moulding; screw-machine products; sand, permanent mold and die castings; and powder as a base for paint. It is possible to fabricate all building details from one metal and thus obtain a uniformity which would otherwise be impossible.

Aluminum is highly resistant to attack by the elements; it is strong; it is easily joined and finished; it

can be colored in many ways to give a wide variety of surfaces; and its cost as a raw material is comparatively low.

The ever-increasing use of metal spandrels in building construction, whether on large or small buildings, is a result of the desire to break the flatness of ordinary building elevations and accentuate the vertical lines of tall buildings. From the cost standpoint, aluminum spandrels effect a considerable saving, not only in freight rates but also in erection. The light weight of aluminum spandrels—aluminum weighs only a third as much as other common metals—speeds up loading and unloading operations and makes it possible to haul larger loads in less time than when the heavier materials of construction are used. Fewer men are needed to distribute and set up the spandrels: two men can easily handle a 5 by 5 ft. aluminum spandrel, whereas it would be necessary to employ several extra men to handle a spandrel of the same size made from heavier materials.

The extruded shapes from which aluminum members are made can be easily cut to length and fitted together. The shapes are made by the extrusion process, which consists of forcing aluminum through dies having orifices which are cross-sections of the material which is to emerge from them eventually. Extruded shapes have smooth surfaces, fine structure, clear, sharply defined lines, and are uniformly dense. The range of shapes that may be produced by this method is practically unlimited, since the die orifice may be cut to permit almost any contour.

Extruded shapes are further used in the construction of aluminum windows for buildings both large and small, for stores as well as for homes. They have been installed to save both weight and cost and to eliminate many items of maintenance. They are economical to use because they are light, resist corrosion, and need not be painted, although aluminum takes and holds paint well. Casements and sills are also made of aluminum, as are casement, double-hung, basement, and garage windows. Window screens, screen door frames and screen cloth are made of aluminum.

Simplicity has been the keynote of modern design. Excessive ornamentation has been eliminated in favor of purposeful pattern. Glitter and glare are replaced by pleasant tones and colors. For these reasons, aluminum has been widely used in store front work.

Metal does not need to be burnished in order to be pleasantly attractive. Bright, vivid surfaces tend to repel rather than attract. Aluminum, with its soft matte or lightly polished surface, is in keeping with the spirit of contemporary design. An important advantage enjoyed by aluminum, particularly noteworthy in relation to the extremely varied designs of modern store fronts, is the absence of risk in staining or disfiguring adjoining surfaces. It can be used with perfect safety in contact with richly veined and colored marbles, opaque glass, or the various synthetic materials now favored for the decoration of shop windows.

Reasonable permanence of architectural beauty and construction is assured by the use of aluminum for roofing. Aluminum roofs of the batten-seam, standing-seam, lock-seam, ribbed-seam, and corrugated types are not affected by the sulphurous gases of industrial communities. They are easy to erect and well adapted to various designs. All ordinary roofing accessories are fabricated of aluminum and placed with the same ease as the roofing itself. Being of the same material, they eliminate galvanic action.

Aluminum awnings, made of aluminum slats, reduce

fire hazard. They are ventilated, permit free circulation of air, keep out the rain, and insure privacy. They may be painted or left in the metal's natural color in order to match a given decorative scheme.

Lobbies and entrances, the focal points of office buildings, suggest the use of aluminum doors, made of a metal which weighs only a third as much as others, for such doors can be opened and closed with little effort. They may be cast, formed, or fabricated from extruded shapes and tubing.

Stair and balcony railings, which usually have an important place in the interior decorative scheme, utilize the color and strength of aluminum to great advantage. Exterior railing for observation decks, roof gardens, stairways and porches, provide excellent appearance as well as adequate strength and resistance to corrosion. The use of extruded aluminum moulding for the hand-rail proper permits unlimited variations of contour. Where the railing is to be more practical than decorative, the use of drawn aluminum tubing will prove economical.

Railing panels are most frequently made in the form of castings. The high point of ornamentation and design may here again be accentuated through the natural variation in tone and texture among the forms selected or by drawing on the variety of finishes available in aluminum.

Lighting fixtures made of aluminum are both practical and economical. Aluminum has valuable qualities as a reflector and is widely used for original designs, but it may also be obtained in stock patterns from several manufacturers. The newest development of aluminum as a reflecting surface is the Alzak reflector, up to the present confined to floodlighting. The metal is given an electrolytic brightening treatment so that the reflecting quality of its surface approaches that of silver. The greatest asset of the Alzak reflector is its ability to withstand atmospheric attack without a loss of reflectivity.

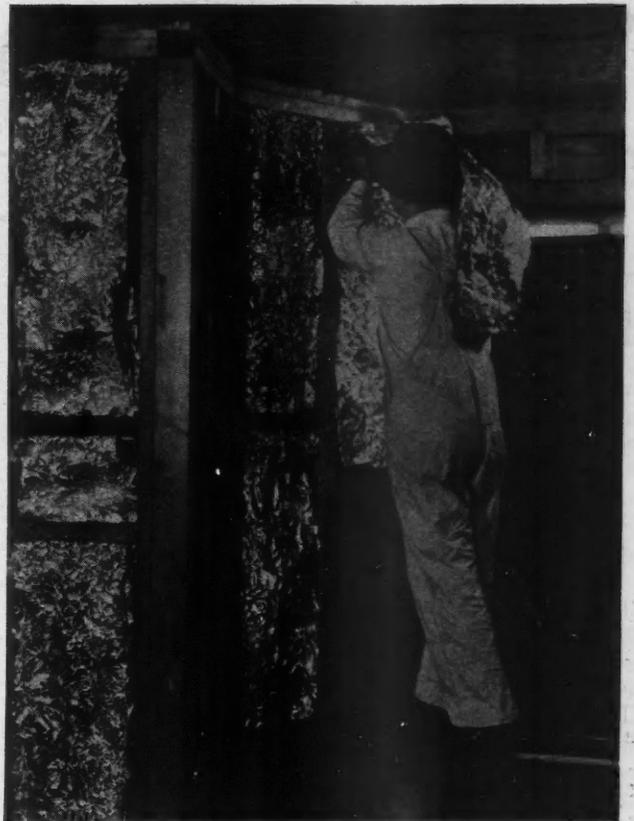
Expressive in tone and texture, aluminum hardware fits perfectly into a wide variety of uses. Aluminum door hinges, escutcheon plates, knobs, house numbers, switch plates, electrical outlets, letter slots, push bars, kick plates, and other exposed parts can be made in many finishes.

The adaptability of aluminum has made it available not only for the more decorative applications but for a multitude of display fixtures, such as tables, counters, showcases, stands, pedestals, and furniture. Its metallic finish lends itself readily to the straight-line effects of contemporary design or to the more conservative patterns.

Handwrought aluminum has a beauty all its own. Because of its workability, aluminum is easily forged into intricate shapes and designs, and its malleability permits its use for deep or involved repousse work. In its natural finish, it has a pleasing tone and texture. Where a wrought-iron finish is sought—as an interpretation of the finest Venetian handicraft—aluminum can be worked to produce this finish, with an additional advantage—aluminum does not rust.

Ornamental gates and fences can be made from aluminum castings, forgings, tubing, sheet, wire, or a combination of these materials. Maintenance costs may be substantially lowered because these parts require less frequent painting or repainting.

Aluminum paint has been employed for many years because it is durable, reflects light well, and has a high moisture-proofing efficiency. Always the paint of the basement, it is now also used in many other applications, such as a wood primer for both exterior and interior surfaces.



MANNER of installing crumpled aluminum foil into the walls of a house for insulating purposes.

A hundred years of drabness, whether it be in the color of clothes or in architectural embellishment, is soon to be at an end. Many predict that the world is now entering upon the greatest color-using age it has ever seen. Such prophecies are to be examined carefully, for it will be difficult to match the color splendor of Greece or the garishness of Rome, to say nothing of the tints laid on with a thick brush by the artists of Byzantium, and to forget the reckless hues of the Renaissance. But the projects have a reason for their statements. The world, from a color standpoint, is considerably brighter than it was ten years ago. It may be possible that inhibitions will be flung to the winds in order to display the love of color which is inherent in the human race. If so, then aluminum will still be in the picture, for it can now be dyed any tint of the rainbow. Colored aluminum sheet has been used for walls and ceilings. It can be adapted to both public and private rooms, and it is easy to keep clean.

Just as aluminum is employed in the construction and embellishment of large and small buildings, so is it used in the home. The home has found room for such aluminum details as casement and double-hung windows, window sills, screens, weatherstrip, awnings, doors, threshold plates, roofing and railings. In addition, it employs aluminum furniture, trim, curtain rods, draperies made of aluminum mesh, fireplaces, firedogs, lighting fixtures, wallpaper printed with aluminum ink, shower and bath partitions, linoleum binding, and miscellaneous electrical appliances.

In the construction of a home of moderate size, the initial cost of building materials must be taken into consideration. Their lasting qualities cannot be disregarded, however, no matter what the price. Modern architecture reflects a definite economic trend both in

(Continued to page 116)

# Where, Why and How to Use TREATED LUMBER

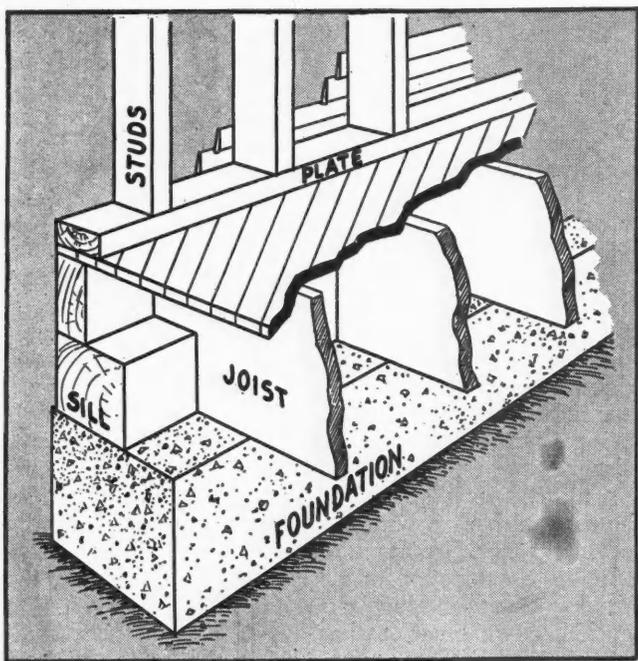
## in Home Building and General Construction

**D**AMAGE to buildings by termites is constantly becoming a more serious problem because remedial measures have not been generally adopted. Destruction by termites is estimated to involve a loss of forty million dollars annually. However, it is now recognized that this problem should be considered. Wood treated under pressure with creosote or with certain salt preservatives is termite-proof and its liberal use together with proper construction methods will definitely prevent termite attack.

While damage to buildings by termites is serious, decay of wood in buildings causes far greater loss. It is recognized that untreated wood in contact with the soil or subject to various other sources of moisture such as at joints and crevices in porches, is subject to decay. This knowledge has not reduced the utility of lumber but serves only to indicate proper care and use. It is also recognized that in such exposed installations, lumber must be treated with a preservative solution under pressure (not "pressure" sprayed) to give it practically permanent protection against decay.

Termite damage to new buildings can be easily prevented by following certain simple rules of construction. Termites which have infested buildings already constructed can likewise be readily eradicated.

The principle involved in the prevention or elimination of termite attack is the insulation of all untreated wood from contact with the ground or from indirect accessibility to the termites through cracks in concrete or masonry walls, foundations, piers, pillars or basement floors with which the untreated wood is in contact. Observance of the following simple rules will prevent or eliminate termite attack in buildings.



HERE is the "danger zone" in any building, which should be of treated lumber to guard against termites and decay.

If the building is to be erected in areas heavily infested with termites or in recently cleared woodland, all logs and stumps should be removed and burned. If the soil is infested with termites it should be plowed deeply and treated with crude ortho-dichlor-benzene at the rate of 50 gallons per 1,000 square feet or with creosote thinned with kerosene.

1. Basement floors should be of concrete. The base of the floor should be made with a 1:3:6 mixture of cement, sand and two-inch washed gravel or stone laid at least three inches thick. Before this base has set apply a smooth top dressing of 2:3 mixture of cement and fine sand, one inch thick.

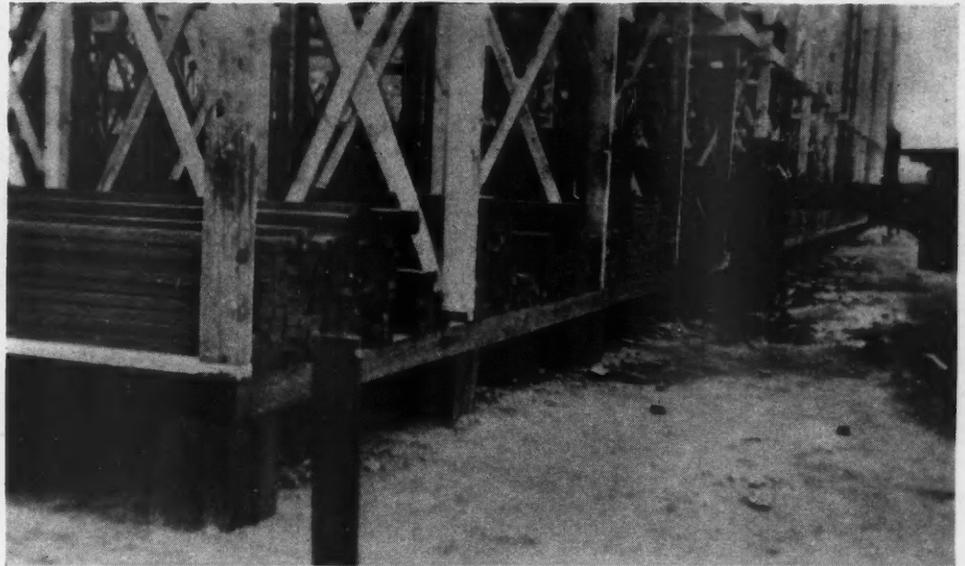
2. The basement walls should be made of concrete, brick with cement mortar or stone with cement mortar, and should extend at least six inches above the ground and preferably higher. If plastering is applied inside, all wood studding, lath and all other unexposed wood should be treated with a salt preservative.

3. While wooden pillars, partitions, door casings, stairs, etc., may generally be safely installed on a good concrete floor of this type the safest practice is not to depend upon perfection in the concrete. Wood pressure treated with creosote or salts should be used, or, if untreated wood is used for this purpose, it should be placed on concrete footings or extensions rising about six inches above and continuous with the floor.

4. Frequently wooden beams, blinds, leaders or sleepers are imbedded or laid in concrete before it sets. Imperfections below the wood members in such construction invites termite attack and this is one of the most common sources of infestation. Pressure treated wood should be used for this purpose or the grooves should be formed and the concrete allowed to set before installing untreated wood.

5. Window and door frames or casings in exterior walls of the basement should be not less than six inches and preferably higher above ground. All structural wood members within 18 inches of the ground should be treated either with creosote or with a salt preservative.

6. If no basement is to be excavated under the building, the foundations, posts, piers, etc., may be either of pressure creosoted wood, concrete or masonry construction. No untreated wood should be installed within 18 inches of the ground. Elevation or excavation should be made to secure this distance. It is preferable in this type of building to use pressure treated wood for all lumber up to and including the first sub-floor, for protection against rot as well as termites. Stairs should be mounted on concrete or pressure creosoted wood footings. Ventilation openings on the basis of two square feet per 25 lineal feet of wall should be provided under the building. A similar procedure for porches



TREATED Lumber is carried in local stock by some retailers; others order from treating plants as needed.

and for all other extensions from the main buildings should be followed.

In severely infested areas, generally confined to the South, termites sometimes build shelter tubes over concrete or treated wood foundations in order to reach untreated wood above. This means of infestation may be effectively prevented by inserting metal shields of copper, zinc or stainless steel between the concrete, masonry or treated wood foundations, piers, etc., and the untreated wood above. These shields are preferably cemented in foundations of concrete or masonry. If they are placed on top of the foundations, etc., the ends of each section should be overlapped and soldered. The shields should project horizontally for at least two inches beyond which an additional two inches should be turned down at an angle of about 45 degrees. Shields should also be soldered to pipes extending through basement floors, below the untreated wood or they may be cemented in the concrete floor at the time it is laid.

The proper use of pressure treated wood below the first floor in residences and other buildings will give protection against termites. Its use is practical and economical.

A special committee of the American Wood Preservers' Association headed by Mr. Geo. M. Hunt of the U. S. Forest Products Laboratory made a recommendation for the use of treated wood, as follows:

"In sections of the country where termite damage has been extensive, particularly from subterranean termite activity, it is the conclusion of investigators that all timber up to and including the first-floor sub-floor should be protected. Impregnation of such timber by a pressure process according to the standards of the American Wood Preservers' Association, using coal tar creosote, is recommended by these authorities to obtain economical and efficient protection.

"Similar measures are recommended to prevent fungus damage in building construction regardless of the district in which the building is erected, the necessity for protection depending on the closeness of wood construction to the ground or other sources of moisture sufficient to sustain fungus growth. The use of creosote impregnated timber likewise ranks highest in recommendations for the prevention of fungus damage in wood construction."

The practicability of using treated wood in buildings is attested by an ordinance of the City of Los Angeles, by which the use of wood treated under pressure with

Creosote or Wolman Salts is mandatory. Excerpts from that ordinance follow:

"Mudsills, caps, pier blocks, posts, cross-bridging, girders, and first floor joists, and for the purpose of this section, all lumber used in the underpinning up to but not including the sub-floor shall be treated with Pure Coal-Tar Creosote, or with such other equivalent preservative as may be approved by the Board of Building and Safety Commissioners.

"The wood shall be treated by the empty cell pressure process of not less than eight pounds per cubic foot of material treated, in accordance with the best practice of the Creosoting Industry, or shall be treated with such other equivalent preservative as may be approved and specified by the Board of Building and Safety Commissioners.

"Whenever it is necessary to cut, notch, cap or frame treated lumber, such surfaces shall be thoroughly painted with such creosote or other equivalent approved preservative."

Other investigations have shown that the proper use of pressure salt treated wood in locations where creosoted wood is undesirable will likewise prevent termite attack. By joint use of creosoted and salt treated wood, complete protection can be secured without any special design for construction of buildings.

Pressure treatment is of vital importance with any wood used in contact with or near the ground and not insulated from it by concrete, concrete-masonry or shields. For maximum protection, pressure treated wood is recommended in new construction or in reconstruction of residences, apartments, churches, clubs, commercial and industrial buildings, factories, garages, gymnasiums, hotels, schools, warehouses, etc., for prevention of termite attack, as follows:

1. For buildings without basements and for porches and other extensions without basements. (a) Pressure Creosote Treatment of: foundation timbers in contact with ground; supporting posts, pillars and footings in contact with ground. (b) Pressure Salt Treatment of: partitions below first floor; siding up to 18 inches above ground; lattices; first floor joists; first sub-floor; sleepers, leaders and plates embedded in or laid on concrete or concrete-masonry foundations or walls; all other structural timbers within 18 inches of the ground.

2. For buildings with basements with concrete or concrete-masonry walls. Pressure Salt Treatment of:

(Continued to page 116)

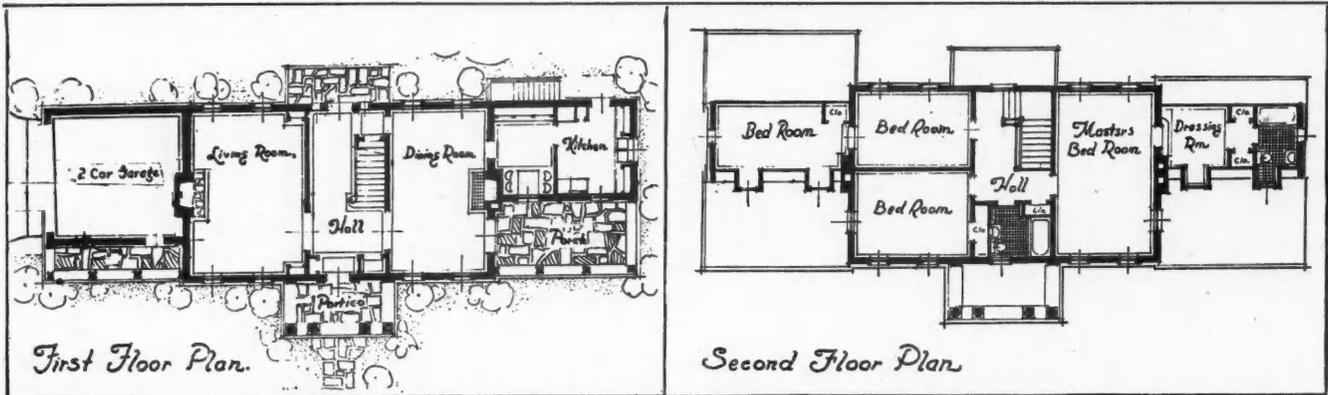


COLONIAL woodwork, trim and mantel are featured in the dining room.

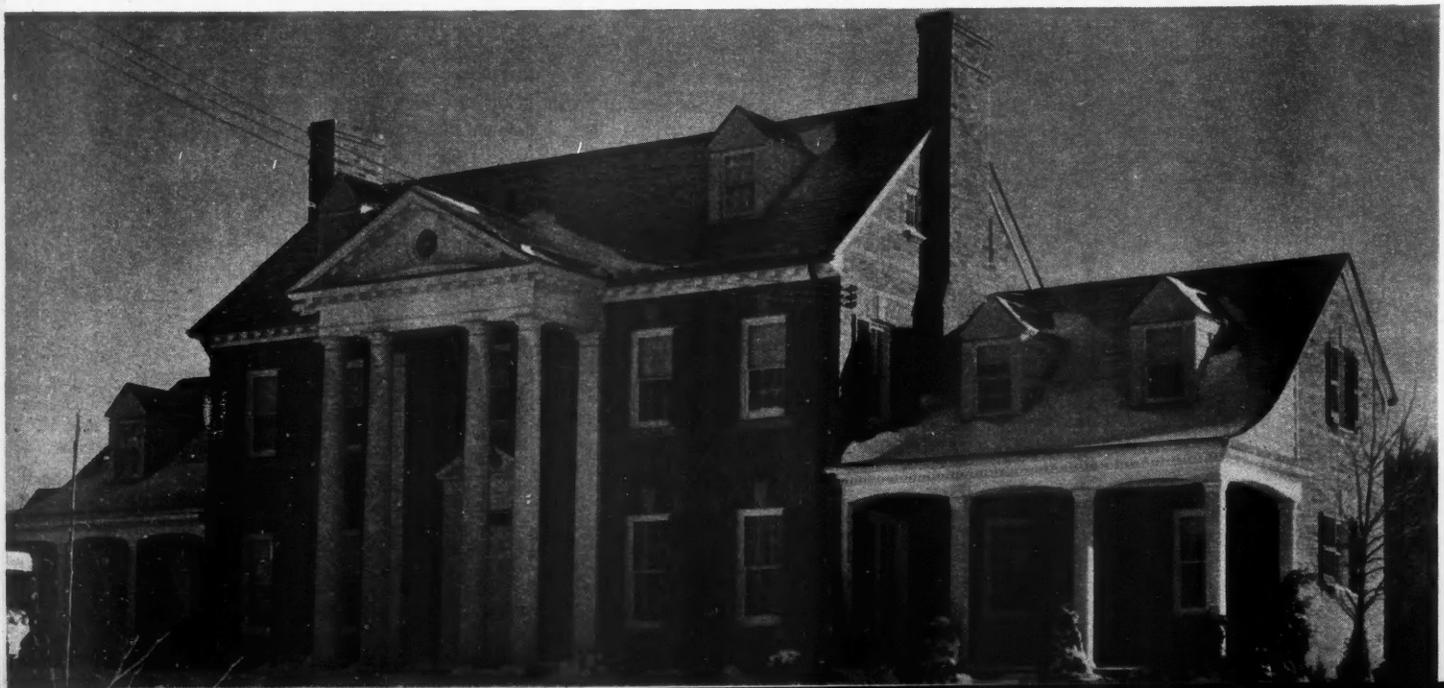
## WASHINGTON POST MODEL HOME

This handsome Georgian home was sponsored early this spring by the Washington Post as its first model home of the year. It was built by the Northwest Construction Co. and designed by architect Kenton Hamacker.

A slate roof, copper gutters and flashing, oil burner, fine Colonial architecture are important features.



SPACIOUS ROOMS and conservative design make this Southern mansion Model Home Attractive.



## • THE AMERICAN BUILDER HOUSE OF THE MONTH •

### Specifications Used by the Builders, Little & Slaughter, Kansas City, Mo.

For Photo and Working Plans, see pages 60 and 61

**RESPONSIBILITY**—The general contractor shall be held responsible for the execution of a satisfactory and complete job in accordance with the true intent and meaning of the drawings and specifications. He shall provide without any extra charge, all incidental items required as a part of his work and his sub-contractors' work, even though every item is not particularly specified or mentioned in the plans. The right is reserved to reject any or all bids.

**INSURANCE**—Each contractor shall insure his liability to pay any employee of the contractor or of his sub-contractors who may be injured in this work, compensation as required by the workman's compensation act of this state, in some responsible insurance company or association authorized under the State laws to insure said public liability and each contractor agrees to cause his sub-contractors to guarantee and pay said public liability.

**FIRE INSURANCE**—The owner shall carry fire insurance only to cover the value of the material which has actually been worked into the building as established by the contractor's request for payment as per his contract. The contractor shall be held responsible for damage or loss of material not worked into the building as above and shall replace same at no cost to the owner.

**PERMITS**—This contractor shall provide and pay for all building permits giving any bonds or making any deposits required.

**PRELIMINARY INSPECTION** — Before making proposal contractor shall examine site of the proposed building and if on account of any irregularities of surface or for any other reasons variations may be necessary from the drawings as shown he shall include any reductions or additions in his proposition and thereafter carry out the building to conform to such requirements.

**ORDINANCES, RULES, LAWS**—All work under these specifications and plans shall conform in all respects to all pertinent ordinances of the local building Dept., the Board of Health and the National Board of Underwriters. All State laws and any items of labor and materials not shown on the plans nor specified herein but required by any of the above laws, shall be included in the proposal and shall be furnished without extra charge by the contractor.

#### Foundation Specifications

**LAYOUT** — Accurately lay out the building lines to conform to the owner's approval and to conform with the rules of local ordinances.

**EXCAVATING**—Clear off the site of the proposed building. Scrape off the top soil and place in neat piles fifteen feet be-

yond the building. And at the conclusion of work when the building is completed spread this soil as directed. Excavate for all footings to full widths and depths, as shown on the plans, removing from the site all excavated material. Foundation walls to have 4" farm rain tile on the outside and placed around bottom of same. Connected to sewer as directed. Also run necessary lines across basement floors as directed to insure a perfectly dry basement.

**FOOTINGS**—Under all steel columns use reinforced concrete not less than 18" thick and 36" wide. Before footings are poured or forms are set contractor shall examine soil on which footings are to rest and if mud pockets or quick sand or other bad soil conditions are found contractor shall notify owner for instructions. All footings are to be laid on natural, firm and undisturbed soil.

**STONE WORK**—To be of sizes shown and laid to a line on both sides and when complete must be plumb, level, and true with square angles and level top, ready to receive the superstructure. All stones must be thoroughly bedded in mortar and all interstices must be filled with spalls and mortar. Basement window and door frames to be set and stayed by carpenter; Stone below grade can be good flat native quarried lime stone, but any face work above grade is to be oolitic stone, laid up in hammered work as directed by architect. All stone laid on natural beds with headers to be full thickness of wall and at least 8" deep. Inside exposed joints to be tuck pointed. It is the intention to demand a thoroughly tight and waterproof basement wall and contractor must provide such service and guarantee same. Set all ironwork necessary in connection with foundation work.

**MORTAR**—Mortar for rubble foundations shall be 1:3 portland cement mortar.

**STRUCTURAL STEEL**—Furnish and install structural steel, lally columns, beams and angles as shown on plans.

**BRICK WORK**—Chimney to be built of common hard red brick laid up in mortar composed of 1 part portland cement and 3 parts clean sharp Kaw River sand. Every sixth course shall be anchored to the studs with galvanized wall ties securely nailed. Furnace and fireplace flue to be lined with flue lining of dimensions shown.

**FIREPLACE**—Furnish and install fire brick in fireplace. A "Colonial" damper is to be furnished and installed with ash dump as indicated.

#### Electric Wiring Specifications

**SCOPE OF WORK**—Contractor shall furnish all labor and materials necessary to complete the work of this trade in strict accordance with the rules of the National Board of Underwriters and the local building code.

**PERMITS** — Contractor shall obtain and pay for all permits, inspection fees, and make all necessary arrangements with the local company to bring service into the building without cost to the owner.

**MATERIALS**—Conduit shall be B-X Cable. Wire shall be National Code-Standard Simplex. All lights, base receptacles, wall or ceiling outlets to be provided with black enameled steel outlet boxes securely fastened to the construction with steel straps. All face plates to be bakelite finish.

**SYSTEM**—Wiring must be according to Red Seal specifications. All wires must be enclosed in conduit and there shall not be more than 1000 watts on each circuit. One hundred watts required at each outlet.

**HEIGHTS**—All outlets for bracket lights shall be 5'-8" unless noted otherwise on elevations. Switches 4' from floor.

**FUSES**—Contractor shall fuse all circuits and provide paper labels on door of fuse cabinets.

**FIXTURES** — Contractor shall allow \$60.00 for electric fixtures, same to be selected by owner and set by this contractor.

**BUZZERS**—There shall be one buzzer at each front and rear door.

**OUTLETS** — All wall receptacles to have double convenience outlets.

#### Carpentry Specifications

**SCOPE OF WORK**—Carpenter contractor shall furnish all labor and materials of this trade to complete the building to the true intent and meaning of the plans and specifications.

**LUMBER**—All joists, rafters and studs shall be No. 2 long leaf yellow pine, clear and fully kiln dried and preshrunk. All joists to be of sizes and spacing as shown on the plans. Double joists under bathrooms. All joists to be bridged with 1"x4" materials approx. 8' O.C.

**SHEATHING** — All roof and deck sheathing to be 1"x4" S2S 3/8" thick spaced 1 1/2" apart.

**ROUGH FLOORING**—Rough flooring shall be 1"x8" flooring. Provide nailing strips and sleepers.

**FINISHED FLOORS**—All floors except kitchen and bath rooms to be selected red oak flooring.

**WOOD WINDOWS** — Provide wood double hung windows, 2 1/4" white pine frames with blind stops to receive screens. Sash to be divided as shown on the drawings.

**DOORS**—Interior doors on first floor to be six panel white pine raised panels; second floor to have "Miracle" one panel Philippine mahogany. Exterior doors to be solid white Pine thoroughly seasoned and thickness and design as indicated. Provide screen doors for outside doors; and 1/2 screens on zinc slides for all outside windows.

**HARDWARE** — Furnish and install rough hardware and all finished hardware. Contractor to make an allowance of \$65.00 in his estimate for all finished hardware, to be that manufactured by Sargent & Company of New Haven, Conn.

**CASES**—Furnish and install wood cases in kitchen and hallways as detailed.

**WALL INSULATION**—Space between the studs on all outer walls to be lined with double ply "Cabots Quilt."

**CEILING INSULATION**—Ceiling over the entire house to be lined with double ply "Cabots Quilt."

**WATERPROOFING**—Entire surface of wall sheathing to be covered on the outside with "Sisalkraft" paper, lapped 2" at all joints.

**INTERIOR WALLS AND CEILINGS**—Lathing—All walls and ceilings to be plastered shall be lathed with #1 red wood lath. Lath to be nailed to joist and studding with 3 penny extra fine blue lath nails; all joints properly broken and no lath shall be placed closer than  $\frac{1}{8}$ " or farther than  $\frac{3}{8}$ ". Place metal corner beads full height of rooms in continuous pieces on all external plaster corners and arches not to be covered with wood or tile.

**PLASTERING**—All plaster throughout shall be 3 coat work and the finish coat shall be "white finish"; except in "Rumpus" room and stair to basement where the finish coat shall be sand finish. Walls of "Rumpus" room and of the stairway to basement shall be of random width tongue and groove knotty Pine. Walls of bath on first floor to have tile on the lower half and on the floor, as already selected from Slater Tile Company. Floor of bath and shower on second floor to be tile as already selected from Slater Tile Company.

**MEDICINE CASES**—Furnish and set Sowers-Taylor Venetian type medicine cases in both baths.

**INTERIOR TRIM**—All interior trim to be No. 1 white pine.

**ROOFING**—Roofing to be #1, 5 to 2 red wood shingles laid  $4\frac{1}{2}$ " to the weather. Galvanized shingle nails to be used.

**LINOLEUM FLOORS**—Kitchen and breakfast room floors to be standard weight Adhesive Seallex linoleum, laid on felt cemented to floor.

**SHEET METAL**—All gutters, downspouts and flashings to be Armco iron, the proper sizes as shown on the drawings.

**HEATING SPECIFICATIONS**—The heating system to be furnished by this contractor is a gas fired Equator air conditioned system with thermostat.

#### Plumbing Specifications

**SCOPE OF WORK**—Contractor shall furnish all labor and materials necessary to install the complete plumbing and sewage and fixtures as specified.

**RESPONSIBILITY**—Contractor shall assume all responsibility for the care and protection of his work and materials until final certificate is issued, and any injury to same during the progress of the work shall be repaired at his own expense.

**GUARANTEE**—Contractor shall guarantee in the approved manner in writing all work to be perfect in every respect, free from smells and to keep it so for a period of one year from date of final certificate.

**EXCAVATION**—The contractor shall make all necessary excavations, prepare a proper bed for pipes, lay same, inspect, fill and level off.

**IRON PIPE**—Inside the building and to a point three feet outside the building use extra heavy cast iron pipe and fittings with all joints thoroughly caulked with lead.

**TESTING**—When sewer piping is laid and before any trenches are filled test work inside the building by plugging up outlets just outside of building walls and filling that portion of system with water. Make good any leaks that appear.

**SUPPLY PIPES**—Determine source of supply pipe underground and run extra strong lead pipe and above the ground wrought galvanized pipe or all copper pipe used inside.

**SOIL**—All soil, waste and ventilation pipes together with their fittings shall be asphaltum coated cast pipe.

**JOINTS**—All joints of cast iron pipe shall be properly caulked with oakum then poured with molten lead. The joints are neither to be painted nor puttied.

**SILL COCKS**—Where indicated on the plans furnish and place where shown, sill cocks to work by key and to be drained in winter.

**WATER SUPPLY**—Bring water from not less than one inch tap into the building and distribute into the different fixtures in branches proportional to the number and size of the fixture.

**METER**—If water meter is required furnish and install same, paying all charges for permits.

**CUTTING**—No joists shall be cut at the middle of spans and all other cuts

must be reinforced by carpenter contractor.

**FIXTURES**—Fixtures are to be Crane as selected by the owner. Furnish and install the above fixtures with their fittings as specified by the manufacturer. Furnish a Crane 30 gallon automatic hot water heater. All gas and water piping to be brought to the furnace.

#### Painting and Glazing

**SCOPE OF WORK**—Furnish and set all glass. Glass to be double strength "A" Libby-Owens-Ford. All glass to be well bedded, tacked and puttied. The bathrooms to have obscure glass.

**EXTERIOR**—All exterior woodwork to have 3 coats of Pratt & Lambert Commander House Paint Outside White. All exterior tin work shall receive one coat Pratt & Lambert Galvanized Iron Primer and two coats of Commander House Paint.

**INTERIOR**—All interior trim and doors to be three coat work, all material to be Pratt & Lambert. Final coat to be ivory finish enamel.

**FLOORS**—All red oak floors to be sanded and then have natural stain and filler and two coats of varnish.

**WALLS AND CEILINGS**—All walls and ceilings to be sanded and sized with adhesion and papered. Allowance of \$50.00 for the paper. All paper shall be butted. All walls and ceilings of bath and shower on second floor and walls and ceiling above tile in bath on first floor to be painted 3 coats, last coat stippled. All knotty Pine walls to be stained and have two coats of shellac. All ceilings on the first floor except the kitchen and breakfast room to be lined and tinted.

### Construction Features and Important Items of Equipment of Lancaster, Pa., Model House

Illustrated on pages 52 and 53

**Foundation**—18 in. concrete footing with concrete block basement walls, waterproofed; Hy-test cement.

**Basement**—Rumpus room has knotty pine walls set 18 in. inside foundation. The room has sealed windows with strong lights behind, giving artificial sunlight. Basement floors Acco tile, basement walls Armstrong Corkoustic.

**Heating**—Complete air conditioning system with York cooling unit, Quiet May oil burner, thermostatic control.

**Plumbing**—Standard Sanitary and Kohler fixtures; copper tubing and pipes by American Radiator Co.

**Special Equipment**—Kinnear Overhead garage doors, Kernerator incinerator; Venetian blinds by Pella Rol-screen Co.; awnings by Conestogo Cotton Mills; lighting fixtures, Chase Brass & Copper Co.; Mello Chimes for door; washable wallpaper.

**Walls**—12 in. brick walls, furred out 2 in. with 1 in. Armstrong Temlock. Interior walls use knotty pine, Carrara glass, Walltex fabric by Columbia Coated Fabrics Co.; Armstrong Lino-

leum floor.

**Center Hall**—Runs clear through to garage; indirect tubular lighting fixtures by Chase.

**Living Room**—Brick fireplace; French doors leading to open porch; direct and indirect lighting; built-in bookcases.

**Dining Room**—Armstrong inlaid linoleum floor; 2 built-in cupboards; painted fabric walls of Walltex.

**Kitchen**—Inlaid linoleum floor; Lino-wall linoleum lower half of walls, Walltex fabric upper half of walls; metal cabinets, Monel metal sink and utility cabinets by Murphy Door Bed Co. Built-in electric exhaust fan; Norge refrigerator; permanent telephone; Pella Venetian blinds.

**Powder Room**—Black Carrara glass walls; black and white tile floor; cream colored washstand, toilet and built-in vanity table.

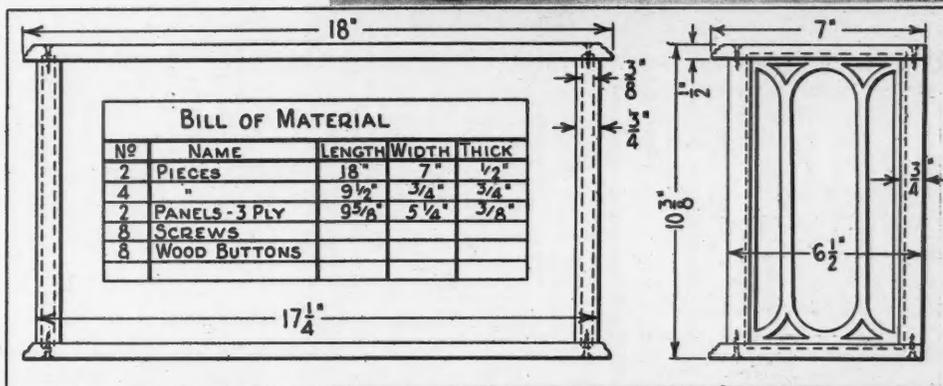
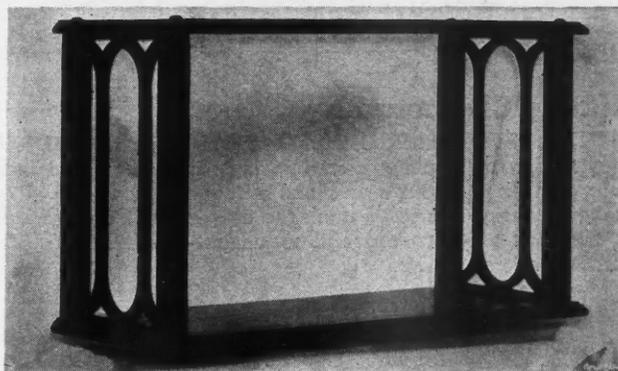
**Bathroom**—Inlaid linoleum floor with coved base, Armstrong Linowall half-way up walls, washable wallpaper above; new type square Standard Sanitary Co. tub.

# SHOPCRAFTER'S Corner

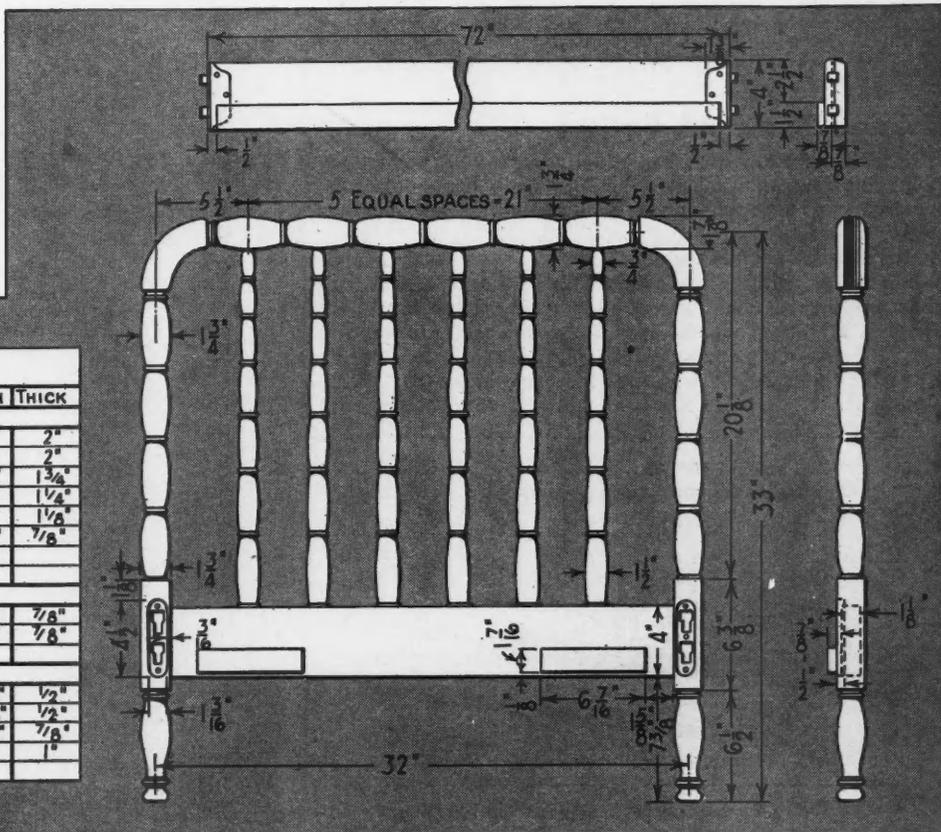
## Things To Build for Profit or Pleasure

THE first of the two projects shown this month is a hanging bookshelf—an easily made piece but one which has been quite popular recently for decoration and can be used as a place for books or knickknacks. Either maple or poplar is suggested as material, the finish suited to other furniture. The design of the plywood ends can be varied according to individual taste.

The dimensions of the bed are day bed size but can be increased to take a spring which will measure 39 inches for twin or 54 inches for double size. Since these widths may vary, the best way is to pick out the spring and build to fit—the number of spindles will of course be increased for a wider bed and the rails should be made heavier for the extra weight. A close grained wood is recommended. The four upper curved pieces are made by turning two rings, flat on one side and half round on the other; these are then glued together and cut into quarters.



RIGHT, ABOVE: The illustration and drawings show a hanging bookshelf, a popular and useful small piece. Below: Working drawings for a day bed; the width can be increased to make it a larger size. A wooden upholstery frame will serve instead of a spring if used for a couch. Designs from E. F. Worst.



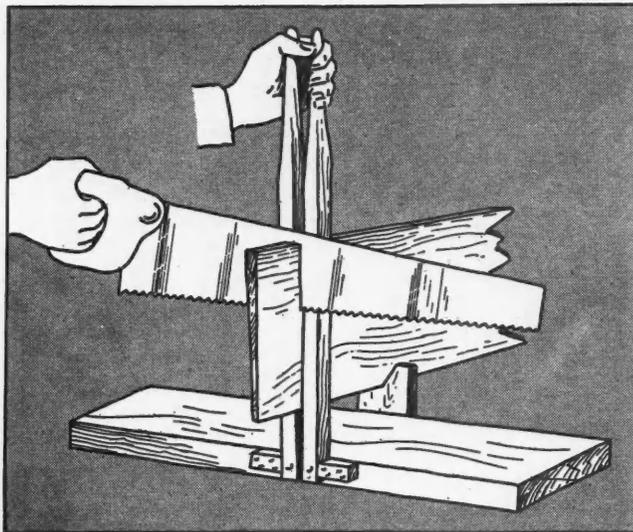
BILL OF MATERIAL				
NO	NAME	LENGTH	WIDTH	THICK
FOR ENDS				
4	PIECES	31"	2"	2"
2	"	27"	2"	2"
12	"	22"	1 3/4"	1 3/8"
2	"	10"	10"	1 1/4"
2	"	31 1/2"	4"	1 1/8"
4	"	6 1/2"	1 1/2"	1/8"
4	C.I. POST PLATES			
FOR SIDES				
2	PIECES	72"	4"	1/8"
2	"	71"	1 1/2"	1/8"
4	C.I. HOOK PLATES			
FOR UPHOLSTERY FRAME				
2	PIECES	71 3/8"	2 3/8"	1/2"
2	"	29 3/8"	2 3/8"	1/2"
13	"	29 3/8"	2 1/8"	1/8"
4	"	2 3/4"	1"	1"

# PRACTICAL JOB POINTERS

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

## Handy Clapboard Jig

ENCLOSED is a sketch of an easily made jig which I found useful for beveling or sawing clapboard. The base is made out of a piece of 3x8 plank, and a few scraps will be all the other material needed. I think the drawing will explain itself. Perhaps it may prove useful to others.—HEISTAND MILLER, Parkerford, Pa.

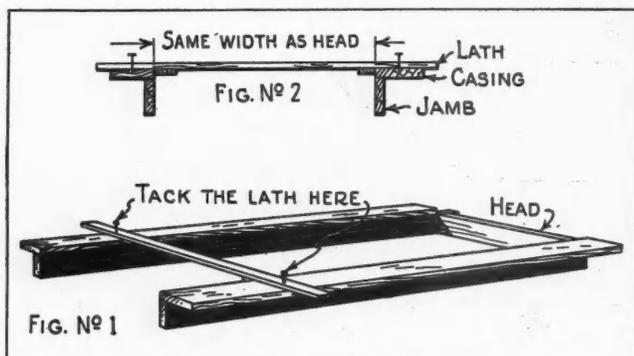


USEFUL and easily made jig for holding clapboard.

## Holding Door Jamb Square

THERE are many mistakes made by certain carpenters who, after nailing the casing to the door jamb, simply place it in the door opening, using the level on one side of the jamb and nailing same up.

The floor is not always level, and to avoid such mistakes before it's too late, I simply use a lath with small pieces nailed underneath, the same distance apart as the jamb head. (See Fig. No. 2.) Then tack it over the door casing, as shown in Fig. No. 1. After placing the door jamb into the door opening, I put the level on one side first and tack it on top; then by placing the level under the jamb head, it will be seen which

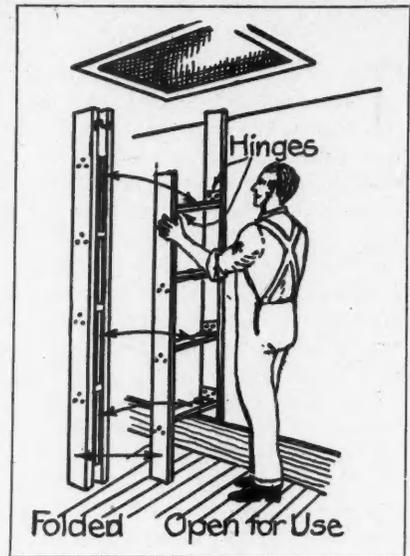


METHOD for holding jamb square while installing.

side of the jamb should be cut at bottom in order to have the jamb level at the top. This method seems to be more accurate and practical than others for it holds the door jamb square.—JOSEPH J. ZAR, Olyphant, Pa.

## Folding Ladder to Attic

BUNGALOWS and small homes frequently have no stairway to the attic but by this simple means shown here access is provided. A ladder, made so as to fold up by using hinges above and below the steps, is constructed against the wall under the trap door. When not in use, this ladder is folded together against the wall and held with a hook. In this way it takes up but a couple of inches of space. The trick lies in the position of the hinges, above at one end and below the step at the other end.—MORRIS A. HALL, Mechanical Engineer, White Plains, N. Y.

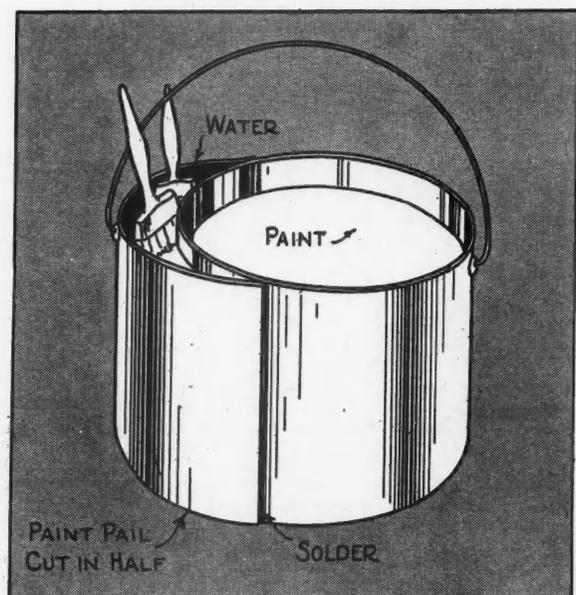


ATTIC stairs folds out of way when not in use.

## Paint Pail Brush Holder

WHERE more than one paint brush is to be carried, this idea will make it convenient to keep them at hand at all times.

Cut a one-gallon pail half lengthwise, leaving half the bottom in place. Now place the paint pail into this until the sides and bottom fit snugly, and solder the two together. Water should be kept in this half container so as to prevent the bristles from caking. This is also a convenient place to carry a stirring rod.—A. S. WURZ, Jr., Rockyford, Alta., Can.



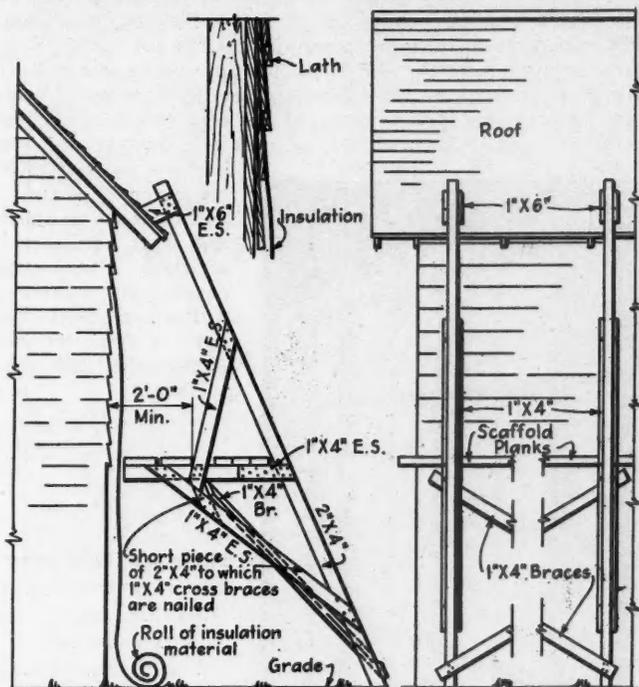
HANDY brush holder from half paint pail.

## Scaffold for Applying Building Paper

A SHORT time ago I "overcoated" an old house using heavy insulating paper and wood shingles over 1x8 lapped boarding, and in order to apply the roll insulating material to get the best results the paper had to be applied vertically from ground line to the frieze using common wood laths crowded

up snug under each siding butt. In order to do this we designed a scaffold bracket that worked very satisfactorily and you will find enclosed a sketch showing how it was done.

In applying the insulating paper we unrolled it with the roll lying on the ground as shown in the sketch, the man on the ground passing the end of the roll up to the man on the scaffold who was provided with laths cut 3 inches shorter than the width of the roll to allow for a 2-inch lap of the material.



SCAFFOLD simplifies application of building paper.

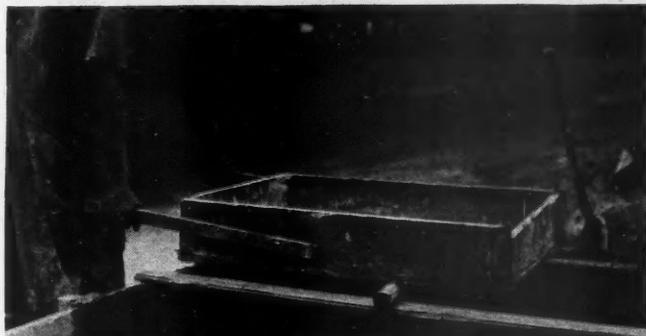
While the laths were being crowded up under the siding butts by the top man, the man below assisted by holding the material up and thereby taking off some of the tension. Unless this is done the laths are liable to cut through the material if crowded too tight. All the vertical joints were nailed with large headed galvanized nails three to each siding board, or about 2 inches on centers. This gave a very tight fitting airtight lap so that the material is used to the best advantage.

The scaffold brackets were quickly made and easily moved from place to place around the building even though we had considerable shrubbery, etc., to contend with. Upon the first erection of a pair of these brackets we applied the 1x4 cross bracing onto the main 2x4 both at the top and bottom, which we found did not give sufficient bracing to make the scaffold safe to use. We then hit upon the idea of putting the upper end in on the plank support as shown in the sketch, and this did the trick.—F. M. HAMLIN, Contractor, Lake Villa, Ill.

### Easy Sifter Shaker

NINE-TENTHS the lifting and three-fourths the labor of sifting sand for mortar may be eliminated by the use of two narrow strips of board, a roller or a short length of pipe, and the use of a little ingenuity.

By laying the boards across the mortar-box, and arranging



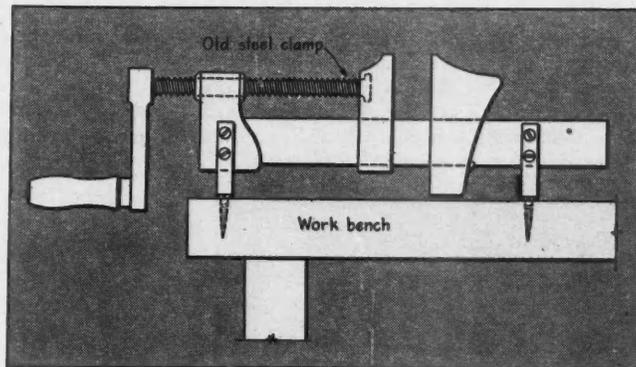
Sifting sand made easier with roller idea.

the sifter to roll on the roller or pipe, sand may be sifted rapidly and easily if handles be fastened to the screen frame and a rim be tacked on the bottom to provide a rail for the roller to work on.—ELTON STERRETT, Longview, Tex.

### Vise Made from Broken Clamp

THE accompanying sketch shows a bench vise for light work which was salvaged from a six-foot clamp that had been broken off short.

The broken end of the shaft was first sawed off square. The clamp was then drilled in four places, as shown, and the clamp set up on the work bench with four angle irons. Four counter-sunk head screws and nuts, or bolts and nuts, are required to fasten the angle irons to the clamp. This clamp has proved to be a very handy emergency vise.—EDWARD W. LA RUE, Trenton, N. J.

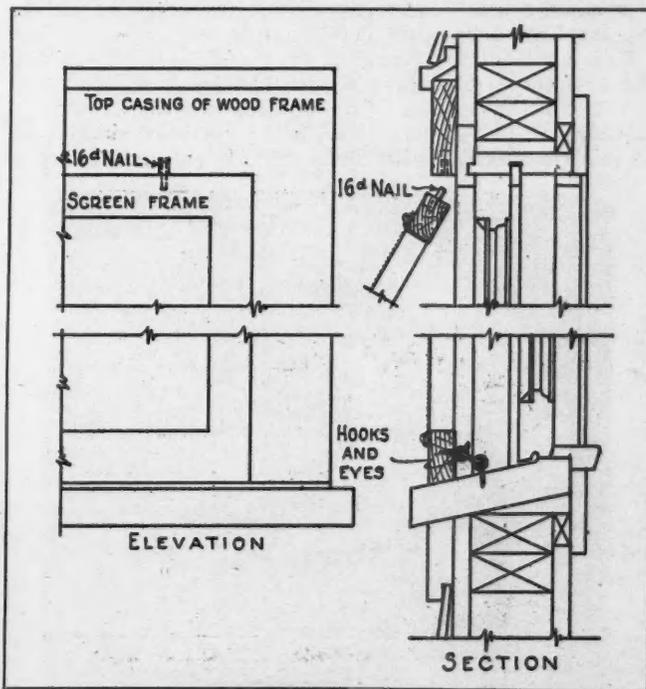


BROKEN clamp serves as bench vise.

### Simple Way to Hang Screens

THIS drawing shows a quick and easy, as well as very cheap, way to hang outside window screens.

Just drill two holes in top of screen about 4 inches from the corner with a drill of suitable size, drive 16d nails in them and saw off about one inch from the screen. Set the screen in place in the window frame so the nails will touch the top casing, strike the screen frame under the bottom so the nails



EASY and inexpensive way to hang screens.

will make a dent on the under edge of the top window casing, and drill two quarter-inch holes at these points. Put the screen in place with the nails in the holes, shove it up, and then fasten it to the window sill inside with two hooks and eyes.—STITES LILES, Carpenter, Forest, Miss.

## NEW PRODUCTS

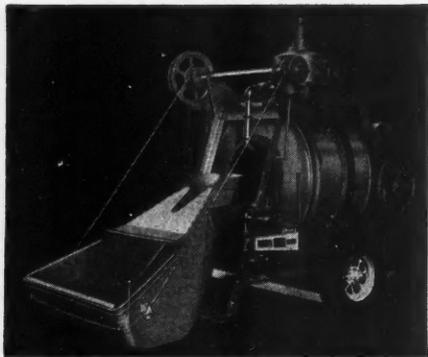
FOR INFORMATION ABOUT any new product write American Builder Information Exchange, 105 West Adams Street, Chicago, Ill.

### High Speed Trailer Mixers

WELL balanced two-wheel 7S and 10S non-tilt one- and two-bag mixers that can be towed behind a truck at passenger car speed, have been announced by Construction Machinery Company, Waterloo, Iowa. Springs absorb road shocks and the wheels turn on Twin Timken Bearings. The new machines are of the end discharge type. Special abrasion resisting steel and other alloys are used for weight reduction without loss of durability.

Balloon pneumatic tired wheels, dual-solids or wide tread steel tired wheels are available. The new two-wheelers are compact and easy for men to move on the job.

Other features are the Accurmeter vertical calibrated water tank with handy side dial control and Vibraflo quick emptying streamline skip as standard equipment.



ONE of the new two-wheel mixers designed to be towed behind truck at car speed.

### New Sealed Asphalt Shingles

THE Barber Asphalt Company, Philadelphia, Pa., has announced a new Genasco Sta-Rite Asphalt Shingle, the important feature being an envelope type sealing with plastic adhesive. After being secured to the roof by concealed nailing, the shingles are sealed to each other like closing the flap on an envelope before mailing. (See illustration below.)

According to the manufacturers, the individual shingles lay up in a symmetrical design on the roof, and when applied there



SEALING new Sta-Rite Shingle with Adhesive.

is no flexing or reflexing—there is no chance for them to blow up and flap in the wind. They are reversible, can be turned end for end; are self-spacing and self-aligning; are waterproofed with "Slam Test" asphalt cement coating. The shingles are furnished in a variety of colors.

### Air Conditioning Steel Window

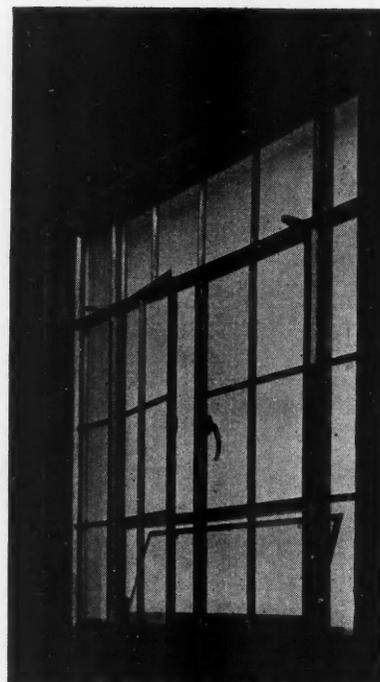
A NEW type of product known as the Fenestra Air-Conditioning Window is being manufactured by the Detroit Steel Products Company, Detroit, Mich. The advantages reported are listed as: elimination of condensation and frost under all ordinary conditions; approximately 60 per cent reduction of heat loss through windows with consequent fuel saving; and less

load on air conditioning system. The unit is applicable to all standard types of Fenestra screened Fenwrought casements equipped with roto-adjusters, and can be removed for cleaning the inside glass surfaces.



LEFT: Air-Conditioning Window as installation appears from interior with both casement and Tiltin sill ventilator closed; casement handle protrudes through circular aperture, fitted with rubber seal.

RIGHT: View of new unit showing exterior with ventilator and casement open; approximately one inch of dead air space is provided between inner and outer glass when closed; frame is of light weight, cold rolled, tubular steel.



A window with sill ventilator for bedroom and other rooms can be specified where restricted indirect ventilation is desired, although usually the units are supplied without this provision. Where Air-Conditioning Windows are ordered at the same time as the casements, the casement members come already drilled and tapped for attaching screws.

### Spiral Roofing Nails

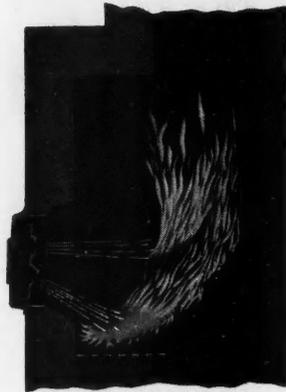
ZINCLAD spiral roofing nails manufactured by the W. H. Maze Co., Peru, Ind., are being packed with the roll roofings of several large manufacturers. It is said that the patented spiral design keeps the nail from drawing due to wind pressure, sun and water; the tight fit when driven is maintained and leakage around the shank prevented. A flexible head feature allows the nail to be firmly seated when driven at an angle and not cut the roofing material.



Zinclud Spiral Roofing Nail.

### Air-Torch Incineration

THE Kerner Incinerator Company of Milwaukee, Wis., has developed a new line known as Air-Torch Kernerators which features the overhead air jet or blow torch principle. Jets of air are fed through the special air box attached to the fire door both to the material on the grates for "primary combustion" and to the gases higher in the chamber for completing "secondary combustion."



Patents Pending

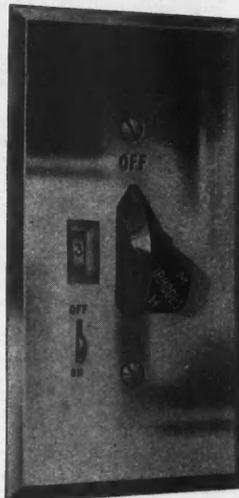
This principle is claimed to provide burning effectiveness, simplified masonry construction, space economy, and lower cost. Six sizes are available with models ranging from small home capacity to those for commercial use.

Sectional view of Air-Torch Incinerator showing jet principle.

### Automatic Timing Switch

THE Mark-Time switch, a product of M. H. Rhodes, Inc., New York City, offers the distinct advantage, after the switch is flipped off, of providing a timed interval before the light goes out. For instance, in use on stairways, no three-way wiring is necessary—just flick the switch, walk up or down stairs and the stair light goes out automatically after a predetermined interval. The same convenience and safety are provided in going from garage to house, from porch to auto, and in halls, bedrooms and closets.

There are two styles of Mark-Time: one primarily for lighting, the other for appliances. Two models give varying intervals up to 30 minutes' duration. The timing lever when thrown to the "off" position allows use as an ordinary switch.



Mark-Time Switch giving interval before light goes out.

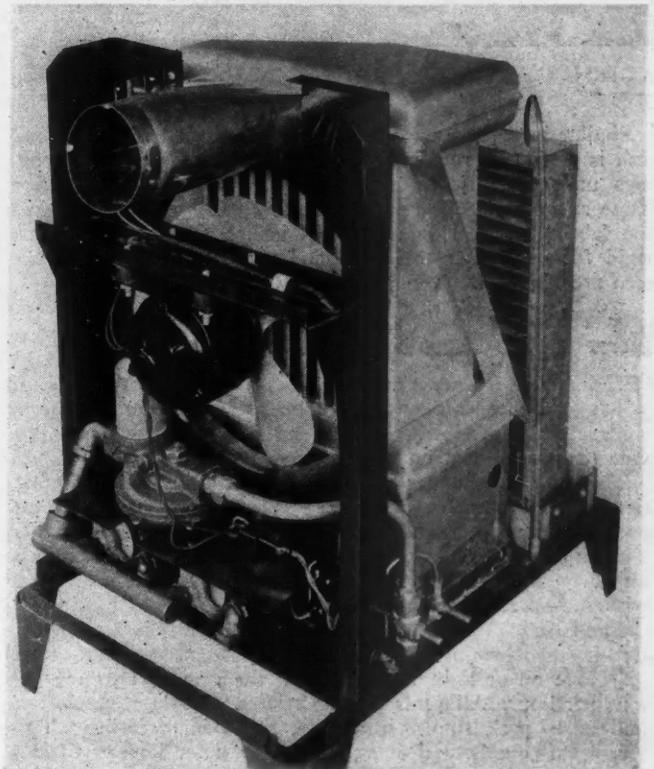
### Floorflo Unit Heater

A NEW advanced gas heating unit for homes and apartments has been announced by The Trane Company, heating and air conditioning manufacturers of La Crosse, Wis.

The unit which has been developed by The Trane Company in conjunction with The Peoples Gas Light and Coke Company of Chicago, Ill., is furnished in either the floor or suspended type, and uses gas as the heating medium. It is to be known as the Floorflo Heater.

The makers' claim for the new unit that with it, 85 per cent heating efficiency may be obtained. It is so small and compact that it may be readily installed in rooms where space it at a premium. The unit may be entirely automatically controlled and has all the latest safety devices. Because of the Freeflo Grille with which it is equipped, heat is delivered into the cold air strata at the floor. The grille also completely hides the interior of the unit.

Engineers of the Gas Company and of The Trane Company have made thorough tests in the laboratory and on actual installations and find that because of the heat exchanger which is made of a quick heat responsible metal, the unit produces heat at a more rapid rate and its overall efficiency is greatly improved. The Floorflo Heater is A.G.A. approved.



Floorflo Heater with cabinet removed.

### Steel Milk and Package Receivers

THE Milcor Steel Company, Milwaukee, reports that, in line with the great increase in residential construction, there has been an unusual demand for building accessories of modern steel construction since these accessories, such as milk and package receivers, access doors, flue doors and basement windows become a part of the many new types of steel frame construction which are now being put on the market.

However, it is pointed out that their use in every type of house is very satisfactory, and in using the Milcor milk and package receiver, regardless of the construction, the builder has the advantages of reinforcing the opening with steel, and a receiver which cannot shrink, crack or warp, which cannot get out of order, will last forever, and is economical in cost.



Milcor Steel Receiver.

## Reinforcing Lath Fabric

FOR suspended ceilings, tie-on partitions, and all other types of tie-on work, the Reynolds Corporation has developed a new type of reinforcing lath, called Reynolds Slotted Ecod Fabric. The new product is said to be particularly adaptable to office remodeling work—for non-permanent partitions, as well as for all types of suspended ceilings. Used for the first time on the recently completed High School at Calumet, Ill., the material was found to be an effective saver of time and materials, and at the same time, to provide a smooth, beautiful finish.



WORKMEN applying Ecod Fabric in Calumet (Ill.), High School.

Similar in appearance to the Reynolds Ecod Fabric, the new lath is slotted at regular intervals, to permit tying on to ceilings under steel joists, flat slabs, arches or concrete joists. Time saved in installing is increased by using large sheets of the fabric, 8 feet, 1½ inches x 31 inches, which is sufficiently rigid for one lather to handle and yet not so large that two men are required.

## New Type Smokeless Salamander

THE Aeroil Burner Company, Inc., West New York, N. J., has announced a new type smokeless salamander for use by contractors, plasterers, painters and cement finishers to provide temporary heat on winter construction work.

This new salamander is designed to insure a rapid circulation of heated air, heating a large area to a comparatively low even temperature instead of a small area to a high temperature. This is because the forced draft, by moving large quantities of air through the distributor and outlet holes, quickly mixes it with the surrounding air.

The burner outfit is detachable for use as a separate portable thawing and heating torch. It burns kerosene, gasoline, range oil, stove oil or light furnace oil at the rate of 1 to 1½ gallons per hour. All parts of this salamander—legs, torch, tank and hose—pack snugly inside the salamander casing. Total weight 46 pounds, with handle for carrying. Diameter of salamander 11 inches. Length of salamander distributor 38 inches. Overall length, set up to run, 80 inches. Overall height 25½ inches. Floor clearance 12½ inches.



SMOKELESS salamander as it appears set up for operation on the job.

## Light Weight Electric Drill

THE Black & Decker Mfg. Company, Towson, Md., is marketing the ½ inch Junior, a popular priced drill, as companion to the ¼ inch Junior.

This ½ inch Junior drill is styled and priced to meet the widespread demand for a versatile tool adaptable to many drilling and cutting applications. In the operation of hole saws, its low spindle speed and powerful torque are said to be adapted to the work of cutting clean, round holes in wood, sheet metal, cast iron and composition material. It is amply

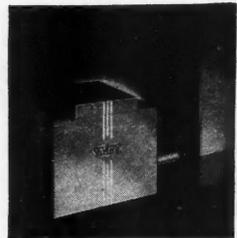
powered for drilling holes in steel up to ½ inch size; for driving wood augers up to 1¼ inch size.

Light weight, perfect balance, husky construction are listed as features popular with electricians, plumbers, steam fitters, sheet metal workers, automobile garages and factory maintenance departments. The universal motor operates on either alternating or direct current. Standard voltage is 110 but the drill is also supplied for 32, 220, or 250 volts without additional charge. It is furnished complete with Compo oilless bearings, safety switch, 3-jaw chuck and key, spade handle and auxiliary pipe handle. Net weight 10½ pounds.

## New Automatic Stoker Line

A NEW 1936 line of automatic coal burning stokers is being manufactured by the Link-Belt Company, Chicago. Changes in the models are stated to include those made in appearance, manufacturing methods and operation. The mechanism and burning head have several new engineering features, which, combined with the improved automatic controls, provide for more efficient and economical operation. The lower price is the result of new cost reducing and mass production equipment. The new models are modernistic without being freakish; hopper, motor, transmission and fan are all enclosed in a steel case finished in maroon and set off by silvery bands.

The commercial size stokers (sizes to 300 boiler horse power) have received the benefit of cost reduction and new manufacturing operations for extreme quietness and longer life. Shear pin alarms are available on all commercial and industrial models.

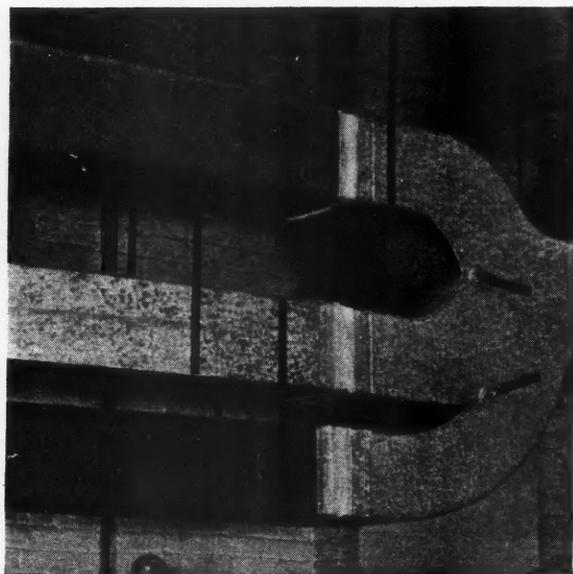


ONE of the new automatic stokers showing modern design.

## New Air Duct Construction

THE development of the new air ducts, made of a special weave wire mesh to which Zonolite Air-Duct Insulation is applied, has been completed by the Zonolite Corporation, Detroit. Tests are reported to show that the new system gives quiet operation at higher velocities, overcoming the excessive noise and especially that which has heretofore accompanied the increase of air velocity, and permits the use of small ducts eliminating the need of large size ducts to obtain sufficient volume.

The application of this material in two half-inch coats makes a solid, vibration- and fire-proof covering and the high Zonolite content gives it an exceptionally low thermal conductivity. At the same time no sound-absorbing liner of any kind is necessary



TOP, Zonolite duct; middle, metal duct; bottom, wire mesh form.

as the Zonolite cover absorbs the noise through the mesh openings. In this way the Zonolite duct insulation does double duty with the consequent saving in labor and materials.

Zonolite is a micaceous, non-ferrous, granular material which, when expanded under high temperatures, takes on a leaf-like form and a bright golden color. Its unusually high insulating value is due to the fact that it has both a cellular structure, which resists heat conduction, and bright reflecting surfaces, which check radiation.

### Garage Door Hardware

THE Stanley Works at New Britain, Conn., are offering "Swing-Up" garage door hardware which can be applied in remodeling jobs to old doors cleated together, making it unnecessary to equip with complete new doors and hardware.

This hardware makes it possible for a child to lift the door which floats up into place, reducing the height of opening by only four inches. The garage need be no longer than the car itself.



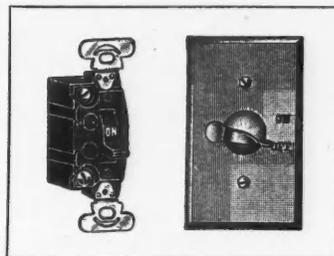
REMODELED garage equipped with "Swing-Up" door hardware.

### Heavy Load Tumbler Switches

THE Arrow-Hart & Hegeman Electric Company, Hartford, Conn., is making a line of fully enclosed Type "C" tumbler switches, designed specially for modern, high intensity lighting, and to take any Type "C" lamp load of 1250 watts made up of lamps of any size.

One of the features claimed for this new line is the full floating contacts which are self-aligning and automatically adjust themselves to correct position and tension. The stationary contacts are tapered to smoothly take the moving contacts without jar or rebound. Arc snuffers on both sides and between the moving contacts quench any arc. The switch frame is insulated from the mounting ears and yoke, and the mechanism is completely enclosed in a dust-proof and dirt-proof Bakelite base. There are no holding screws to loosen under vibration as the switch is held together by steel clamps. The switch base is narrow and shallow providing ample wiring room.

This new line is made for the usual single and double pole, three and four way connections in regular and lock style. Standard tumbler switch plates are used either brass or Bakelite.

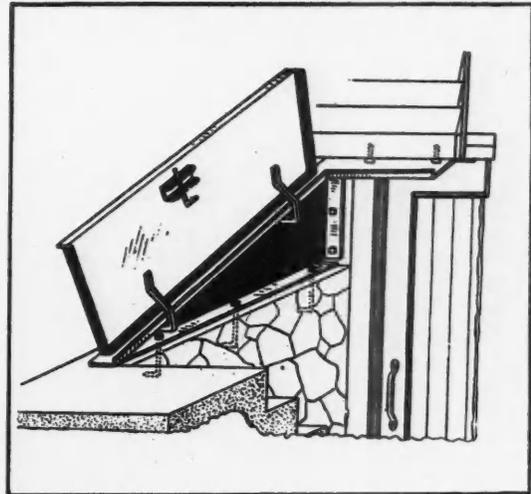


TUMBLER switch and plate for high intensity lighting.

### Home Hatchway of Steel

A LINE known as Bilco hatchways is being marketed by the Bilco Manufacturing Co., New Haven, Conn. They are reported to be perfect in appearance, waterproof, fireproof, burglarproof, and won't shrink or swell. Bilco is made of heavy gauge copper bearing steel, in three types with three stock sizes to each type or to suit conditions. Stock sizes are finished in gray—any other color may be furnished at no additional cost.

Each complete hatchway, composed of five parts with assembly and installation bolts, is shipped knocked down and can be assembled and installed by any handy man.



STEEL hatchway as it appears when installed.

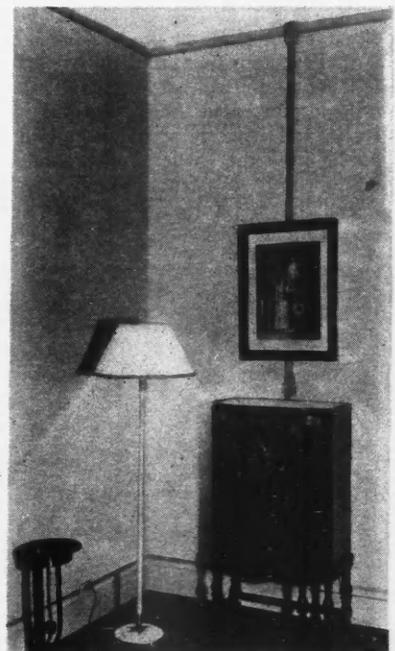
### Surface Extension Wiring

A NEW material for surface extension wiring in already-wired buildings, trade-name "AddHere," has been placed on the market by the Bryant Electric Company, New York City.

The basic element is a flexible rubber "raceway" through which wires are carried in two separate channels and which can be cut away or slit at any point to expose the wires for installing an outlet. Permanent connection is made to an existing receptacle and the raceway is then cemented to the building wall, usually just above the baseboard. For this purpose, a special cement has been developed which will adhere firmly to any type of wall surface. The installer simply applies this cement to a length of raceway and sticks it to the wall.

Another feature is a pendant, resembling a bell-pull, which is designed to be hung from the picture molding and carries concealed, insulated wires down to a three-way convenience outlet. To install the pendant outlets, the raceway is carried up in a corner and run around the room either above or below the picture molding.

Both the raceway and outlets are made in four colors (white, ivory, jade green and brown) so that a color can be selected to blend with the coloring of the wall.



Room with extension wiring.

# NEWS of the MONTH

## Building Activities and Meetings

### Gignilliat and Flanders Now Deputy Administrators FHA

LEIGH R. GIGNILLIAT has been named Deputy Administrator of Title I and William D. Flanders, Deputy Administrator in charge of Titles II and III of the National Housing Act, according to a recent FHA announcement. Mr. Flanders, who organized the Field Division of the Federal Housing Administration, recently was made Deputy Administrator in charge of Title I, the Modernization and Repair Program. He is succeeded in that post by Leigh R. Gignilliat who had been in charge of the field organization.

Both Mr. Flanders and Mr. Gignilliat have been with the Housing Administration since its organization. Mr. Flanders is a resident of New York. Mr. Gignilliat is a graduate of Princeton and native of Chicago, where for years he was engaged in the newspaper business, principally with trade publications.

### HOLC Work Nearly Complete

A REPORT on activities up to Jan. 2 shows that only about 3 per cent of the emergency lending operations of the Home Owners' Loan Corporation remains to be completed; 972,197 urban home mortgages, to a value of \$2,941,273,716, had been refinanced by the Corporation by the end of 1935.

As of Jan. 2, 57,320 loan applications were pending action by the Corporation. Experience of the past months indicates that of these, a large proportion will prove ineligible or be withdrawn by the applicant because he can now be refinanced through credit from private sources.

### First Home Show a Success

THE first of a series of National Home Shows scheduled for the principal cities of the nation was held in Baltimore, Md., Jan. 4 to 11. Over 60,000 paid an admission charge to view the exhibits of 79 firms that had displays in the great fifth Regiment Armory where the show was held.

Booths with dozens of articles and machines used in the home extended throughout the building. In the center of the building a modern house was shown, a feature which drew the crowds.

The building industry and its associated industries are particularly interested in the results obtained by the exhibitors in the show, and what it accomplished in the way of interesting the public in home ownership. From a questionnaire sent to the exhibitors of construction materials and home equipment it was found that a total of \$40,000 sales were made by them during the show.



VIEW of first National Home Show held in Baltimore.

### Owens-Illinois Makes Changes

THE Owens-Illinois Glass Company has announced the appointment of William C. Davis, formerly of the United States Gypsum Company, as director of merchandising for its Industrial Materials and Structural Materials divisions.

His new job is to set up a national sales organization that will adequately take care of the demands for fibrous glass as an industrial material, and glass block.

Another personnel announcement is that Stanley J. McGiveran, manager of sales merchandising of the Owens-Illinois Glass Company, has been promoted to assistant general sales manager of all Owens-Illinois divisions.

In his new position Mr. McGiveran has charge of the development and merchandising sales plans in all divisions. He also will direct the activity of the advertising departments for glass container cans.



W. C. DAVIS

### Huge Housing Plan Ready

OFFICIALS drafting plans for an immense low cost housing program have been reported as ready to submit their proposals to President Roosevelt. This group includes Peter Grimm, Secretary Ickes, A. R. Clas and Senator Wagner.

A permanent government agency to direct the program over a long period of years in conjunction with states and municipalities and government funds to assist the local agencies in slum clearance and housing are said to be important details of the plan. From \$300,000,000 to \$400,000,000 a year in federal funds to be added to even larger local appropriations would finance such projects.

In addition to low cost housing, it is the aim to encourage private construction, perhaps through more liberal federal insurance of loans for new residential building and modernization.

Although based upon experience gained in the current low cost housing program, the long range plan contemplates that local governments would inaugurate and carry out the projects; a means test would be applied to renters so that the low cost housing would be available only for those of the lowest income class; federal financial aid would be frankly a subsidy so rentals could be low enough to reach families in slum areas.

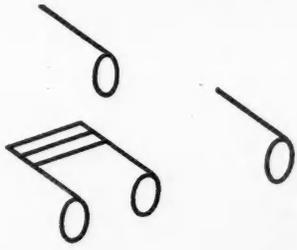
Although not definitely determined, it is proposed, roughly, that the government should bear 45 per cent of the costs.

### Construction Volume Figures

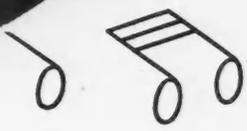
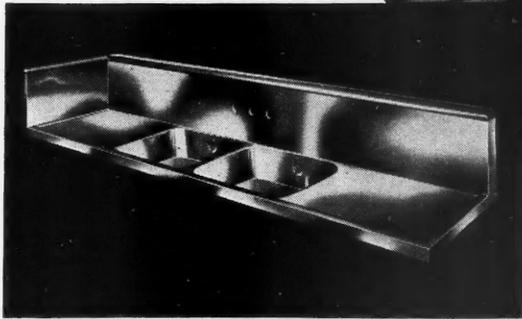
ACCORDING to figures of F. W. Dodge Corporation, residential building ended the year 1935 with a total greater than for any year since 1931. The volume of home building operations, both for new and alteration, totaled \$478,843,100 in the 37 eastern states. This represented a gain of 92 per cent over the total of \$248,840,100 reported for 1934. The 1931 total for the 37 eastern states aggregated \$811,388,700.

For the full year 1935 construction awards of all descriptions amounted to \$1,844,544,900 as against \$1,543,108,400, a gain of almost 20 per cent between the two years. In the 1935 total, besides residential building, were included \$675,488,600 for non-residential building; \$578,541,800 for heavy public works; and \$111,671,400 for public utilities. Comparable figures for 1934 follow: \$543,031,800 for non-residential building; \$625,044,500 for heavy public works; and \$126,192,000 for public utilities.

(Continued to page 92)



WOMEN SING AT THEIR WORK . . .



## -in kitchens equipped with

# ENDURO REPUBLIC'S PERFECTED STAINLESS STEEL

The kitchen often sells the house. And lustrous Republic ENDURO Stainless Steel in sinks, drainboards, mop molding around the floor, scuff plates on doors, range flue pipe, trim on cabinets, stoves and refrigerators always helps sell the kitchen.

*Licensed under Chemical Foundation  
Patents Nos. 1316817 and 1339378.*

Republic ENDURO is a cheerful metal in the home—always brilliant—easy to clean—and practically everlasting. It shows the prospective buyer that quality materials have been used—that the house has not been "skimped."

Contractors will have no difficulty in obtaining ENDURO fabricated to special design or manufactured into standardized kitchen equipment such as sinks and molding. Sheet metal contractors can easily and quickly fabricate special sinks or other items. Many manufacturers have adopted it for trim on cabinets, ranges and other kitchen equipment.

To sell easily, homes must be modern and better built. ENDURO adds the modern touch that leads to good-will and better profits. Let us give you the names of manufacturers and fabricators.

### A Few Suggested Uses for Republic ENDURO in the Home

- Air Conditioning Equipment
- Casements
- Chairs
- Chute Covers
- Chimney Tops
- Door Jamb, Sash and Molding
- Down Spouts
- Flashing
- Flues
- Grilles
- Gutters
- Hardware
- Hoods, Range
- Lockers
- Lighting Equipment
- Molding of All Types
- Ornamental Metal Work
- Railings
- Refrigerators
- Screens, Frame and Cloth
- Shower Cabinets
- Window Frames

# Republic Steel



## C O R P O R A T I O N

GENERAL OFFICES . . . CLEVELAND, OHIO  
ALLOY STEEL DIVISION . . . MASSILLON, OHIO

When writing Republic Steel Corporation for further information, please address Department AB



The world's most beautiful gas boiler gives you an extra talking point



Reduced rates in many localities make heating with gas especially desirable today. The completely automatic features, the cleanliness, the economy and the beauty of the new Empire Ideal Gas Boiler bring distinct advantages to the homes you build. Clean gas heat and automatic hot water—built in and built to stay with AGP equipment, are talking points you can't afford to miss.

AGP equipment for heating and hot water is efficient, dependable and reasonably priced. The line includes a size and model for every type of home. Get the facts on the cost of heating with gas from your local gas company. And write today for complete information on the AGP line.



A SIZE FOR EVERY HOME

AMERICAN GAS PRODUCTS CORPORATION

DIVISION OF AMERICAN RADIATOR COMPANY  
40 WEST 40TH STREET - NEW YORK, N.Y.

A CALLING CARD TO NEW BUSINESS

EACH SALE MEANS MORE SALES



● LASTING  
LUSTROUS  
COLORFUL  
INEXPENSIVE  
AND EASY  
TO INSTALL.  
WRITE FOR  
FOLDER AND  
● PRICES ●

*MarshTile*

MARSH WALL TILE COMPANY • DOVER, OHIO



## Every House Deserves The BEST SASH CORD

To equip the houses you may be planning, building or renovating with Samson Spot Sash Cord, is to insure the installation of the best sash cord you can use. It will justify your confidence in its better and longer service. It will sustain your good judgment in the minds of those for whom you build, by protecting them from the expense and annoyance so frequently occasioned by cheap cord failure.

Samson Spot Sash Cord is made of extra quality, fine, three-ply yarn, firmly braided, smoothly finished. It is guaranteed to be free from the imperfections of braid and finish which cause cheap cord to wear out so quickly. It is made in one quality which can always be identified by the Colored Spots—our trade-mark.

**SAMSON CORDAGE WORKS**  
BOSTON, MASSACHUSETTS



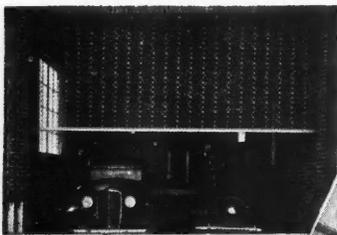
**SAMSON SPOT**  
*sash cord*



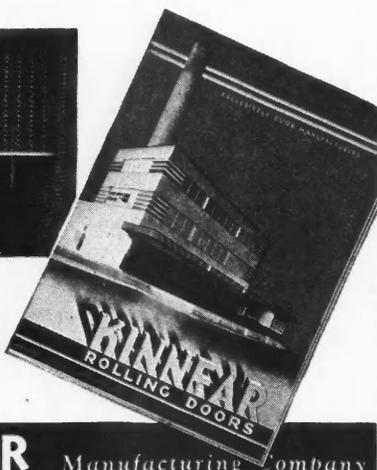
But . . .  
BE SURE TO HAVE  
UP-TO-THE-MINUTE  
DETAILS ON  
**All of  
KINNEAR  
DOORS**

Send for your copy of  
the NEW 1936 Catalog

Owners are today demanding the convenience and efficiency of upward-acting doors. But you can't successfully handle every situation with one style. So be prepared for any new or modernization job by having up-to-the-minute details on all of Kinnear Upward-Acting Doors—doors built in wood or metal; of coiling, sectional overhead or bifolding types; and operating manually, mechanically or electrically. Whether it's for service or fire protection purposes it is actually money in your pocket to use Kinnear Doors. They're easier to install, better satisfy your customer, and last longer. And they're backed by an international company who has specialized in upward-acting doors for almost a half-century.



Be sure to have the dope on the Kinnear Rolling Grille. It provides real protection for any opening—with the added advantage of admitting air, light and vision. Works like a window-shade. You'll find it ideal for many situations.



The **KINNEAR** Manufacturing Company

1560-80 Fields Avenue, Columbus, Ohio

Yes! Send me a copy of your 1936 catalog describing the latest developments in Kinnear Doors. I am particularly interested in doors for:

NAME .....

ADDRESS .....

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

**NEWS**

(Continued from page 92)

play the most important parts in determining the local cost of building the average small home. The figures cover only the actual construction outlays and do not include home-mortgage financing costs, which vary widely in different sections.

Recognizing the vital influence of construction costs on the volume of home building and the activity of mortgage lending operations, the Board is developing the first exact index ever attempted to cover the local trend of cost of small home construction in every part of the country, represented by actual data in some 70 cities. Current costs of materials and labor will be included, and the rising or falling trend thus disclosed at three-month intervals for the guidance of prospective home owners and the executives of home-financing institutions.

The typical home specified as the standard of comparison is a detached house of 24,000 cubic feet volume of sound design and workmanship, containing a living room, dining room, lavatory and kitchen on the first floor, three bedrooms on the second floor and an attic. The exterior is of wide-board siding with brick and stucco trim. A one-car, attached garage is included. Unusual materials and construction features are avoided. The design meets the requirements of the average municipal building code. This home might be placed generally in the \$6,000 price class, excluding land value.

The basic data consists of prevailing unit prices of materials and labor, compiled throughout the country by the personnel of the Reconditioning Division of the Home Owners' Loan Corporation, which includes architects and builders familiar with local construction practices. Items for overhead expense and contractor's profit are added.

The 27 cities, for which costs are reported, are situated in four of the twelve Federal Home Loan Bank districts. Later cost figures will be published for at least 40 more cities in the eight other Bank districts. Each city will report four times a year, and comparison with previous reports will provide a guide to the trend of home building costs in each city, thus embracing the entire United States within each quarterly period.

**Briggs Appoints Brady; Reduces Prices**

**E.** O. BRADY, formerly sales manager of the Stran-Steel Corporation of Detroit, has been appointed regional manager for the plumbing ware division of the Briggs Manufacturing Company. In his new connection, Mr. Brady will represent Briggs in the southern territory where he will contact master plumbers and plumbing jobbers on behalf of the company's new line of formed metal plumbing ware.

Briggs also has announced reductions in prices on Beauty-ware, now effective. The price schedule fulfills an objective, conceived three years ago when Briggs began its big development in the plumbing industry with the manufacture of kitchen cabinet sinks and expanded later into a complete line of plumbing fixtures, to lower prices as production increases and economies are affected.

**Make HOLC Sales Survey**

**A** STUDY has been made by the Chicago Regional office of the Home Owners' Loan Corporation to determine whether actual sales indicate that the average property carrying a loan by the Corporation is salable at a price exceeding the mortgage held by the Corporation. This survey covered the sales of 139 homes in Illinois carrying loans of the Corporation which have been sold by their owners since HOLC loans were placed upon them. None of the 139 properties was involved in foreclosure proceedings, and the cases were taken at random as typical properties in the medium price range.

The 139 homes brought sales prices aggregating \$691,863. The total amount of HOLC mortgages against the properties aggregated \$554,193, indicating that the average HOLC mortgage debt amounted to 82 per cent of the actual sales price realized in these transactions, and that the average home sold for \$4,977 or about \$1,000 more than the \$3,987 amount of the average loan. In no instance was the property sold for less than the Corporation's

(Continued to page 96)

# Up-to-Date Building Books

## Types of Houses

### American Country Houses of Today

Edited by Lewis A. Coffin

In this volume are illustrated 112 beautiful small houses recently built throughout the country, designed in all styles by 70 leading architects. Each house is shown with a floor plan. A special section covers the prize winning houses of the last two years of the Better Homes in America Small House Competitions.

1935. 160 pages, 350 illus., 8 1/2 x 11, cloth, \$8.00.

### The Modern House

By F. R. S. Yorke

Presents successful examples of advanced house design in the United States, England, Holland, Belgium, Germany and other European countries and describes the main problems of modern house design. Requirements to be met in the new type of home are discussed in component parts such as plan, walls, windows and roof. A section of more than 100 pages presents typical houses erected from 1924 to 1934.

1934. 200 pages, 500 photographs, plans and detail sketches, 7 1/2 x 10, cloth, \$6.00.

### A Century of Progress Homes and Furnishings

Edited by Dorothy Raley

Outside and inside views with descriptions of modern homes in the housing exhibit at the Century of Progress Exposition. Shows the Armco-Ferro-Mayflower House and Guest House; the Brick House; Crystal House; Cyprus Log Cabin; Florida Tropical House; General Houses' Steel House; "The House of Tomorrow;" Lumber House; Masonite House; Stran Steel-Irwin Town House and Garden Home; Universal House's Country Home; Weiboldt-Rostone House.

1934. 127 pages, illus., 8 x 11 inches, bound in permatex, \$2.50.

### The Colonial and Federal House

By Rexford Newcomb

The Dean of the College of Fine and Applied Arts of the University of Illinois describes America's most important architectural type of house. Features of good Colonial homes are described and detailed plans of 100 antique and modern houses are shown. The author tells how to build an authentic Colonial house.

1933. 174 pages, 100 illus., 7 x 9 1/2 inches, cloth, \$3.50.

## Plan Books

### The House for Modern Living

Contains 107 small house designs, including 54 prize winners in the General Electric Architectural Competition; with 48 selected entries and 7 prize houses from the 1935 Better Homes in America Competition.

1935. 140 pages, illustrated with drawings and diagrams, 9 1/2 x 12 inches, paper, \$1.50.

### The House to Live In

Views of 40 houses with floor plans and brief descriptions of each. Includes wood, stucco and brick veneer in English and Colonial design. Each house has been designed for a particular need or climate by an experienced architect. Plans are available at small extra cost.

1932. 22 pages, illus., 8 1/2 x 11 inches, paper, \$1.00.

### Bungalows

By Harry Marshak

Sketches, floor plans and brief descriptions of 16 bungalows of modern style and of Eastern design. These houses are practical and can be built at low cost. Plans and specifications are available.

1932. 20 pages, illus., 9 x 7 inches, paper, \$.35.

### One Hundred New Homes

By R. C. Hunter

A collection of small and medium sized homes by a New York City specialist in small home design. These homes range in size from 13,000 to 40,000 cubic feet and are one and two stories in height. Every popular style of architecture is presented in stucco, brick, shingle and clapboard finish. There is enough variety for the average prospective home owner to find several to his liking.

1931. 100 plates in portfolio, 8 1/2 x 11 inches, \$2.50.

### Summer Cottages, Log Cabins and Garages

By J. W. Lindstrom

Plans and photographs of exteriors, including 10 in color. This is a good selection of Minnesota types.

1931. 64 pages, illus., 7 1/2 x 11 1/2 in., paper, \$1.00.

### Beautiful Homes of Moderate Cost

This collection of 73 designs for bungalows, small houses and garages was prepared for "Building Age." There are 11 in New England Colonial style, 10 Dutch Colonial, 5 Spanish and Mission, 5 Italian, 27 English and 15 miscellaneous. Each page shows a photograph or drawing of the building with floor plans and contains a short description.

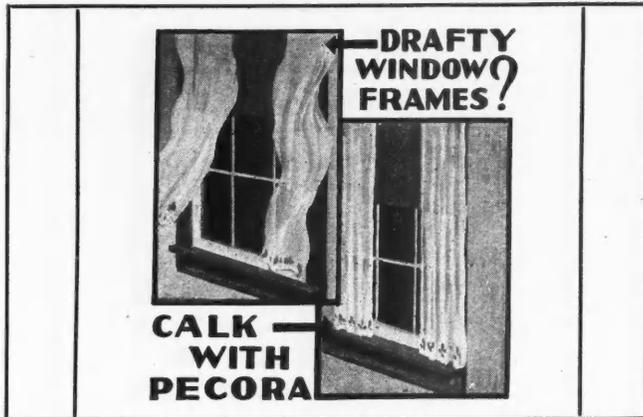
1928. 114 pages, 206 illus., 9 x 12 inches, paper, \$1.50.

## FREE-Book Guide

A copy of the 1935-1936 56-page "American Builder and Building Age Book Guide" is free upon request. All the books described on this page and hundreds of others on all branches of building work are fully described. They are sold on a "money back" guarantee.

Book Service Department

**AMERICAN BUILDER and BUILDING AGE**  
30 Church Street New York, N. Y.



## To Be Sure Of A WEATHER-TIGHT RESIDENCE

Be Sure To Calk All Door  
And Window Frames With



Don't wait until the owner complains that he cannot keep the weather out nor the heat in. A tight house is a calked house, especially when a reliable material such as Pecora Calking Compound is used. Properly applied, it simply will not dry out, crack or chip. Specified by leading architects and used by responsible builders for all types of buildings in all parts of the country.

### Unlike all other Calking Guns

This New Type, High-Pressure Cartridge Calking Gun (patent applied for) is a great Time and Material Saver. No Ratchets, no Pawls. Specially designed for Pecora Calking Compound which is packed in Non-Refillable Cartridges of approximately One-Quart Capacity.



Write for Bulletin and Prices

## Pecora Paint Company, Inc.

Dept. 9, 4th & Venango Streets

PHILADELPHIA

Established 1862 by Smith Bowen

Also Makers of

SASH PUTTIES  
MORTAR STAINS

SUCTION MASTIC  
for Structural Glass

PECORA PERFECT PATCHING PLASTER

## NEWS

(Continued from page 94)

mortgage. In cases of this sort, where sales are made for the account of the home owner, and there has been no foreclosure, any sums realized in excess of the amount of the mortgage are, of course, paid to the home owner because he has retained title up to the date of sale.

The Corporation's appraisals in making loans for the relief of home mortgage distress are not based upon sales prices alone, but upon an equal combination of reproduction cost less depreciation, capitalization of the rental value over the previous ten years, and current sales value. Two of these three factors tend to give a valuation above present sales levels. The Illinois analysis indicates, however, that the HOLC loans made in these cases were in line with practical market conditions.

### Expansion Program Under Way

THE Lincoln-Schlueter Floor Machinery Company of Chicago has reported that an increase in volume of sales made it necessary to undertake an expansion program at this time.

The enlarged offices are still at the former location, and more space for factory operations has been acquired where new high-speed production machinery is being installed.

### Name Design Competition Judges

SEVEN eminent American architects have accepted the invitation of Russell F. Whitehead, editor of Pencil Points, to act as judges in the Pencil Points-Portland Cement Association architectural competition in which cash prizes for a total of \$7,500 are offered for the best designs of firesafe concrete houses.

Two separate problems are involved. One is the design of a concrete house for a family with two children and without a full-time servant, the house to be suitable for a northern climate. The other is to design a house for the same size family, under similar conditions in a southern climate.

According to Mr. Whitehead, besides architectural merit, the designs will be judged from the standpoint of the practicability and economy of construction, the value of the house as an investment during a twenty-year amortization period, and adaptability to concrete construction.

There are two first prizes of \$1,500 each; two second prizes for \$750, and two third awards of \$500 each. There will also be twenty honorable mention awards of \$50 in each of the two classes.

The competition is open to all architects and architectural draftsmen in continental United States. Plans must be in the hands of Mr. Whitehead, professional adviser of the competition, by March 9.

The judges are as follows: Atlee B. Ayers, of San Antonio, Texas, who is an authority on Spanish Colonial architecture; William D. Crowell, of St. Louis, member of the architectural firm of Mauran, Russell & Crowell; Robert D. Kohn, of New York, a past president of the American Institute of Architects; Carl F. Gould, of Bebb & Gould, Seattle architects; Edmund B. Gilchrist, Philadelphia, noted as an authority on small house and country estate architecture; C. Herrick Hammond, Chicago, a past president of the American Institute of Architects, and Howard Major, of Palm Beach, Fla., designer of many notable buildings in Florida.

### Develop Cementop Shingles

A NEW type of cement asphalt shingle, which will be known as cementop shingles, has been announced as the result of a special processing method developed by Bakelite Building Products Company, Inc., New York. By the new process conventional asphalt shingles are given an extra surface coating of special formula hydraulic cement in which mineral oxide pigments are incorporated.

It is claimed that the cement coating provides a vehicle for the incorporation of a variety of permanent colors which could

(Continued to page 98)



"WHITEHEAD" Monel Metal Hot Water Tanks: Vertical (range boiler) type, 25-100 gal. Larger Tanks up to 1,000 gal. ALL GUARANTEED 20 YEARS.

Tanks that  
**RUST**  
are **OUT!**

*There's sales power and lease appeal in tanks of Monel Metal*

"THE hot water tank is Monel Metal—there will never be any rusty water here."

That's a good sales point for any property. And it never loses its power. For "Whitehead" Monel Metal storage tanks (either large capacity or ordinary range boilers) are GUARANTEED against failure FOR 20 YEARS . . . and are rust-proof FOREVER!

Monel Metal tanks are eternally proof against attack by any form of water-caused corrosion.

And they're strong. Tested hydrostatically at from 200 to 350 lbs.—50 to 100 percent stronger than ordinary tanks.

For prices, sizes, etc., write Whitehead Metal Products Co. of New York, Inc., 304 Hudson Street, New York, N. Y.

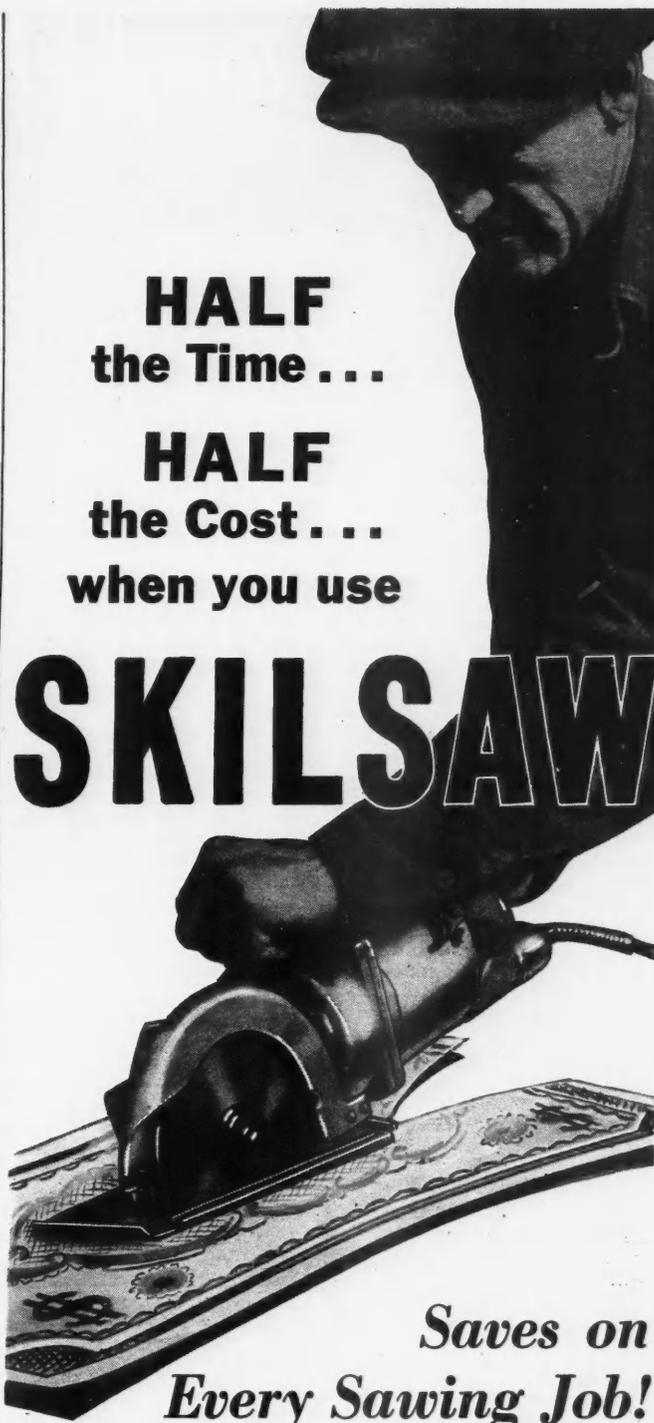
. . .

THE INTERNATIONAL NICKEL COMPANY, INC.  
67 WALL STREET NEW YORK, N. Y.

# MONEL METAL



Monel Metal is a registered trade-mark applied to an alloy containing approximately two-thirds Nickel and one-third copper. Monel Metal is mined, smelted, refined, rolled and marketed solely by International Nickel.



**HALF**  
the Time . . .  
**HALF**  
the Cost . . .  
when you use

# SKILSAW

*Saves on Every Sawing Job!*

"Profits are what we want!" say contractors and builders. SKILSAW makes profits by reducing costs! SKILSAW gets the job done quicker, better, cheaper. It has more power, more construction refinements, more applications in sawing work of every kind. Cuts wood, metal, stone, compositions. Thousands of satisfied users.

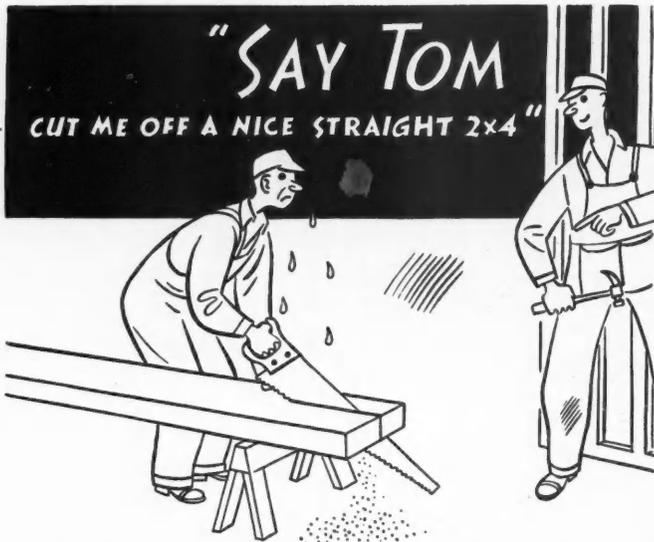
**MADE IN 6 POWERFUL MODELS**

There is a size for every purpose. Each model has been improved in every detail for greater speed and better performance.

See Your Dealer or Write for Our New Catalog

**SKILSAW, INC., 3314 Elston Avenue, CHICAGO**  
210 East 40th Street, New York City  
312 Omar Avenue, Los Angeles

CANADIAN SALES & SERVICE—85 Deloraine Ave., TORONTO



A HOUSE could be built that way . . . SURE! But how long would it take—and how much would it cost? How much would it cut into your profits on a job?

Windows, too, can still be fitted on the job—but now there's a better way. There's a new double-hung sash—the Curtis Silentite Window—that comes to you as a single unit. All parts of the sash, frame and trim—even storm sash and screen—are machined and pre-fitted at the Curtis factories. You save not only time and trouble—you can estimate jobs more accurately, and stay within estimates easier.

Best of all—you'll build a better house—one that will bring you new customers. For these new windows haven't any sash cord to break—or weights and pulleys to jam. They won't swell or bind in wet weather or rattle when it's dry. Wind can't blow through them. Smoke and dust can't enter. And far less heat escapes. Silentite is an Insulated window—with fuel savings running as high as 25 per cent!

And Silentite is dipped to prevent rot.

This is the first real improvement in double-hung sash in 290 years. It's a window that is easy to install—with no complaints . . . a window, too, that's extremely easy to raise or lower—and it's easy, also, on the homeowner's pocketbook. Why not get all the facts about Silentite Window Units? Architects are calling for them now in ever-increasing numbers. Mail coupon for complete information.

CURTIS COMPANIES SERVICE BUREAU  
502 Curtis Bldg., Clinton, Iowa

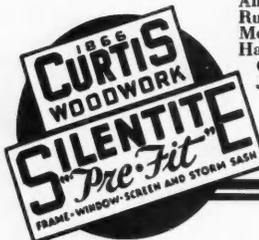


Silentite beauty helps sell houses and satisfies owners.

- CURTIS BROS. & CO., CLINTON, IOWA
- CURTIS & YALE CO., WAUSAU, WIS.
- CURTIS SASH & DOOR CO., SIOUX CITY, IOWA
- CURTIS DOOR & SASH CO., CHICAGO, ILL.
- CURTIS-YALE-PURVIS CO., MINNEAPOLIS, MINN.
- CURTIS COMPANIES INC., CLINTON, IOWA
- CURTIS, TOWLE & PAINE CO., LINCOLN, NEBR., TOPEKA, KAN.

Curtis Woodwork is also available through the following distributors:

- Allen A. Wilkinson Lumber Co., Indianapolis, Ind.
- Rust Sash & Door Co., Kansas City, Mo.
- Morrison-Merrill & Co., Salt Lake City, Utah
- Hallack & Howard Lumber Co., Denver, Colo.
- Campbell Coal Company, Atlanta, Ga.
- Jacksonville Sash & Door Co., Jacksonville, Fla.



THE "INSULATED" WINDOW

CURTIS COMPANIES SERVICE BUREAU  
Dept. 502 Curtis Building, Clinton, Iowa

Please send me complete information on Curtis Silentite, the "insulated" window.

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

NEWS

(Continued from page 96)

not be had heretofore. These colors include white, blues, greens, grays, reds, and black. A white siding material is now available for the Colonial type house.

In addition to yielding attractive roofing and siding material, the cement coating gives the shingles rigidity. It acts as a shield protecting the asphalt beneath from the rays of the sun, sealing the asphalt so that the sun will not bake out the oils. Features listed are fire resistance, resistance to erosion, and insulation value.

According to the manufacturers rigidity makes it possible to expose a greater portion of each shingle butt so that fewer shingles are required to cover a given area.

The cost of cementop is said to compare favorably with that of similar products.

Those roofing manufacturers which have started production on the new cementop shingles, or will in the near future, are: The Johns-Manville Corporation, The Ruberoid Company, McHenry-Millhouse Mfg. Company of New York, Inc., American Asphalt Roof Corporation, Amalgamated Roofing Company, and the Los Angeles Paper Manufacturing Company.

Pine Bureau Trade-Mark Renewed

THE Arkansas Soft Pine Bureau has been notified that registration of its "A" Trade-Mark has been renewed for a period of twenty years. First adopted and applied to the lumber products of the Bureau mills in 1915, renewal extends exclusive rights to its usage by the Bureau mills, as well as protection against infringement until May 9, 1956. It is believed that the Arkansas Soft Pine Trade-Mark has been used without interruption longer than any other symbol applied to lumber products in the United States. Its use has been coincident to the sustained trade promotion and advertising program, conducted by the Bureau mills from the time their community program was first launched in October, 1912.

Continue Full Time Plant Operations

FULL time operation throughout the winter, eliminating the usual seasonal shut-down of approximately two months, has been established at the St. Louis, Mo., and South Bound Brook, N. J., plants of The Ruberoid Company. This decision affected approximately 800 men with monthly wages aggregating more than \$70,000, chiefly engaged in the production of asbestos-cement roofing and siding for use in the construction, repair, and modernization of homes and apartment buildings.

The desire of the company to respond as fully as possible to President Roosevelt's recent appeal to industry to help absorb unemployment, and the conviction that within a short time such a course will be amply justified on strictly business grounds, were reasons given for this action.

Resume Publishing "DooR-Ways"

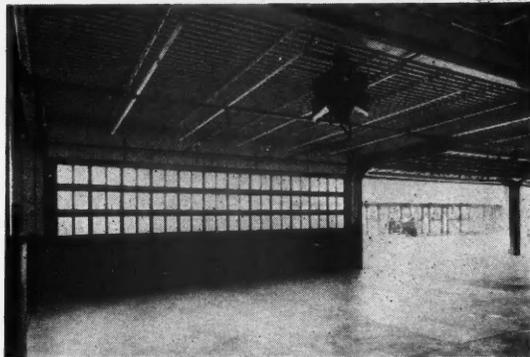
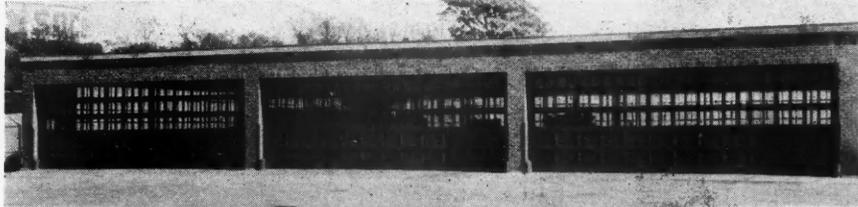
AFTER a lapse of several years, the Richards-Wilcox Manufacturing Company of Aurora, Ill., is again publishing its house organ, "DooR-Ways." This was formerly a monthly booklet covering points of interest and developments in the field, which was sent out in 1913 free to all hardware dealers, architects and contractors. Discontinued from 1931 to the present time, it will once again bring its message to the building industry as formerly—except that temporarily about four issues a year are planned.

Republic Steel Consolidates Offices

EFFECTIVE Jan. 25, the general offices of Republic Steel Corporation were removed from Youngstown, Ohio, to Cleveland, Ohio, to consolidate the general offices which have been located in Youngstown, the executive and Cleveland district sales offices and the Advertising Department, Massillon, Ohio. The sales offices of the Newton Steel Company will also be located in Cleveland.

(Continued to page 100)

THE  
**OVERHEAD DOOR**  
 FOR  
 WAREHOUSES AND TRUCK GARAGES



BACKED BY  
 A NATIONAL  
 SALES  
 SERVICE

SOLD  
 AND  
 SERVICED  
 EVERYWHERE

31 FT.—0 IN.  
 WIDE  
 10 FT.—6 IN.  
 HIGH

DOORS TO  
 MEET  
 YOUR  
 NEEDS

A MILLION USERS THE BEST RECOMMENDATION

**OVERHEAD DOOR CORPORATION**  
**HARTFORD CITY, INDIANA U.S.A.**

**CLIP THIS COUPON and MAIL NOW!**

Please send me literature and full information regarding your product.  
 I am interested in doors for the particular purpose as checked.

**MADE IN ANY SIZE FOR ANY OPENING  
 FROM A HANGAR TO A PRIVATE GARAGE**

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

Mail to: **OVERHEAD DOOR CORPORATION, Hartford City, Indiana, U. S. A.**

PRIVATE GARAGE  
 PLANT GARAGE  
 WAREHOUSE  
 FILLING STATION  
 HANGAR  
 WOOD DOORS  
 STEEL DOORS  
 OPERATING DOORS  
 OTHER BUILDINGS  
 ELECTRIC CONTROLS

A.B. 2-36



**OUT OF YESTERDAY COMES  
 TODAY**

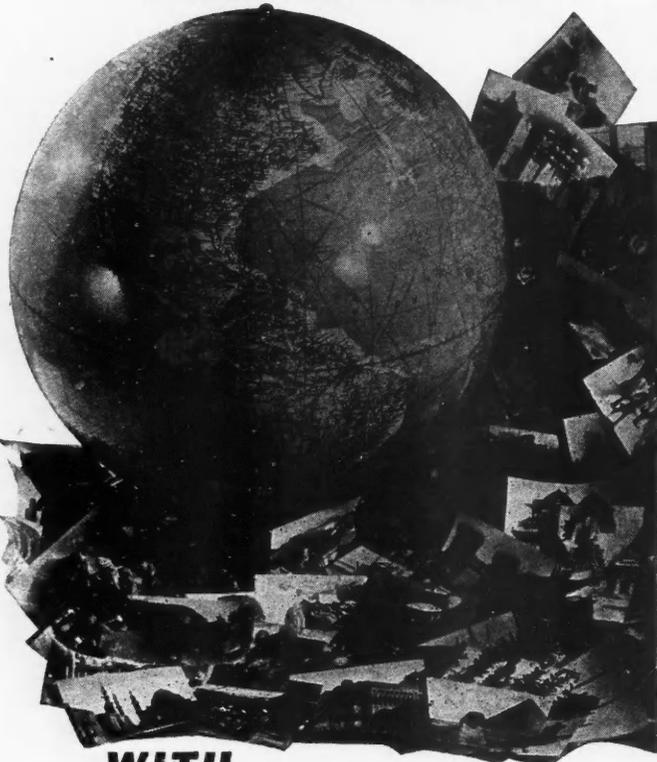
**REID-WAY  
 PROFESSIONAL**

**THE NEW REID-WAY "PROFESSIONAL 8"**

A new and better sander for the new age! Reid-Way's largest and finest machine. Increased capacity—precision control. Tops the field in everything but price. Write for circular describing exclusive new features.

**Reid-Way Corporation — 2967 First Ave., Cedar Rapids, Iowa**

# WEATHERPROOFING THE WORLD



## WITH Reardon's **BONDEX** WATERPROOF CEMENT PAINT

In more than 90 countries, Reardon's Bondex is relied upon to protect buildings against the ravages of weather. The searing sun of the tropics, the ruinous cold of Northern winters, the driving winds and pouring rains are all equally powerless to affect "the paint eternal."

All of this proves the superiority of Bondex, but how about the jobs just around the corner in your own neighborhood? Whether it's a leaky basement or stucco home that's beginning to age a bit, you can recommend Bondex with a guarantee of absolute confidence. Bondex is easy to mix, easy to apply, comes in a choice of 16 colors and white. Put yourself in line for this profitable business. Send for the Bondex Question Book—use the coupon below—now.



Use **BONDEX** on  
STUCCO EXTERIORS  
LEAKY BASEMENTS  
SWIMMING POOLS  
Manufactured Only by  
**THE REARDON COMPANY**  
ST. LOUIS · CHICAGO · LOS ANGELES

### SEND FOR BONDEX QUESTION BOOK

THE REARDON COMPANY, 2200 North 2nd St., St. Louis, Mo.

Please send me your Free Bulletin answering every question about mixing and applying Bondex.

Name \_\_\_\_\_

Firm \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_

A-B-2-36

## NEWS

(Continued from page 98)

The departments affected in the move include: General Operating, General Sales, Treasury, Purchasing, Accounting, Credit, Claims, Ordering, Coding, Traffic, Patent, Advertising & Sales Promotion, Sheet & Strip Sales, Pipe Sales, Bar Sales, Tin Plate Sales, Railroad Sales, Culvert Sales, Pig Iron & By-Product Sales, Engineering, Industrial Engineering, Salvage & Reclamation, and Industrial Relations.

### R. M. Snow Joins Harvey-Whipple

THE appointment of Randall M. Snow as director of sales promotion for Master Kraft oil burners has been made by Harvey-Whipple, Inc., Springfield, Mass. Mr. Snow was formerly with the National Radiator Corporation of Johnstown, Pa. in charge of advertising and sales promotion. Prior to that time he was connected with the Heating, Piping and Air Conditioning Contractors National Association in New York City as editor of The Official Bulletin.

### Named Assistant to McDonald

THE appointment of John W. Ahern as Assistant to the Administrator has been made by the Federal Housing Administration. Mr. Ahern with an experience of forty years in all the branches of real estate will act in an advisory capacity. For the past twenty years, he has specialized in mortgage insurance and has received temporary leave of absence from his duties as mortgage officer of the Teachers Insurance and Annuity Association of New York, an adjunct of the Carnegie Foundation.

Mr. Ahern has been vice president and director of the Lawyers Mortgage Company of New York City. Among the public duties he has performed has been his work as chairman of the Lending Committee of the Mortgage Conference in New York City, an organization of all the savings banks, trust companies, and life insurance companies of that city; he also was chairman of the Advisory Committee of the Reconstruction Finance Corporation Mortgage Company of New York.

### Makes Study of Building Costs

A UNIQUE study of building costs has been made by the Chicago Real Estate Board through its Appraisers' Division, and covers a compilation of the reproduction unit cost of buildings in Chicago. This study, which treats some 172 types of buildings, was prepared under the detailed direction of the board of governors of the Appraisers' Division by Eugene and Max Fuhrer, architects and engineers. It was undertaken to bring the appraiser actual factual data of a kind which has always been difficult and costly to obtain. Cost quotations were obtained from a wide variety of sources.

For each type of building, illustrated by a photograph of an actual Chicago building, specifications of the "base building" are given, followed by a table of unit costs per square foot of floor area and of unit cost per cubic foot, and a table of additions and deductions to or from unit costs which apply where a building differs from the "base building."

Building costs data are included for the following types of buildings:

Old style apartment buildings, of ordinary construction, including small corner or "L"-shaped buildings, court type and corridor type; modern fireproof apartment buildings, with costs worked out for four different groups in this class; hotels, from the lodging house type and the old style hotels of ordinary construction or of slow burning construction to modern fireproof buildings (for which latter the data is worked out for five different types); store buildings (where the data is worked out for one-story frame buildings, and buildings with flats, offices or lofts above, these last in five divisions); garage buildings; auto service stations; department store buildings, for which three types are worked out, ranging from the 2-story to the 16-story building; office buildings, where the range is from the old style wall bearing office building to the modern 30-story building of fireproof construction; industrial buildings, frame buildings, country clubs, city clubs, lodge buildings and others.

**THE SIGN OF A BETTER BUILDER**

**JOHN PROSPER**

TEMPERED AIRE  
AUTOMATIC OIL FURNACE  
AND AIR CONDITIONING SYSTEM

**ANY HOUSE WITH A GAR WOOD SYSTEM IS A BETTER HOME**

● When you build a home with a Gar Wood Tempered Aire Automatic Oil Furnace and Air Conditioning System, you provide health, comfort and convenience the year round. Modern appliances and equipment are important building features. They give your homes added value. They increase your local prestige as a better builder ... for Gar Wood Systems are nationally known for their economy of operation and year after year dependability. Every builder should have our free booklet, "Home Heating Data." Write for your copy today.

**MAKE THE BASEMENT YOUR SALES CLINCHER**

Point out the advantages of automatic oil heating and air conditioning and see how easy it is to satisfy your clients.

Air Conditioning Division

**GAR WOOD INDUSTRIES, INC.**  
7925 RIOPELLE STREET • • DETROIT, MICHIGAN

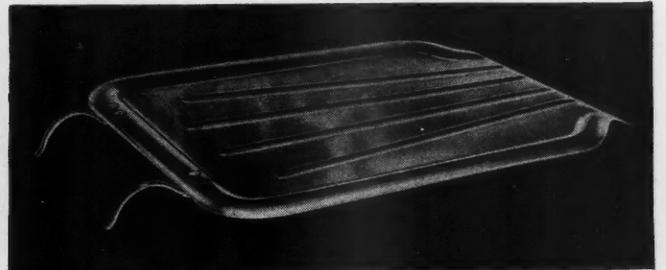
**OWNERS SAY:**

*Gar Wood*

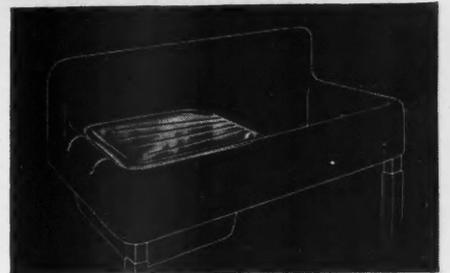
OIL HEAT COSTS LESS THAN COAL

WE ARE COOPERATING WITH THE FEDERAL HOUSING PROGRAM

# GOOD-BYE to Drainboard GRIEF!



● Monel Metal Drainboards with hooks. Made by Vitreous Steel Products Company, Cleveland, O.



Now, for the first time, you can replace old "eyesores" with....

## MONEL METAL

Property owners, managers, and builders, here's good news: You've asked us for years for a Monel Metal drainboard for use with standard sink and tray combinations. Well here it is! No longer need you listen to complaints about drainboards that are battered or chipped, rusted, mouldy, and unsanitary.

These new Monel Metal drainboards, heavy gauge and extra strong, are everlasting. Eternally wear-proof — solid clean through. No coating to chip, crack or wear off.

Monel Metal is two-thirds Nickel and one-third copper, so it cannot rust; hot pots and pans can't harm it; and ordinary household cleansers keep it looking like fine old silver. Its appearance actually improves with use.

This one piece of Monel Metal gives any kitchen a modern touch that makes a hit with tenant or prospect. And it's an improvement that *stays* improved. Replace with Monel Metal and you not only replace with the best... you replace for good.

See your regular supplier for prices or mail coupon.

**THE INTERNATIONAL NICKEL COMPANY, INC.**  
67 Wall Street, New York, N. Y.

.....

**THE INTERNATIONAL NICKEL COMPANY, INC.**  
Household Division, 67 Wall Street, New York, N. Y.

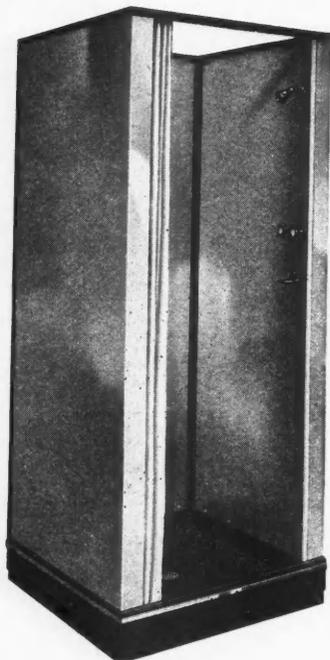
Kindly forward complete information on Monel Metal drainboards.

Name \_\_\_\_\_

Street Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ ABB 2-36

# AN EXTRA BATH 3 FEET SQUARE

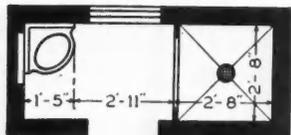


**A**N added bath means added sales appeal—extra value far beyond the small investment required to install a modern, leakproof Weisway cabinet shower. Requires no more space than an ordinary clothes closet. Exclusive new foot-grip, no-slip floor, equally safe wet or dry, is sanitary, good looking, permanent. Models suitable for the finest home—or the simplest cottage.

## FOR NEW HOMES OR REMODELING

Weisway Cabinet Showers are entirely self contained, complete with real quality shower head, valves and waste. They are easily assembled, from inside the receptor itself if necessary, and installed within two hours. No special preparation of walls or floors required. Built for strength and rigidity, yet light in weight; no reinforcing needed.

Positively leakproof construction. Cabinet is independent unit, hence not affected by shrinkage or settling of building. Foot-grip, no-slip receptor is vitreous porcelain enamel on Armco iron. Walls of Armco iron or galvanealed steel—finished in vitreous porcelain enamel or baked synthetic enamel, depending on model selected.



Sketch of floor plan above shows small space required by Weisway Cabinet Shower

Weisway Cabinet Showers are nationally distributed; may be purchased through leading plumbers everywhere. Builders are invited to write direct to the factory for complete information—without obligation. Send postcard or letter—now.

**HENRY WEIS MANUFACTURING CO., INC.**  
ESTABLISHED 1876  
CABINET SHOWER DIVISION • DEPT. O, ELKHART, IND.

**Cabinet WEISWAY Showers**

## LETTERS from Readers on All Subjects

Facts, opinions and advice  
welcomed here

### Goes Back 24 Years for Home Plans

Jeffersonville, N. Y.

To the Editor:

In the April *American Builder* of the year 1912 there's a house I rather like, and would very much like to obtain the blue prints for same. The house was built by Mr. Goodpasture, of Anita, Iowa. You see we would like to start to build this spring, so if you can let me know where I can get the blue-prints, I would appreciate it very much.

CHESTER MYERS

### "Builder" Ideas Make Him Money

Swampscott, Mass.

To the Editor:

I wish at this time, to take advantage of the opportunity to express my sincere thanks to you for the publicity you gave to the first completed General Electric American Home constructed by me. I think that the photographs and the article will be of great advantage toward improving home conditions in America.

With the experience of over a half a century in home designing and building, I can say that I honestly believe the *American Builder* magazine is of greater value to the intelligent builder and buyer than any other magazine published.

I have personally taken advantage of some of the ideas which were published in your magazine, and find them all of great sales value. For illustration, I built a home from the plans of the Pride of St. Louis which sold immediately upon completion and has created a great amount of interest. In fact, I think I will build several more of this type as it seems to me it has the popular approval of New Englanders.

I assure you that as long as I remain in the building industry I will continue to subscribe to the *American Builder* as I consider it indispensable.

ANGUS H. MACDONALD, INC.

by Angus H. MacDonald, President.

### Hurt by Government Competition

Detroit, Mich.

To the Editor:

I made about 1,000 fee appraisals of homes costing from \$500 to over \$100,000 for the HOLC in the Detroit, Mich., district. This work was done in the last two years. Questions were asked, etc., you know the procedure. I learned considerable about the desires, wishes, abilities, and general conditions of many small home owners, or those who had attempted to purchase small homes.

The last two months I have showed repossessed houses and others that are for sale by life insurance companies and have met many prospective home owners. The reaction to the whole proposition is that the people will buy a small home or house that they can pay for. They are not taking any chances. They must know the full deal in all detail. They are earning about \$25.00 per week and they must get a house for about \$25.00 per month as payments therefore. They prefer to buy a new house. They have saved or have a down payment amounting to about \$500.00. They will buy a home, property and pay from \$2,500 to \$4,000 for it, with 15- to 20-year financing, and at a low rate of interest.

I had lined up a man with money to finance one house on a speculative basis. I do all the work and when we sell the house we are to go 50/50 on the profits. This man has cold feet now because the Government has and is trying to build these so-called white collar housing projects about the country and rent same at about one-half the price that the individual must re-

(Continued to page 104)

# MAKES BRICK AT LABOR COST OF \$1.25 A THOUSAND

## TODAY'S OUTSTANDING OPPORTUNITY

BECAUSE A DUNBRIK plant utilizes line-production methods—eliminates chance for human error and enables small size crew to do the work of a large force.

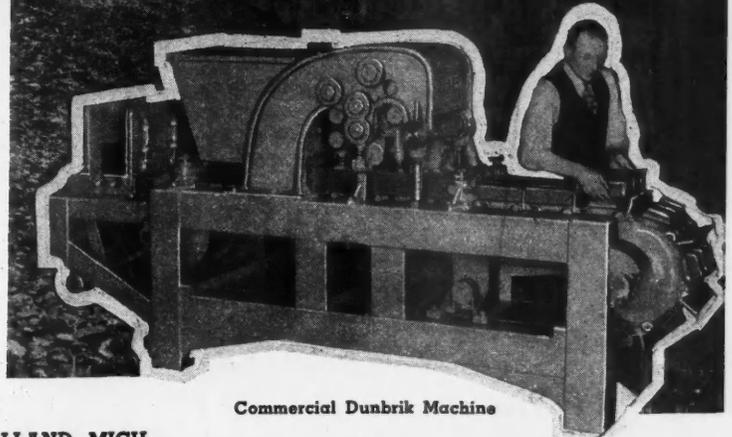
BECAUSE A DUNBRIK plant makes DUNSTONE in multiple sizes, common brick and face in more than 40 colors, shades and textures.

BECAUSE DUNSTONE permits hollow wall construction at a saving of as much as 30% and the design of DUNBRIK effects a saving of 20% in material and weight.

BECAUSE THE DUNBRIK manufacturer uses local materials and labor and delivers direct from factory to job, cutting transportation charges sometimes running as high as 25% of the cost.

THAT IS WHY DUNBRIK and DUNSTONE are the outstanding building materials and offer today's greatest manufacturing opportunity. Get the facts. Send for "4 Keys to Success." Write today.

W. E. DUNN MFG. CO., 450 W. 24th St., HOLLAND, MICH.



## More SPEED • POWER and ENDURANCE than we Ever Before Built into a floor sander

### The DREADNAUGHT "8" —Ideal Machine for Contractors

Just think of it, here is a machine that sands perfectly 600 to 2,000 sq. ft. of old varnished floor, without clogging sandpaper; or 1,200 to 3,200 sq. ft. of new floor in 8 hours—that sands right up to the quarter round, is entirely dustless, uses from one-third to one-half less sandpaper, and stands up 100% under the most gruelling service,— that handles even the toughest floor sanding jobs, and yet, can be easily taken from job to job by one man without the use of a truck.

The DREADNAUGHT 8 is the result of more than twenty years of specialization in the building of floor sanding machines. It is years ahead in design and performance. And please bear in mind that every claim made for it is backed by a bona-fide GUARANTEE.

By all means get acquainted with the DREADNAUGHT 8 and the other splendid sanders in the complete DREADNAUGHT line before you invest in a sander. Write for free demonstration or complete details. No obligation whatever.

CLARKE SANDING MACHINE CO.  
DEPT. A-236 MUSKEGON, MICHIGAN

- Will handle the Biggest and Toughest Floor Sanding Jobs at lowest cost per square foot.

Easily Portable—  
weighs only  
94 lbs.



Operates  
from ordinary  
Light Socket.

FREE DEMONSTRATION ENTIRELY WITHOUT OBLIGATION

**JOIN THE WEATHERBEST PARADE to PROFITS**

**With a Proven Sales and Service Plan . . .**

The *Weatherbest* SALES AND SERVICE PLAN is operated in the builder's own territory. It does more than merely stimulate activity—it locates the buyer—and puts him in the hands of selected builders.

National magazine advertising—featuring the advantages of genuine Red Cedar Shingles stained by *Weatherbest*—backs up the plan with product acceptance and buyer confidence.

Free Booklets, folders, etc. with plan illustrations, show before and after modernizing and new home projects.

Write, wire or send coupon in today's mail.

**Weatherbest STAINED SHINGLES**  
FOR ROOFS AND SIDE WALLS

WEATHERBEST Corp.  
175 Main Street, No. Tonawanda, N. Y.  
Send me complete FACTS on Sales and Service Plan. I want some of those PROFITS.

Firm .....

Town .....

**Letters Dept.**

(Continued from page 102)

ceive to come out on the deal. Therefore, the gang at Washington, instead of making times better, are doing all they can to upset the apple cart. The NRA was knocked out and big business has about kicked out the meddlers. And now, when the building game is starting to improve, these same so-called scholars are butting into the building business which is about the only business left that is not in a big combination. Of course I know the material men, etc., are in league with each other. But we contractors and builders are not bothered with any trusts among ourselves. We have a hard game to play. Let's kick the government out of the building and building operation business.

WADE HAMPTON HORN,  
Builder of Homes.

**Government Housing Activities**

Washington, D. C.

To the Editor:

I am enclosing herewith copy of article taken from the "Washington Herald" in regard to the blow-up of the government housing project at Hightstown, New Jersey.

This is a Resettlement project, and the \$200,000 cement block factory set up at this site was to be used to manufacture slabs for the project at Washington, D. C. As stated in the attached, this factory now remains idle, and thousands of bags of cement deteriorate in the winter weather.

This extravagant waste of money, lack of business planning, and inter-administration disagreement characterize many other so-called "low-cost housing projects" undertaken by the Government, and this is just another Reidsville, which you will recall had to be rebuilt several times.

Is it any wonder that indignation is voiced against such ruthless expenditures, and demands made that the Government stop wasting money on these housing projects which are promoted under the name of "low-cost housing," but which eventually run into high cost and tremendous losses to the Treasury?

FRANK CARNAHAN, Secretary,  
National Retail Lumber Dealers Association.

Reprint from the *Washington Herald*, Sunday, December 22.

**"MILLION 'DREAM' IN HIGHTSTOWN ENDED BY FEUD**

Melee of Fighting Higher-ups Blamed for N. J. Homestead Fiasco; 40 Architects Fired

"The story of how Rexford Guy Tugwell's Suburban Resettlement Administration dumped \$1,200,000 into its Hightstown (N. J.) industrial homestead project and scrapped the whole thing in a melee of feuding higher-ups, was revealed to *The Washington Herald* yesterday.

"When the project was started by Resettlement eight months ago it was to be a model of planned economy, a town of low-cost homes self-supported by home industry."

"Today at Hightstown a \$200,000 cement block factory stands idle, hundreds of thousands of bags of cement deteriorate in the winter weather, and foundations for the 200 dream homes, poured at a cost of \$300,000, lie in mud and weeds.

"The dream blew up three weeks ago. Resettlement quickly fired three executives, shelved another, abolished a section of 40 architects who had drawn the plans, and stopped all work on the project.

"Thomas Hibben, former associate director of Suburban Resettlement, has been removed from Resettlement's ornate headquarters in the McLean mansion on Massachusetts Avenue to obscure quarters in the Agriculture Department and given the title of "advisor on materials."

"Quentin Twachtman, wealthy Greenwich (Conn.) builder who came to Resettlement to develop the Hightstown plans, quit in disgust, to be told that he had just been fired.

"Harold Clark and Sigmund Laschenski, chief architects for the project, have been given notice of discharge effective next month. Their 40 subordinate planners have been absorbed

(Continued to page 106)

**These 11 U. S. Mills**

**BRING YOU THIS MANUAL OF SCIENTIFIC INFORMATION ABOUT WESTERN RED CEDAR LUMBER**

... Just published—this loose-leaf manual of technical and practical data about WESTERN RED CEDAR LUMBER. Sent to any builder or dealer upon request. Use letterhead or send business card. Additional sheets will be supplied as published. . . Write "WESTERN RED CEDAR LUMBER," Dept. A-2, 5566 Stuart Bldg., Seattle, Washington.

**Recommend . . .**

**WESTERN RED CEDAR LUMBER**

**BECAUSE:**

1. Low Shrinkage
2. Easy to Nail
3. High Insulation
4. No Pitch or Resin
5. Light Weight
6. Stays in Place
7. Easy to Shape
8. Superb Paintability
9. Natural Durability

**RED-E-FIT**  
**ROT-PROOF**  
**WINDOW**  
TRADE MARK

- comes already sized—no dressing, reworking or fitting required on the job
- chemically treated—eliminates moisture absorption at the joints preventing rot and decay
- shaped for pitch of sill
- cut out for parting stop—can be used with any other top or bottom sash
- ploughed and bored for cords and weights
- dove-tailed putty lock—locks putty into the wood
- every window branded and guaranteed for 25 years
- meets every requirement for FHA twenty-year loans

**A**  
**Beautiful**  
**Wood Window**  
**Guaranteed**

**Costs**  
**Less Installed**  
**Than Any Other**  
**Window**

**CONTRACTORS**

**BUILDERS**

Ask your dealer for the "Red-E-Fit Rot-Proof" Window. Save 25c to 50c per window in installation costs.

**RETAIL LUMBER DEALERS —**

Put Red-E-Fit Windows in stock now. They fit in any standard frame. Sold thru jobber dealer channels only. Ask your jobber for them.

MADE ONLY BY

**HUTTIG MFG. CO.                      Muscatine, Iowa**

**FIFTY NEW SMALL HOMES**

Designed by R. C. HUNTER, Architect

A collection of fifty designs for small and medium sized homes by a leading New York specialist on small homes. Each print on stiff paper shows a photograph or drawing of a house with floor plan sketches and cubic footage. They are popular suburban styles.

50 plates, 8 1/2 x 11 inches, in portfolio.

**Regular price \$1.50—Special price . . . \$1.00**

Book Service Department

**American Builder and Building Age**  
30 Church Street, New York, New York

**SISALKRAFT**

REG. U. S. PAT. OFFICE

If you could look through the walls of a SISALKRAFT protected house twenty years from now and note the lasting qualities of SISALKRAFT, you would capitalize upon those qualities. Your use of Sisalkraft under roofing, and flooring, and over sheathing gives you a selling argument which helps take your work out of the strictly competitive price class.

**THE SISALKRAFT CO.**

205 W. Wacker Drive, Chicago, Ill.

New York

San Francisco

Build every  
**fireplace**  
around the  
**Heatilator**



★ **Easier to Build**  
★ **Circulates Heat**

**T**HE Heatilator is a steel heating chamber hidden in the fireplace—a correctly designed form for the masonry that insures **SMOKELESS** operation. Complete from floor to flue, including well-proportioned firebox, smoke dome, damper and down-draft shelf, it greatly simplifies construction—saves materials and labor.

Cold air is drawn from the floor into the heating chamber—warmed—then circulated to every corner of the room and to adjoining rooms. The Heatilator cuts months off the heating season and dollars off the fuel bill by providing living comfort during cool spring and fall weather. In mild climates and for summer homes and camps, it is the only heating equipment required.

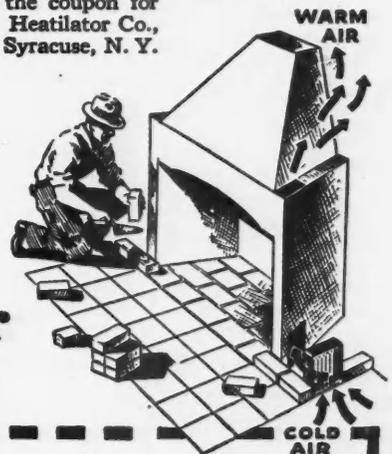
**A Proved Selling Feature**

The Heatilator advantages are easy to demonstrate. They appeal to the owner or prospective owner. And many of your customers already know about the Heatilator and are sold on its features. A Heatilator Fireplace will help sell the house.

Heatilators are sold by leading building-supply and lumber dealers. Send the coupon for complete information. Heatilator Co., 512 E. Brighton Ave., Syracuse, N. Y.

**NEW LOW PRICES**

A Heatilator Fireplace now costs but little more than ordinary construction. Send coupon for complete details.



**Heatilator Fireplace**

**HEATILATOR CO.**  
512 E. Brighton Ave., Syracuse, N. Y.

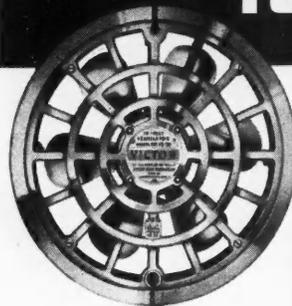
Please send Heatilator booklet of fireplace suggestions and installation information. Also new price list.

Name .....

Street .....

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

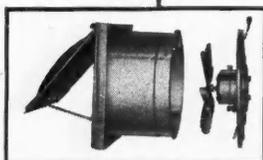
# New! VICTOR'S 10" IN-BILT



## Designed for the Modern Small Home Kitchen

**N**OW, efficient ventilation can be provided for any kitchen. This new Victor model fits in easily even where outside wall space is limited and its powerful 10" fan quickly removes all cooking odors and greasy fumes. Its exclusive design assures easier installation in walls of any type or thickness. Has such features as automatic operation—weather-tight shutter—one-shot lubrication—rust-proof finish. Send for literature and prices on Victor's complete line of kitchen ventilators and exhaust fans—write today!

**Victor Electric Products, Inc.**  
703 Reading Road, Cincinnati, Ohio



The above illustration shows the wall sleeve and shutter assembly and the motor and grille unit. At the right is a view of the weather-tight outside shutter, showing its "stream-line" design.



### DISTRIBUTORS!

Organizations or individuals who are active in contacting builders, architects and contractors are invited to write regarding an exclusive sales arrangement for their territory. Kindly include information on present lines and territory now being covered.

**\$685** without power



## Largest Working Surface of Any Combination Machine

New Model "A" Planing Mill Special

Under the FHA Plan you have three years to pay for this necessary equipment. Eight machines in one—each independently operated. All bearings high-grade ball bearings. Write for complete details of the FHA Plan.

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

**THE PARKS WOODWORKING MACHINE CO.**  
Dept. BL-2 1524 Knowlton Street Cincinnati, Ohio



## Letters Dept.

(Continued from page 104)

into sections planning "Tugwelltown" at Berwyn, Md., and similar housing projects at Milwaukee, Cincinnati, and Bound Brook, N. J.

"Hibben, Twachtman, Clark and Laschenski planned a town of 'pre-fabricated' homes, built of cement pads to be manufactured in mass and assembled into houses. A needlework factory to support the 200 families was to be built similarly.

"The 200 home foundations were laid to fit that plan, the panel factory was built, and the walls were ready to be put up when a storm of inter-office strife broke last month.

"John S. Lansell, formerly Hibben's associate as director of Suburban Resettlement, emerged on top as administrative assistant to Tugwell and in charge of the whole division.

"One of Twachtman's associates told him stenographic transcripts of his office telephone conversations, and of conferences in his suite at the Willard, were read in executive pow wows during the fight. Other officials involved in the scrap complained of tapped telephone lines.

"Lansell and those who sided with him in ditching the Hightstown plans asserted the costs would be too high. They accused Twachtman and his associates of going ahead with the plans and spending huge sums when they knew a basic patent, issued 10 years ago on the idea of pre-fabricated cement panels, might invite suit against the Government.

"Twachtman, blaming the million-dollar mess on inter-office feuds, declared in executive conferences that United States patent attorneys had told him the patent would not apply to his ideas.

"Surviving officials of Resettlement, afraid to admit a complete loss on the project, are debating whether to resume construction with new plans. It took six months to draft the old ones. One executive said yesterday:

"AFTER ALL, A 30-MILLION-DOLLAR PRIVATE BUSINESS COULD WRITE OFF A MILLION-DOLLAR EXPERIMENT TO EXPERIENCE AND FORGET IT. WHY CAN'T WE?"

## Wants Dripping Flue Advice

Schuyler, Nebr.

To the Editor:

I have just completed a \$15,000 home and have run into something we thought we took the greatest of precaution to prevent at the time of building. About three years ago our city was fortunate in having natural gas piped throughout the city. In using the gas for furnace fuel we were bothered with moisture coming through the brick walls and on into the plaster, causing an unsightly spot on the wall. This, however, occurs only on outside chimneys such as large fireplace chimneys.

Just one year ago I built a \$9,000 home and used the ordinary flue lining and had this very trouble, so when I got the above mentioned job I was told to use Johns-Manville asbestos flue lining to get away from this trouble. Well, I went to extra expense and used a seven-inch asbestos lining, and ran it from the foundation wall straight to the top, using hubs on all joints and cementing them with asbestos powder mixed with water which was sent with lining by the company. This lining has an air space all around it inside the brick chimney, with the exception of every six feet where we projected one brick from each side in order to hold the lining rigid.

Therefore, I would appreciate it very much if you could help me to solve this difficulty, and help me to satisfy my customer who has been giving me much work for the last ten years.

ED VAREJCKA,  
Contractor and Builder.

## Clyde Mann Finds Insulation Skipped

New York City.

To the Editor:

The FHA has made a good deal of change in the conditions affecting your editorial policy and your advertising revenues. There is increase of volume but it has been borne in on me, by inspection of a cross-section of some 500 houses

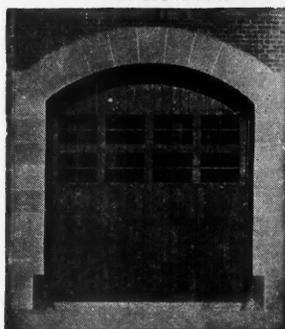
(Continued to page 108)

# Bid on RO-WAY DOORS

**LAND MORE JOBS  
NET MORE  
PROFITS!**



Residence garage, Miami, Okla. Contractors, N. J. Padgett, and L. R. Johnson.



V-grooved Ro-Way Door designed to conform to architecture of building.



Goodyear Tire & Rubber Company Distributing and Service Store, at Washington, D. C. Jas. L. Parsons, Jr., contractor.

Ro-Way Doors are made in all Standard Sizes, as well as Special Sizes, and heavy duty Doors with special heavy tracking are available. Ask especially about the Ro-Way low-priced Doors for residence garages and the Ro-Way specially designed torsion spring high lift Doors for use in public service stations.

Write for complete Catalog-Folder.

**ROWE MANUFACTURING CO.**  
724 Holton St., Galesburg, Ill., U. S. A.

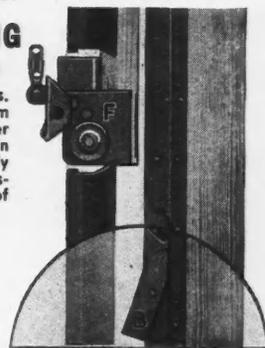
There are three reasons why you will find it more profitable to push Ro-Way Overhead Type of Garage Doors. **First**, the line is complete and moderately priced. It includes 16 different types for commercial and residential use, and all are priced right.

**Second**, Ro-Way installations are simpler in new buildings and require fewer alterations in old buildings. That means more net profit for you. Headroom requirements are less, as low as 8½ inches for residential garages.

**Third**, only Ro-Way Doors have the valuable Seal-Tite Molding feature.

### 'SEAL-TITE' MOLDING The Sales-clinching Feature

—that "out-talks" all competitors. A simple gravity operated cam (Fig. 8) instantly frees the lower section of the Ro-Way Door in opening, and just as effectively seals the door draft-tight in closing. 90% of the usual amount of friction is eliminated.



Not a particle of "drag" in opening the Ro-Way Door.

# STUCCO SPRAYING MASONRY SURFACES NOW OFFERS BIG EARNINGS



This new machine and process completely solves the problem of permanently surfacing new or resurfacing old masonry buildings, walls, etc. It fuses a prepared waterproofed plastic mixture on any masonry surface.

It fills all cracks and checks and can be applied in any thickness desired and in 30 colors and shades. Fully proven by over ten years actual use under all conditions and every climate.

## LARGE WAITING MARKET

Owners everywhere want to enhance present values and make their masonry buildings more attractive and livable. The better builders are striving for greater permanence, beauty and salability in their new construction. With Colorcrete stucco spraying, you can supply this waiting market and can offer permanent, colorful surfacing at amazingly low cost. Many operators report costs of 2c or 3c per sq. ft. and sell at from 4c to 7c. Some have paid for their equipment from first couple of jobs. Machine capacity over 300 sq. ft. per hour. Equip yourself now to cash in on this big waiting market and the big government modernization campaign opening up still greater possibilities for you.

Get the facts. The new Colorcrete books tell the whole story. Write today. It may mean business independence for you.

**COLORCRETE INDUSTRIES, Inc.**  
505 Ottawa Avenue Holland, Mich.





# Perfection BRAND OAK FLOORS

In old homes or new, whether for renting or selling, "PERFECTION" BRAND Oak Floors give service and satisfaction. The greatest value for the money.

Take advantage of the new Housing Administration Act and sell good Oak Floors on your modernizing jobs.

"PERFECTION" BRAND Oak Flooring as furnished by your local dealer is carefully manufactured from selected timber, scientifically seasoned and kiln dried, easily finished. Ask your dealer today to show you the "PERFECTION" BRAND.

Complete information is yours for the asking. Write us today. Sold only through retail lumber dealers.



**ARKANSAS OAK FLOORING CO.**  
PINE BLUFF ARKANSAS

## Specify PEERLESS



dome damper



When making out your list of specifications, be sure to include "PEERLESS DOME DAMPERS." By so doing you guarantee perfect operation of the fireplace and unhealthful drafts and heat loss are eliminated when not in use.

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. They will outlive the house.

Write now for full details and prices.

**OTHER PEERLESS PRODUCTS**

Fireplace Fixtures — Ash Dumps — Coal Windows — Ash Pit Doors — Garbage Receivers and Hearth Fire Gas Heaters.

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

### Letters Dept.

(Continued from page 106)

going up in the metropolitan district of New York and by reports on many others, and also by the comments of major lenders, that quality has not had the same spirit. Not by any means, and quality must be very important to you. It is to the concerns which sell by advertising and sales effort and not by mere price cutting. Not one of the 500 houses I went through (with the chief engineer of one of the major life insurance companies) boasted any insulation worthy the name, hardly any of any sort. Yet fuel cost is a major cost of any house if the buyer's pocketbook is considered. The effort was again cheap. Not true cheapness.

Now, as you may have observed in Dow Service of Nov. 1 last, the major lenders have notified loan agents (as in Chicago) that they want to see the jerry building cut out and that our program, in their judgment, will serve to do just that. And the Superintendent of Insurance of New York has expressed similar favor.

CLYDE A. MANN, Managing Director,  
Certified Building Registry.

### Larson's Seven-Point Program

Minneapolis, Minn.

To the Editor:

One has but to examine the published documents of the federal government to find that all housing activity of the administration with one or two exceptions has been the result of ill-conceived housing theories which are not applicable to the larger portion of the United States. Social experts familiar with East Side New York slum conditions have provided regulations and forms for all housing based upon the only probable solution of conditions in not to exceed three of our largest cities.

Slum clearance and low-cost housing have become synonymous terms to federal experts in spite of the fact that low-cost housing and slum clearance are two vastly different problems. All are agreed that slum clearance should be a part of the civic responsibility of every community. Slum clearance may or may not be followed by low-cost housing. Commercial and industrial development has rendered most slum areas unfit for further use as ideal housing. The very location of the majority of the housing projects now under construction by the federal government is such that they will never be occupied by anyone except those almost pauper families who now occupy these areas.

By what stretch of imagination can these projects be called low-cost with an actual cost of from \$5,500 to \$6,500 per family unit?

The slum clearance housing projects are examples of what federal experts evolve as the necessary standards of construction. Taken out of federal hands, housing units which will provide every necessity for health and comfort can be built for less than half that expended by the government per unit. For more than three-fourths of our population such housing can be produced in single family homes. The prefabricated house is not the answer. Prefabrication will further centralize manufacturing and increase unemployment in the majority of cities.

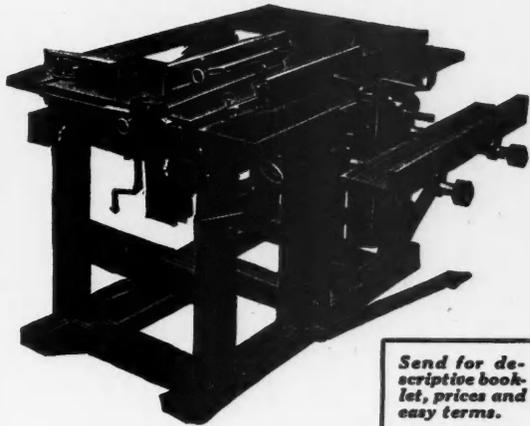
No new methods or materials are necessary. Remove the excessive speculative and promotional profits and actual low cost housing is immediately possible. Provide financing which fits the financial status of the low income family and there will be developed new standards of living in every community and on every farm.

My answer is:

1. Remove federal competition in the housing field.
2. Base low cost standards on a betterment of existing housing rather than attempt to reach the ultimate in housing at one leap.
3. Reduce the down payment to 10 per cent on homes costing less than \$4,000.
4. Invite more permanent construction by extending loan to 30 years when a more permanent form is used. (This has been a part of the Swedish housing plan since 1922.)

(Continued to page 110)

## There's No Economy in Worn-Out—Out of Date Machinery



Send for descriptive booklet, prices and easy terms.

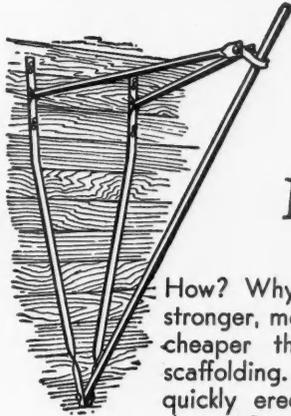
Modernize your equipment with Monarch machines on our present low price, easy term plan, an opportunity that may never come again.

Install a Monarch Variety Woodworker and enjoy the efficiency of this four-in-one machine—cut off and rip saw with boring attachment, mortiser and jointer.

Other big time and money-saving machines include jointers, band saws, lathes, and the marvelous 20th Century Woodworker.

**AMERICAN SAW MILL MACHINERY CO.**  
60 Main Street Hackettstown, N. J.

## Reliable Scaffold Brackets



**SAVE  
YOU  
MONEY**

How? Why? Because they are stronger, more dependable and cheaper than costly wooden scaffolding. Because they are quickly erected, quickly taken down. Because you can use them on wood or stucco. No wonder they soon pay for themselves. Thousands of builders have used them for years. Let us prove their value. Send for catalog—then ask us to ship first pair C.O.D. for your inspection and trial.

Reliable Jack Company, 1401 West Second St., Dayton, Ohio

**RELIABLE**  
SCAFFOLDING BRACKETS

## FASTER than EVER On the Road - On the Job!



Latest Type  
Heavy Duty 3 1/2 S  
Trailer

Built for fast hauls, high production, long life. New Man-Ten Steel drum mixes concrete, mortar, plaster, bituminous. Send for catalog of latest models—all sizes.

**THE JAEGER  
MACHINE CO.**  
521 Dublin Avenue  
Columbus, Ohio

55 and 75  
Power  
Loaders



**SPEED KING**  
Pneumatic  
Tire  
75 - 105  
Trailers

## Buy it with profits

Here's a floor machine that will handle any job you put it on. Its sturdy construction is backed by over 38 years of experience in building floor surfacing machines. A long life of trouble-free operation is guaranteed.

You can buy it with profits—profits you make on your own floor finishing jobs.

**SAND 'EM RIGHT  
USE SPEED-O-LITE**

### Check these features:

Light weight—constant duty, ball bearing motor guaranteed against burnouts—7" sanding drum—perfect collector of dust—works up to wall and in corners—perfect finish guaranteed on any floor—completely equipped, nothing else to buy—special time payment plan. The coupon below will bring you complete information.



**NO DUST  
NO DIRT  
NO MUSS**

## MAIL THIS COUPON TODAY

**LINCOLN SCHLUETER FLOOR MACHINERY CO.**  
222 W. Grand Avenue Chicago, Illinois

Send me without obligation full information on how I can own a Speed-O-Lite floor sander.  Interested in Time Payments.

Name \_\_\_\_\_  
Address \_\_\_\_\_  
Town \_\_\_\_\_ State \_\_\_\_\_



## METAL WINDOW FRAMES

AIR-FLO Type, heavily galvanized metal frame, casing and ventilating wings, to take 4 light 9 x 12 wood sash—only \$1.30. Four larger sizes up to \$2.00 each.

A sensational new window. Provides ventilation without drafts—no rattling or sticking—rot proof. Simple to install, fits between studing 24" on center. Use ordinary wood sash or special Clay Wood Sash with Ultra Violet Glass.

Ideal for farm buildings, barns, hog houses, poultry houses, sheds—for garages, cottages, tourist camps, warehouses and many other purposes.



## DAIRY BARN WINDOWS



Heavy, solid section steel . . . \$5.60 to \$9.40. Open-Air Windows are furnished complete with sash frame and wings of heavy steel construction. Easy to adjust—provide ventilation without drafts. Write for information.

### CLAY EQUIPMENT CORPORATION

Department AB-2  
CEDAR FALLS, IOWA

Clay Stanchions, Stalls, Bowls, Ventilation—A complete line of Modern Barn Equipment.

## DRIVER Saws Quickly Earn Their Cost In the Shop or On the Job



B961 10" Bench Saw illustrated above.

**\$47.25**

Less Motor  
Write  
Dept. AB2  
For Complete  
Catalog

In these days of highly competitive figuring, the contractor with DRIVER POWER TOOL equipment enjoys a distinct advantage. Because DRIVER Tools save time they enable him to quote a lower price or make an extra profit.

Many exclusive features place this saw in a class by itself. The table size as shown is 31"x21". The 10" blade rips and crosscuts full 3" stock. Table tilts to 45°. The mitre gauge is extremely accurate. The wood faced fence makes ripping accurate and easy. Another feature is the "nested" table insert. This comprises a small insert which is removed for dadoing inside a larger one removed for disc sanding.

Safety guard and splitter is standard equipment.

The DRIVER saw is a self-contained unit weighing 215 lbs. and may readily be transported to the job.

WALKER-TURNER CO. INC. PLAINFIELD, N. J.

## Letters Dept.

(Continued from page 108)

5. Extend the benefits of Title I of the Housing Act for at least two additional years.

6. Organize a nation-wide clinic of architects, builders and manufacturers to actually produce the pattern for low-cost homes. A hundred and fifty million dollars are being expended by the government for the slum clearance experiment. Would it not be worth while to spend a million to demonstrate that type of housing which is needed by three-fourths of our population?

7. Reduce the interest charges in proportion to the risk involved. (A fifty per cent loan should be cheaper than one which is eighty per cent of the value or cost.)

ALBERT O. LARSON,

Member, Mayor's Housing Commission;  
Supervising Architect, State of Minnesota.

## Asks for Simple Craft Projects

Emmetsburg, Iowa.

To the Editor:

In the last few issues of the *American Builder* you have taken space of one page headed Shopcrafter's Corner. I think this is fine, but might I suggest that you take two pages and show pictures and drawing of more simple things, more practical and useful to make. The amateur craftsman does not as a general rule go into the making of Chippendale style mirrors and furniture, etc.; also, the cost of solid and veneer mahogany is too expensive. We find that manual training departments in the public schools are spending much time and money in training boys and girls in this line of work. Also, the heading of this page could read "School and Homeworkshop Corner."

Can you advise us who manufactures concrete joists, minimum cost and expense of installation and construction to put into homes and store buildings?

INTERIOR LUMBER COMPANY,

By Frank L. Hansen.

## Against Permitting Owners "to Shop Around"

Springfield, Mo.

To the Editor:

I have not read your magazine for several years because I have been working mostly in the commercial building field. I am interesting myself again in residence work because I feel that it is here that the first real opportunity for an increase in business is going to be offered. I am endeavoring to secure a collection of up-to-date plan books to use in selling prospects for residence construction.

I have read with great interest your editorials and articles and found them very interesting and instructive. I cannot help but comment on the Home Owner of Yakima, Wash., who bemoaned his treatment at the hands of the wholesale plumbing dealer after he had been advised by his architect to shop for prices in every possible way. The practice of contractors in the residence field of allowing themselves to be used by the owner, as in this case, is the greatest evil we have to contend with. The fear of the contractor, or often the self-styled contractor, that he will not land the job leads him to countenance many unwise practices and worst of all to reduce his figures to the point that he knows he is foolish in bidding so low right at the time he is doing it. I think it is well to publish such articles as will call this condition to the attention of the contractors and it would even be well to comment on this subject editorially.

O. L. ALLEN,  
General Contractor.

## CCC Boys to Build Home Model

Wrightstown, N. J.

To the Editor:

One of the most valuable vocational courses in this Civilian Conservation Corps camp will be a course of training in blueprint reading and building construction, to be given by the camp carpenter, Mr. Challender. In this course Civilian Conservation Corps enrollees will build a scale model dwelling

(Continued to page 112)

## DEALER WANTED

AAA1 company, 60 years in business, has dealer territory open on a line of automatic coal burners priced to compete in the small-home market.

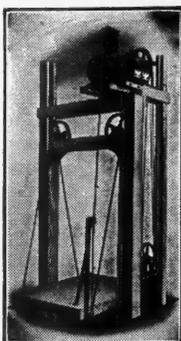
Merchandising plan includes financing by the company . . . floor plan

for display stokers . . . sales and engineering assistance . . . participation in local advertising . . . national advertising . . . traveling representatives to help the dealer survey jobs and close sales.

Write for literature and dealer plan.

**LINK-BELT COMPANY, Stoker Division**  
2410 W. 18th St. Chicago, Illinois

### Fast—Economical—Low Cost



### KIMBALL—Light Electric Elevators

A complete line of efficient Hand Power and Electric Elevators built to suit any requirement.

Fitted for rapid installation in your building. These straight-line-drive machines are little giants of lifting power and are surprisingly nominal in costs.

#### FREE Engineering Data

Give us your problems and let our engineers help you. Full descriptive literature on request.

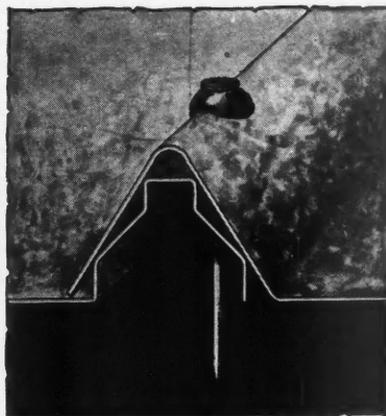
**KIMBALL BROS. CO.**

1200-92 Ninth Street

Council Bluffs, Iowa

# The Big Name in HEATING and AIR CONDITIONING

**MUELLER—MILWAUKEE**



*All the water stays on the outside of the Roof*

**EDWARDS**

## "STICKLESS" Ventilated Seam Steel Roofing

The air passages prevent seepage of water over the seams. Not even driving rains can blow through.

### NO "DRAINS" OR "CHANNELS" NECESSARY

The flat top on the inner crimp guides the nails to the sheathing. The crimps cannot collapse—therefore no wood supporting sticks are needed.

Made in 2, 3 and 4 crimp style; sheets 5 feet to 12 feet long. Anyone capable of driving nails can satisfactorily apply Edwards "Stickless" Roofing.

Write for complete Catalog No. 88.

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

## GRADE-MARKED SOUTHERN PINE



SUPREME STRUCTURAL WOOD OF THE WORLD

For New Bulletin on Correct Construction Address:

**SOUTHERN PINE ASSOCIATION**  
NEW ORLEANS, LOUISIANA

## HE MAKES HIS MONEY WITH AN AMERICAN FLOOR SANDER



This chap and hundreds of other fellows have done it and you can too—get into something for yourself! Be your own boss. Do floor surfacing work and cash in on the profits that are sure to be waiting for you this coming Spring. Here is a sure way to make BIG MONEY with a floor sander.

Right now is the time to get started in floor surfacing. The work is pleasant and easy—requires no experience and we help you to get under way with advertising help and an easy pay plan. Don't fail to send in the coupon below and information will be sent to you without any obligation whatsoever. Ask for a demonstration.

Return—COUPON—Now  
Send me more information without obligation on how to make BIG MONEY surfacing floors.

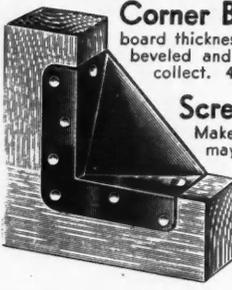
Name \_\_\_\_\_  
Street \_\_\_\_\_  
City \_\_\_\_\_ State \_\_\_\_\_  
**THE AMERICAN FLOOR SURFACING MACHINE CO.**  
511 South St. Clair Street Toledo, Ohio



**A SURE-FIRE MONEY MAKER**

**Cash in Now!**

**KEES SCREEN HARDWARE**



**Corner Brace** Handy! Slips right into frame-corner. Fits all board thickness. Nailed from 3 sides. Corner beveled and closed. No place for dirt to collect. 4 to the box.

**Screen Hanger** Every home needs these. Makes screen-hanging easy. Screens may be opened outward at bottom. Japanned or cadmium plated.

Free Sample Order from your jobber or write us for Free Samples.

**F. D. KEES MFG. COMPANY**  
Beatrice Box 93 Nebraska




## WANTED . . .

Builder-Dealers to sell the new Monarch Metalane Weatherstrip . . . new revolutionary discovery . . . new metal . . . new design . . . proved standard efficiency . . . low installed cost. Greatly increased demand.



A real money-maker for live, aggressive dealers. Booklet WHY tells complete story. Write for copy today.

**MONARCH METAL WEATHERSTRIP CORP.**  
6333 Etzel Avenue St. Louis, Missouri



**These Period Wood Mantels are not Expensive**

This is one of sixty wood mantels of genuine period design shown in the new Brecher catalog. Each mantel made by craftsmen according to finest standards of cabinet furniture building. Made throughout of thoroughly seasoned, selected Poplar—screwed at the joints—all prices F.O.B. Louisville.

**THE BRECHER COMPANY**  
441 West Jefferson St.,  
Louisville, Kentucky

**COLUMBIA MANTELS**

## DEALERS WANTED

Increase your profits by selling and installing TILE-TEX Resilient Floor Tile.

TILE-TEX is a high quality flooring made in many colors and sizes suitable for use in homes, public buildings, stores, etc. The only type of resilient flooring guaranteed to give satisfaction in basements. Easily installed by competent carpenters.

Write today for our free illustrated catalogue, layers' handbook, and dealer's proposition.

**THE TILE-TEX COMPANY**  
1229 McKinley Avenue Chicago Heights, Illinois

## Letters Dept.

(Continued from page 110)

house (one foot to one inch) from *American Builder* blueprints. We plan later to put the completed model on exhibition at Corps Area headquarters.

We should like particularly to have a set of blueprints of the May, 1929, cover house if possible. If we tend to inconvenience you by asking for blueprints from a back number, then send us a set for one of your recent cover houses, provided it be a small dwelling, neat and with good circulation, and in the best taste.

E. H. WINTERMUTE,  
Camp Educational Adviser, Camp A-2.

## Proposes Currency Based on Homes

Shreveport, La.

To the Editor:

On April 7, 1934, I ran a two-page ad in *The Shreveport Journal*, in which I advocated that our national government be authorized by Congress to loan money on real estate (secured by first mortgage) and to issue currency, dollar for dollar, with the amount loaned, instead of borrowing the money on its interest-bearing bonds. It was my intention then to make a nation-wide drive for support of the plan, but before I could start the drive President Roosevelt asked Congress (then in session) to pass a National Housing bill, so I did nothing further in the matter.

Congress passed the "National Housing Act" in June, 1934. Government figures on new homes built to date under the Act prove conclusively that the plan for home financing, authorized by the "National Housing Act," is NOT meeting the needs of our citizens; therefore, I am taking up now where I left off in April, 1934, and will go ahead with the nation-wide drive.

Congress and President Roosevelt are on record in the "National Housing Act" that  $\frac{1}{2}$  of 1 per cent per annum on reducing balances (which goes to the lender) will cover the cost of handling the loans and  $\frac{1}{2}$  of 1 per cent per annum on amount loaned for the full term of the loan (which goes to the Government) will enable the Government to insure the lender 100 per cent against loss. The plan I propose makes a flat charge of \$1.00 per month per \$1,000.00 loaned for full term of loan and establishes a sinking fund of \$125.00 for every \$1,000.00 loaned.

The "Housing Act" in addition to the charges for handling and insuring authorizes a charge of 5 per cent per annum interest. The plan I propose does not make any interest charge; the Government will not pay interest on the money it loans under the plan and it should not charge interest on it. One thousand dollars borrowed under the "Housing Act" will cost the borrower \$1,802.50. Under the plan I propose it will only cost the borrower \$1,250.00, difference in cost on \$1,000.00 of \$552.50, or 55 per cent.

My plan is as follows:

Congress to authorize the issuing of currency to loan on homes anywhere (secured by first mortgage) dollar for dollar, with amount loaned. To loan up to 80 per cent of the appraised value of the property. Loans to be made for the term of twenty years and ten months payable in 250 equal monthly payments, giving the borrower the right to pay at any time any additional amount or all of the unpaid balance.

Fix the installments at \$5.00 per month for each \$1,000.00 loaned, \$4.00 to apply on the principal and \$1.00 for administration and sinking fund.

Designate the currency so issued by stamping it "Home Loan Currency" and by printing on it the picture of an inexpensive, modern American home. This currency will be issued in different denominations and be used in every respect the same as all other currency.

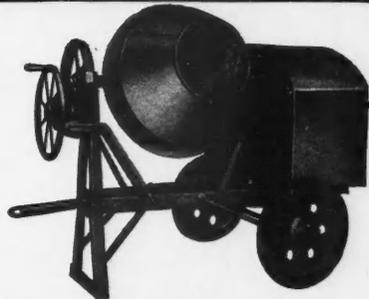
The Comptroller of the Currency to make public quarterly the total owing on loans made on homes and the amount of Home Loan Currency outstanding and keep the two amounts as nearly in balance as possible.

Operate the plan through the Home Owners' Loan Corporation (in conjunction with its affairs) and thereby save the Government the expense of setting up and maintaining additional organizations.

T. G. ROBERTS, Pres.  
National No-Interest Home Loan League.

# KWIK-MIX

Full anti-friction bearing. Light weight. Skip shaker. Automatic water tank. Spring mounting. Sizes: 3 1/2-S, 5-S, 7-S, 10-S.



WRITE FOR LOW PRICE

**KWIK-MIX CONCRETE MIXER CO.**  
PORT WASHINGTON WISCONSIN



## Tile CONTRACTORS & BUILDING MATERIAL DEALERS.

You can make a substantial profit handling our complete line. You carry no stock. You sell from our fully illustrated catalog printed in colors. Free Samples Furnished when needed. 100% co-operation at all times.

### PROMPT SHIPMENTS

Our line includes tile for Bathrooms, Kitchens, Vestibules, Mantels, Store Rooms, Entrances, Store Fronts, Bulkheads, or any kind of Tile Work. Also Red, Buff, Grey and other colors of quarry tiles, recessed tile, bath room fixtures, etc.

**FREE CATALOG** and Full information without cost or obligation. Write. We want good representation in every locality.

Write or Wire for Free Samples  
**LLOYD FLOOR & WALL TILE CO.**  
Established 1920  
1526 Walnut Street KANSAS CITY, MO.



## Classified Advertising

<p><b>Rates:</b> Small letters 50c per word. Capital letters \$1 per word. Minimum twenty words.</p>	<p><b>Business Opportunities</b> For Sale and Exchange Help and Situations Wanted</p>
--	---

To Insure Insertion Remittance Must Accompany Order

WANTED—Branch Managers and salesmen for Cleveland, Kansas City, Washington, Pittsburgh, St. Louis and Chicago. We need men capable of aggressively developing sales on a building product, basically better and far ahead of competition. Unlimited future. Home-building, architectural or engineering experience essential. Acquaintance with local building trade highly desirable. Write fully experience and salary requirements. Stran-Steel Corp., 6100 McGraw, Detroit, Mich.

# STUDEBAKER

FOREMOST IN TRANSPORT SINCE 1852  
*Motor Trucks*  
SOUTH BEND, INDIANA

**METRO MODEL STANDARD MODEL**  
Cab Forward

**\$595** and up, chassis at the factory      **\$565** and up, chassis at the factory

Ideal Transport for the Building Industry

### WHAT sells houses faster, at better prices?

Every successful builder has answers. But he's always looking for added reasons. Here is one:

**COPPER ROOFS with KENMAR Shingles**

Why? Because Copper is instantly recognized as quality. Because Kenmar Copper roofs—beautiful, distinctive—get houses talked about, attract prospects. Better investigate. Write for Booklet B.

*The New Haven Copper Co.*  
Seymour, Conn.

## IRON RAILING

Of Every Description  
For Interior and Exterior Use

Also  
Iron Fence, Gates, Iron and Wire window guards, Chain Link Wire Fence, etc.

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

**Cincinnati Iron Fence Co., Inc.**  
3407 Spring Grove Ave.  
CINCINNATI OHIO

**"Saved over \$3000.00 on the contract"**

THOUSANDS of builders and contractors testify to the fact that DeWalt Wood Cutting Machines pay for themselves on the first job. S. H. Haslam writes: "We completed our entire interior work with this machine, and I figure its operation has resulted in a saving of over \$3,000.00 on this contract." DeWalts never paid better profits than they do today.

DeWalts perform 29 distinct operations without swinging or tilting material.

**DE WALT PRODUCTS CORP.**  
256 Fountain Ave., Lancaster, Pa.

Send me full information on DeWalt machines and how they will save me time and money. I wish to use it for  
 wood,  brick,  metal,  stone.

My power is: Volts.....  
Phase.....Cycles.....  
Name.....  
Address.....  
City.....State.....

Write or send coupon for complete information!

De Walts cut  
Wood • Metal  
Stone • Brick

# EQUIPMENT AND TOOLS

## Latest Information for Contractors, Builders and Mechanics

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

### FLOOR SANDERS

**153—The Lincoln-Schlueter Line**—Four circulars or booklets describing and illustrating (1) "The Improved Schlueter" floor sanding and resurfacing machines; (2) "Speed-O-Lite" light weight floor sanding and resurfacing machines; (3) "Lincoln Multi-Purpose" for sanding, steel wooling and polishing; and (4) "Make Your Floors As Bright As the Sun" describing the Lincoln twin disc floor machine for waxing, polishing, scrubbing and sanding. All available from the LINCOLN-SCHLUETER FLOOR MACHINERY CO., INC., 222 W. Grand Ave., Chicago.

**154—American Floor Surfacers**—Complete data on four machines of demonstrated efficiency: (1) the American Standard Floor Sander—an all around floor surfacing machine; (2) American High Production Sander—for big jobs of sanding; (3) American Light Eight Sander—an intermediate size for general contractors; and (4) the American Handy Sander for small jobs.

Information regarding the American Spinner Disc Edger is also available. This edger gets right up to the baseboards; no need to remove shoe-strip. All available from the AMERICAN FLOOR SURFACING MACHINE CO., Toledo, Ohio.

**155—The Reid-Way Line**—Detailed information regarding the three Reid-Way machines "with only one moving part." The Reid-Way "Ace" is the light weight, low cost machine; the Reid-Way "8" is a heavy duty, high production floor sanding machine designed to withstand the most severe use; and the Reid-Way "Whirlwind" is an all-purpose machine designed for both floor and bench sanding—available from THE REID-WAY CORP., Cedar Rapids, Ia.

**156—Speedmatic Floor Sanders**—Illustrated data on the Speedmatic floor sanders with 8-inch drum and optional motor of 1 h.p. or 1½ h.p.; also on the Porter-Cable disc sanders for edges, stairs, closets, etc. Equipped with 7-inch sanding disc and available in two powers, 1 h.p. and 1¼ h.p. Universal A. C. and D. C. motors.—PORTER-CABLE MACHINE CO., Syracuse, N. Y.

### POWER WOODWORKERS

**157—Universal Woodworker**—A 24-page handbook on the Crescent Universal Woodworker with ball bearings and built-in motor. Five men can conveniently work on it at the same time performing the following operations: using band saw, jointing, using shaper, ripping, and boring. Equipment for each of these operations fully illustrated and described.—THE CRESCENT MACHINE CO., Leetonia, Ohio.

**158—"Delta Quality Tools, 1936 Catalog"**—48 pages on the motor-driven Delta bench shaper, circular saw, jointer, drill presses, band saw, scroll saw, turning lathe, sanders and grinders.—THE DELTA MANUFACTURING CO., 3775 N. Holton St., Milwaukee, Wis.

**159—Parks Cabinet Shop Special**—Information regarding the Parks line of woodworking machinery, including combination machines suitable for small cabinet and carpenter shops and large planing mills. Bench machines and portable rigs to take onto the job.—THE PARKS WOODWORKING MACHINE CO., Cincinnati, Ohio.

**160—Wallace Portable Woodworking Machines**—The Wallace Universal Saw, 4-inch, 6-inch, 8-inch jointers, yathes, band saws, radial saws, electric shaper, disc sander, hollow chisel mortiser, jointer and grinder are all popular among contractors, cabinet shops, pattern shops, etc. Seventy thousand of these machines are in use.—J. D. WALLACE & CO., 134 S. California Ave., Chicago.

**161—The Electric Carpenter**—This famous 7-mahinces-in-one outfit is fully illustrated in a new folder from THE AMERICAN FLOOR SURFACING MACHINE CO., Toledo, Ohio.

**162—The Driver Line of Power Machines**—This line includes an ingenious band and jig saw, a bench saw, jointers, drill presses, bench grinders, all with the necessary attachments. Information on this line of equipment is supplied by WALKER-TURNER CO., INC., Plainfield, N. J.

**163—Beach Contractors' Saws**—Information regarding the Beach No. 1 swing cut-off saw and the Beach single and double arbor rip and cut-off saw rigs, as well as the general line of Beach light sawing machinery, saw rigs, sanders, jointers, shapers, mortisers, boring machines, etc., is available from BEACH MANUFACTURING CO., Montrose, Pa.

### POWER HAND TOOLS

**164—"Stanley Electric Tools"**—A 50-page pocket-sized catalog, well illustrated and giving all mechanical specifications of this full line.—STANLEY ELECTRIC TOOL DIVISION, Stanley Works, New Britain, Conn.

**165—Speedmatic Saw**—A 4-page illustrated bulletin entitled "Saws That Save," showing how the Porter-Cable electric saw is built and operated.—PORTER-CABLE MACHINE CO., Syracuse, N. Y.

**166—Skilsaw Electric Tools**—The new 1936 Catalog No. 36 presents illustrated specifications of 66 tools, including electric hand saws, sanders, drills and grinders. It is a 32-page handbook.—SKILSAW INC., Chicago, Ill.

**167—Wodack Electric Tools**—Four illustrated data sheets present detailed specifications of the Wodack DO-ALL hammer and twist drill; also present electric groover grinder and drill; offered by WODACK ELECTRIC TOOL CORP., 4627 W. Huron St., Chicago, Ill.

**168—New Wappat Electric Drills**—Data sheet on three new Wappat Red Streak drills—the ¾", the ½" Standard and the ⅝" Heavy Duty drill.—WAPPAT INCORPORATED, Div. of Simonds Saw and Steel Co., Pittsburgh, Pa.

**169—Electric Hand Tools**—A miniature catalog and price list on portable electric drills and drill accessories, electric hammers, electric saw, weatherstrip groover, electric screw drivers, etc., issued by SPEEDWAY MANUFACTURING CO., 1834 S. 52nd Ave., Cicero, Ill.

**170—Black & Decker Electric Tools—**An elaborate 50-page catalog presenting the complete line of electric drills, saws, grinders, sanders, etc., offered by THE BLACK & DECKER MFG. CO., Towson, Md.

**171—"Tools of Quality"—**An interesting bulletin on the stone and brick cutting machine and the electric hand tools offered by the JAS. CLARK, JR., ELECTRIC CO., Louisville, Ky.

**172—American Sanderplane —** Illustrated bulletin on the American Sanderplane (No. 2) useful in furniture factories, machine shops, marble yards and in manual training work.—THE AMERICAN FLOOR SURFACING CO., Toledo, Ohio.

### CONCRETE MIXERS

**173—Ransome Standard Building Mixer**—4-page illustrated specification sheet on the Ransome 28-S.

Also data on the Dual Drum Paver, the Ransome chute system and concrete placing towers. Offered by RANSOME CONCRETE MACHINERY CO., Dunellen, N. J.

**174—Boss Mixers—**Catalog D34 presents 26 pages on the Boss mixers, pavers, hoists, etc. Offered by the THE AMERICAN CEMENT MACHINE CO., Inc., Keokuk, Ia.

**175—Kwik-Mix Mixers—**An illustrated catalog of 16 pages giving full mechanical specifications of the Kwik-Mix concrete mixers and accessories.—KOEHRING CO., Milwaukee, Wis.

**176—Miles Concrete Equipment—**A 50-page catalog No. 333 giving full particulars of the Miles concrete mixers, and other equipment.—MILES MANUFACTURING CO., Jackson, Mich.

**177—Smith Mixers—**A series of bulletins, well illustrated, giving complete mechanical specifications for both small and large mixers that comprise the line of THE T. L. SMITH CO., Milwaukee, Wis.

**178—Barrows and Carts—**Useful handbook of 164 pages showing complete assortment of wheelbarrows, carts, hand trucks, etc., offered by the LANSING CO., Lansing, Mich.

**178-A—Lakewood Paving Equipment—**The Jaeger Machine Co. through its subsidiary, the Lakewood Engineering Co., has brought out a new 56-page illustrated hand book on its extensive line of concrete finishers, combined finisher and spreader, bituminous pavers, road-builders, adjustable spreader box, concrete spreaders, steel road forms and road equipment such as subgraders, road pumps and concrete mixers.—THE JAEGER MACHINE CO., Columbus, Ohio.

### HOISTS

**179—Novo Engines, Hoists, Pumps—**An elaborate loose-leaf portfolio presenting a varied and complete line, with mechanical specifications and power ratings, issued by the NOVO ENGINE CO., Lansing, Mich.

**180—Ireland Hoists—**Bulletin giving complete information regarding the Ireland geared hoists from the IRELAND MACHINE & FOUNDRY CO., Inc., Norwich, N. Y.

**181—Ideal Hoists—**Folder giving complete information on the Ideal portable hoists and elevators offered by THE UNIVERSAL HOIST & MANUFACTURING CO., Cedar Falls, Iowa.

### EXCAVATORS

**182—Bucyrus-Erie Power Shovels—**A 64-page pocket-sized book, "Profit from Modern Bucyrus-Erie Machines," presents specifications for the complete line of excavators, including repair parts and accessories. Other bulletins illustrate various types of work handled with power shovels.—BUCYRUS-ERIE CO., South Milwaukee, Wis.

### MOTOR TRUCKS AND TIRES

**183—Studebaker Trucks—**Broadside in full colors presenting the new 1936 Studebaker line ranging up from the 1½-ton "Ace" priced at \$565 to the 2-, 3- and 4-ton sizes.—THE STUDEBAKER CORP., South Bend, Ind.

**184—Diamond T Trucks—**A set of individual specification sheets covering numerous Diamond T models in sizes from 1½ to 6½ tons.—DIAMOND T MOTOR CAR CO., W. 26th St., Chicago, Ill.

**185—Truck Tires—**The Air-Flight Principle of tire construction graphically presented in a 28-page brochure from THE FISK TIRE CO., INC., Chicopee Falls, Mass.

### CONCRETE FORMS AND MOLDS

**186—Metaforms—**A series of illustrated pamphlets showing how steel forms are used to cut costs for various types of work, including concrete manholes, side rails for road paving, forms for general building construction, heavy concrete abutments, bridges and circular tanks, offered by the METAL FORMS CORP., Milwaukee, Wis.

### SPRAY PAINT RIGS AND AIR COMPRESSORS

**187—Paasche Airbrush —** Illustrated pamphlets show specifications of the convertible high production airbrush line for general painting purposes, offered by PAASCHE AIRBRUSH CO., 1909 Diversey Parkway, Chicago, Ill.

**188—DeVilbiss Spray Painting Equipment—**A series of booklets showing how painting costs can be cut by air pressure paint spray methods.—THE DEVILBISS CO., Toledo, Ohio.

**189—Air Compressors—**A 16-page catalog shows the O. K. line of portable air compressors offered by the O. K. CLUTCH & MACHINERY CO., Columbia, Pa.

### TRANSITS AND LEVELS

**190—White Levels—**"Instruments for Contractors, Builders and Surveyors" is a folder issued by DAVID WHITE CO., Inc., Milwaukee, Wis.

**191—Gurley Engineering Instruments—**An interesting book on Gurley products offered as a condensed catalog for busy engineers and surveyors is Bulletin No. 50 dated Nov. 15, 1935, issued by W. & L. E. GURLEY, Troy, N. Y.

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

(February, 1936)

Please have the following Catalogs listed in this issue sent me—

Numbers.....

Name.....

Street.....

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

OCCUPATION\*.....

\*Please note that occupation must be stated if full service is to be given.

COMPLETE CATALOG IN 1936 SWEETS



Write  
Today  
Valuable  
territory  
now open  
for right  
men. Quick  
returns.  
Jobbers  
Wanted  
ACCURATE METAL WEATHER STRIP CO.  
218 East 26th Street, New York



## COLONIAL HEAD THROAT AND DAMPER

Makes Your Fireplace Burn Right and Heat Right

For thirty years the accepted standard with builders, architects and home owners. Built in sections with steel reinforcing angle bar which anchors the facing and carries common brick backing.

With the Colonial Fireplace Damper and our plans you are sure of a fireplace that functions properly, conserves heat, and gives joy to the owner. Three styles—fits any fireplace opening.

### Everything for the Fireplace

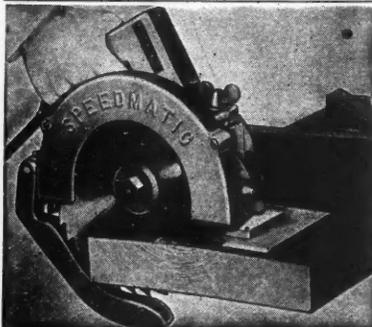
Andirons, fire tools, screens, etc., of highest quality materials at lowest prices.

Write for folder which gives you proper fireplace dimensions and helpful suggestions that insure success.

### COLONIAL FIREPLACE COMPANY

Established 1906—fireplace experts for 30 years

4604 W. Roosevelt Road Chicago, Illinois



### Speedmatic Saw

The dependable saw for cutting and dadoing wood and other materials. Tilts to 45° and adjusts for depth. Write today for complete details.

PORTER-CABLE MACH. CO., 1721-2 N. Salina, Syracuse, N.Y.

Dear Jim—  
Here's a picture  
of my new  
Porter-Cable Saw  
it's the fastest,  
easiest, and most  
dependable saw I've  
ever used. It only  
cost me \$75.00, and  
has already saved  
me twice that much.  
You ought to get one.  
Joe

## McKINNEY FORGED IRON HARDWARE

For those who love the beauty and sincerity of forged iron hardware, McKinney has produced authentic patterns for completely outfitting all types of houses at remarkably low prices.

Write for descriptive literature

McKINNEY MFG. CO., PITTSBURGH, PA.



## Re-Equipment Key to Profits

(Continued from page 43)

of these tools by the F. & H. Construction Company, of Chicago, in laying a patented metal floor sleeper on a concrete base. The electric hammer-drill made quick work of a job that would have been laborious and expensive.

In reviewing his equipment needs for the coming years the builder should consider some of the following: caulking and glazing pressure guns, speedy screen tackers, paint spray machines, concrete block and brick machinery, wallboard cutting and beveling tools, efficient and safe scaffold brackets, improved type rubber-tired wheelbarrows. Great savings may be achieved through the use of the improved electric power planes, lock mortisers, hinge butt routers and mortisers, electric weatherstrip groovers, electric curfing machines and a host of others. It is truer today than ever before that the well-equipped builder is the man who not only gets the job but makes a profit.

### V. L. Sherman

(Continued from page 74)

facturers of lighting fixtures deserve much credit for what they have done. And the engineers, too, in their societies are taking the lead. I am submitting the two charts, Figures 6 and 7. They tell their own stories, both in regard to the various systems of lighting and to the varying intensities. Dull light, dull sight. Reflection, glare. With our perfection of the machine age and consequent enlarged leisure we will have time for extra reading and, perhaps, the money to pay the oculist.

## Aluminum Celebrates

(Continued from page 77)

design and material. The word "utilitarian" has been used in this connection so much that perhaps it is overworked, yet it expresses adequately the trend of modern construction. Materials must do their job better than ever before, they must be of the kind that requires little or no maintenance, and they must have long life.

Considering aluminum's extreme youth and the fact that it was not employed by architecture to any great extent before 1925, it is difficult to predict what the coming years may bring in the way of further development. But it may safely be said that aluminum has by no means reached a saturation point in architecture. Many of today's uses, out of the experimental stage only a short time, will no doubt be commonplace to the aluminum chronicler of 1986.

## Treated Lumber

(Continued from page 79)

all wood used in basement—stairs; door and window casings; partitions; coal bins; studding; lath; sleepers; leaders; plates and joists imbedded in or laid on concrete or masonry; all structural timbers within 18 inches of the ground.

Cutting of the treated timbers or lumber should be avoided as much as possible by purchasing material in the correct sizes ready for installation. Where cutting is unavoidable, the cut surfaces should be thoroughly swabbed with two coats of the hot preservative solution, the second coat being applied after the first has thoroughly dried.

# DEALER MARKETING SECTION

A Department of Management Ideas  
and Sales Helps for Retailers—

Distribution of this Section is to dealers only

## As "Put" Saw It—

**SERVING BEST BY SERVING MOST:** H. G. Moulton, president of the Brookings Institution of Washington, says his organization has spent \$150,000 during the past three years on a study of economic conditions. The main points of his report are that the average income in our most prosperous year was \$665.00. He found that the additional incomes from investments and corporation officials' salaries added only \$140.00. And the conclusion that we can avoid depressions "only if the benefits of increased efficiency of both human beings and machinery are passed along to the entire people in lower commodity prices."



He infers that shooting pigs, plowing under crops, and pouring out milk, or any other control of production by the government or industry will not ward off depressions when he says, "The paramount requirement is to increase progressively the total amount of income to be divided."

Sounds a little like Henry Ford who seems to believe the most long time profit is in making an article the most people can buy and at a price the fewest competitors can meet. Also like Ford, the Brookings' opinion is that any fixing of prices, whether by NRA, an industrial combination or trade association, is a handicap to general prosperity. Yes, I still think low priced housing is going to make a lot of folks a bag of money.

**GRADE MARKED LUMBER:** In 1925, I was given the responsibility of directing the promotion of grade marked lumber for the Southern Pine Association.

Less than a week after the Florida hurricane in September, 1926, I went through the devastated section which started in West Palm Beach and extended for more than sixty miles through Miami. More than 8,000 buildings were lying flat or scattered over the landscape. Our engineer and an architect were with me, and we developed the famous "15 Cardinal Points" of good wood construction. We found wherever these points were observed and good lumber used, the houses did not blow down.

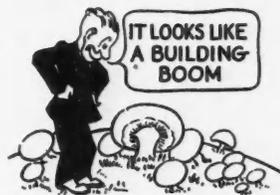
Now the Southern Pine Association is back promoting this same campaign. Let me say this to the lumber manufacturers and dealers of the country as well as the builders—if you have the brains you claim to



have and that I think you have, you will get behind this campaign 100 per cent.

The only way to keep out the jerry builder is through the promotion of good construction. The only way that the manufacturers and distributors of lumber or any other product can talk the same language is to talk about an identified product.

**THEY'RE LOOKING OUR WAY:** That a building boom is now in the making is becoming more apparent every day to business leaders and the Administration in Washington.



Every wide-awake manufacturer in the country who makes anything used in building is getting in shape for increased production.

The cost of building is on a better basis today than ever before in history. Finance has always been the largest and most expensive item for the home builder.

A home is a different proposition from what it was a few years ago. Prospective home owners are thinking in terms of comforts and conveniences of which our fathers knew nothing. As these energetic manufacturers survey their potential market they are going to be thinking in terms of efficient distribution.

## DON'T OVERLOOK ONE OF THESE

*PROFITS* are being made by some lumber dealers—and how. R. E. S. tells not only how but why—pages 120, 121.

*EVER* stumped for an idea for a home show booth? A Great Falls, Mont., dealer makes a novel suggestion—page 122.

*LOW* cost homes—seven of them—also farm building plans—good stock plan service back of each; let your customers know you have these at your office. Make this department pay you a profit—pages 123 to 132.

*TIME* to be going after the fence business; profits here for many retailers.

*Wire fencing, posts, gates*—look into these now through pages 133 to 135.

A. W. HOLT finds a lot of yard managers not "too old to learn." Page 136 may give YOU ideas.

*TRIBUTES* to the memory of L. R. Putman—parts of a few of the letters received from his friends—page 138.

*OUR* helpful Legal Department; follow its advice and stay happy—page 152.

*VALUABLE* catalogs and helps for dealers; a friendly service—page 156.

*INDEX* to advertisements—page 158.

# Selling—Management—Profits

**Y**OU WILL get a kick out of this one. At least we did. It happened in a lumber yard that we have been visiting off and on for several years. We like the dealer. He is better than the average.

One of his pet peeves in the past has been that people could buy automobiles on the installment plan and that it was not possible for him to sell his products in the same way.

Each time we visited him we listened to a dissertation on the subject in which a good deal of condemnation was heaped upon the heads of lumber manufacturers because they were not providing a financing service such as was available in most other industries.

We were entirely sympathetic with his views on the subject but there did not appear to be very much that could be done about it.

Consequently when we recently had an opportunity again to visit his yard we looked forward rather eagerly to meeting him because installment selling had, in the meantime, plunked right into the middle of the lumber industry. To us it seemed that the NHA and manufacturers' financing services had been sent in answer to his prayers.

It goes without saying that we were very much surprised when we found that he hadn't made any use whatever of the services which are now available. He told us point blank that he wouldn't be interested in anything of the sort until the lumber industry could provide something as effective and economical as the financing services which are available through General Motors and other similar companies.

"Title 1 is the bunk," he said. "Interest rate is 9.7 per cent. Read that ad in the *Saturday Evening Post* and you will see why it is impossible for me to make sales under FHA terms when General Motors is spending several hundred thousand dollars to advertise their 6 per cent plan."

He then turned to one of the GMAC ads to prove his point.



## Bulletins from the Firing Line of Dealer Activities(?) in the Big War for business at a profit

By R. E. S.

"That's why I haven't made use of Title 1 and don't intend to," he continued. "I think the lumber industry could take a lesson in financing from General Motors and, when they decide to do so, I may become interested."

Following which it became our duty to do a little comparing for the benefit of said dealer and to set down the following figures for his consideration. We took a \$500.00 loan on a 12-month basis as an example and made this comparison:

	GMAC	FHA TERMS
Amount of Note .....	\$530.00	\$526.00
Mortgage Required .....	Yes	No
Down Payment .....	25%-33 1/2 %	None
Maximum Term .....	18 Months	36 Months

Of course, the GMAC interest rate amounts to much more than the 9.7 per cent rate which is available under FHA terms. No other industry has a financing service which approaches the finance plans now available to the lumber dealer. General Motors has been at it for more than 18 years while FHA financing services have not been in the picture more than 18 months, but they have the automobile people beaten at every jump along the way.

And there we stood before the dealer who had been hoping and praying that some time in some way he would be able to compete with the automobile industry via installment selling and he had missed the boat 1000 miles!

If this were an exceptional case it wouldn't be so bad but it happens to be the rule instead of the exception. 1935 will go down as one of the greatest "boat missing" exhibitions in the history of the lumber business.

"Acres of diamonds" underneath our very feet and nothing in particular being done about it.

### CHANGES

**T**HE lumber industry changes! Convention speakers are stressing the many changes which are taking place in the lumber industry and pointing to the effects they have upon various phases of our daily activities—changes which turn liabilities into assets—which turn surpluses into shortages—which turn losses into profits and revamp the whole price structure.

Take Plywood. Six hundred million feet will be manufactured in 1936. Plywood calls for select Fir logs—peeler logs. You cannot take six hundred million feet of logs of this type out of the picture without doing things aplenty to the price of Fir selects.

Once upon a time what to do with Fir selects was quite a problem. Now Plywood comes along and Fir selects are at a premium. Plywood has solved the problem of Fir selects and will eventually make important changes in the price structure.

Then there is End-Matched lumber.

It wasn't so long ago that manufacturers were driven half crazy trying to dispose of "shorts."



End-Matching has changed that situation completely for those manufacturers who are equipped to make it and has created such a demand for shorts that in some cases dealers are willing to pay a premium over the price of regular lengths in order to obtain them.

That is indeed something!

End-Matching as it is now being done on the new machines is bringing about revolutionary changes for the manufacturer—for the dealer—for the contractor—for the carpenter—and for the ultimate consumer.

There is a good deal of talk going around about the need for prefabricated homes. No question but what the need exists for a low-priced, efficient home. If such a thing came into the American scene today it would project us into the longest period of prosperity that we have ever known because it would mean that the masses—the 80 per cent with incomes less than \$2,500—could own a home of their own and pay for it conveniently out of income in monthly installments, which would probably be considerably less than they are now paying for rent.

Prefabrication may be quite a long time in coming which means that improved lumber may step into the breach in various ways and make itself more readily usable in building a home.

That is the End-Matched story.

More and more manufacturers are getting into End-Matching. A larger percentage of the tree is utilized. Defects can be eliminated with minimum loss of material as opposed to the old method of losing two feet or more when cutting out a defect. Said defect can now be taken out of the board and the remaining short length utilized.

It's all very interesting to study changes of this kind which suddenly turn a liability into an asset.

Such a change also has its effect upon construction costs because it enables workmen to use the material in construction without retrimming on the job which, of course, saves labor and saves waste.

And so, while we may be inclined to believe that the lumber industry is just about the same as it was 200 or 300 years ago, if we were to take the trouble to make an analysis, we would find that changes are taking place all the time—changes which affect everybody along the line.

The Convention speakers are right.

The sad thing about the whole proposition is that it is easier to change manufacturing methods and products

than it is to change men's minds. That, after all is said and done, is the fly in the ointment.

### OUTLOOK

WE HAVE been greatly interested with the facts which were so ably presented in the January issue of *American Builder* under the heading of "1936 Building Outlook Best in Years."

Of particular interest were the figures which revealed that 75 per cent of our homes should not cost over \$5,000 due to the fact that 75 per cent of the families in the United States have incomes of less than \$2,000.

Such facts should cause every lumber dealer in the land to do some honest-to-goodness thinking on the subject of home building.

Automobiles are getting better and cheaper. Homes as a rule haven't improved much in quality but are costing more and more.

Would you buy an automobile if it were built as we build homes? Housing is becoming more and more of a problem for the average family and the lumber industry doesn't seem to be doing enough about the matter.

By this time we certainly should know how to build a home but it seems to be the consensus that it is still pretty much of a botched up job.

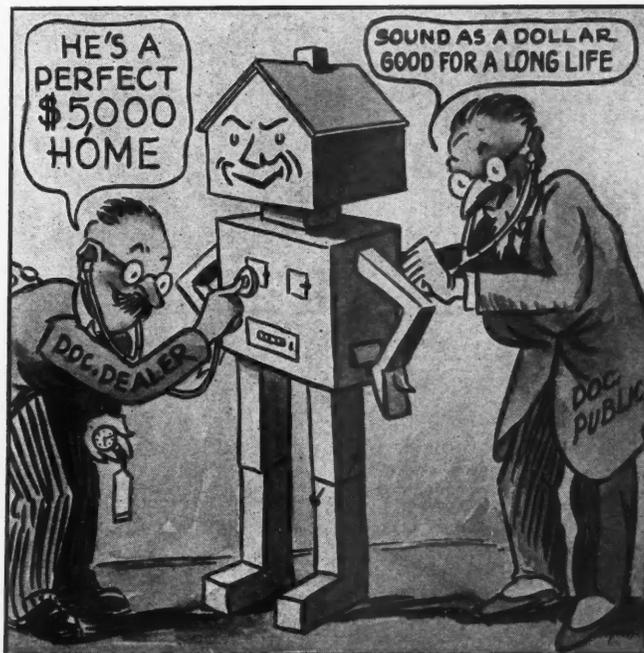
When it is solved, watch the lumber industry go places and do things—provided, of course, that lumber is the basic element required for construction, which it could be if the proper amount of research and constructive thinking was put behind it.

### "INTEREST AND CONVINCING"

WE LIKE the way a well known sales manager put the company's selling problem up to his salesmen at a recent meeting.

"There are two important steps in the development of a sale," he said. "The first thing is to interest the prospect. The next is to convince him that he needs our products. Interest and convince. We interest people in our products with our advertising. You men follow through and do the convincing. The first step isn't particularly difficult. We can get all kinds of people interested in what we have to sell. But to obtain the right kind of 'convincers' is a horse of a different color.

(Continued to page 148)



# Montana Home Show Draws Many Prospects

FOLLOWING a meeting of twenty-six of the leading home equipment and building material dealers to discuss the problem of stimulating the industry during the winter months, it was decided that this group of Great Falls, Mont., business men would sponsor a Better Housing Show. The men of that city responsible for the eventual success of this enterprise were Warren Toole, chairman of the Better Housing Committee, and Claude Briggs of the Monarch Lumber Company, who, as head of the building group, acted as exhibition manager.

A building most conveniently located was secured and space divided into 35 equal parts. Each exhibitor took as much space as he required. No one was invited to exhibit at the show except members of the building industry—such as retail lumbermen, plumbers, electrical supplies, gas appliances, decorators, contractors, power companies, etc.

The committee at first contemplated the offering of door prizes and suggested that exhibitors offer booth attendance prizes as well. However, on further consideration of this point the committee came to the conclusion that the real motive of the show was to determine how many people in this territory were really interested in home modernization and new home construction.

The show ran for a week, and according to conservative estimates 18,000 home-conscious people attended; Great Falls is a city of 29,000 population. Mr. Briggs states that the attendance was far beyond expectations, and the interest and enthusiasm shown for the new products offered for sale by the building material merchants certainly convinced them that the industry had fallen down on the job in the past in displaying its many new products. Further, the public is very unfa-

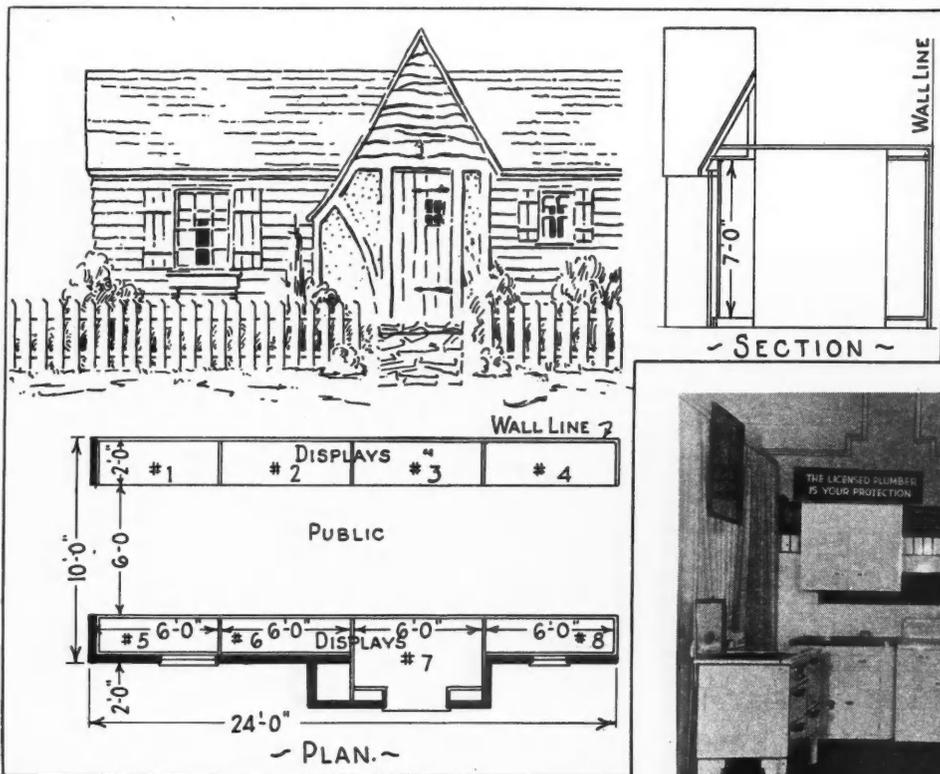


FRONT view of the Monarch Lumber Co. cutaway house. Note the Rock Wool insulation to imitate snow.

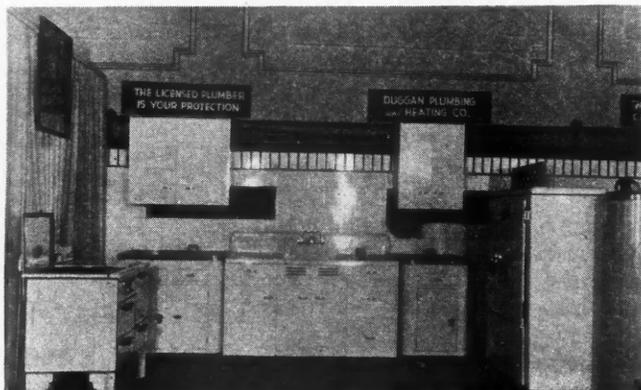
miliar with the latest developments in the building industry.

One of the outstanding exhibits at the show was that of the Monarch Lumber Company, of which photograph and details are shown on this page. A cutaway house, complete even to landscaping, was built in two sections and arranged so that the public could pass through the center to view the displays of special items on the inside. The construction of both exterior and interior can be observed, and the materials which are representative of those used in home building can be seen as they were used on the job.

To carry out the idea of a winter scene, Johns-Manville Rock Wool was used to imitate snow. The attractive appearance brought so many favorable comments that the Monarch Lumber Company expects to use this display in other shows.



LEFT, drawing of exhibit used in housing show gives details of arrangement in plan, section and elevation. Below, one of the equipment demonstrations at Great Falls Show.



# STOCK PLANS

## Through Retail Lumber Dealers

The Low Cost Plans illustrated in this Department are available to Dealers at a moderate cost from the service agencies mentioned

*RETAIL DEALERS are offered this additional service of low cost home and farm building designs, illustrated here through the courtesy of well known associations and plan service agencies which are named, with address, in each instance, and from whom complete working plans, specifications, etc., can be immediately secured by dealers on request, the cost of such service being nominal.*

MANY retail lumber dealers, subscribers to the *American Builder*, have expressed their approval and appreciation for this department of low cost home plans available in their office copies exclusively. That is O. K., and the editors of this department are naturally pleased. The real test, however, comes in use, and unless you dealers do your part by actually making sales from these designs, there is little point in continuing to give up good space for them.

The editors would like to know: (1) Are these designs right for your use; (2) do you show them to prospective customers and are they interested; (3) have you made any direct sales for the erection of any of these buildings illustrated. Please write and tell us about this; it will be a big help.

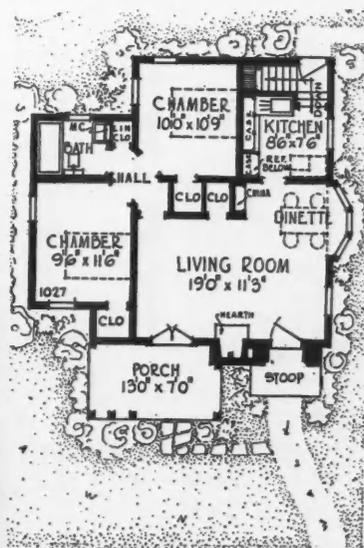
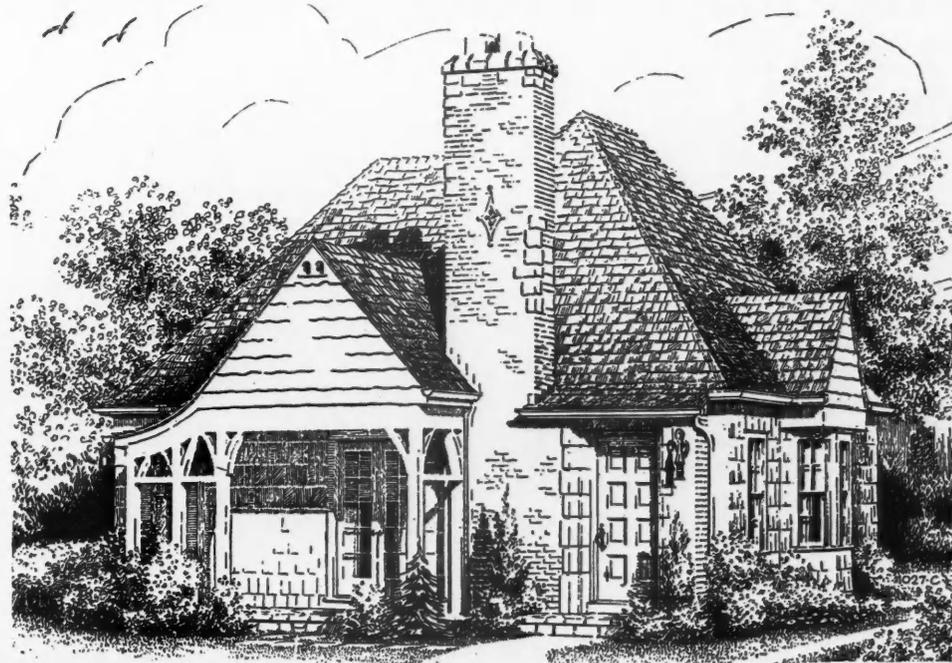
These stock plans are all backed up by reliable service organizations, and that service is supposed to be prompt and efficient. Of course, the *American Builder* is not in the stock plan business in any form whatever, but the organizations mentioned in connection with each of these designs have assured us that they would take care of plan requests and questions promptly and efficiently. Accordingly, if you have asked for any service that you haven't received, we would like to hear about it.

There is value in this department, fellows, if you will put it to work; but it won't do a thing for you unless you do. Write us today. Thank you.

## EFFICIENCY HOME

THIS little cottage has a decided English accent, sturdy in appearance, graceful as to roof lines and having the advantage of an impressive front chimney and masonry entrance. The interior has many charming features arranged in the latest modern way.

FOUR-ROOM cottage with five-room efficiency, design No. 1027-C from the National Plan Service, Inc., Chicago. Size of the main building is 30 by 27 feet; over-all dimensions 33 by 35 feet. An alternate plan No. 2 uses a Colonial exterior. Cost Key is 1.098-118-792-34-12-15.



FLOOR PLAN of No. 1027-C is laid out in the modern, efficient manner.



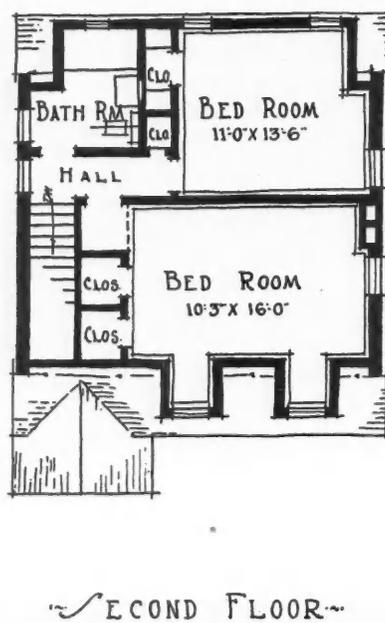
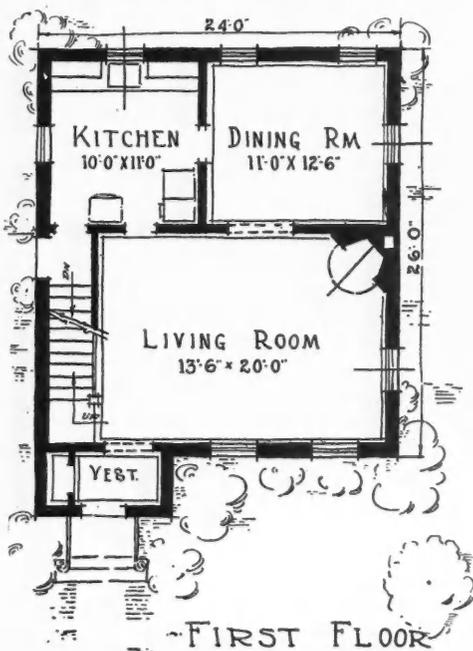
MARTIN. H. BRAUN - ARCHITECT

ATTRACTIVE low-cost cottage, Martin H. Braun (design No. 10), for Fred J. Walsh Co., 134 N. La Salle St., Chicago. A design popular in the suburbs and on small subsistence farms. Cost Key is 1.284-108-608-26-17-10.

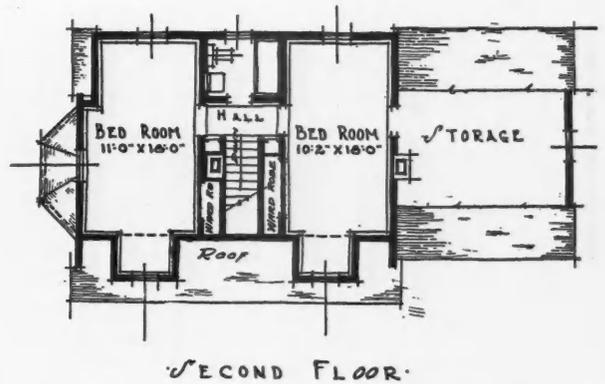
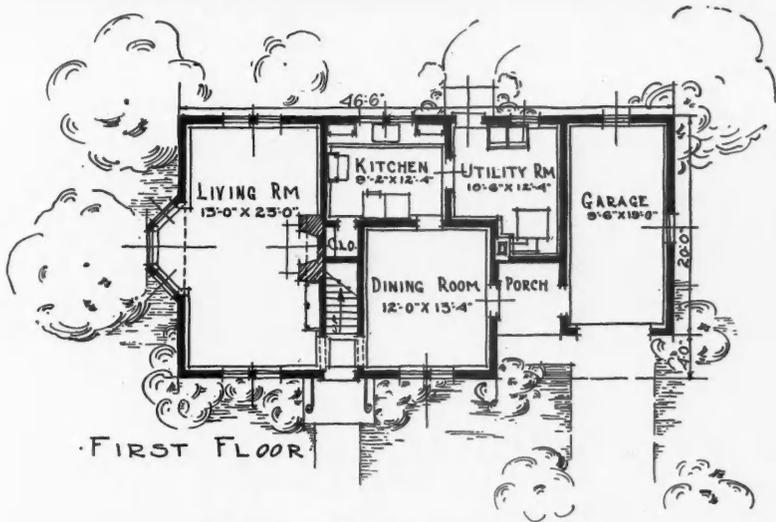
## BUILD NOW, FINISH LATER

Good Low-Cost Homes Being Built on This Thrifty Plan

AN idea for a low cost home building evolved by some of the Chicago developers of low cost farm land home building sites is illustrated above; a fairly good sized house, well designed and very attractive on the outside. It was put up originally without much inside finish, the idea being that the home owner himself can do much of the inside work later on, paying for it as he is able. This often is more satisfactory than building a small house first and adding to it later. It gives a commanding appearance right from the start. Inside work is done later in comfort and privacy.



A SQUARE, compact plan promising maximum efficiency and economy.



## ENCLOSURE COSTS LITTLE

### Home Owner Saves by Finishing Off Interior Later on Spare Time

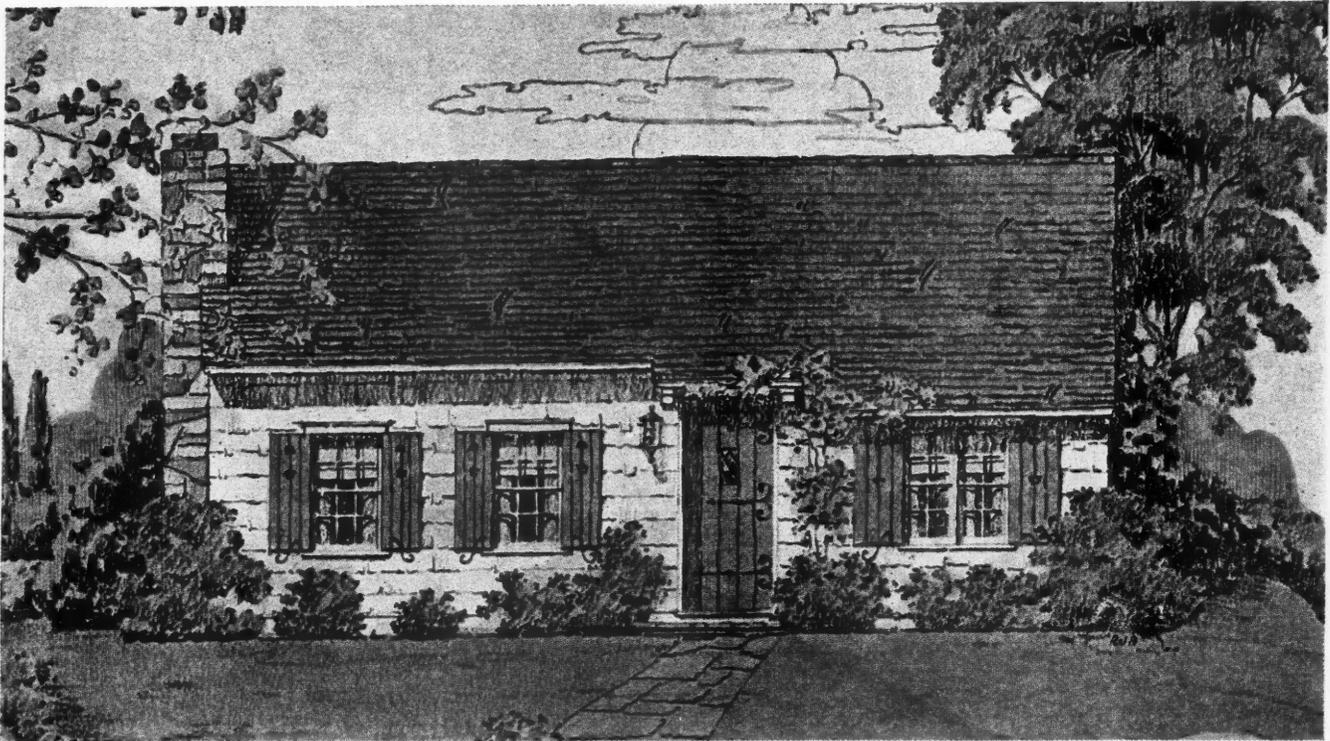
ANOTHER example of low-cost home building of the "exterior shell" type is shown in this design. In the first place it is a basementless house, the heating plant being in a utility room on the ground floor. When first erected only the downstairs is finished, the upstairs rooms being left in the rough to be finished off

later by the owner himself as he is able. This is a plan that appeals to many in times like these. It has certain advantages over the alternate plan of building a part of the house at the start on a plan to "add a wing" later on. While many have resorted to this means of holding down the first cost, it really works out more satisfactorily to build the larger dwelling needed at the start, leaving the interior finish and part of the mechanical equipment to be provided later. It is surprising what a large and imposing house can be built for a small amount if only the essentials, walls, roof and floor, are provided.

A BASEMENTLESS house plan with heating plant in utility room. Designed by Martin H. Braun, architect (design No. 11), for Fred J. Walsh Co., 134 N. La Salle St., Chicago. Cost Key is 1.366-141-(820)-(36)-20-16.



MARTIN H. BRAUN-ARCHITECT'S

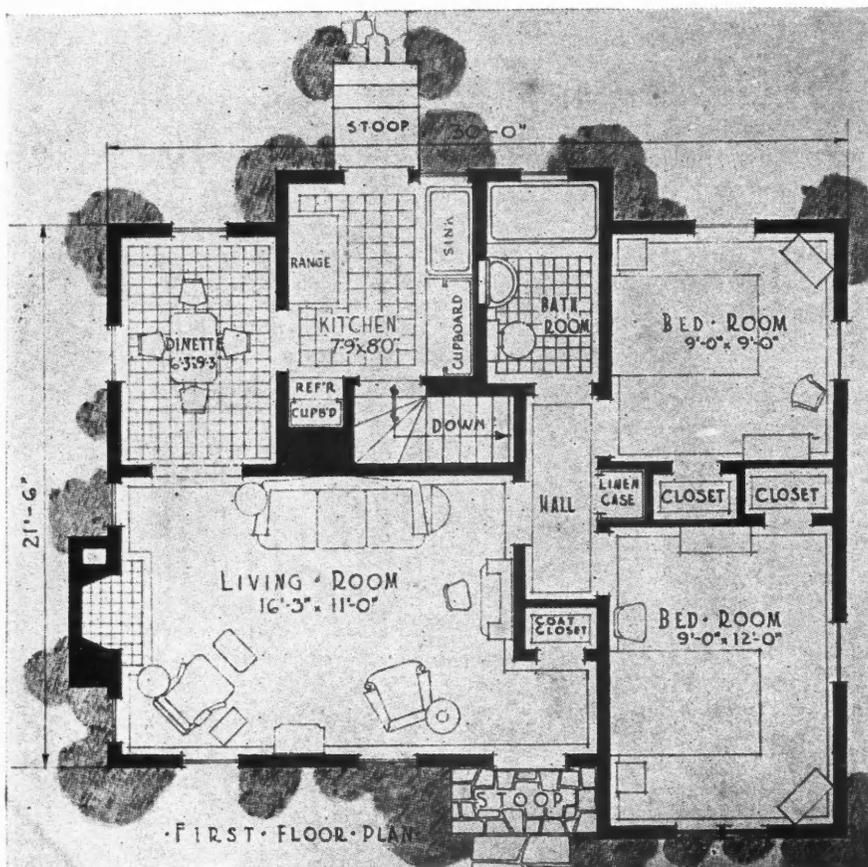


A SELF-RESPECTING little place of dignity and charm, Plate 15, "Small Homes of Today" by the Curtis Companies, Inc., Clinton, Ia. Cost Key is .914-113-703-30-13-9.

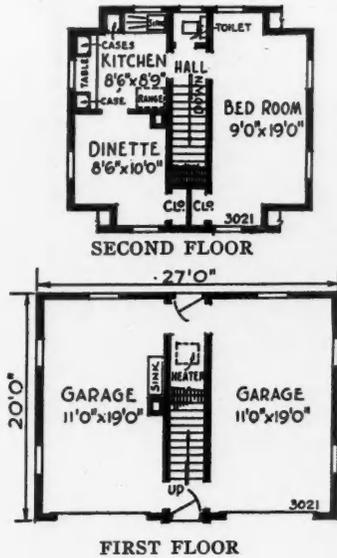
## BROAD AND LOW APPEALS

### Carefully Planned Home Provides Every Modern Comfort

THE rustic appearance of this rough shingled home is further emphasized by the "plank door," batten shutters and large stone chimney. This exterior, reminiscent of old Colonial days, houses an interior filled with all the modern conveniences. Ample closet space for everything from coal to china and linens is expertly placed. The large living room with its real fireplace will be the scene of many happy evening gatherings. The bedrooms are far enough removed from the living quarters so that father and mother could retire undisturbed by living room hilarity. Only that part of the basement is excavated which is under the dinette, kitchen and bathroom.



THE YOUNG folks today like the broad lines of this house with its convenient, step-saving layout.



GARAGE HOME with three-room apartment above the double garage. This is design No. 3021 by the National Plan Service, Inc., Chicago. Such combination buildings are quite frequently wanted.

## ROOMS OVER GARAGE

Practical Combination Building

Illustrated: Garage Combined with Quarters for Pet Stock Also Shown

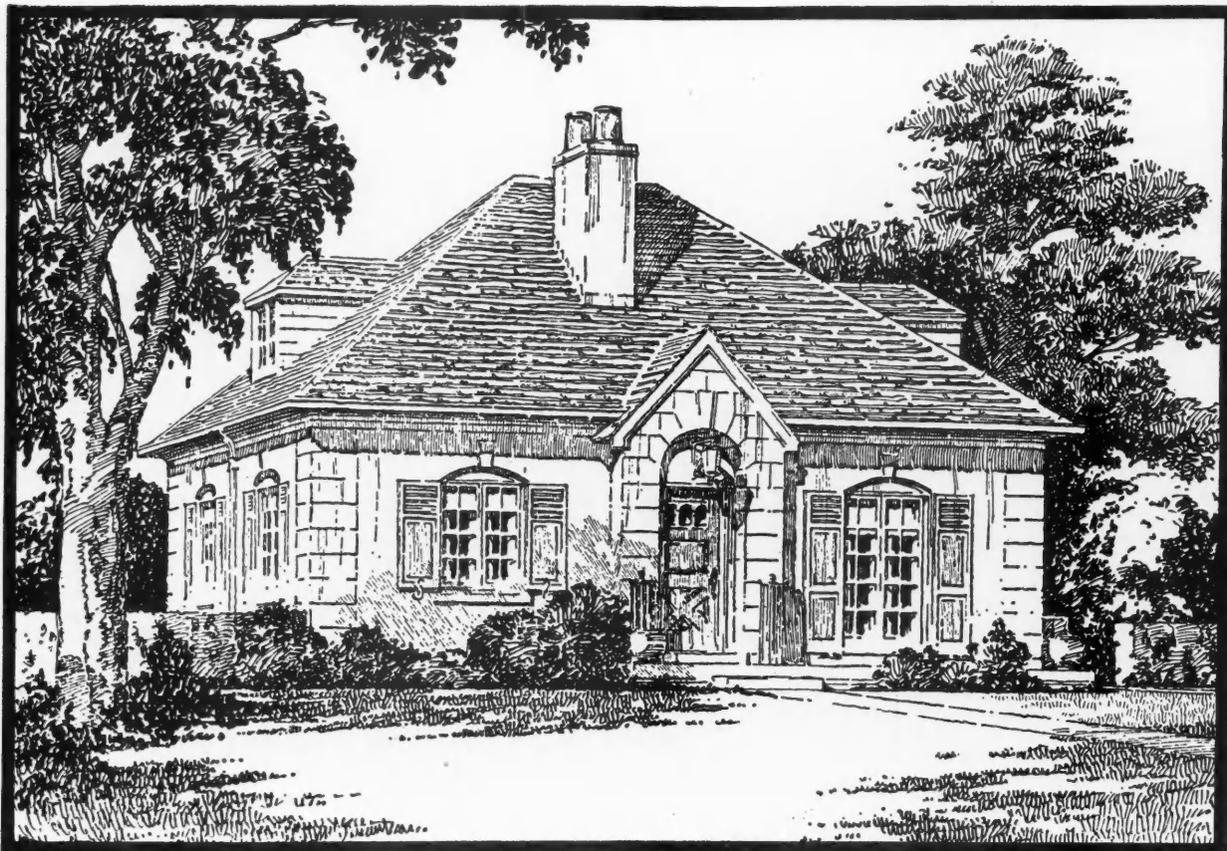
ABOVE is illustrated a garage house built at a small cost, that will be a practical solution for many. One can build this and live in it for quite some time until funds are available for a regulation dwelling. One need not be ashamed of it either, as the design is pleasing and will match with any of the other buildings to

complete a home estate. Such a building also is excellent for hired help.

The design below is another interesting garage combination. This houses two automobiles and a considerable rabbit establishment on one side and a dovecot on the other. Profits and diversion here for young and old. It is such equipment as this that gives zest to suburban and country life.

BELOW is illustrated a two-car garage with rabbit hutch and dovecot. This is design No. 3023 of the National Plan Service, Inc., Chicago.

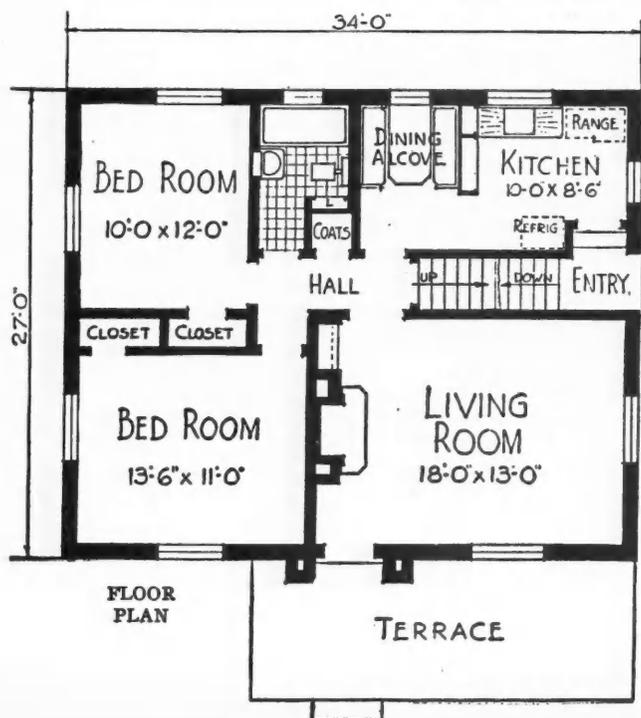




FOUR-ROOM cottage of concrete masonry. This is plan No. 5-K-34 sponsored by the Portland Cement Assn., Chicago, and designed and copyrighted by the Architects' Small House Service Bureau, Inc., Minneapolis, from which working plans are available. Cost Key is 1.059-122-918-38-14-15.

## CEMENT MASONRY SOLIDITY

Very Substantial Four-Room Dwelling  
of Modern Elegance and Distinction

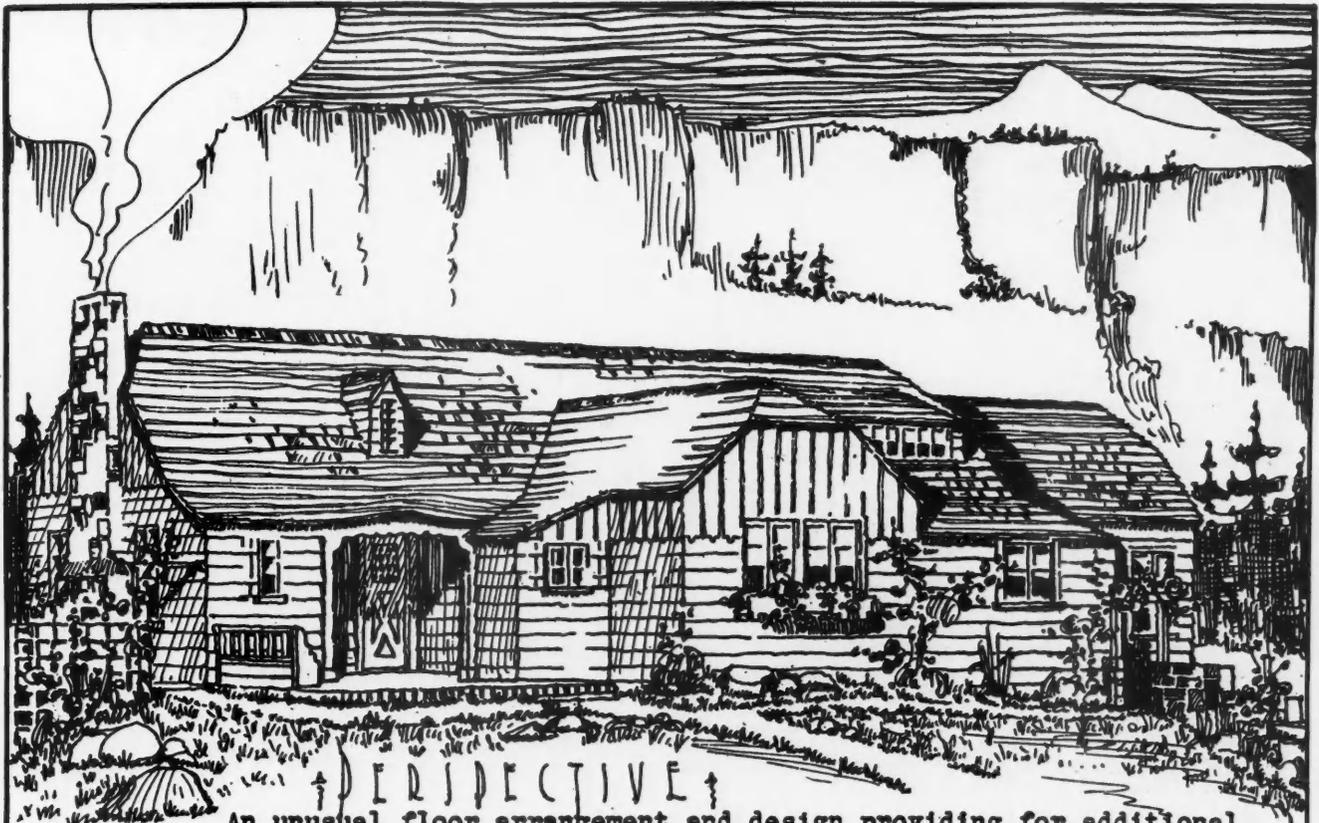


PEOPLE who like the massive feeling of large unit masonry walls will find this house design a match for their ideals. Executed in concrete masonry it is no more costly than a less strongly built, less durable structure. As a five- or six-room cottage—depending upon the use of the attic—it is a smart and economical home for the small family either in town or in the suburbs.

The floor plan is compact, with all available space turned into large rooms none of which are cut up with useless doodads and dirt catching crannies. The living room is completely separated from the rest of the house. The dining alcove save valuable space because the table and benches are built in rather than spread out all over the room. Bedrooms are of ample, comfortable size; large windows on two sides, well ventilated.

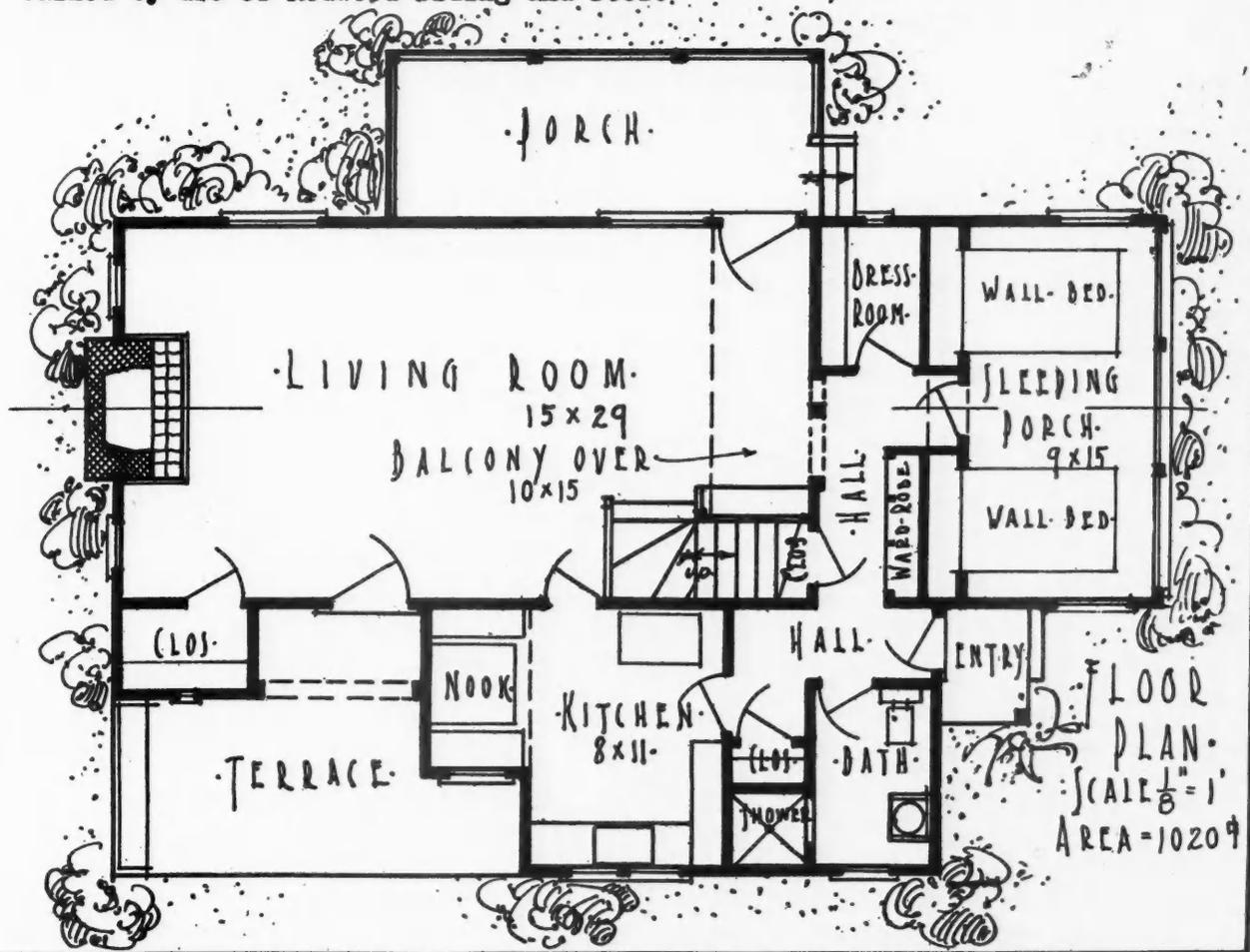
Architectural features of interest are the arched windows, including the full length French doors opening onto the porch terrace, the gabled entrance, hip roof and dormer windows. Wide shutters on all windows enhance the "cottage" effect.

It would be entirely in keeping with the house design to pave the porch terrace with concrete flagstones. Otherwise, it should be a reinforced concrete slab, which may be colored red or green as desired. Other floors are concrete, their under side finished with either plaster or exposed beams according to taste and method of floor construction employed.



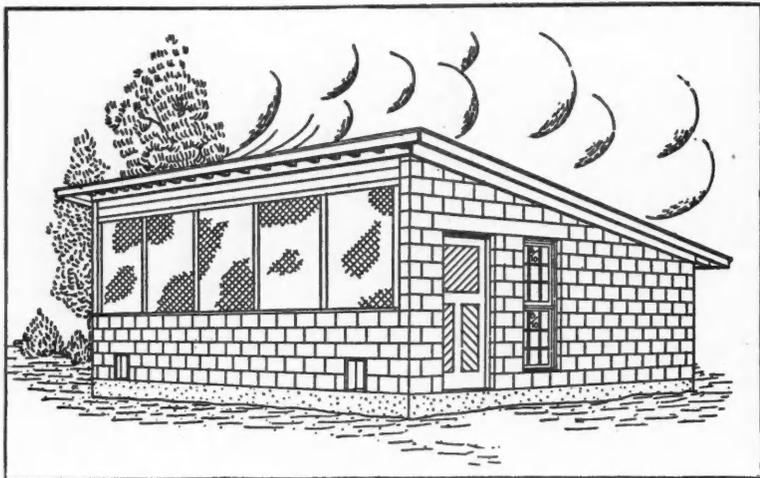
PERSPECTIVE

An unusual floor arrangement and design providing for additional sleeping accommodations in balcony centrally located with ample light and ventilation. Broad low lines, sweeping roof and pleasing effect are obtained by use of Redwood siding and roof.



**VACATION HOME**

The California Redwood Assn., San Francisco, offers this rustic home, design No. 22. Cost Key is 1.312-144-0-0-14-15.



# OPEN FRONT HOUSE

Well Constructed, Well Ventilated Hen House Assures Poultry Success

OPEN FRONT laying house, drawing No. B-1790, from the Portland Cement Assn., Chicago.

THE open front laying house illustrated requires the following materials as estimated by the designers:

### MATERIALS REQUIRED

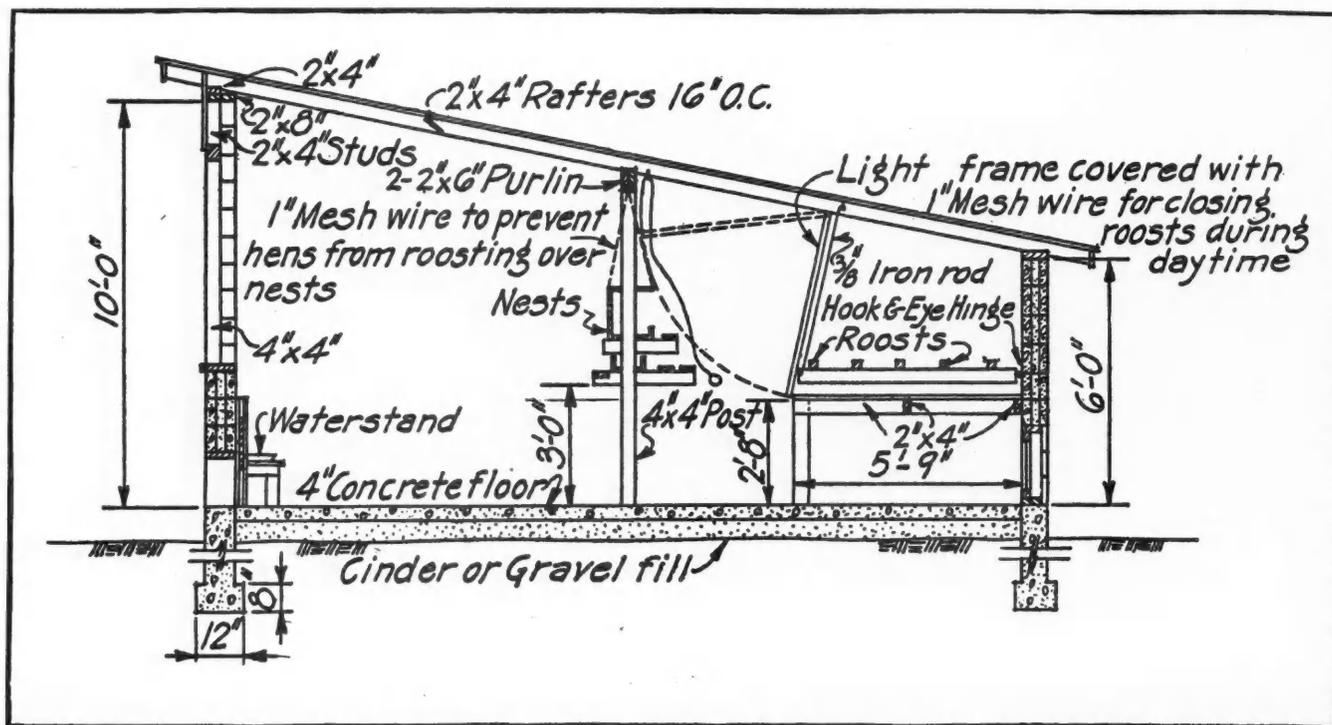
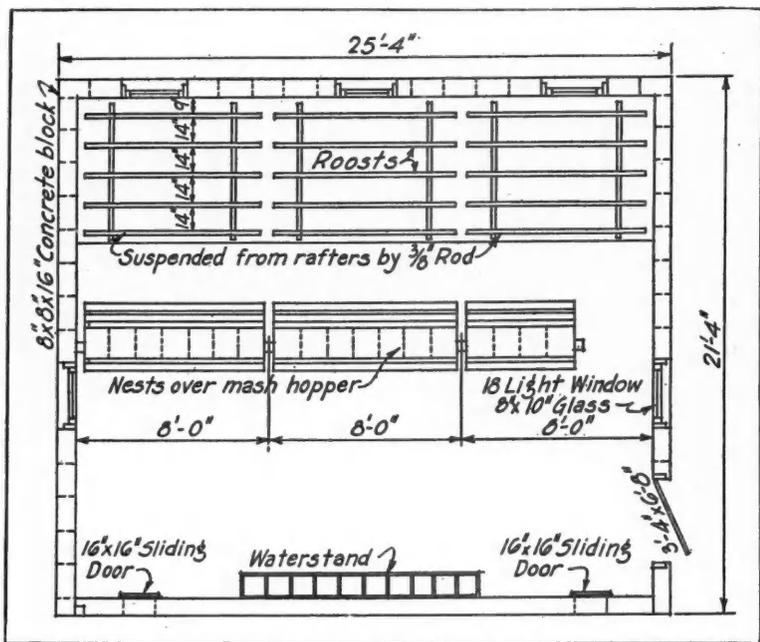
(20 by 24 feet inside dimensions)

**Footing and Foundation:** Estimate based on 1-2 $\frac{3}{4}$ -4 mix for footings and foundation. Foundation wall assumed to extend 1 foot above ground and 2 feet below. Requires 53 sacks cement, 5 yards sand and 6 $\frac{1}{2}$  yards pebbles.

**Floor:** 4 inches thick. Estimate based on a 1-2 $\frac{3}{4}$ -3 mix. Requires 38 sacks cement, 3 $\frac{3}{4}$  yards sand and 4 $\frac{1}{4}$  yards pebbles.

**Wall:** Requires 395 concrete block, 8 by 8 by 16 inches; 44 half-block, 8 by 8 by 8 inches; 38 corner block, 8 by 8 by 16 inches; and 10 half-corner block, 8 by 8 by 8 inches. If wall is built of concrete building tile, 980 units, 5 by 8 by 12 inches, will be needed. Mortar for laying block or tile, 1 part cement, 1 part lime and 6 parts sand. Requires 3 sacks cement, 3 cu. ft. lime and 18 cu. ft. sand for mortar for block. (1 $\frac{1}{2}$  times these amounts for tile.)

If built of monolithic concrete (1-2 $\frac{3}{4}$ -3 mix) instead of masonry, 68 sacks of cement, 5 $\frac{3}{4}$  yards of sand and 7 $\frac{1}{2}$  yards of pebbles will be needed in addition to that required for the floor and foundation.







VERY practical and very modernistic design from the Northwestern Lumbermen's Assn., Architectural Dept., Minneapolis, Minn.; design No. 517; Cost Key is 1.637-148-780-29-19-14.

## MODERNISTIC HOME

Corner Windows and Modern Layout,  
Stamp This House; Alternate Design  
Shows Flat Roofs.

THE MODERNISTIC type house illustrated makes use of the following materials and equipment as specified by the architects of the Association:

*Exterior Walls:* Frame, siding made by resawing 2x12, insulation. Optional—stucco on metal lath.

*Roof:* Pitched roof, stained cedar shingles with doubled courses at intervals. Optional—composition shingles. Flat roofs—built-up.

*Interior Trim and Walls:* Variable, many desirable materials.

*Floors:* Hardwood in all rooms except kitchen and bath where linoleum is used. Optional—tile in bath.

*Mechanical Equipment:* Forced air or pressure hot water heating with air conditioning. Tub 60 inches; sink 60 inches cabinet type; laundry trays in basement. Number of electric outlets 50.

*Suggested Exterior Color Scheme:* Siding natural (light brown); trim, silver gray; sash, dark green; roof, brick red.





More money for the farmer and a large potential market help dealers sell fencing.

# Dealer Profits in FENCING

## Increase Farm Income, Benefits of Crop Rotation, Delayed Improvements, Indicate Better Fence Market Ahead

**I**N THE farm market dealers are beginning to realize that 1936 should be an opportune time to renew their efforts to get their share of the farmer's dollar which will be spent on improvements. The annual agricultural outlook report of the Bureau of Agricultural Economic Estimates showed that the United States farmers received approximately \$6,800,000,000 in gross cash income for the year 1935, or about 2½ times higher than in 1932, indicating that the American farmer is once again a prosperous individual. Farmers are now on the eve of increased consumer demand for their products due to the continued upturn of business and industrial improvement. Be-

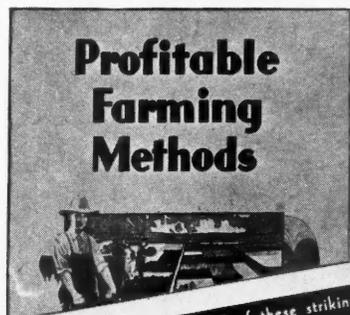
sides showing an optimistic picture for the year 1936, not only in farming but in industry generally, the report shows that the general readjustment in crops and livestock and in dairy herds will be well under way in 1936.

Enhanced farm values and the rehabilitation of agriculture are evidenced by the fact that the price of farm lands has increased and that distress farm lands are being taken out of the picture. Further, repair and replacement of farm improvements have been neglected for many years. Simply because sales of fence, roofing and such products have been low for a decade, they are coming back with a rush now that the economic condition of farmers has improved and their buying power returned. There is no doubt that the farmer is improvement-minded because during the years of agricultural stagnation farm equipment and farm buildings have deteriorated to a point where improvements and repairs should no longer be delayed.

### Improvement in Fencing Market

Fencing, posts and accessories will naturally assume a more important place in the dealer's business. However, the dealer best able to take advantage of this large potential market will be the one who is informed about the economic factors involved. Farm education has pointed out that various agricultural developments in recent years, have greatly increased the returns of the farmer using modernized equipment and scientific planning. However, every dealer should be in a position where he can point out the economic advantages of a well fenced farm.

Good farming practice includes proper fencing of fields so as to provide complete crop protection and rotation, and the most economical utilization of feed stuffs. The farmers who follow the most resultful methods of soil handling use legumes, live stock and grains in rotation with even sized fields fenced stock-tight. The legume pasture takes the place of the tame



EXAMPLES of dealer helps in the form of direct mail service, catalogs, fence manuals and advertising material which are available for fencing campaigns.



pasture, thus rotating the livestock about the farm which, while consuming most of what is grown, distributes the natural fertilizer evenly over the place.

It has been stated that 20, 50 and even 100 per cent crop production increases are possible with the scientific use of good fence, depending on the condition of the soil and the farming methods employed. The use of good hog-tight fence is one of the surest ways of increasing production and cutting down costs. At the same time it is good investment because the farm automatically increases in market value.

#### Manufacturers' Helps Available

For the dealer's convenience, much of this valuable information has been set forth by manufacturers in the form of direct mail pieces, catalogs and fence manuals. A campaign of this material is sent by fencing companies to the dealer's own prospect lists as a part of various selling programs; inquiries received from these direct mailings are returned to the dealer and frequently sales in other lines as well are the result of these leads.

Additional important sales aids from manufacturers for the dealer planning a fencing campaign are such services as free newspaper advertising electros and mats; signs and window display material to attract attention and dramatize the story at the point of sale are supplied; where facilities are available, even instructive motion picture films can be had to show before larger farm gatherings.

However, one of the most effective points in any fencing sales campaign is a complete canvass of the dealer's prospect list just before or during the time of mail order catalog distribution. The dealer can step into the picture just when farmer customers are making their fencing plans and meet this competition at the proper moment—advice given personally on how a heavier grade of fencing at slightly greater cost will be a better investment over a period of years or how, for instance, some particular local problem such as soil conditions call for a special type of post to give best results. At the same time other highly competitive materials such as paint, roofing, etc., which these customers

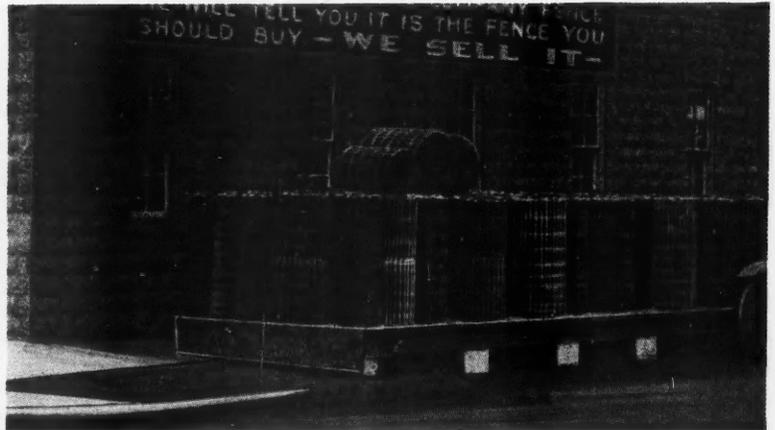
may be planning to buy or will need in the future, can be discussed briefly and listed for follow-up when the proper time arrives.

#### Display and Storage Important

The display and storage problems of fencing and accessories are important in the profitable sale of these items. Unfortunately some dealers do not make the most of the display possibilities in this line. As shown in one of the illustrations, where space is not available for inside storage, it is dumped in any vacant spot and rests on earth containing ashes, cinders, and chemicals. This leads to destructive corrosion and leaves merchandise in a condition hard to sell because of what appears to be poor galvanizing. If outside storage is necessary it should be on a timber platform so that natural acids cannot attack it.

Farm implements, wagons, automobiles and similar units are built to withstand the weather; nevertheless the careful dealer always keeps them dry indoors until sold. Good farm fence merits like treatment. Salable goods must be presentable. Fencing never did and never will furnish an exception to this self-evident rule.

Fencing kept inside or under shelter where it is clean and dry is the better plan. Sufficient stock, well arranged, is one way to convince a customer that his needs can be taken care of and that the material will be delivered in good condition.



ABOVE, outside storage and display of fencing arranged on platform to prevent deterioration from acids which are found in soil and cinders.



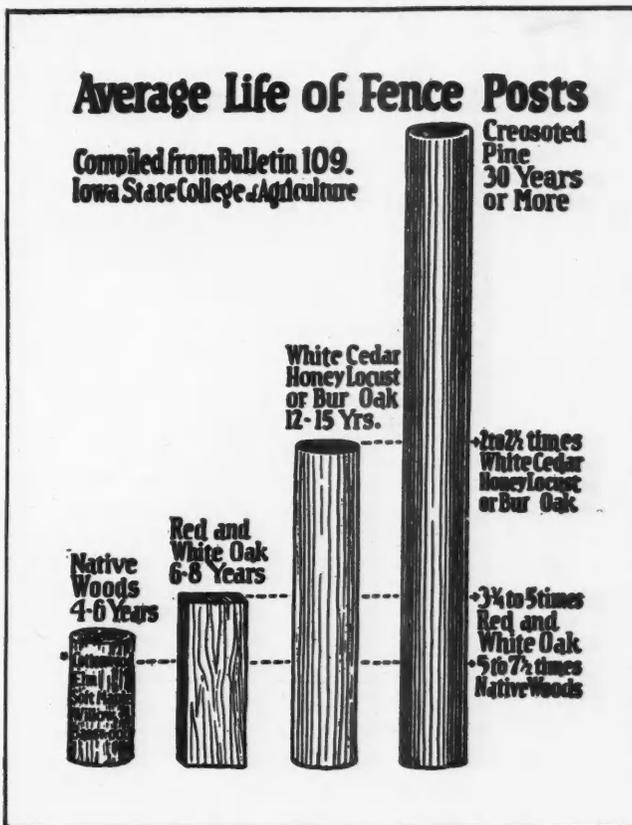
LEFT, careless handling of merchandise as shown here not only results in lost sales from improper treatment but also leads to damaged material due to corrosion.

A few samples placed in display space are good reminders to farmers who come in for other materials. One dealer during the fencing season placed such merchandise as had been ordered in a conspicuous position and labeled it SOLD with the buyer's name on the tag. Others have worked fencing into displays with seasonal goods and featured it in windows. One enterprising dealer in a smaller community was successful in having a competition among the classes of the local school. Picked students alternately trimmed two windows, one every other week. The dealer furnished all material to be used and a cash prize in the name of the group doing the best job went to the school library or musical instrument fund. Three well known citizens acted as judges and made the awards. As a result of this promotion parents flocked to the windows to see the work of these junior window trimmers.

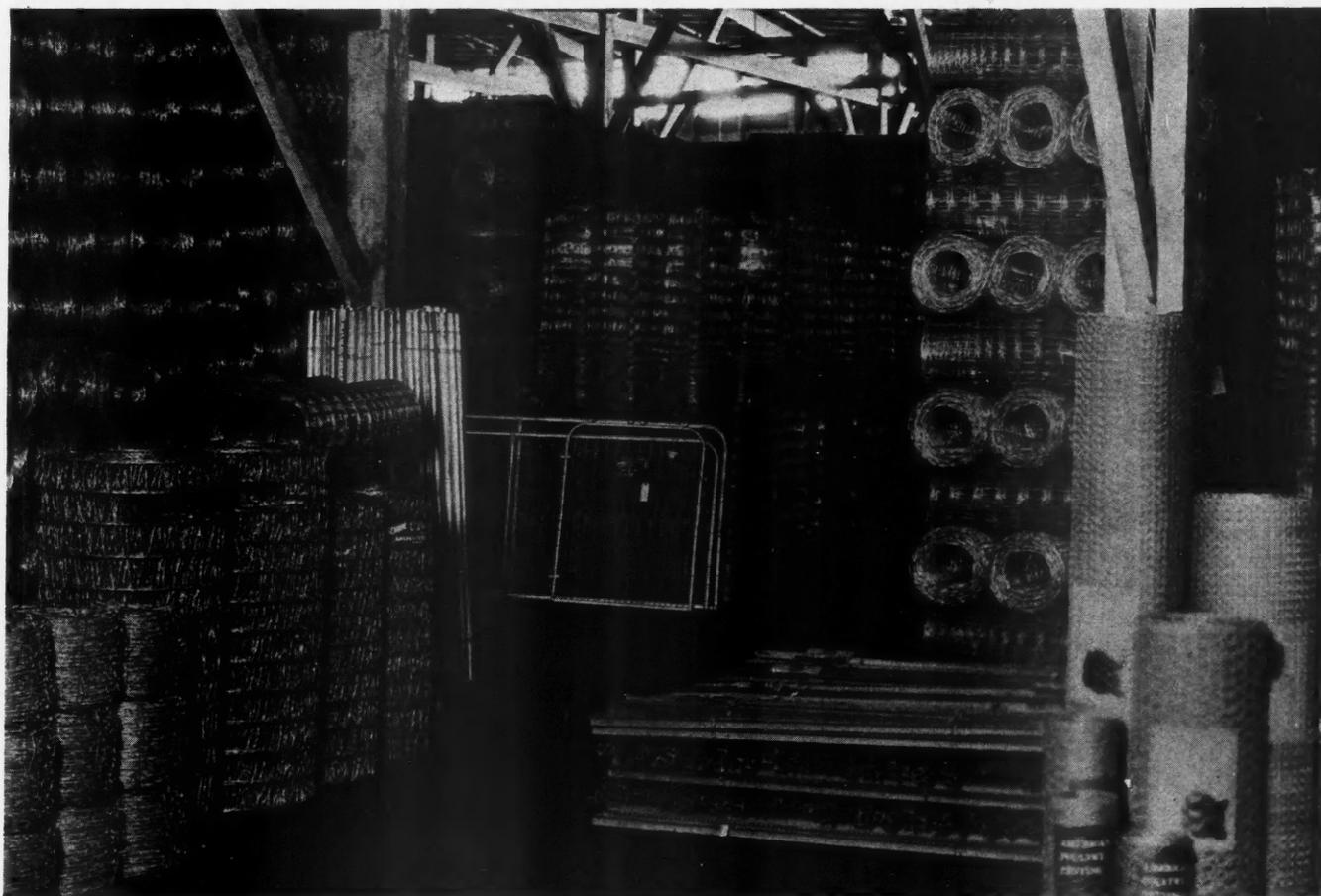
In conclusion, 1936 should offer the dealer an unusual opportunity to make fencing a profitable line—the farmer having more money to spend and having delayed such improvements during the past years. Knowledge of these requirements, together with the proper stock and aggressive sales methods will be the tools required to do the job.

### Helpful New Farm Bulletins

THE United States Department of Agriculture has just released two bulletins, one Farm Bulletin No. 1749, entitled, "Modernizing Farm Houses," and the other Farmers' Bulletin No. 1751, entitled, "Roof Coverings for Farm Buildings and Their Repair." Dealers will find these booklets very useful for circulating among their farm trade, and copies are available at 5c each.



ABOVE, facts which keep the dealer well informed and able to give advice to customers on advantages of various products often create confidence and sales. Below, well stocked and properly stored merchandise, the sign of a wise dealer.



# WHY LEARN?

**W**HY should I spend years of my time at school when so many college men who have degrees are glad to get any kind of a job these days, even if it's a pick and shovel deal?" is a question many fathers are asked these days. When my own son asked me that after two years at High School, I answered:

"Well, if well educated men are having a tough time getting along, what chance will you have if you do not know as much as they do? Many big railroad men had to start with the pick and shovel but they were determined to get farther. They continually studied and learned how to do the boss' job and then the boss' job so as to be ready for something better at all times. They **HAD FAITH** and they **KEPT FAITH**. When they saw others giving up they knew that their chance for advancement was even better. So they kept going just as you should **KEEP GOING NOW**."

After explaining that schooling was simply exercising the brain cells, as golfing, bowling and other games exercise the muscles, he is **WORKING** with a deter-

**A. W. HOLT, well known estimator-merchandiser and convention school-master tells how success is built**

mination to get ready for whatever vocation he may choose and then continually work for something better.

It's the same with lumber dealers. Many have become discouraged and have given up trying for something better. That leaves all the more chances for those who will persevere and have faith in the future. That more and more dealers are determined to get ready for the good years to come is evidenced by the interest shown in the Merchandising Institutes sponsored by the Northwestern Lumbermen's Association.

The first of these "schools" was held at Minneapolis following the largest convention in the history of that most progressive association. The photograph shows that many of the old-timers knew that times had



ONE of Mr. Holt's Classes at the recent Minneapolis Convention of the Northwestern Lumbermen's Association. Yard managers and estimators are here from all over the Northwest, seriously studying the essentials of successful lumber retailing; Secretary Lance and A. W. (himself) standing.

changed and that they had to keep learning. Experienced estimators and salesmen as well as the young beginners came to learn more about the building and selling end of the lumber business. Fifty-four attended. Four came from Detroit, Michigan. One from Salt Lake City. The rest from the Canadian line to within six miles of the Missouri line.

That they were sincerely imbued with a desire to learn was manifested by their close attention for 6½ hours each day for five days. That the subjects covered were very pertinent to their business is obvious after considering the program, reproduced herewith along with the introductory statement from the Association Folder:

#### Merchandising Is the Answer

"This is an age of merchandising. The day of the 'storekeeper' is gone. The buying public demands that every merchant be an expert in his line. Selling is, therefore, the most important phase of the lumber and building material business. Only by improving his merchandising methods can any lumber dealer hope to compete successfully with mail order houses, prefabricated buildings, and other competitive sales programs.

"The Northwestern Lumbermen's Merchandising Institute is designed to give a short course in merchandising of lumber and building materials. The course will be practical, not theoretical, and will embrace the following subjects:

1. Forest Products—Properties of woods—Adaptability of species to various uses.
2. Home Construction—Frame and masonry—from footings to chimney top.
3. Roofs—Use of roof gauge—figuring roof areas, rafters, hips and valleys.
4. Blue Print Reading—Fundamentals and practice.
5. Picture Plan Analysis—Selling from pictures.
6. Floor Plans—Arrangement—Revision—Practicability.
7. The House Valuator—Principles and practice.
8. Units Costs—Basic principles of "square" system.
9. Figuring Areas—Instead of measuring on blue prints.
10. Material Listing—Short cuts that eliminate errors and omissions.
11. Plumbing and Lighting—Fundamentals and principles.
12. Air Conditioning and Heating—Fundamentals and principles.
13. Home Modernizing—Design—Costs.
14. Garages—Sure-fire, simple basic method of figuring costs.
15. Barns and Farm Buildings—'Sectional Costs' systems.
16. Architectural Design and Practice—Selecting correct types—Drafting—Perspective drawing—Basic principles.
17. Paint and Painting—Economy—Quality—Practical demonstration.
18. Concrete Work—Causes of failures—Materials, mixing and application.
19. Plaster—Causes of failures—Materials and application.
20. Practical Selling—Principles and practice—Creating the desire—Advertising—Display—Cash value of courtesy and service.
21. Clay Products—Utility for home and farm buildings purposes."

Similar classes will be held at three other points, the first of which will be at Bismarck, N. D., on Feb. 13th to 15th inclusive, following the North Dakota Convention. One firm has already enrolled fifteen of its managers. Reservations at the Des Moines, Iowa, class on Feb. 27, 28 and 29 indicate that that will be as large as the Minneapolis group; and when the South Dakota Convention adjourns at Huron, S. D., on March 12th, it is predicted that the group that enrolls on the 13th to remain for three days will surpass all expectations. With two months yet to go many dealers are waiting to see what this first group thinks of results and they know well now that all were well pleased.

Many dealers are getting the same results by home study of the Merchandising Council's Service, and by taking full advantage of the up-to-the-minute articles in American Builder. Any dealer who is determined to KEEP FAITH can acquire years of experience in a few weeks by devoting his spare time each day. These students will be the ones who will be ready for the good times that HAVE STARTED. Many others will succeed, of course, but think how much more successful they could have been had they been wise enough to see the true answer to the question, "Why Learn?"

#### Celotex Launches Big Merchandising Program

THE largest Celotex merchandising and advertising program since 1929 was launched by that corporation at the opening of its annual sales convention in New Orleans on January 3rd. More than 200 executives, salesmen and representatives of the company's two advertising agencies attended the six-day meeting at which the 1936 program was discussed.

Prime points of the Celotex program, announced by Harold Knapp, General Sales Manager, are:

1. A greater advertising campaign, both in general publications and home, farm, architectural, building trades, restaurant, school, store, hospital, theatre, church and business magazines.
2. Direct mail campaigns which will run through the year to architects, building contractors, plastering contractors, school and hospital boards and government purchasing agents.
3. A complete new library of more than 150 pieces of Celotex literature covering the uses of Celotex products in every field. This literature will be comprehensive and attractive, Celotex officials state, adding that dealers will be provided with "finer, more powerful selling pieces than they ever have had before."
4. The company's army of field representatives, expanded with the gain in building activity last year, has been further augmented so that dealers may be served in a manner commensurate with the greater gains anticipated this year.
5. The traveling Celotex exhibits, which played a large part in helping dealers capitalize on the 1935 market, will be broadened in scope and number this year to include the promotion of all Celotex products.
6. The company is also undertaking a more intensive program of publicity, in line with the efforts of the Federal Housing Administration, to stimulate interest in new construction and in the repair and improvement of existing structures.

"The total effect of the 1936 program," stated Mr. Knapp, "is to add power to the traditional Celotex merchandising policy, which has been in force since 1921—that our job is not finished when our products are delivered to our dealers, but only when they are sold to the ultimate consumer.

"The first goal of the Celotex program, will be the new home market which, after a six-year decline has turned upward and promises a rapid rise through 1936.

"Home building's revival has reopened the almost dormant market for Celotex lath and sheathing. Now, they should again become prime profit items for the Celotex dealer and the company is devoting a major share of its program to their promotion.

"In the farm market, the company's promotional efforts will be intensified and its advertising and literature expanded. A new booklet for farmers will be available. This booklet will tie in with the Celotex Farm Plan Service which has proved its worth to dealers in farm territory during the past two years.

"A program of promotion for Vaporproofed Low Temperature Insulation will be launched in the food, beverage and refrigeration fields, to breweries, packers, fruit, vegetable and food distributors and manufacturers of refrigeration equipment."

Improvements in the company's products, new products and the expansion of uses and markets for Celotex, which is entailing the expenditure of three quarters of a million dollars on the company's plant at Marrero, La., were announced by T. B. Munroe, Vice President in charge of research and development.

Among the new products now available for distribution by Celotex dealers, is Flexcell, a type of specially treated Celotex used for expansion joints in pavements, sidewalks and roofs, and for similar purposes.

# Tributes

## to the Memory of L. R. PUTMAN

"The attached resolution was adopted by the Executive Committee of the Southern Pine Association at their recent meeting on January 9 at New Orleans.

"We know you will be interested in reading this document because you have perhaps suffered a greater loss than we by reason of your intimate association with him in recent years."

H. C. Berckes, Secy.-Mgr.,  
Southern Pine Assn., New Orleans, La.

### IN MEMORIAM

"WHEREAS God, in His infinite wisdom, has removed from our presence, our beloved friend, L. R. Putman; and

"WHEREAS he has faithfully served the lumber industry, particularly Southern Pine, for so many years, and diligently promoted its interests; and

"WHEREAS his thoughtful counsel and optimism in our councils will be sadly missed; and

"WHEREAS his multitude of friends in the lumber industry and in the advertising profession will feel keenly the loss of their genial, generous, helpful comrade;

"THEREFORE, BE IT RESOLVED, that we pause in our deliberations to revere the memory of our late associate, L. R. Putman, and convey to the bereaved family our most sincere and heartfelt sympathy."

Southern Pine Assn., New Orleans, La.

"I have just received your wire with the shocking news of Mr. Putman's death. It is just unbelievable, because he has always seemed so prodigally endowed with vigorous good health.

"No man in the building industry was more widely known and loved than 'Put.' He was truly the 'Will Rogers' of the building industry, and the entire industry suffers an irreparable loss in his passing, though the heritage of his inspiration and guidance is a rich and permanent one."

Findley M. Torrence, Secy., The Ohio Assn.  
of Retail Lumber Dealers, Xenia, Ohio

"Upon my return home on Jan. 2, I find on my desk notice of Mr. Putman's death as of Dec. 28. This is a great shock to me. 'Put' was ever a loyal friend of mine, and, of course, had many, many friends throughout the industry. The industry and the country can ill afford to lose such men as L. R. Putnam."

E. L. Kurth, Vice Pres., Angelina County  
Lumber Co., Keltys, Tex.

"When I got the notice of the passing on of L. R. Putman I was stunned and shocked.

"'Put' will be missed; I know of no man who had a more sincere following of friends in the Lumber Industry and it will be sad news when it is passed around that he has gone to the 'other side.'"

Tom Lehn, Chicago.

"I was shocked to receive the notice of Mr. Putman's sudden death. While I knew he had not been in the best of health, I had no thought he was in a serious condition. I want to extend my sympathy to the entire staff on the loss of so valuable an associate, and so fine a friend."

H. H. Simmons, Adv. Mgr., Crane Co., Chicago.

"It is with the deepest regret that we learn through your announcement of the death of our friend, Mr. L. R. Putman, for we have known him some ten years, rather intimately at times, and he knew us to be his friends, and we considered him ours."

A. D. Burdette, Burdette Lumber Co., Meridian, Miss.

"We were shocked and grieved to have the advice of the passing of Mr. Putman, vice president and marketing editor of the *American Builder*.

"I am sure that we will all miss his influence, and with this goes our sympathy to his immediate family and organization."

J. F. Coleman, Kinzua Pine Mills Co., Kinzua, Ore.

"We had a very pleasant visit with Mr. Putman here early last fall and he impressed us as being a very fine man."

A. H. Ziegen, Polson Lumber & Shingle Co.,  
Hoquiam, Wash.

"I am shocked beyond measure to learn that my good friend, Mr. Putman, has passed on. You have lost a valuable associate, and I a personal friend of many years standing. It seems almost as though the Great Reaper has been unusually active in the ranks of prominent lumbermen in the past year."

C. Arthur Bruce, Vice Pres.,  
E. L. Bruce Co., Memphis, Tenn.

"We were deeply grieved to learn of the passing of Mr. L. R. Putman. He had been here on several occasions and was very highly regarded by all of us."

Earl M. McGowin, Vice Pres.,  
W. T. Smith Lumber Co., Inc., Chapman, Ala.

"It had been my pleasure to know Mr. Putman for nearly 25 years, and I regarded him very highly indeed as a man of splendid character and great ability in many directions.

"When I first met him in Little Rock, Arkansas, he was then president, I believe, of the Retailers Association in that state, working then for the good of the lumber industry, as he has continued to do the rest of his life. The lumber industry, particularly, will miss him. We need more people of his leadership ability, and can ill afford to lose one."

A. H. Landram, Sales Mgr.,  
St. Paul & Tacoma Lumber Co., Tacoma, Wash.

"Your announcement of the sudden death of our good friend, Leigh R. Putman, brings to us quite a shock. He had many good friends in this organization, and the writer has known him personally over a long period of years. He has been a very constructive factor in the lumber and woodworking industry and we regret to see his passing."

J. W. McClure, Secy.-Treas.,  
National Hardwood Lumber Assn., Chicago.

"Your wire advising me of Mr. Putman's death was not only a shock, but in Mr. Putman I lost a very good friend and you lost a very good man.

"Putman was indeed well thought of by the lumber industry. I, personally, will miss him."

W. H. Badeaux, Secy., Iowa Assn.  
of Lumber & Building Material Dealers,  
Des Moines, Ia.

"Mr. Putman was well known to us in his former connection with the Southern Pine Association and also since he had become associated with your company.

"He was a man of sterling character and outstanding ability and in his death we feel that the lumber industry has lost a worthy champion. We extend to your organization our sincere sympathy."

Dierks Lumber & Coal Co., Kansas City, Mo.

By Herman Dierks

(Continued to page 144)

**Don't let this prospect get away from you!**



He is looking for a certain advertised product. Perhaps you sell it. But unless he knows that you do, he may pass you right up.

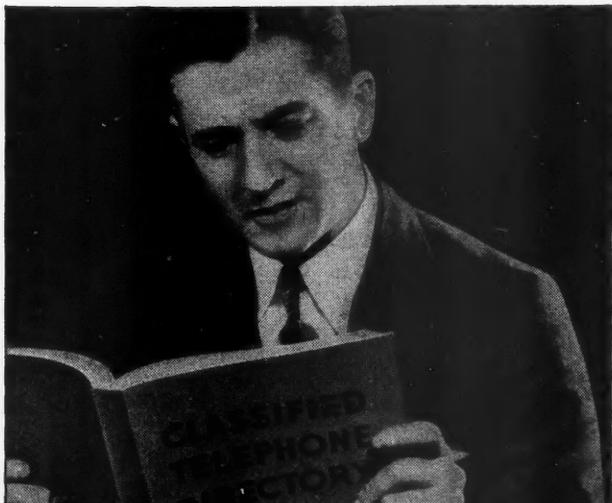
One easy, effective way to tell him is to list your name in the classified telephone directory, under the trade marks of the advertised brands you are authorized to sell.

Also see that your name appears under every im-

portant classification pertaining to your business—Roofing, Building Materials, Paints, Contractors, etc.

When people want a job done they look in the classified directory, sometimes for a brand name, sometimes for a general classification. If you want that business see that you are adequately listed.

For full information, telephone your local Directory Representative.



**CLASSIFIED TELEPHONE DIRECTORY**

**Paint Retail—(Cont'd)**

**MOORE BENJAMIN PAINTS**

Sole manufacturers of Murecco and Utilac: Also a Complete Line of Paints and Varnishes. Used for Over Fifty Years by Decorators and Consumers.



**"WHERE TO BUY IT"**  
**OFFICE & FACTORY**  
**MOORE BENJAMIN & CO**  
1630 S 2nd. CE ntrl-4060

**DEALERS**

**BULGER HARDWARE CO**  
4457 Delmar. FR ankn-9269

**Cherokee How Co** 2206 Cherokee. PR ospet-9607

**SALES BROS HOW CO**  
1414 Broadway. CA heny-8322

**Paint Retail**

BEFF  
SUI  
Oil

Camp  
So

GEN  
E

CE  
CI

A LISTING, LIKE THIS ONE, IN THE CLASSIFIED TELEPHONE DIRECTORY, WOULD HELP MAKE HIM A CUSTOMER

# CO-OPERATION—Keynote of the Northwestern Lumbermen's Convention

## Roger S. Finkbine in Convention Message Points to Better Year in 1936 with Co- operation As Price of Profit for Dealers

**T**HE 46th Annual Convention of the Northwestern Lumbermen's Association, held Jan. 14-16 in the Municipal Auditorium, Minneapolis, was judged one of the most outstanding meetings ever held by that group. A large attendance found instructive information in the attractive displays of the 140 exhibitors as well as in the various addresses and special sessions. A well rounded program for the members' enjoyment added to the success of the meeting.

The banquet of the Twin Cities Hoo-Hoo Club and the Mississippi Valley Sash and Door Salesmen's Association was the feature of the first evening, and the Lumbermen's Follies of 1936 the second night were the highlights of the entertainment.

Preceding a round table discussion of several of the most vital problems confronting dealers, a three act play was presented, "The Harmon Lumber Company, Rejuvenated," written by Ormie C. Lance and A. W. Holt. While the audience found plenty of laughs in this sketch dealing with the modernizing of out of date business methods, much common sense and many merchandising ideas were packed between the lines.

Some of the speeches at the sessions were delivered by such notable industry men as: George W. La Pointe, Jr., president, National Retail Lumber Dealers Assn.; W. W. Woodbridge, Red Cedar Shingle Bureau; J. L. Burt, president of the Wisconsin Retail Lumbermen's Assn.; H. T. Kendall, Weyerhaeuser Sales Co.; Edward J. Mehren, president, Portland Cement Assn.

Roger S. Finkbine, president of the Northwestern Association, in the annual message set the keynote for the other speakers with the slogan, "Co-operation—the Price of Profit." Excerpts from this talk, in which need for closer relationships between the various portions of the industry are stressed, follow:

"While the past year has been a very strenuous one in the retail lumber business, I feel sure that practically all of us have enjoyed a more satisfactory business year in most respects—a year of larger volumes—a year of perhaps not the profits that we would like, but a year that we can at least look back on, with more of a feeling of respect that upon the two or three preceding it. And it is my sincere belief that 1936 will be a much better year for the building industry in these four states.

"But if we are to enjoy a better business, if we hope to reap all the benefits we can from what appear to be better times ahead in these agricultural states, I believe that there are several matters in which we, sometimes as individuals, in some cases as an association, should take a more decisive hand. I believe that we should take a more positive step toward curbing practices



Ormie C. Lance, Secretary, Northwestern Lumbermen's Association.

detrimental to our business. I believe that we must more actively support the work of other individuals, of other associations and manufacturers in their attempt to make better conditions in our industry. And I think that we should check over our own family very carefully, to see perchance if some one of our own children 'might not have the measles.'

"One of the things in which a great deal of good has been accomplished during the past year has been in the relationship between manufacturer and dealer. With very few exceptions the manufacturers have shown a very splendid willingness to co-operate with us. In most respects, I believe that those relationships as an industry are on the best footing, and are more satisfactory to all concerned than they ever have been before. With the manufacturers, we have always maintained

it is our right to distribute our goods to the consumer in our own manner without interference. The good manufacturer or distributor is our rightful source of supply and it is only fair that we should respect his rights as a distributor as well.

"But we, as retail lumber dealers ourselves, have perhaps more to do to make our future a successful one. A great many of the troubles into which we have fallen in the past have been due to the fact that we have been too prone to let the other fellow do it, too much wrapped up in our own affairs to counsel with other lumbermen, too self-centered perhaps to do our share in working out our problems.

"I do not believe that we can any longer be such 'splendid isolationists.' I believe we all must come, and rapidly are coming to the realization that what hurts Bill Jones in North Dakota might very seriously affect Tom Smith in Iowa; that such things as government interference in business, or unfair trade practices by manufacturer or dealer any place in the territory are a reflection on us individually; that the only way we can possibly hope to keep ourselves on the proper business plane is by acting as one in all matters pertaining to our industry while still keeping our individualism as business men.

"The only successful way that has been devised to do this is through an association such as ours.

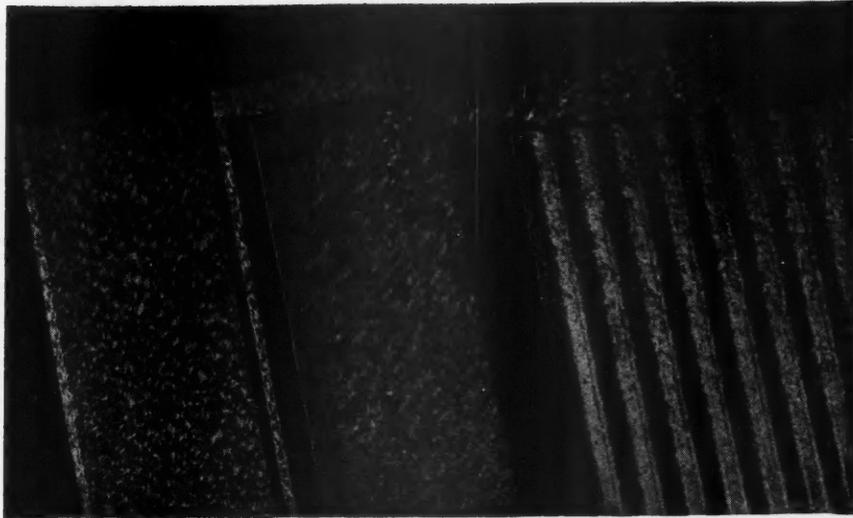
"A wise man has respect for organization—that is why wise men organize. Forty-six years of organization have taught us the value of an organization among lumbermen."

**UNITED STATES STEEL**



SAVE TIME AND MONEY—ORDER IN MIXED CAR LOTS

... and as for **STEEL SHEETS**

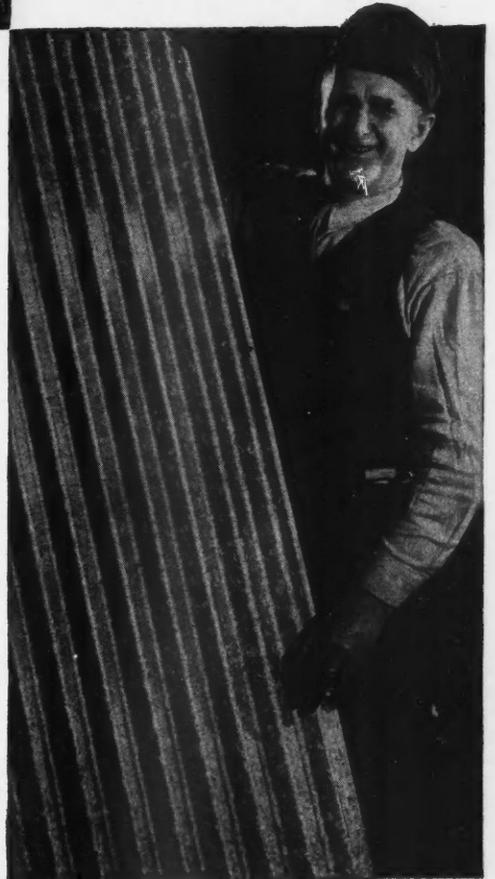


**There Are None  
Better, None  
More Profitable  
to Handle,  
Than These**

● Steel sheets may *look* alike. But all steel sheets don't *wear* alike. You're sure you are giving your customers the best in sheet metal roofing and siding when you handle American, Tennessee, or Columbia sheets. These sheets are *full gauge*, with the full weight value that insures long life. All types—rust-resisting copper bearing, galvanized, black . . . plain, corrugated, or V-crimped. Write for prices and complete information.

American Sheet and Tin Plate Co., Pittsburgh, Pa.  
Tennessee Coal, Iron and R. R. Co., Birmingham, Ala.  
Columbia Steel Company, San Francisco, California

There are none better than these brands



**AMERICAN · TENNESSEE · COLUMBIA**



# Balanced

## PRE-SHRUNK

# LUMBER

**BALANCED LUMBER** means that the moisture in the lumber is in balance with the moisture in the air. That means that the lumber will neither shrink nor swell under average use conditions.

**DIERKS LUMBER IS PRE-SHRUNK**—scientifically seasoned in modern steam dry kilns. It *stocks better—sells better—serves better*. Sell Quality Lumber—**DIERKS BALANCED** (pre-shrunk) **PINE**. Ask for new descriptive folder.

**DIERKS LUMBER & COAL COMPANY**  
DIERKS BLDG. KANSAS CITY, MO.



# DIERKS

*Kiln-Dried* **LUMBER**



## TRIBUTES

### To the Memory of L. R. PUTMAN

(Continued from page 138)

"We acknowledge with deep regret your telegraphic advice of December 30th announcing the passing of our mutual friend, Leigh R. Putman. This is a distinct loss to the lumber and construction industries, both of which profited by the high plane on which he conducted his personal business affairs. In addition to this outstanding fact, let us rejoice together over the very charming personality which he had, and which was a help to all of us."

Ralph E. Hill, Secy.-Treas.,  
National Oak Flooring Mfrs. Assn., Memphis, Tenn.

"Today I received the January copy of the American Builder and with it the first information of Mr. Putman's death, which fact made me feel bad; he was a valuable man to your organization, I am sure, and to the material dealers in general."

J. M. Clemensen, Mgr.,  
Long Lake Lumber Co., Long Lake, Ill.

"May I say just a word—enough to be something of a tribute to 'Put,' without adding to your grief? His sudden death was a great shock to all of us old timers around the National Lumber Manufacturers Association who had the pleasure of knowing him.

"He helped and befriended me many times and I shall always be grateful to him. I found him always to be a man of steady temper, dependability and good will. It is superfluous to say anything about his energy and resourcefulness.

"If he had even a moment for reflection before he was called, I am sure that he must have thought with satisfaction of the fine splendid, high quality American family that surrounded him. It is in these hours of trial by death that people who have fine and faithful children have such an advantage over those who have no survivors."

Theo. M. Knappen, National  
Lumber Manufacturers Assn., Washington, D. C.

"It is with a sense of shock and grief that I received the news conveyed by your announcement of December 30 that Dick Putman is no longer with us. It seems impossible to believe that this can be true. He so radiated cheer and vitality that it is hard to believe he could be cut down so suddenly.

"In the loss which has come to you and to the entire lumber and building material industry, you have the sympathy of hundreds of the friends and admirers of Dick Putman. He was regarded as a personal friend by thousands of men from coast to coast. He stimulated the thinking of more thousands who did not know him personally. In your loss the Northeastern Association extends to you its deep sympathy.

"It is a coincidence that I received this notice just as I was about to write to Mr. Putman concerning his participation on our convention program."

Paul S. Collier, Secy.-Mgr.,  
Northeastern Retail Lumbermen's Assn.,  
Rochester, N. Y.

"Word of Put's sudden passing was a real shock to me and I am sure it was to everyone who knew him; which, in reality, means a large portion of the building industry as he, through his untiring efforts and happy disposition, had made a host of friends.

"Our various industry conferences are bound to miss him as he was a dynamic character."

Russell G. Creviston, Director, Adv. &  
Sales Promotion, Crane Co., Chicago.

"We feel that the industry has sustained a great loss through the death of Mr. Putman and we know that your good paper will seriously miss his going."

Michigan Retail Lumber Dealers Assn., Lansing, Mich.

(Continued to page 146)

# Are YOU in this picture?



*The people in this picture are studying Home Owners' Catalogs.*

*The man with the pencil and order pad could be you.*

*An easy sale is being made!*

## **Firms Whose Catalogs Are Distributed Through Home Owners' Catalogs**

Altman, B. & Co.  
 American Blower Co.  
 American Brass Co.  
 American Lumber & Treating Co.  
 American Radiator Co.  
 Architectural Decorating Co.  
 Barber-Colman Co. of Mass.  
 Barrett Co., The  
 Birge, Wm. H. & Sons  
 Bryant Heater Co.  
 Burnham Boiler Corp.  
 Carey, Phillip, Co.  
 Chamberlin Metal  
 Weather Strip Co.  
 Chase Brass & Copper Co.  
 Crane Company  
 Curtis Companies, Inc.  
 Dant & Russell  
 Detroit Steel Products Co.  
 Donley Brothers Company  
 E. I. du Pont de Nemours & Co., Inc.  
 Enterprise Boiler & Tank Co.  
 Flat Metal Manufacturing Co.  
 Florida Louisiana Red Cypress Co.  
 Fox Furnace Company  
 Gar Wood Industries, Inc.  
 General Kontrolar Co., Inc.  
 Grand Rapids Plaster Co.  
 Henry Furnace & Foundry Co.  
 Huttig Manufacturing Co.  
 Illinois Shade Cloth Corp.  
 Indiana Limestone Co.  
 Iron Fireman Mfg. Co.  
 Johns-Manville Corp.  
 Johnson Metal Products Co.  
 Kawneer Company, The  
 Kerner Incinerator Co.  
 Kitchen Maid Corp.  
 Libbey-Owens-Ford Glass Co.  
 Lightoller Company  
 Littlefield-Wyman Nurseries  
 Ludowiel-Celadon Co.  
 Majestic Company, The  
 Masonite Corporation  
 Mueller Brass Company  
 Nahigian Bros.  
 New York Telephone Co.  
 Northern Indiana Brass Co.  
 Overhead Door Co., Inc.  
 Pittsburgh Plate Glass Co.  
 Roberts & Mander Stove Co.  
 Rolscreen Company  
 Siskrafft Company, The  
 Terre Haute Boiler Works Co.  
 Truscon Steel Co.  
 United States Radiator Corp.  
 Waterman-Waterbury Co.  
 Weatherbest Corp.  
 Webster, Warren & Co.  
 Western Pine Association

**T**HINK of the opportunities that are yours. Hundreds of copies of Home Owners' Catalogs are being distributed every week—many of them right in your territory. Every one of them a market place where you can sit down with a ready buyer who has declared his intention to spend \$4000 or more for the building or modernizing of his home. Here is an unprecedented opportunity to discuss the merits of the products you sell—provided you handle the materials and equipment of some of the firms listed in the column at the left. Check the names carefully.

These leading manufacturers distribute their beautifully illustrated and comprehensive literature in Home Owners' Catalogs because this big handsome volume is sent to practically every qualified home owner in the 37 states East of the Rocky Mountains—as soon as they are discovered by the million dollar Dodge Reports field organization.

Owners, architects and contractors have confidence in products described in Home Owners' Catalogs. It will pay you to feature these lines in your show rooms and in your advertising. Then use Home Owners' Catalogs in your selling, and discover a new and easy way to get business.

If you want more of your lines included in Home Owners' Catalogs, show such manufacturers the important sales advantages of such representation.

# HOME OWNERS' CATALOGS

Published by F. W. DODGE CORPORATION, New York, N. Y.

If you have a customer who is planning to build a home for his own occupancy (or make alterations) to cost \$4,000 or more—East of the Rocky Mountains—you can arrange to have Home Owners' Catalogs.

### Sent With Your Compliments

if he has not already received it. A supply of special application blanks will be sent if you

## Use the Coupon

F. W. Dodge Corporation, AB236  
 119 West 40th Street, New York, N. Y.

Please send me a supply of application blanks for use in obtaining copies of Home Owners' Catalogs for my customers who are planning to build or modernize.

Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_

## TRIBUTES

### To the Memory of L. R. PUTMAN

(Continued from page 144)

"The industry is losing, in Mr. Putman, one of its staunchest supporters and possibly one of the most forward thinkers for the best interest of the industry in his time.

"Mr. Putman has done much to lift the lumber industry from its sordid ways to a higher plane of business ethics and business methods, and has laid plans and foundations upon which the industry may build successfully for years to come."

John L. Avery, Gen. Sales Mgr.,  
Frost Lumber Industries, Inc., Shreveport, La.

"During his life Mr. Putman performed a great service to the lumber industry, and we feel that his passing will be a great loss to many of us who appreciated the good work done by him."

J. F. Wigginton, Pres., Florida Louisiana  
Red Cypress Co., Jacksonville, Fla.

"The building industry can ill afford to lose a man of his character, ability, experience, and personal charm.

"All of us who knew Mr. Putnam wish to extend our sincere sympathy and regrets to his business associates and family. He will not be soon forgotten."

H. C. Rush, Adv. Mgr.,  
E. L. Bruce Co., Memphis, Tenn.

"I was grieved to learn of the passing of Leigh R. Putman. 'Put' had a lot of admirers in this lumber community, and in his passing the Lumber Industry, as well as the Publishing Industry, has lost a loyal friend."

Jerome G. Galvin, Jerome G. Galvin  
Advertising Co., Kansas City, Mo.

"We certainly were shocked to receive your card advising us of the death of Leigh R. Putman, vice president and marketing editor of the American Builder.

"We did not know of any illness affecting Mr. Putnam and had always considered him to be in the best of health. In fact, we had a pleasant visit with him in Chicago not many weeks ago, while discussing the programs of several conventions in the Middle West. We held Mr. Putman in very high regard and regret, indeed, that he is now removed from our midst, and particularly from the staff of your most splendid magazine."

Ormie C. Lance, Secy., Northwestern  
Lumbermen's Assn., Minneapolis, Minn.

"Dick was an intimate personal friend of all of us SPA folks who had worked with him for so many years and we still looked upon him as 'one of us' regardless of his affiliation with other interests.

"He was such a cheerful, genial, helpful friend, always speaking well of everybody else, no matter what he might know about them which would cause others to be less charitable, that he simply could not help making friends by just meeting people."

Albert R. Israel, Southern Pine Assn.,  
New Orleans, La.

"The many friends of L. R. Putman were shocked and grieved to read in the Kansas City Times this morning of his untimely death. While Mr. Putman's activities took him all over the United States, we always regarded him as one of 'our own,' and he was held in esteem and affection by all who knew him."

E. E. Woods, Secy., The Southwestern  
Lumbermen's Assn., Kansas City, Mo.

"I have your letter of January 14th and it brought me the sad news of Mr. Putman's death.

"While I had known him for only a comparatively short time, yet I felt that he was a real friend. He did a real job for us, and I know you and your associates have suffered a great loss"

W. D. FLANDERS, Deputy Administrator,  
Federal Housing Administration, Washington, D. C.

"Take the word of an old timer...

...you CAN rely on



#### GLIDDEN for Guaranteed Sales!"

I've been selling paint for 20 years. Handled five different lines the first nine years. Then took on Glidden—and I stuck!

Why? I found that Glidden gave me *two* things I needed most.

- FIRST—a full line of the finest Quality.
- SECOND—a Guaranteed Increase in Sales.

I'm *positive* about Glidden quality. Went to the plant—saw how they controlled manufacture—watched their technical men in the laboratory. But the **BIG** thing that has kept me sold on Glidden is that they've got *real ideas* about helping me cash in on their merchandise.

Glidden "Help You Sell" methods keep the goods moving out and the profits moving in. They help me land big jobs—and *hold* my customers. This Glidden line is a business builder.

Take the word of an old timer—I know.

THE GLIDDEN COMPANY • Cleveland, Ohio

# GLIDDEN PAINTS

Paints  
Varnishes

Everywhere on Everything

Lacquers  
Enamels



from  
*Forest to Your Track*  
**FROST PINE**



Gives you what it takes to build a *permanent* reputation for quality stock. For FROST PINE'S uniform high quality begins in the log . . . is skillfully safeguarded in every detail of manufacture, drying and machine-work . . . and is properly protected in loading for shipment, for delivery at your yard in prime condition.

It is by such close attention to details that FROST has brought the quality of its lumber products up to the standard of fine merchandise . . . a standard which holds good in every item from FROST PINE boards and dimension to FROST PINE finish, mouldings and package trim\*.

**READY NOW FOR YOUR ORDER IN STRAIGHT  
 OR MIXED CARS**

FROST PINE quality in Long and Short Leaf Yellow Pine and Arkansas Soft Pine with which we can load FROSTBRAND Oak Flooring and Southern Hardwood items.

**FROST LUMBER INDUSTRIES, Inc.**  
**SHREVEPORT, LOUISIANA**

ST. LOUIS, MO.

NEW YORK CITY

( Frost now operates a complete treating plant for the Wolmanizing of lumber . . . an impregnation process affording certified protection against termites and decay. )

\*TrimPak Pat.



## Selling—Management—Profits

(Continued from page 121)

That's why we are here studying ways and means to improve your sales technique. Our advertising schedule is going to get more prospects than we would be able to sell if each and every one of you could do as good a job as the five men who stand at the top of the list. Yet each one of you has exactly the same opportunities and some of you even have better territories. The eternal problem is to find men who understand our products and believe in them sufficiently to enable them to do a good job of convincing."

Pretty neat, we call it.

### FANCY FIGURES

WE HAVE just made a visit to a lumber yard which gave us one of the greatest thrills we ever enjoyed in our somewhat extended connection with the industry.

It wasn't a particularly good looking yard nor a very big one but Mr. Owner certainly knew how to sell lumber at a profit.

He was so well schooled in the art of installment selling so that he was able to obtain his full mark up on the business that he was doing. Furthermore, he was located in an area where price competition was so severe that there seemed to be no "bottom" to the prices at which estimates were being sold.

All of which did not concern the dealer in question one whit for he went on the even tenor of his way making sales in his own efficient manner on the monthly installment basis and getting cash when the deal was completed.

If, perchance, you might be interested in the extent

of said dealer's activities in this direction, we don't mind telling you that his sales from August 1st to January 1st amounted to \$212,000 in round numbers. Just sort of roll that figure around in your mind. It certainly should give you a fairly comprehensive idea of what is happening in an industry that suddenly finds installment selling in its midst doing things for dealers who know how to use it that no one ever expected could be done in an industry where the rank and file is still pretty well steeped in the traditional method of selling on the lump sum basis and waiting for deals to develop of their own sweet will and accord.

### LEARNING

THIS IS what a prominent retail lumber dealer told us he learned in 1935:

(a) That in the retail field it is no longer sufficient to be a dealer in lumber. It requires a merchant in fact as well as in name.

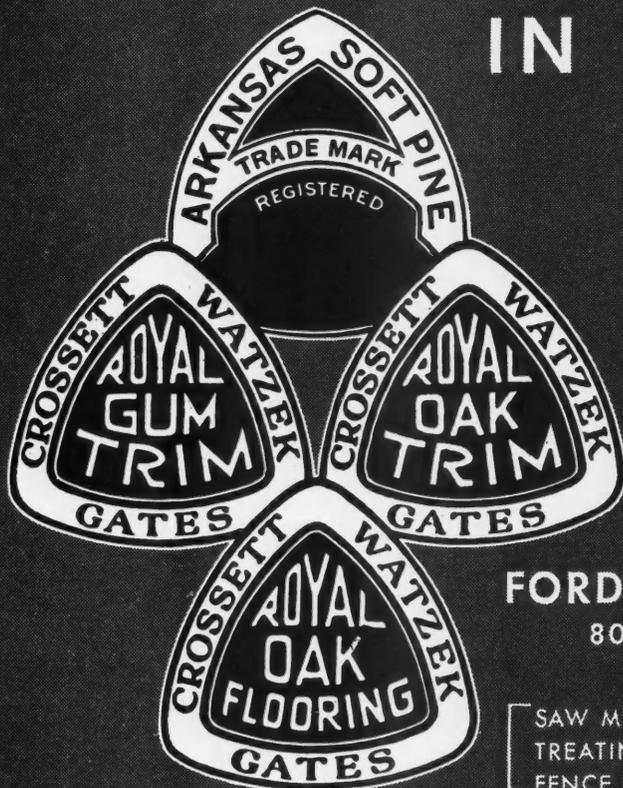
(b) That, due to trucks and all weather roads, so-called territorial lines are becoming obliterated and local price set-ups ineffective and obsolete.

(c) That the phenomenal growth of cash-and-carry and mail order sales, which has hurt chiefly the weak spots in the retail field and the aggressive up-to-date merchant very little, is merely one of many straws showing the direction of the wind, and that Association aid and manufacturers' protection are no longer sufficient for the retailer's security. He must rely more and more upon his own merchandising ability to survive.

(d) That the aggressive, up-to-date merchant who senses these forward changes and who shapes his meth-

(Continued to page 150)

# SYMBOLS OF ROYAL QUALITY IN A ROYAL LINE



Hallmarks of excellence which signify accurate manufacture, correct seasoning and a thorough understanding of lumber dealers' requirements, developed in more than 30 years of comprehensive service to the trade.

Items in all four Famous Products available in straight or mixed cars with which we can load mouldings, yard stock and Southern hardwoods.

**FORDYCE-CROSSETT SALES CO.**

80 EAST JACKSON, CHICAGO, ILL.

Southern Office: Fordyce, Arkansas

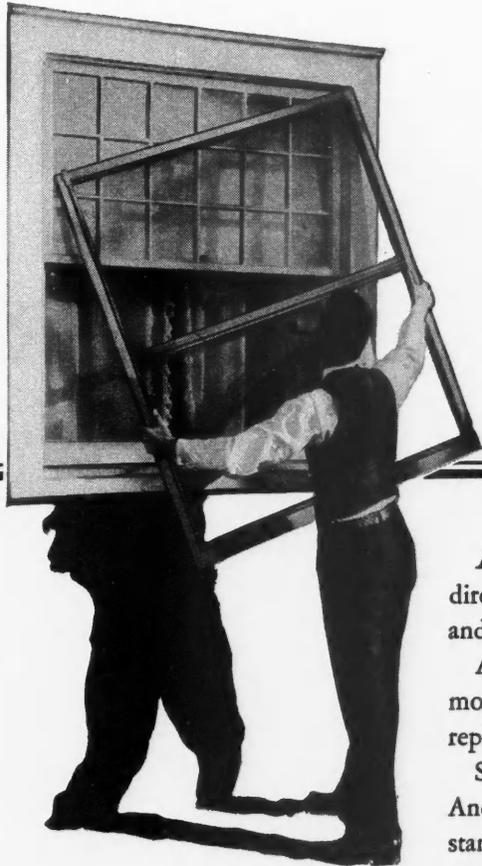
SAW MILLS, FLOORING FACTORIES, WAREHOUSES AND TREATING PLANTS FOR WOLMANIZING OF LUMBER, FENCE POSTS AND TIMBERS: Fordyce and Crossett, Ark.

TRADE-MARKS REGISTERED

CROSSETT WATZEK GATES INDUSTRIES

# FOUR FACTS ABOUT BRONZE SCREENS

1. Can't rust
2. Do not need patching
3. Last years longer
4. Save far more than  
their slight extra cost



Again this year Anaconda Bronze Wire for screens will be advertised direct to the public in *The Saturday Evening Post*, *Better Homes and Gardens* and *American Home*.

Again this year more people will buy bronze screening . . . for every year more people learn that the rusting kind costs far too much for repairs and replacements.

So, this spring, be sure to carry an adequate stock of bronze screen cloth. And remember that most of your customers who buy it will expect it to stand up year after year. To assure maximum service in screen doors and other screens subject to rough handling, the wire should be of the standard gauge set by the U. S. Government, the A. S. T. M. and the Wire Screen Cloth Manufacturers' Institute. It measures .0113" in diameter, and makes up into 16-mesh cloth which weighs not less than 15 lbs. per 100 sq. ft.

We suggest you order screening of Anaconda Bronze from your wholesaler now. We do not make screen cloth, but furnish Bronze Wire to leading screen cloth manufacturers.

**THE AMERICAN BRASS COMPANY**  
General Offices: Waterbury, Conn. • *Offices and Agencies in Principal Cities*



*Screens of*  
**ANACONDA BRONZE**

**Selling—Management—Profits**

(Continued from page 148)

ods to conform will continue to grow and prosper and to be a credit to his industry and his community.

(e) That leading manufacturers have discounted this New Era of merchandising well in advance by refinement of products, improved service on orders and shipments, national advertising, merchandising plans and information, and a financing service to help the progressive retailer secure his position when methods of the old order shall fail.

(f) That these aids to the retailer, like tools requiring a workman, are effective only as they are placed in the hands of the right type of merchants.

(g) That how well I do this job today will determine my future happiness and prosperity. Yesterday has gone, tomorrow may never come but today is here with today's needs and problems. Only what I do today will keep the wheels turning.

(h) That these forward changes in lumber distribution are coming like an avalanche—that they will engulf any concern or person who cannot or will not keep ahead of them—and that this New Era of merchandising promises big rewards for the dealer who is awake to its opportunities and equal to its demands.

**THE TOP OF THE LIST**

**WE** GOT a great bang out of this one. We feel certain that you will too, assuming that you are a retail lumber dealer. It's the best news we have heard in many a moon and we hurriedly pass it on to you for consumption.

We have just learned that a survey has recently been completed that was conducted for the purpose of determining which retail business stands the best chance of making real honest-to-goodness money and progress during the next few years—just how many years deponent sayeth not. Anyway, here is the story as it came to us. We can't tell you the names of the business men nor their reason for spending as much money as they did to obtain the information.

You will be particularly interested in the fact that when the economists and research organizations employed to obtain the information finished the job the retail lumber business stood at the top of the list!

That merely means that it has the greatest opportunities. It doesn't mean that those who are unable to make the most of the occasion are going to get rich in spite of themselves. The survey took a large number of factors into consideration—factors such as we have mentioned above. When all of the work had been done it was concluded that the retail lumber dealer who is able to adapt himself to the rapidly changing conditions will make more money than any other retailer of any other product.

The survey, of course, emphasized the fact we have previously mentioned that new merchandisers will flock to a field which promises to be so lucrative. In other words, if the retail dealer doesn't take advantage of the situation somebody else will. And there are unmistakable signs that the "somebody elses" are already beginning to do it.

Orderly procedure to crack the enormous market that already exists is an essential factor. Probably no one knows what is going to happen or just when it will happen but the concensus among some of our best thinkers is that the retail lumber dealer is now faced with his greatest opportunity to make some real honest-to-goodness money.



**BANNER HAS A DOUBLE MEANING**

Banner means quality lime products which are unsurpassed in workability and durability.

Banner means a company whose reliability and straight forward methods have governed the conduct of its business since 1907.

In both product and service, Banner means satisfaction.

**NATIONAL MORTAR & SUPPLY CO.**

GIBSONBURG, OHIO

PITTSBURGH, PA.

- |   |  |
|---|--|
| Banner Finishing Lime-Hydrated              | Banner Quick Lime—<br>lump and pulverized                                      |
| Banner Base Coat Lime-Fibered               | Banner Pulverized<br>Agricultural Limestone                                    |
| Superior Masons Lime-Hydrated               | Banner Pulomite Limestone—<br>for asphalt filler<br>and coal mine rock dusting |
| Banner Boy Household Lime—<br>5, 10, 25 lb. | Raw Dolomite Stone   |
| Banner Agricultural<br>Lime-Hydrated        |  |
| Banner Superfine Spray Lime                 |  |

*Banner Lime*  
**FAMOUS OHIO DOLOMITE**

# Farmers' 1935 Spendable Income Best in 6 Years • • 1936 Even Bigger • •



**F**OR 1935 — \$3,700,000,000.00 is the estimated total for Farmers' spendable income — it's sure to be still larger in 1936! What share of this will you get? The MID-STATES 1936 Sales Plan helps you sell the farmer—helps you swing a greater share of his business your way.

Don't wait — start now with a systematic merchandising program that will make your *income go up* in 1936. The MID-STATES Plan is the answer—it's inexpensive to operate — and *it works!*

*Manufacturers of—Field, Poultry, Industrial Fence, Barbed Wire, Steel Posts, Nails, Bale Ties, Fence Stays, Staples, Steel, and Wood Gates, Ornamental Fabric and Gates, Sheet Metal Products.*

## ADRIAN STIFF STAY

"Galvannealed" — Copper-Bearing. The fence that stands up and gives dependable, hog-tight service years after ordinary galvanized is down. Reputation makes ADRIAN a big seller.

## BEN HUR WRAP STAY

"Galvannealed" — Copper-Bearing. Famed for its durable sturdiness. Backed by years of fence line satisfaction.

## S T A R STIFF STAY

"Galvannealed" — Copper-Bearing. Lasts years longer. Costs no more than any other standard brand.

*("Galvannealed" wire produced under Keystone license)*

# MID-STATES STEEL & WIRE CO.

Dept. S-24

CRAWFORDSVILLE, INDIANA

**FIR~HEMLOCK~RED CEDAR SHINGLES**



**50-Years' Service to the Trade**

In every way, you'll find it to your interest to let us supply your needs. We have been outstanding producers in this District since the pioneer bull team days—and have the timber, the experience and the modern mill facilities to give you just what you want in:

**FIR AND HEMLOCK LUMBER—KILN DRIED SHED STOCK—COMMON DIMENSION, BOARDS—SIDING, CEILING, FLOORING, STEPPING, FINISH—RED CEDAR SHINGLES, KILN DRIED OR GREEN, 16" OR 18".**

Our prompt, intelligent attention to your inquiries and orders will relieve your buying worries.

Members—West Coast Lumbermen's Ass'n., and Red Cedar Shingle Bureau.

**POLSON LUMBER & SHINGLE CO.**  
HOQUIAM, WASH.



**A Better Satin Finish for Walls and Woodwork**

Velva-Gloss makes bathroom and kitchen walls and woodwork glow with a washable, satin-smooth modified gloss.



Master painters swear by it. Home owners love its easy-to-clean, beautiful pastel tints and lovely white.

Velva-Gloss is just one of many better Foy finishes that help dealers build a more profitable business.

Write for details of the Foy franchise.

**The Foy Paint Co., Inc.**

CINCINNATI, OHIO

Owners of The Cincinnati Varnish Company  
Established 1865

## LEGAL HELPS

for Lumber Dealers

### Unloading Car of Lumber as Constituting an Acceptance

BY LESLIE CHILDS

WHEN A DEALER decides to reject a shipment of lumber, on the ground that it does not comply with his order, or for other reasons, he may well watch his p's and q's in exercising any acts of ownership over the shipment. For, as a usual rule, the exercise of such rights may, in themselves, constitute an acceptance.

Of course, the facts of each case of this kind will determine its outcome; the subject then cannot be covered by the statement of any hard and fast rule. But, as an example of judicial reasoning on this point and the importance of the exercise of great care in situations of this kind, the following case may be examined with profit.

#### Dealers Reject, Then Unload Shipment of Lumber

Here the defendants, retail lumber dealers, contemplated opening a new yard, and ordered a carload of lumber from the plaintiff. This order was given through plaintiff's broker. When the car arrived the defendants discovered that, while the contents was true to the invoice, it did not comply with their order as given. The defendants decided to reject the shipment and wrote plaintiff, in part, as follows:

"We are in receipt of your invoice covering car A.T.47916, containing finish for our opening stock in our new yard here. This shipment is so out of all proportion and reason to what we ordered that we have phoned (the broker) to refuse the car, but he has been out of the city, and we have gone ahead and unloaded the car in order to save demurrage.

"This is notice to you that we are not going to accept this car shipped in this condition at these prices, and as soon as I can see (the broker) I will tell him what we will do."

Now at this point it should be noted that, while the defendants unqualifiedly rejected the shipment they proceeded to unload it. Soon thereafter the shipment was destroyed by fire in defendant's yard, and the plaintiff demanded payment for the shipment in full. This on the ground that, despite the defendant's rejection of the lumber, their acts in unloading it constituted such an act of ownership as to constitute an acceptance as a matter of law.

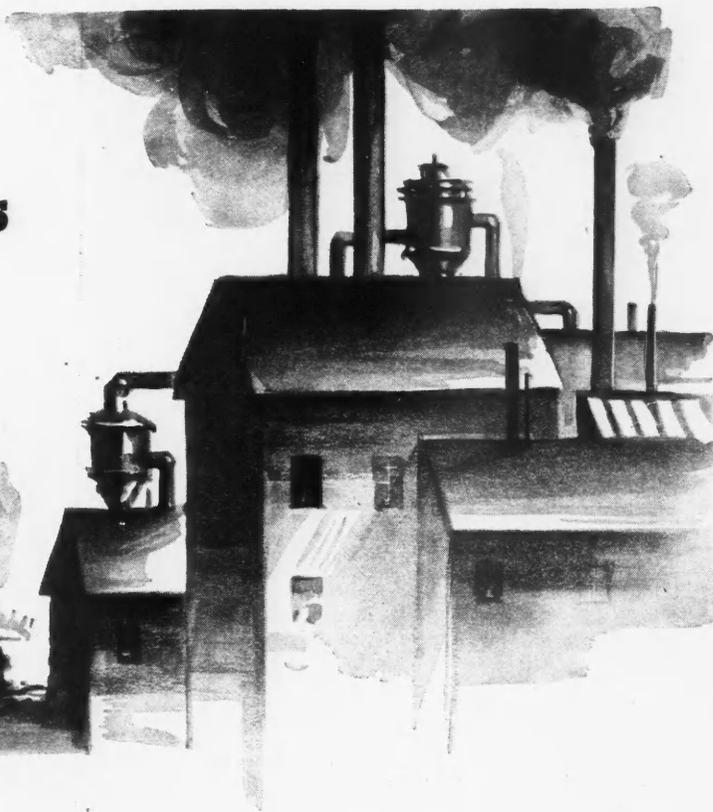
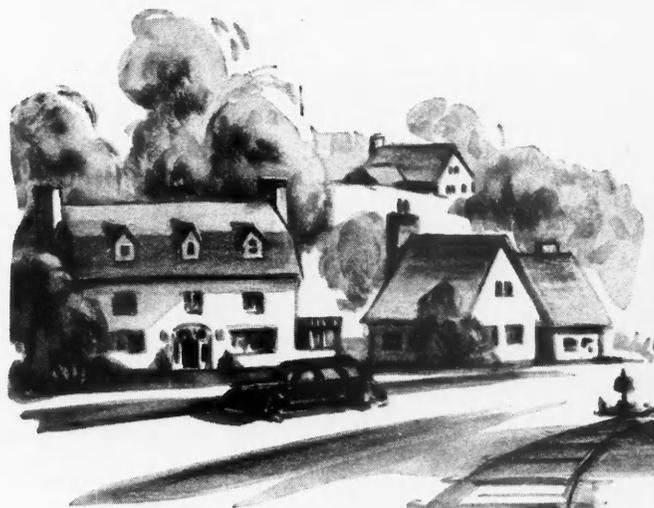
The dispute that followed culminated in plaintiff filing the instant suit to recover payment. The trial court submitted the question raised to a jury, and the latter found in favor of the defendants. The plaintiff appealed, and the higher court in reasoning upon the point involved, and in affirming the judgment, had this to say:

#### The Language of the Court

"The question is presented: By unloading the car of lumber in their lumber yard, when (defendants)

(Continued to page 154)

# TIME helps sales



## ON BOTH

## SIDES OF THE TRACK

The 600,000 families who read TIME are the cream of the American market for building.

They build and remodel the homes that make the domestic building business.

They build and enlarge the plants that make the industrial building market.

That is undoubtedly why TIME is a leading advertising medium of building materials and equipment. Most of your best jobs come from TIME readers, whom you will find already sold on the quality materials and equipment advertised in TIME —and able to pay for them.

# TIME

The Weekly Newsmagazine

These advertisers of building materials and equipment for home and industry used TIME in 1935

Allegheny Steels  
 American Radiator Heating  
 Armstrong's Linoleum Floors  
 Balsam-Wool Blanket Insulation  
 Barrett Roofs  
 Cabot's Collophanes and Double-White Paint  
 Carrara Structural Glass  
 Carrier Air Conditioning  
 Cast Iron Pipe  
 Clopay Shades  
 Combustioneer Automatic Coal Burner  
 Cutler-Hammer Motor Control  
 Cyclone Fence  
 Delco Appliances  
 Dulux  
 Dutch Boy White-Lead Paint  
 Frigidaire Unit Air Conditioner  
 General Electric Air Conditioning  
 Guthfan Conditionaire  
 Ilg Electric Ventilator  
 'Incor' 24-Hour Cement  
 Iron Fireman  
 Johns-Manville Building Materials  
 Kelvinator Air Conditioning

Kohler of Kohler  
 Kreolite Floors  
 Layne Pumps and Well Water Systems  
 Mastipave  
 Minneapolis-Honeywell Control Systems  
 Monel Metal  
 Otis Elevators  
 Page Fence  
 Parks Certified Climate  
 Permutit Water Conditioning Equipment  
 Portland Cement Association  
 Revere Copper & Brass  
 Reynolds Metal  
 Robbins & Myers Motors  
 Ru-ber-oid Roofs  
 Scovill Manufacturing Company  
 Sheetrock  
 Sherwin-Williams Paints  
 Sloane-Blabon Linoleum  
 Square D Company  
 Sturtevant Air Conditioning  
 Taylor System of Control  
 Terminix Insulation  
 United States Steel  
 Ventura Home Conditioner  
 Whiting Stoker



## "200 Feet for Mr. Gordon"

Mr. Gordon has ordered 200 feet of Arrow Brand Tidewater Red Cypress from his local lumber dealer to make some minor repairs to his home. Offhand you might think this small order of slight importance to the Florida Louisiana Red Cypress Company whose five member mills produce 100,000,000 feet of cypress annually. But because there are thousands of Mr. Gordons who regularly place similar orders with retail dealers throughout the country, the Florida Louisiana Red Cypress Company is very much interested.

A great many homes are going to be built or remodeled this year and a great deal of Arrow Brand Cypress will be used for this work. Mr. Gordon's 200-foot order will be multiplied many times.

Don't overlook the advantages of carrying a complete stock of this thoroughly air-seasoned, trade- and grade-marked cypress in 1936. Naturally, with five mill connections, the Florida Louisiana Red Cypress Company is, at all times, your most dependable source of supply for Arrow Brand Tidewater Red Cypress, the true species of "The Wood Eternal."

**FLORIDA LOUISIANA RED CYPRESS CO.**  
JACKSONVILLE, FLORIDA

## Insulite Lok-Joint Lath

With the patented Lok-Joint, an exclusive development that eliminates the old plastering troubles and gives lumber dealers a product beyond competition, on which they can realize a full profit. Write for complete information.

### The Insulite Co.

Dept. AB12 Builders Exchange Building  
Minneapolis, Minnesota

## ARKANSAS SOFT PINE



### FOR BEAUTIFUL PANELED WALLS

Specifications and Booklet on Request

**ARKANSAS SOFT PINE BUREAU**  
Boyle Building Little Rock, Arkansas

Comprising

CADDO RIVER LUMBER CO. Glenwood, Arkansas	FORDYCE LUMBER CO. Fordyce, Arkansas
DIERKS LUMBER & COAL CO. Dierks, Arkansas	CROSSETT LUMBER CO. Crossett, Arkansas
SOUTHERN LUMBER CO., Warren, Arkansas	
FROST LUMBER INDUSTRIES, INC. Shreveport, La. Plant, Huttig, Ark.	

## LEGAL DEPARTMENT

(Continued from page 152)

knew from the invoice that the lumber in the car was not as ordered, does such unloading constitute an acceptance of the lumber in the car as a matter of law? We have concluded that the facts do not show an acceptance.

"Had the (defendants) unloaded the car of lumber without any definite statement as to whether they did or did not accept the lumber, such action, we think, would show such assertion of ownership or control over the lumber as would in law constitute acceptance. But we do not think that the bare fact of the unloading of the car of lumber into (defendants') lumber yard had the legal effect to destroy the unqualified declaration and notice, timely given to (plaintiff), that (defendants) would not accept the lumber.

"Such declarations of (defendants) as are contained in the letter to (plaintiff) declining to accept the lumber are more than expressions of their intention in the matter; but without qualification they affirmatively disclaim ownership and control in themselves of the lumber, and in no way assert any right or claim for themselves in or to the lumber.

"The statement that they unloaded the car for the purpose of saving demurrage is no assertion of any right in themselves; the demurrage charge would not be a charge on (defendants). \* \* \* We attribute no significance to the statement other than what it says, to save demurrage. \* \* \* Finding no reversible error, the case is affirmed." (73 S.W. 2nd. 954.)

### Conclusion

The foregoing case was, of course, decided strictly upon the facts and circumstances involved. These raised a question of fact, as to the legal effect of defendants' unloading the car in the face of their straight out and out rejection. The jury resolved this question in favor of the defendants; in other words, found that their act did not constitute the exercise of ownership over the lumber. And, as we have seen, the judgment on this was sustained by the higher court.

However, the language of the court in reasoning upon the record leaves little doubt but what the defendants were skating on thin ice. Had their letter of rejection been less positive, or had the other facts been slightly different, it is easy to see how the defendants might have been held liable. Even as the record was, the case was close and one well worth having in mind by dealers in situations of this kind.

True, the defendants won out; but at the expense of a lawsuit that it seems might have been easily avoided. For had they written or wired their rejection, and asked for instructions from the plaintiff as to the disposition of the shipment before touching it, it is difficult to see how there could have arisen any grounds for the dispute here involved. And therein lies the value of this case.

For, in the light thereof, it seems clear that a rejected shipment of lumber had better be left severely alone, pending the receipt of instructions from the shipper. This, then, will place the burden of decision as to disposition squarely upon the latter. And a strict observance of this rule would seem the best possible insurance against any after dispute over the question of whether there had been an acceptance.

*Legal Questions will be answered for American Builder subscribers.*

# WEYERHAEUSER *Stained Shingle Division*

Provides a *new* Financing Service  
Re-affirms a Dealer Sales Policy



**N**OW you can sell Edham Stained Shingles for repairing, remodeling and new construction up to \$2,000.00 on a time payment basis. With this plan you can make quick, profitable cash sales. *Quick Sales* because they are made on a convenient monthly payment basis which enables you to control the job from start to finish. *Profitable Sales* because this business is non-competitive and non-seasonal, and sold at your regular mark-up. *Cash Sales* because Weyerhaeuser handles all finance details — your paper is accepted without recourse; you receive payment immediately when the job is completed.

Each individual job can now be financed in a clean-cut manner because this plan provides credit up to several times the value of the shingles. Only two simple forms to fill out to provide your customer with this fast-moving, red-tapeless financing service. Merchandising helps to promote these sales are ready for use. An Edham representative will be glad to discuss the application of these Title I sales helps to your individual requirements. The Stained Shingle Division will adhere to the established Weyerhaeuser policy of dealer distribution which has been consistently stated in publications reaching our customers and prospects.

## STAINED SHINGLE DIVISION

WEYERHAEUSER SALES COMPANY • SAINT PAUL • MINNESOTA

WRITE FOR COMPLETE INFORMATION ABOUT THE PROFITABLE EDHAM FINANCING SERVICE AND SPECIAL DEALER SALES HELPS

# NEW HELPS FOR DEALERS

Literature featuring new products  
and sales plans

The selected trade literature listed below may be obtained without charge by using the coupon, listing the numbers of the catalogs desired and mailing to American Builder, 105 W. Adams St., Chicago, or by writing on your dealer stationery to the manufacturers direct, in which case kindly mention this publication. This catalog and campaign review is an editorial feature for the convenience of our readers.—Editor, Dealer Marketing Section.

## MODERN KITCHENS

192—Crane Kitchen Guide—"Plans and Ideas for the Modern Kitchen" is a unique 36-page planographed handbook featuring the present trend in kitchen planning which emphasizes the convenience of storage cabinets, proper location of the stove, refrigerator and sink, the focal point being the sink. This kitchen guide includes floor plans, cabinet dimensions, scaled work sheets for laying out plans according to room arrangement, a variety of illustrations of well planned kitchens, and many types of modern sinks and labor-saving appurtenances.—CRANE CO., 836 S. Michigan Ave., Chicago, Ill.

## AIR CONDITIONING

195—Dealers who want to keep up to date in this livest subject of air conditioning will study with interest and profit to themselves the elaborate brochure, "Air Conditioning Brings Health and Comfort to the Home" describing new Westinghouse equipment.—WESTINGHOUSE ELECTRIC & MFG. Co., Mansfield, Ohio.

## ROOFING HELPS

193—A "Contractor's News Letter" is issued by the Service Bureau of The Lehon Co., Chicago, in the interest of Mule-Hide dealers and their co-operating contractors. It suggests several methods for securing re-roofing and re-siding jobs. It also tells about the

Mule-Hide Top-Notch asbestos siding shingles and how they are used. Distributed in quantities by the local dealer, this 4-page letter-size folder builds business for dealer and contractor.—THE LEHON CO., Chicago, Ill.

## STORE FRONT CONSTRUCTION

194—A new 6-page folder of details and data tells the story of the new Kawneer store front construction which is presented as "the first fundamental change in store front construction since 1905!" Dealers are interested in this method and material, both for modernizing their own store fronts and as a profitable item to handle.—THE KAWNEER CO., Niles, Mich.

## MINERAL WOOL

196—The Ruberoid Co. has a new announcement for dealers, "We are now manufacturing Mineral Wool. This new feature of the already extensive line of building and insulating products is now ready for shipment to all Ruberoid dealers." A new broadside gives specifications and prices, and tells of this rich potential market.—THE RUBEROID CO., 500 Fifth Ave., New York City.

## FORGED IRON HARDWARE

197—Lumber dealers with hardware departments (and more are adding this profitable line every month) will want

to look into the McKinney portfolio of forged iron hardware, presenting eight distinctive styles of design. These are all beautifully illustrated in a new 16-page handbook. Other items such as interior trim, lanterns, mail boxes and garage door hardware are also included.—McKINNEY MFG. CO., Pittsburgh, Pa.

## REMODELING WITH SHINGLES

198—All lumber dealers are promoting home modernizing these days—here is a 24-page handbook that will help immensely. "Making Old Houses into Charming Homes" shows what overcoating with Weatherbest stained shingles will do for old style houses. Actual photographs of numerous jobs before and after remodeling with shingle side-walls are presented. A practical remodeling sketch service is also outlined. There are unlimited profits in the use of this book by energetic dealers.—WEATHERBEST CORP., North Tonawanda, N. Y.

## FENCE PROFITS

199—Mid-States Wire Fencing—A complete sales plan for retailers, which lumber dealers are finding very helpful, has been prepared by the Merchandising Division of the Mid-States Steel & Wire Co., and covers thoroughly the fence question. The announced purpose of this plan is four-fold: (1) to establish the dealer's place of business as headquarters for fence and fencing products; (2) to demonstrate he is an authority on fence values; (3) to provide a clearing house for the exchange of ideas on modern farming practice; and (4) last but by no means least, to assure the dealer leadership in fence sales and profits.

Backing up this four-point plan is a comprehensive prospectus or sales manual together with a large collection of attractively illustrated consumer circulars for office distribution and for mailing.—THE MID-STATES STEEL & WIRE CO., Crawfordsville, Ind.

*If there is something you want and you do not see it in American Builder, please write us.—Editor.*

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

(February, Dealer, 1936)

Please have the following Catalogs listed in this issue sent me—

Numbers.....

Name.....

Street.....

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

OCCUPATION\*.....

\*Please note that occupation must be stated if full service is to be given.