How Builders Sell Today's PLUS-VALUE HOMES
The Thermostat That Has Everything

The NEW FUEL SAVING COMFORT Chronotherm

All in one package—sensitive, accurate temperature control, with automatic night shut-down for fuel saving, and gradual morning pick-up for twenty-four hour, care-free heating comfort.

You give buyers of your homes all these important advantages when you install Chronotherm, Honeywell’s completely automatic electric clock thermostat.

What sales features you have when you talk “Chronotherm.” And what a sound method for adding extra values to your homes and enhancing your own reputation at the same time.

So do as builders everywhere are doing, install and feature Honeywell’s famous Chronotherm in every home you build.

Minneapolis-Honeywell, Minneapolis 8, Minnesota. In Canada: Leaside, Toronto 17, Ontario.

77 BRANCHES FROM COAST TO COAST WITH SUBSIDIARY COMPANIES IN: TORONTO • LONDON • STOCKHOLM • AMSTERDAM • BRUSSELS • ZURICH • MEXICO CITY
Folks are shopping for *exciting* homes. They want picture windows to bring in their favorite view. But they want flanking casements too, for cool, fresh air.

You can build that double-barreled sales appeal into your homes... economically ... with beautiful standardized Fenestra® Residence Steel Casements. You save three ways: on first cost, installation cost, maintenance costs.

What's more, frame and sash are assembled, Bonderized and prime-painted for protection against rust ... at the factory. Hardware, supplied with each unit, is easily attached.

**WHICH IS THE RIGHT WINDOW TO USE?**

For maximum economy — Type 2414N.
Meets most residential needs. For all general locations. One swing leaf provides 50% opening.

For maximum ventilation — Type 2424.
Provides 100% opening. Costs more than Type 2414N because it has two ventilators with Roto-Adjusters.

For maximum view — Type 4424.
Picture window, plus ventilation. Fenestra's many types and sizes provide a right window for every need in the home.
WE ASKED

BOB GIESY:

President The H. H. Giesy and Bros. Co., Columbus, Ohio, widely known as an aggressive merchandiser of quality building materials.

“What has been your experience with the Upson Strong-Bilt Panels you installed in your own home?”

HE TOLD US:

“We put Upson Strong-Bilt Panels on all the ceilings of our home which was completed in 1941. That means they have been in almost nine years. So far, there has been no repair work of any description on them. As a matter of fact, they haven’t even been repainted. Since there isn’t any plaster, none has cracked, and none has fallen. That trouble was completely eliminated with the Upson Panels. Visitors still comment about the beauty of our paneled ceilings.”

R. M. Giesy, Jr.

Bob Giesy is typical of many lumber dealers who have used Upson Strong-Bilt Panels in their own homes. When lumber dealers build homes for themselves, they use materials they know are best.
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Here you are! The very newest in radial power saws! Once again it's Comet! First with the best! the latest! Study these highlights:

New cutting capacity. Longer retractable arm. Larger hardwood, heavily varnished table top for cutting off up to 20" of 4" thick material or 25" of 1" thick material with ripping capacity up to 35", wide. A completely redesigned raising and lowering device now operated from new position in front of machine. Larger, totally enclosed felt wipers at both ends of bearing head for positive dust free operation...

All the adjustment controls are within easy reach from operating position. Exclusive safety return spring which by test actually increases cutting 20% or more.

New position for the column locking knob now located at right of the column base within easy, quick reach.

Quite frankly, this new Comet Clipper is the finest radial power saw ever made. Simplicity itself in operation. Highly portable. Economical in replacement costs to the point of disbelief. Safe to the very highest degree. Versatile; makes all the cuts more accurately, most consistently. All exposed parts are weather-proofed — another outstanding Comet feature. This latest Clipper, unmatched in the power saw field, now sells at a new low price. Order from your nearest Comet dealer or write direct.
Only One Issue—Socialism

The American people are confronted with one great issue—much the most vital issue in their history—that of socialism. All the important narrower issues being discussed are but parts of the one great issue of socialism. The issue of excessive government spending is so important principally because of the tendency of excessive government spending to promote socialism. The issue of government interference in business, medicine and education is important principally because of the tendency of such interference and controls to promote socialism. The issue of monopoly, whether of business or labor, is important principally because of the tendency of monopoly of whatever kind to promote socialism.

A great majority of the American people believe they are opposed to socialism and are sure they are opposed to communism. Unfortunately most of them do not know what either socialism or communism is, or how they are established, or what their effects are.

What is called "state socialism" is complete government control of all production and distribution without government ownership of all or most of the property with which production and distribution are carried on. Fascism in Italy and Nazism in Germany were forms of "state socialism." True socialism is government ownership and management of all the property with which production and distribution are carried on. Socialism may be established by the "democratic process" as is occurring in Great Britain, or it may be established and maintained by force, as has occurred in Russia, in which latter case it is now called "communism."

The present Labor-Socialist government in Great Britain was put in power by the votes of a majority of the people in an election in which the Labor-Socialist party avowed its intention of establishing socialism if it won. The issue of socialism has never been thus frankly, honestly and squarely presented to the American people in a political campaign. Most of those in this country who advocate socialist policies deny that they favor socialism and even deny that the policies they advocate are socialist. Often they claim that the policies they favor are needed to "help private enterprise" and contend that anything done by the "democratic process" is in accordance with the American tradition.

But if all the socialist policies being strongly promoted by powerful pressure groups, including paradoxically enough, pressure groups of business men, were adopted we would soon have almost complete socialism in this country. The reason is, that private enterprise would be crushed and driven out of existence by the heavy taxes imposed to pay for all the socialist schemes and by the use of these taxes by the government to engage directly in competition with private enterprise or to subsidize competition with it.

Many specific socialist policies are being vigorously opposed by business and professional groups with propaganda and lobbying—socialized housing by the home-building industry, socialized medicine by the medical profession, subsidized transportation by the railroads, and so on—but they are all fighting a losing fight. They might make their efforts more effective by organized co-operation, all groups opposing socialist policies affecting any of them. But what cannot be emphasized too much or too often is that it is becoming daily more evident that if the advance of socialism is to be stopped, the great issue of socialism versus individual initiative and private enterprise must be fought out in the arena of national politics—the only arena in which enough interest in the issue can be aroused and it can be presented and discussed adequately against the adoption separately of socialist policies which will add up to complete socialism.

The Truman branch of the Democratic Party has been captured by the promoters of socialist policies. The so-called "Dixiecrats" of the south are against such policies. Most Republicans who know their own real principles are against them. In fact, a large majority of the American people are against socialist policies when they recognize them as such. But those opposed on principle to socialism would ere this have been completely disastrous to the British people excepting for the aid made possible by the government of the United States—aid made possible only by the efficiency of American private enterprise.
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HANDLES YOUR COMPLETE SEWERAGE AND DRAINAGE REQUIREMENTS

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Pratt & Lambert Hundredth Anniversary.

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The glamorous-looking dressing table in this attractive bathroom is achieved by combining the latest American-Standard lavatory—the DRESSLYN—with a modern table-top, vanity-type cabinet. Made of genuine vitreous china, with all metal fittings durably finished with non-tarnishing Chromard, this exciting new lavatory has already won the enthusiastic approval of all who have seen it. Other American-Standard fixtures shown are the Master Pembroke Bath and the Compact Water Closet.

**Designed with the ladies in mind...**

American-Standard Heating Equipment and Plumbing Fixtures have eye-appeal as well as readily recognized engineering and construction advantages. The ladies are especially pleased to find that the extensive American-Standard line covers designs and styles to fit in with any type of architecture, any room arrangement, and any decorative scheme. For example, the ultra modern and strikingly feminine Dresslyn Lavatory shown above and the compact, attractively jacketed heating units are designed to give both you and the homeowner the widest latitude in home planning. For details of the complete American-Standard line, contact your Heating and Plumbing Contractor. American Radiator & Standard Sanitary Corporation, P. O. Box 1226, Pittsburgh, Pa.

American-Standard Heating Equipment covers units for every type of heat and for every kind of fuel. Here you see the **SEVERN** Boiler which is available for coal in either hand fired or stoker fired models, and for oil. At the right is the **WINTERGLO** Winter Air Conditioner from the Sunbeam line, a utility unit of the "highboy" type for small homes and individual apartments.
American Builder, October 1949.

CHEVROLET ADVANCE-DESIGN TRUCKS
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Chevrolet Advance-Design trucks offer you more of the features you want most. These easy-handling trucks rank tops for dependability, endurance, economy. They assure superior driver comfort, offer a wide variety of models, provide super-sturdy construction through and through. Chevrolet trucks alone give you the sensational advantages of 3-WAY THRIFT—lower cost operation, lower cost upkeep and the lowest list prices in the entire truck field. No wonder Chevrolet trucks are America’s top choice for value...outsell the next two makes combined! For full information see your Chevrolet dealer—soon!

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Team up these fast, hard-hitting Blue Brute Air Tools with Blue Brute Compressors — and watch your daily expenses go down. Though tough and powerful, they have the lightness and compactness to keep your workers more satisfied—and more productive.

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It had to come—and it's here! Now, at last, Nu-Wood Sta-Lite Shadow-Line Board solves the problem of what to do about the joints in board installations. The simple, refined shadow-line edge makes it possible to create beautiful interiors quickly—without molding strips or other joint treatments—and at NO EXTRA COST!

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On every kind of cut!

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Only SKIL Saw gives you sure two-hand control on tough cuts . . . and easy one-hand operation on ordinary sawing. SKIL Saw's TWO scientifically placed handles are the reason . . . an extra you get only with SKIL Saw!

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Square basin lavatory. Sizes 20x18 in., 24x20 in., 27x22 in.

**WALJET NO. 2100**
Wall hung syphon jet closet with elongated bowl.

**WINDSOR NO. 720**
Lavatory with leg. Sizes 20x18 in., 24x20 in., 27x22 in.

**CASCO NO. 2325**
Vitreous china syphon jet pedestal urinal.

**CASCO NO. 2335**
Vitreous china syphon jet pedestal urinal.

Case plumbing fixtures are made in styles designed for practically every requirement of school, college and other semi-public buildings. For school buildings especially, where heavy use places a premium on efficient performance and freedom from undue maintenance, Case quality is an investment in long-term value. Every fixture is molded of the finest grade vitreous china, highly lustrous and unequalled for permanence, sanitation, and resistance to acids and discoloration. Fittings are designed for the particular needs of the fixture in which they are used, a factor of great importance in long service life. For installations in which you can take pride and give a full measure of value, specify Case plumbing fixtures. Case distributors are listed in many Classified Telephone Directories; if not in yours, write W. A. Case & Son Mfg. Co., Buffalo 3, N. Y. Founded 1853.

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Are you using the Right Cement for the job?

Build better, faster, or at lower cost with the right

MEDUSA "JOB-FITTED" CEMENT

CEMENTS are just like the aggregates mixed with them... there's a right one for every job. And when builders use the right Medusa "Job-Fitted" Cement, they always build better construction . . . frequently easier and faster, . . . and usually at less cost. An excellent example of the advantages of Medusa "Job-Fitted" Cements is BrikseT for masonry walls. You build better as BrikseT prevents unsightly efflorescence by mortar . . . you build easier and faster because its plasticity encourages faster bedding . . . you build cheaper because BrikseT requires no expensive slaking. All the other Medusa Cements have equally outstanding features. Start today to use the right Medusa "Job-Fitted" Cement. For further information check and attach coupon to your letterhead.

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- Medusa White
- Medusa Waterproofed White
- Medusa BrikseT
- Medusa "Medco" High Early Strength
- Medusa Air-Entraining
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Medusa "Medco" — Rush Jobs • Cold Weather Concrete
The famous SPEED LOAD and its handy partner, the SPEED LOADER calking gun gives you the most efficient sales team on the market. It's popular! It's practical! It sells! Packed 10 loads to carton — 4 cartons to case.

This handy CG-4 Speed Loader is priced so low it will pave the way to more calking sales.

Nothing can compare with Nu-CALK! It's the "standard of calking compound quality." Available in ½ pint, pint, quart, gallon, 5-gallon cans. Also 55 gallon drums. You can recommend Nu-Calk fully confident it will never let you down. A best seller for many years.

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Nu-Calk Calking Compound

Nu-Calk Calking Compound

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Nu-Glaze Glazing Compound

When you sell Nu-Glaze instead of putty you make satisfied customers because Nu-Glaze really stays put! What's more you make bigger profits! Sells because it does the job better. Nationally advertised, nationally known and nationally used. Stock up on Nu-Glaze today!

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Numetal Door Bottoms are the largest selling weatherproof item because they're absolutely tops in the field. Wool felt— heavy gauge brass. More sales — more profits — better satisfied customers — you should have a stock now that the fall season has started. Order today.

Order Today...

Be ready for the big weatherproofing sales season ahead! Your stock will be shipped same day your order is received.
for WEATHERPROOF ITEMS that "fill the till"

...Order your supply of these famous profit makers now!

**Nu-GARD AUTOMATIC DOOR BOTTOM AND DRAFT ELIMINATOR**

The new, improved Nu-GARD Automatic Door Bottom is the most efficient, most practical door bottom of them all! A simple demonstration makes the sale every time. So show 'em and you'll sell 'em. Homeowners need them on practically every door in the house both inside or outside.

**Nu-ART THRESHOLDS**

These attractive thresholds can play a big part in your weatherproofing sales. While Nu-ART Thresholds are available in a wide variety of types and sizes, we picture above three popular types. Furnished in either brass or Alacrome, with holes drilled, screws furnished — each threshold individually wrapped and labeled.

**Nu-WAY WEATHER STRIP**

The easiest strip to sell because it's the easiest strip to put on. Any clerk can sell it! Any customer can install it. Can be used on most any type window, storm sash or door. Nu-WAY Weather Strip is really a fast seller — so keep well supplied! Order today!

**DRIP CAPS FOR DOORS AND CASEMENT WINDOWS**

These drip caps in both styles illustrated are very effective in keeping rain from dripping or running under doors and wood casement windows. Furnished in either brass or aluminum in any lengths desired. You need these practical items to have a really complete weatherproof stock!

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An outstanding success!

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FOR EVERY FUEL

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"L-2," "L-3" (cast iron, magazine feed)—for large homes, churches, apartments

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Already the Spencer Cast Iron All-Purpose Boiler is rapidly approaching leadership in its field. Every day brings more evidence of its popularity. Architects value its modern lines. Builders like its low cost. Heating contractors acclaim its versatility. Home owners praise its efficient operation. All this after being on the market for one year! And sales are still climbing.

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- Available in sizes from 340 to 1000 square feet, steam
- Precision-ground iron-to-iron section fit needs no caulking
- Specially designed steam dome for more rapid circulation of boiler water
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"The Spencer '21' is low in cost and easy to install."
"I like the Spencer '21' because it takes any type of fuel or firing."
"Not all, my clients are completely satisfied with the Spencer '21'."
Twirls open...twirls shut like an automobile window

...that’s how easily the new post-war Mesker Steel Casements operate! No wonder home buyers are so enthused about them. You’ll be, too, when you see how much value Mesker has engineered into this competitively-priced line. See our catalog in Sweet’s Builders File—or write us for a copy.

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"... deliveries are coming along on schedule, and I find that my erection and subcontracting crews are gaining efficiency all the time... I am far ahead of my original estimate on sales and, at this point, have only three more homes to sell before the present development is complete. I have certainly proved to myself that the real estate market for homes lies in the low cost field. And I intend to keep right on building low cost homes for some years to come." Ayre Builders, Inc., Albany, N. Y.

"... a swell house both from the structural standpoint and looks... they sell fast and we have orders to build many more." Stastny & Rowe, Bellview, Nebr.

"... our customers tell us of their happiness with their new P&H Homes. Friends who visit them are amazed at the values and desirable features. Lanonart Construction Co., Inc., Milwaukee, Wis.

"... the public reaction to the house has been very favorable... Several large manufacturing concerns have contacted us and your P&H representative is assisting us in preparing bids." Pfeiffer Realty & Builders, Evanston, Illinois.

"... I will erect many P&H Houses in the 6 different exterior styles and the houses will be finished in either siding or shingles, as the future owner desires. This project came about as a result of the great need for housing in the low-cost price range. I am pleased with my decision to build P&H Homes. L. W. Vandenberg, Kalamazoo, Mich.

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a better home for the money
THE P&H ECONOMY HOME...
Shipped 83% complete from the factory
Full size — 24 ft. wide x 22 ft. long. Large living room — 11' 7" x 17' 4". Joint-free, crack-proof interior walls. Choice of 2 or 3 bedrooms. Flush doors throughout. Built with or without basement. Highly rated for FHA and VA financing.

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Kwikset Locksets have eye appeal ... and sales appeal. Their striking good looks help sell the house!

Beauty is hand-tailored into Kwikset Locksets. Cleanly designed to match all traditional and modern residential styles, they are of wrought brass, wrought bronze or Zamak No. 5 ... carefully hand-finished in satin or polished brass or chrome, or satin bronze.

Kwikset Locksets look expensive .... but what a value they are in economy! Unit price is amazingly low—and simplified 2-hole installation cuts costs further on the job!

And remember—Kwikset beauty is more than skin deep! Working parts are of brass stampings and tough, durable Zamak No. 5. They’re precision-built to give years and years of service.

Manufactured by KWIKSET LOCKS, INC., Anaheim, California
Distributed by PETKO INDUSTRIES, INC.
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YOU'LL BE AMAZED AT ITS MODERATE COST!

Bruce has done it again! This new Ranch Plank Floor promises to be one of the most popular and practical floor types ever developed. With alternate 2¾” and 3¼” widths, walnut pegs and beveled edges, it gives the rich, distinctive effect of a very expensive floor.

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Modern  Ranch  Traditional  Apartments
This Valuable Guide Helps You Build Easy-to-Sell Houses

Yes, if you want to build attractive houses at lower cost... and still add the extra features that appeal to home buyers...let this book help you. It explains the Keystone System of Stucco Application—tells you how to build homes that answer the need for durable, attractive, quality construction at lower cost.

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Manufacturer of Keymesh Reinforcing • Welded Fabric • Tie Wire • Nails

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Clay tile gives you limitless flexibility in setting the stage for modern ideas, modern living. And only clay tile provides the efficiency, the economy that today's homemakers are looking for.

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**Easy to clean** and keep clean because clay tile never needs waxing, polishing or refinishing.

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The Tile Council of America was formed in January, 1945, to provide a central source of information about clay floor and wall tile, and to sponsor research and development projects designed to increase the usefulness of clay tile in all types of private and public building.

**Efficient** because tile keeps its spic-and-span appearance despite hard wear. Water rolls off without leaving stubborn, streaky blemishes.

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For specific information regarding types, sizes and colors, see Sweets Architectural or A-E-C File. THE TILE COUNCIL OF AMERICA, Room 3401: 10 East 40th Street, New York 16, New York. Room 433: 727 West Seventh Street, Los Angeles, California

**PARTICIPATING COMPANIES:** American Encaustic Tiling Company Inc. • Architectural Tiling Company, Inc. • Atlantic Tile Manufacturing Company • B. Mifflin Hood Company • Cambridge Tile Manufacturing Company • Carlyle Tile Company • General Tile Corp. • Gladding, McBean & Company • Mosaic Tile Co • Murray Tile Company, Inc. • National Tile & Manufacturing Company • Olean Tile Company • Pacific Clay Products • Pacific Tile and Porcelain Co. • Pomona Tile Manufacturing Company • Robertson Manufacturing Company • The Sparta Ceramic Company • Summitville Face Brick Company • United States Quarry Tile Company
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Now—from the research laboratories of Kimberly-Clark Corporation—comes a great new KIMSUL*.

An insulation combining the principles of heat-reflection and heat-resistance—the most effective barrier to heat loss ever devised. An insulation made far easier to handle...far easier to install. An insulation with reflective vaporseal cover...meeting all FHA requirements.

We sincerely believe this new KIMSUL to be the finest insulation ever made. And you'll agree...when you see the handsome aluminum foil cover...many-layer stitched blanket...the tough reflective tacking flanges...the smaller package and lighter weight...of this great new KIMSUL. For it also provides the same high thermal efficiency and the many original advantages that made KIMSUL America's fastest-selling blanket insulation.

Contact your dealer today for full information about the new Reflective KIMSUL. If he does not handle KIMSUL, write directly to Kimberly-Clark Corporation.

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Reflective aluminum vaporseal
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The color, the beauty, the ruggedness of Formica, have made it a long time number one choice for kitchen cabinet tops. These same qualities, plus the common sense desire for usable space around the lavatory have made the Formica Vanitory idea an instant success.

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With whatever type of heating units you prefer—radiant panels, baseboard units, convectors or radiators—a B&G Hydro-Flo System will deliver modern, radiant heating at its best.

This forced hot water system automatically matches the heat supply to the weather. Never any overheating in mild weather, but always plenty of heat when the thermometer drops . . . always the same uniform temperature indoors from Fall to Spring. Exact modulation of the heat supply obviously means economy—no fuel is wasted in furnishing unwanted heat.

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INTERMEDIATE PROJECTED—1. Built-in weathering is integral with window sections. 2. When glazed, all glass is in same plane. 3. Frame section has $\frac{1}{2}$" return on inside, permitting plastering and still providing space for attaching blinds and shades. 4. Extra strong—frame section is $1\frac{1}{2}$" deep and ventilator section is $1\frac{3}{8}$" deep. 5. Treated with Bond-erite process.

ARCHITECTURAL PROJECTED—1. Same type of controlled ventilation as with Intermediate but more economical. 2. Frame section has similar $\frac{1}{2}$" return on inside. This provides space for attaching window accessories. 3. Extra strength provided in frame—$1\frac{3}{8}$" deep. Ventilator is even heavier—$1\frac{1}{2}$" deep. 4. Treated with Bond-erite process.
Consider the superiority of natural daylight... Our bodies and minds, in the main, evolved outdoors. In the recent dim past, man came inside. But since the eye evolved in natural daylight, it is just common sense that vision is best under daylight environment.

Investigate the availability of daylight in your area... It is important to know the amount of available daylight so you can plan for adequate illumination. The United States Weather Bureau records provide information showing the average number of clear days anywhere in the United States. For complete information, consult the United States Weather Bureau.

Explore the importance of distant vision... Medical science recognizes the importance of distant vision. Strain on the body, eyes and the mind is relieved through looking at distant views. Consult medical authorities for additional information on this important point.

Find out what type of window lets in the most daylight—assures distant vision... As a preliminary aid, consider these facts... steel windows admit more daylight than any other type of window design since they employ clear glass. Full height steel windows also provide more distant vision than any other window opening. There is less obstruction since frames and muntins are slender.

Determine what type of window gives the best ventilation... Steel windows provide more controlled ventilation than any other type of window opening. In fact, up to 100%. Stray breezes are captured and distributed all over the room. Drafts are controlled. Steel windows assure the greatest amount of life-giving pure fresh air.

Compare costs... The cost of steel window daylighting will vary according to localities. But, broadly speaking, comparisons show other types of window design cost from 10% to 200% more. In addition, the cost of artificial illumination is reduced and mechanical ventilation is eliminated.

Write for Ceco data booklet... Consider the 6 points above on illuminating schoolrooms. Then, for complete data, write Ceco for FREE descriptive booklet entitled "Better Environment Through Daylighting in Schools." The booklet covers other important subjects such as—Light Reflectance, Seating Arrangement, Light Control, Building Positioning.

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makes the big difference
IN the small home field, as well as the large, Chase Copper Tube for radiant heating has many outstanding features. One of these being L-O-N-G coils which reduce substantially the number of time-consuming connections ordinarily needed for this type work. What's more, its flexibility and lightness make it easy to handle...easy to shape and bend by hand. No fittings are needed at bends.

The BIG-7 points above tell you in a nut-shell why builders of big and small houses across the country are using Chase Copper Tube for radiant heating. And there's no shortage at Chase! Immediate delivery on big orders or small orders! For further information, let us send you "up-to-the-minute" booklet on planning and installing radiant heating.

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"Suggestions for Designing RADIANT PANEL HEATING with Copper Tube."

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Gentlemen: Please forward your "Suggestions for Designing Radiant Panel Heating with Copper Tube."

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This is the Chase Network...handiest way to buy brass

ALBANY ATLANTA BOSTON CHICAGO CINCINNATI CLEVELAND DALLAS DETROIT HOUSTON INDIANAPOLIS KANSAS CITY, MO. LOS ANGELES MILWAUKEE MINNEAPOLIS NEWARK NEW ORLEANS NEW YORK PHILADELPHIA PITTSBURGH PROVIDENCE ROCHESTER SALT LAKE CITY SAN FRANCISCO SEATTLE WATERBURY
No other shingle of any kind gives you even one of these great features that nail down sales!

1. Underwriters' Laboratories, Inc. Class A* listing. Carey Fire-Chex give greater fire protection to human lives and costly buildings. They contain an asbestos-bitumen plastic compound, highly resistant to melting and flowing, that "puffs up" to form a skeletal mat when subjected to the heat of flying sparks, embers and flaming wood brands. It actually lifts the fire away from the roof deck! No wonder Fire-Chex are the first and only shingles* listed Class A by Underwriters' Laboratories, Inc.—the highest fire protective rating possible! Here's a real sales advantage for you.

* without asbestos underlayment

2. Copyrighted shadow blend roof designs. Fire-Chex add to the appearance of buildings... give roofs distinctive beauty that cannot be duplicated by any other roofing material. Never before has any shingle been designed for application in exclusive shadow blend roof designs copyrighted as "works of art." Fire-Chex are available in a wide selection of colors—feature the pleasing horizontal shadow lines and thick construction (325 lbs. per sq.) of costlier materials, within the budget of even modest homes! They often sell at first sight.

3. Certificate of "Class A" roof protection. Another exclusive sales clincher for you. Helps enhance the value of a building whether for sale or for rent, and serves as a daily reminder of the owner's wisdom in choosing the very best in roof protection—Carey Fire-Chex.

Remember! It's easier to sell Fire-Chex than any other shingle!

Big free kit of sales aids. Practical, forceful sales helps for door-to-door, over-the-counter, radio, newspaper, direct mail selling and promotion... sales-making aids to help you merchandise FIRE-CHEX.

Ask your Carey Representative for your kit today! Or, write... The Philip Carey Mfg. Company, "National Guard Defends America... Join Now" Cincinnati 15, Ohio.
More Glass means

ATTRACTION OPEN VISION FRONTS like this show merchandise to full advantage... widen trading areas... help to increase sales. Because Pittsburgh Glass Products and Store Front Metal are widely known as the leaders in the store modernization field, you'll find that mentioning the name Pittsburgh will make your selling job easier.

SHOWN HERE with the same head and drip members are three of the many designs which make up the new "Moulding Kit" in the Premier line of Pittco Store Front Metal. (Cross sections of some of the basic mouldings are shown at left.) Most of the shapes are interchangeable and may be used both horizontally and vertically. They make it easy to design several adjacent store fronts, giving each a distinctively different appearance, through the proper selection and arrangement of mouldings.
here's proof from Pittsburgh

A GOOD LOOKING, full length Pittsburgh door mirror is a convenience that every member of the family appreciates. Other likely spots in the home for Pittsburgh Mirrors: over mantels; in entrance halls; in kitchens.

ADD COLOR AND GLAMOR to bathroom or kitchen with walls or wainscots of attractive Carrara Structural Glass. Your customers will like these outstanding features of Carrara: It is easily cleaned. It doesn't absorb odors. It is impervious to moisture, chemicals, pencil marks. Its good looks last indefinitely.

Pittsburgh Glass

* Build it better with Pittsburgh Glass

PAINTS • GLASS • CHEMICALS • BRUSHES • PLASTICS

PITTSBURGH PLATE GLASS COMPANY
There is a Bryant Personalized Heating system in each of the 526 suites at Lewis Gardens. Each family enjoys independent, automatic control of all heating in its own home. Indoor temperatures are as they want them, and there is no waste heat. There is always plenty of hot water on tap, too, for each family has its own individual hot water service.

For management, there are these benefits: Personalized Heating is maintained at low cost. It requires the supervision of only one man. Service or repair, if necessary, is quickly performed, for it is entirely local. There can be no general heating breakdown in the project.

Lewis Gardens is beyond the range of the Richmond city gas supply. Yet, its occupants enjoy the unmatched advantages of gas for all four important household services—heating, water heating, cooking and refrigeration. These advantages are provided by liquefied petroleum gas, supplied from a specially-designed central distribution system within the project itself.

Personalized Heating is the basis for this all-gas service. Operational economies of this equipment on LP-Gas help make possible a combined low rate for four services that will make its year cost to Lewis Gardens families comparable to or less than that of any other fuel or combination of fuels.

You will have a heating problem in your next project beyond the gas mains. Ask your Bryant Distributor to show you how you can solve it successfully with LP-Gas and Personalized Heating.

"Bryant Personalized Heating Saved Space, Helped Make Four Gas Services Possible"

says FRANKLIN A. TRICE, Builder and Developer, Richmond, Virginia

"Economies provided by Bryant Personalized Heating helped make it possible to offer the advantages of LP-Gas for four services at an attractively low combined rate. And, considering that its space-saving feature was a truly great construction advantage, Personalized Heating was a happy choice for us."
Speedmatic Saws have always been famous for balance—here's one that's going to be especially famous for power, also... balanced power!

The Speedmatic 89 is engineered to bring you everything you'd expect of the new, up-to-the-minute saw champion. You'll get heavier cutting—faster cutting—better cutting—longer life under tough conditions—easier handling that means less fatigue. Test its performance—compare its features—demonstrate its balance—and you'll be convinced.

Here are Features that make Speedmatic 89 the Leading 8" Saw...

- Powerful, Compact, short-coupled motor... smooth, efficient helical gear drive to blade.
- Motor ventilated by speed-draft turbine fan.
- Air blown through saw housing cools blade and keeps cutting line clear.
- Sawdust or grit exhausted through extra large, non-clogging vent in blade housing.
- Extra broad base for steadier rest.
- Blade at right of saw center... the operationally correct location.
- Center-of-balance, comfort-grip handle with trigger switch.
- Positive, spring Returned, hinged guard—wet sawdust can't pack in.
- Angle adjustment; dial graduations from 0° to 45°.
- Adjusting screw for depth of cut.
- Shock absorber behind arbor nut cushions blade engagement.
- Uses abrasive cutting wheel for tile, metal, etc.
- Single unit shaft and arbor.
- Furnished with 220 volt, AC-DC Motor—$135.00.

Special Offer: Complete with Case and Rip Guide

Porter-Cable Machine Co.
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Manufacturers of SPEEDOMATIC and GUILD Electric Tools

Ask your distributor to show you this great New Speedmatic in action. You'll want this saw on sight.
See your distributor today, or write for full information.
If your requirement is

**ROOFING MATERIALS**

USG* Asphalt Roofing is always dependable, always incorporates all the research and practical experience of the USG organization. The wide variety of materials in this United States Gypsum product group includes products for every roofing purpose.

Typical are the three USG Asphalt Shingles shown below. Each is available in a wide variety of beautiful colors and styles, each is evidence of the basic excellence of design of all USG Roofing.

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**USG RANDOM TAB SHINGLES**

Pleasing irregularity, deep shadow lines and beautifully blended colors are combined in these distinctive shingles...you get hand-selected effects at a strip shingle price! The finest ingredients are carefully employed in U.S.G. manufacturing processes to give you extra years of protection from fire, wear, weather!

**USG THICK BUTT SHINGLES**

Built for beauty that endures, they're tops in style, tops in protection! There's rugged beauty in every line...and in the deep, attractive shadows. Years of wear are built into every shingle. The thick tabs, extra heavy at the weather end where wear occurs, stoutly repel driving winds and drenching rains!

**USG* SUPER-TITE* SHINGLES**

SUPER-TITE Shingles are super-safe...because they're held down by a natural lock, plus 4 nails, producing five points of security. There's multiple coverage over the entire roof surface (100% double, 48% triple). The preferred shingle in high wind regions...an attractive, super-safe shingle in any climate.


---

There are U.S.G. products for every type of construction—and U.S.G. technical literature to assist the builder on every type of job. No matter what kind of building you are currently engaged in...no matter what type of construction your immediate problem requires...you'll find the products you need and the necessary technical data at United States Gypsum.

Every U.S.G. product—from its beginning in the great U.S.G. laboratories until its actual use—undergoes the most exacting tests known to the industry. Quality and performance are carefully measured and rigidly maintained.

That's why the U.S.G. crest has become the symbol of quality for America's builders. For almost fifty years, contractors have built with confidence when they have built with U.S.G.

For the U.S.G. solution to your immediate problem, see Sweet's or your A.I.A. files. For further information call in your U.S.G. representative, or write United States Gypsum, Chicago 6, Illinois.
NEW INSULATING ROOF DECK
— EFFICIENT ... LONG-LASTING ... EASY TO CONSTRUCT

The photograph above tells you important facts about the modern roof covering that Kaylo Roof Tile—EASY TO CONSTRUCT—One man handles the lightweight (23-lb.) tile, which means fast, easy laying. Tile can be nailed to wood joists or laid on steel sub-purlins. If necessary, tile can be sawed on the job to fit.

STRUCTURALLY STRONG—Kaylo Tile has great supporting strength—more than many heavier roof deck materials. Tile and conventional roof covering form the entire roof.

Kaylo Roof Tile has other advantages that make it ideal for small or large jobs. It has insulating value equal to 11/2-in. insulation board. It is made of materials which are non-combustible and permanent.

When you see Kaylo Roof Tile specified, or recommend it to owners, you can be sure of a roof deck that will be easy to construct and give lasting satisfaction.

Send NOW for FREE Sample

Mail the coupon below for a free sample of Kaylo Roof Tile and 12-page illustrated book showing construction details and giving complete information about this modern, tested roof-deck material.
Satisfied customers keep you in business. You can win and hold more of them by using Flintkote Asbestos-Cement Sidings. These modern siding shingles win friends for you with four important advantages.

1. **Appearance** is spic, span and sparkling. The deep, stylized graining and trim design help you to combine interesting shadow effects with neat, clean-cut lines.

2. **Durability** is built right into the shingles with the materials. Selected asbestos fibers and a high-strength Portland cement are combined with pigment under terrific pressure.

3. **Usability** is almost non-existent. The sparkling beauty of these sidings remains unimpaired through years and years of exposure... they do not require painting to preserve their life.

4. **Safety** is unexcelled. Flintkote Asbestos-Cement Sidings are fireproof and termite-proof. They cannot rot, rust or burn.

So you see, with advantages like these, the odds are in your favor. Be sure you choose Flintkote Asbestos-Cement Sidings... either for new construction or for remodeling. It's championship material!

**FLINTKOTE**

The two patterns above are among the most popular in the Flintkote line of Asbestos-Cement Sidings. Specifications for both: Pieces per Square, 57; Approximate weight per Square, 185 lbs.; Exposure, 10½" x 24"; Headlap, 13½"
Pittsburgh Steeltex Floor Lath
gives you both

Form and Reinforcement

The placing of floors moves swiftly, smoothly and at a big saving in time and material with Pittsburgh Steeltex Floor Lath. This combination of form and reinforcement for concrete and gypsum floors and roofs eliminates the need for slow, costly form-work.

Pittsburgh Steeltex Floor Lath is a combination of a uniformly spaced welded wire mesh laced to a waterproof cord-reinforced backing. The lacing wires are crimped to permit separation of the backing which gives you automatic imbedment from the weight of the mix. The waterproof backing holds the water in the mix so that it must evaporate slowly which gives maximum strength and assures proper curing of the slab. This also minimizes drip, prevents loss of cement and eliminates cleanup expense.

For better floors and roofs use Pittsburgh Steeltex Floor Lath—it will save you time and money. See our catalog in Sweet's or write for your copy of D.S. 133 to Pittsburgh Steel Products Company, Department AB, Pittsburgh 30, Pennsylvania.

PITTSBURGH STEEL PRODUCTS COMPANY
A Subsidiary of Pittsburgh Steel Company
Pittsburgh 30, Pa.
WINDOW AND WALL are one and the same as Andersen Casement Window Units are used with a center fixed sash of insulating glass...to form an Andersen Casement picture window unit.

All the functions of a window are fulfilled...opening up outdoor view, sunlight and fresh air. Yet, with weatherstripping, double glazing and superior sash and frame construction, the cold-air barrier function of a wall is also provided.

Specification data on ANDERSEN WINDOWALLS is in Sweet's Architectural and Builders' Catalogs, or will be sent by us upon request. See your local lumber or millwork dealer for further information.

*TRADEMARK OF ANDERSEN CORPORATION
VETS BUILD THEIR OWN CLUBHOUSE USING LONE STAR MASONRY CEMENT

UNDER the leadership of experienced craftsmen in their membership, with local artisans lending a hand, veterans of Charles N. Bajart Jr. Post No. 1122, Yonkers, N.Y., are building their own clubhouse. And a smooth-running job it is—moving right ahead to Fall completion. First-class construction, too—with quality materials throughout. You’ll travel far to find better-looking brick-work, for example.

Other things being equal, mortar makes or mars any wall, so LONE STAR MASONRY CEMENT is being used. This butter-smooth mortar that works easier under the trowel means well-bedded brick or block, with well-filled joints... high water retention keeps brick or block from absorbing water too quickly, assuring walls that are moistureproof, weather-resistant—enduring.

There’s a Lone Star Cement for every construction need: LONE STAR MASONRY CEMENT for quality masonry... LONE STAR PORTLAND CEMENT for strong, durable concrete in all types of work... "INCOR" 24-HOUR CEMENT for top-speed construction with 50% less forms and important winter economies... LONE STAR AIR ENTRAINING PORTLAND CEMENT for highway work and other uses. The name LONE STAR on cement assures the utmost in quality and uniformity.

LONE STAR CEMENT CORPORATION
Office: ALBANY • BETHLEHEM, PA. • BIRMINGHAM • BOSTON • CHICAGO • DALLAS • HOUSTON • INDIANAPOLIS • JACKSON, MISS. KANSAS CITY, MO. • NEW ORLEANS • NEW YORK • NORFOLK • PHILADELPHIA • ST. LOUIS • WASHINGTON, D. C.

LONE STAR CEMENT, WITH ITS SUBSIDIARIES, IS ONE OF THE WORLD'S LARGEST CEMENT PRODUCERS: 15 MODERN MILLS, 27,000,000 BARRELS ANNUAL CAPACITY
For three successive months the Bureau of Labor Statistics has estimated starts of new houses at or around the 100,000 mark. Starts for May totaled 95,000, June 100,000 and July 96,000. This brings the total for the first seven months of 1949 to 549,100, representing last year's total of 507,000 starts within four per cent of equaling last year's final count for the same period. It is likely that starts for the year may exceed 900,000, making 1949 the third largest year in housing history and very close to the record 1925 total of 937,000 starts and the 1948 total of 930,000.

Builders were cautious at the beginning of the year. Now many of them are expressing regret that they did not start out a little bolder since demand has exceeded their expectations. A recent survey by the Chicago Metropolitan Home Builders Association showed that all builders reported sales fully as brisk as in 1948, and down payments fully as substantial. Jobs in brackets around or below $11,000 with V.A. approval have been sold considerably in advance of completion. Builders have many sizable contract homes booked well in advance.

Situation Not Nation-Wide
This situation is not nation-wide of course. Reports for the first half of the year show big declines in residential permits in Baltimore, Dallas, Houston, Los Angeles, Memphis, Miami, Norfolk, Philadelphia and San Diego.

The drop in costs has been cited as the reason for continued activity in residential building. However, this has not been substantial. Roy Wenzlick & Co. figure that the national average cost of the standard six-room frame house has fallen from $14,261 to $13,666 since the third quarter of last year, a drop of slightly over 4 per cent.

In the St. Louis area, Wenzlick estimates that the total cost was $14,453 in August, 1948, and $14,344 in August, 1949, a decrease of only $109. The cost of lumber decreased $307 but was offset by increased prices of other materials.

United States Steel through Gunnison Homes, Inc., has made headlines with the announcement of a four-room house on a landscaped lot to sell at $6,300 or less. It is being introduced primarily to take advantage of the 95 per cent FHA mortgage insurance that applies when the appraised value of a house and lot does not exceed $6,300. The down payment can be as little as $350 with monthly payments running at about $37, including insurance and taxes.

These houses will be within the means of families in the $35 to $40 a week income group. The houses measure 24 by 28 feet, are built of plywood panels and have a forced warm air furnace, complete insulation, and a streamlined kitchen equipped with double bowl sink and wall cabinets. Varied architectural designs will be used.

In numerous localities builders are offering houses that will give them the edge on the competition with Gunnison dealers, if it develops. In many others, houses at or near this price are unobtainable.

So far the prefabricated housing industry has, with few exceptions, been one of dismal failure. The ill-fated Wyatt plan of 1945 called for 600,000 prefabricated houses annually by 1947. Less than 50,000 were produced in each of the last two years. There is still a possibility that someone may yet be able to produce factory-built houses that will be adequate and at a price that the average wage earner can afford.

A successful operation of this kind could be a pace-setter for the entire construction industry. It could, in addition, stimulate activity and enlarge the market in the medium and upper priced brackets of home building.

Lumber dealers might stand to lose unless they became dealers in prefabricated houses. So far lumber dealers have generally steered clear of offers of dealerships by the more than 250 prefabricated housing firms that have sprung up in the last three years.
IS THERE AN EFFECTIVE WAY TO REDUCE BUILDING WASTE?

Yes—at one stroke you can lop off a big part of the building waste once considered "necessary." The answer is modular design—a practical plan by which building materials are manufactured to a standard 4-inch "module"—or unit of measurement. Builders who use such materials actually find it easier and quicker to build without waste!

NOW...THE VIRTUES OF WOOD PLUS MODULAR DESIGN!

To help you reduce building costs, modular sizes are now widely available in woodwork such as windows, sash, frames, screens and storm sash. Here is another advantage added to the long list which has made wood so popular as a building material! Wood windows, for example, help owners keep more comfortable while reducing fuel bills. Wood does not readily transmit heat or cold—acts as a natural insulator. Wood windows, too, lend themselves more readily to effective weather-stripping. Wood resists "sweating"—does not readily gather frost. Wood holds paint and other finishes lastingly—costs little to maintain. To enhance still longer the long life of wood, toxic preservative treatment at the factory adds extra resistance where staining, decay, insect attack or humidity are factors.

GET ALL THE ANSWERS...

MAIL THE COUPON!

See your lumber dealer for all the facts about modular-size woodwork—or, clip this coupon and mail it for our free, illustrated folder.

NATIONAL WOODWORK MANUFACTURERS ASSOCIATION
332 South Michigan Avenue
Chicago 4, Illinois

This seal of approval identifies woodwork products which meet NWMA minimum standards of toxic preservative treatment.

TOXIC-PRESERVATION APPROVED

LICENSE NO. 000 NAFTL WOODWORK MFRS. ASSN.

ANSWERING YOUR QUESTIONS ABOUT MODULAR-SIZE WOODWORK

Q. HOW DOES MODULAR DESIGN REDUCE WASTE?

A recent housing survey shows that on jobs using non-coordinated building products, a substantial part of the materials delivered to the job are hauled away as waste. Modular design eliminates much of this waste, because modular-size building materials fit together without costly cutting, fitting and trimming on the site.

Q. DOES MODULAR DESIGN SPEED CONSTRUCTION?

Yes, modular design definitely speeds up the construction of any size or type of building. Modular-size woodwork reduces waste time and excessive labor costs.

Q. HOW DOES MODULAR DESIGN SIMPLIFY YOUR PURCHASING?

Under the modular system, one national standard now replaces the ten or more local or regional standards. Thus, jobbers and dealers are able to carry a better assorted stock for each locality served. Standard stock items are available from your local retail building material dealer.

Q. HOW DOES MODULAR DESIGN HELP YOU COMPETITIVELY?

By speeding and simplifying your building operations, modular design can give you an "edge" on competition. In addition, modular design helps you overcome buyer resistance. You can offer a quicker-built, lower-cost house.

For full information on standard sizes, designs, manufacturing requirements, preservative treatment requirements and grading rules, see National Woodwork Manufacturers Association Catalog in Sweet's Builders' File.
NEW GOLD BOND INSULATION BOARD, TILE AND PLANK is featured in the remodeling story told in this colorful Gold Bond ad which appears in the Saturday Evening Post, October 1st. It is sure to attract store owners in your section and drives home the fact that modernizing need not be expensive. You'll want to recommend Gold Bond Insulation Board for two reasons: One, the variegated color blends give a pleasing, modern effect. Two, Tiles and Plank need no additional decoration...another saving.

The interlocking edges of Gold Bond Tile and Plank permit stapler application which cuts installation time 50%...completely conceals staples! For a 10 minute demonstration of this new method, or extra reprints of the Post ad in full color, write National Gypsum Company, Buffalo 2, N. Y.

GOLD BOND INSULATION TILE AND PLANK for pleasing color value and surface finish! Various brands, identified only by number, were inspected by a jury of interior decorators, color stylists and architects. Result: Gold Bond was voted first in every case!

NATIONAL GYPSUM COMPANY, BUFFALO 2, N. Y.

Over 150 Gold Bond Products including gypsum lath, plaster, lime, wallboards, gypsum sheathing, rock wool insulation, metal lath products and partition systems, wall paint and acoustical materials.
YOU’LL GREATLY PREFER
BRIXMENT STUCCO, TOO!

More Brixment is used for brickwork than any other masonry cement on the market. Literally thousands of architects, contractors and bricklayers prefer Brixment to any other mortar material.

Brixment makes better, more economical stucco, too. It is more plastic and easier to apply. It is used in leaner mixes, hence reduces hair-checking and crazing. It is stronger, more weatherproof and more permanent than “workable mixes” of portland cement and lime.

Brixment can cut your costs and give you better stucco jobs. For proof, please ask your dealer (or write us) for a copy of the handbook “Brixment for Stucco and Plaster.”

LOUISVILLE CEMENT COMPANY, Incorporated, LOUISVILLE, KENTUCKY
SALES—While the market for new houses was slow last spring, predictions were that the big pickup would come in September. Some of the conservatives called it for October. Actually, it came in August, with the turning point in July.

CHICAGO—As early as last April the report was that the bloom was off the horse in the metropolis of the Midwest. Observers from other parts of the country said that new houses were a drug on the market in Chicago.

TAIN'T SO—The fact is that most of the home builders in the Chicago area were sold out for the year by late August. Smart design, better construction and conviction on the part of the public that prices had leveled are the reasons. Volume in Chicago next year will equal if not surpass that of 1949.

WILSON WYATT—The former Housing Expediter was credited recently by officials of the Lustron company—appearing before the House Banking and Currency committee with having gotten the company in the business. Whether or not that is a credit to Wyatt is questionable. Present indications might prove it to be one of Wyatt's many follies. Much apparently depends on how much more money the government (RFC) feels it can invest in the form of loans.

VITAL STATISTICS—Original private investment and apparently the only private cash investment in Lustron was $1,000. To that was added the revenue from the sale of $8,000 shares of stock at $10 and 30 million dollars of government money—the taxpayers advanced it without being consulted.

VITAL RESULTS—By mid-summer Lustron, geared to produce 1,000 houses a month, was reported to be producing about half that amount with 3,100 employees. The company also owned 600 trailer trucks for delivering houses. About 1,250 houses had been produced at a net loss of $14,750,000.

VITAL NEEDS—Lustron stated that they needed more millions of dollars—taxpayers' dollars, that is—for working capital. The taxpayers will not be asked whether they want to liquidate the operation and take the loss, or gamble some more millions. Chances are that the government heads who inherited the headache from Wyatt will feel that they have to stay with the ship.

RFC LOANS—Some cynic has advanced the dark suspicion that possibly RFC in granting loans to builders may make a condition of the loan the willingness of the builder to take a few hundred or a few thousand Lustrons, and include them in a development.

EXPERIENCE—It indicates that there is no proof that RFC loans to prefabrication companies have kept them in business. Most of the prefabrication companies so helped appear to have gone bankrupt already or to be perilously near it. At least a fourth of them held up only as long as the RFC money held out.

PREFABRICATORS—Dozens of them are working on their own money, have never had a government loan, and appear to be doing all right.

PREDICTION—How would you like to see a tenant's strike on the part of renters in public housing developments? A strike of a small organized minority against the occupants of public houses? A strike because of an upward adjustment in rents or dissatisfaction with the decorating or the landscaping? Or just a rent strike because there is a rumor that rents will be increased? They have them in England. Some- time in the next five years we will have them here. And what do you suppose the politicians who need those votes will do about it? Why, they will just leave the rents where they were or do whatever the strikers want, and then raise the taxes on those who pay their way.

**Your insulation [Infra] prevented the fire from spreading**

From a letter from Ralph M. Fishel & Co., Denver, Colo., insurance and private banking.

BECAUSE INFRA INSULATION

Emits Only 3% of Heat Rays

Is Metal with a 1250°F Melting Point (Furnace Heat is Only 750°F)

**INFRA IS A REAL FIRE STOP**

Infra's surface absorbs only 3% of heat rays—97% is rejected! Infra emits, on the opposite surface, only 3%. That is one reason why Infra is so efficient in preventing wasteful—or dangerous—heat flow. Summer or winter, Infra keeps heat in its proper place.

Infra Insulation uses 99.5% pure aluminum made in accordance with Infra's own, special emissivity specifications. The fiber partition, which creates multiple air spaces and reflective surfaces, is flame, mold, and vermin proof.

**INFRA C FACTORS AND ROCKWOOL EQUIVALENTS**

- C.052 Heat Flow Down, equals 6" Rockwool.
- C.093 Heat Flow Up, equals 3-1/2" Rockwool.
- C.10 Lateral Heat, equals 3-1/3" Rockwool.

**WRITE INFRA**

for details and for free copy of "Bulletin No. 38" of the National Housing Agency of the Government, reporting tests of Aluminum Insulation made by the Bureau of Standards and dealing principally with the problems of condensation and of heat and vapor transfer. Address Dept. AB.

Multiple Accordion Aluminum Triangular Reflective Air Cells

Infra 10 MURRAY ST.
NEW YORK, N. Y.

INSULATION, INC.
Yes! Celotex Insulating Sheathing is DOUBLE-WATERPROOFED

The Exclusive Celotex Way

HERE'S PROOF of the kind of performance that has made Celotex the Greatest Name In Insulation. In a recent letter, Mr. A. J. McMullin, President of the Olean Lumber & Supply Corp., Olean, N. Y., wrote:

"Our Company applied the regular 1/2" Celotex Board on the exterior of our mill in 1922. No siding of any kind was applied over the Celotex Board, and consequently it has been subjected to all kinds of weather, including rain, snow, summer sun, and even a flood, when the Allegheny River went on rampage in 1942. It has given very satisfactory service for 27 years and we have no intention of replacing it, as it is still in good condition and as good as anything we could replace it with."

1 WATERPROOFED INSIDE!
Every one of the millions of tough cane fibres which make up its insulating core board is coated with a waterproofing agent during manufacture.

2 WATERPROOFED OUTSIDE!
This remarkably strong, durable insulating board is then coated on both sides, and on all edges, with a thick, enduring "raincoat" of specially-treated asphalt which seals out moisture.

★ Yes, double-waterproofed, yet it has more than twice the vapor permeability advocated by government agencies!
★ Safe even under severe exposure during construction! Even cut edges are highly resistant to moisture penetration.
★ Enables contractor to resume work more quickly after the heaviest rain, thus cutting costly delays.
★ Protected against dry rot, termites, and fungus by the exclusive Ferox process.
★ Combines exceptional structural strength and rigidity with high thermal insulation.
★ Builds and insulates, all at one low cost, yet costs no more than ordinary sheathing.
★ Write today for full details!

Double-Waterproofed

CELOTEX

THE CELOTEX CORPORATION • CHICAGO 3, ILLINOIS

CELOTEX INSULATING SHEATHING
"No, Homer, you don't have to get inside to see if the light really goes out—now that

Everything Hinges on Hager!"

C. HAGER & SONS HINGE MFG. CO. • St. Louis, Mo.

FOUNDED 1849 — EVERY HAGER HINGE SWINGS ON 100 YEARS OF EXPERIENCE
Home buyers will talk about your houses, and the way to get them talking favorably is to include the kind of cooking equipment more people want—modern Electric Ranges!

The trend to Electric Cooking is proved by the fact that another million American families switched to it last year.

So build houses that are modern today and will stay modern for years to come. During construction, include wiring for an Electric Range, leading to a range outlet in the kitchen. An Electric Range, like electricity itself, is now a "must" in every modern home!

ELECTRIC RANGE SECTION, National Electrical Manufacturers Association, 155 East 44th Street, New York 17, N.Y.

ADMIRAL • COOLERATOR • CROSLEY • FRIGIDAIRE • GENERAL ELECTRIC • GIBSON • HOTPOINT
KELVINATOR • LEDO • MONARCH • NORGE • QUALITY • UNIVERSAL • WESTINGHOUSE

Follow the trend... Wire FOR ELECTRIC RANGES

Another 1,000,000 American families switched to Electric Cooking last year
EDITORS’
Round Table

AUGUST, with its heat and humidity, apparently dulled the critical approach to reading that seemed to characterize most readers during the more temperate months. Reason for this observation is the lack of letters pointing out shortcomings. Nobody found anything to complain about. Or if something was found nobody said anything about it.

OF COURSE, after what amounted to a relative avalanche of mail to the “squawk desk” after the July issue, the editors got together and took each other apart. Maybe there was nothing in the August issue that was not absolutely accurate.

AND THEN, it may be that like baseball pitchers, editors have their good times and their bad times, and that August was one of the good ones.

FACT IS, there were a few letters commenting on the August issue, but all of them were commendatory.

FOR INSTANCE, one came from an advertiser. He was quite surprised at what happened as a result of a small advertisement in the July issue. Among a batch of inquiries received in response to the advertisement was one from Honolulu. Said the advertiser, “We are writing to you about this because it is rather rare when an institutional advertisement occupying relatively small space produces inquiries. We have a bunch you might properly counter with a suggestion that if American Builder gets results from small space, think what may be expected if a page or a half-page were used. Some day we hope to be in a position to test the theory.”

WE HOPE SO, too, because we are sure that the test will produce results. In its nearly three-quarters of a century as the leading building paper, American Builder has seen many advertisers start with small space, and in large measure because of that advertising, develop into regular users of pages.

THAT MIGHT sound like editors using their Round Table space to solicit advertising or at least to pro-

(Continued on page 57)
Anyway you look at it...

THE NEW IMPROVED Janitrol

UNIT HEATERS

have everything

A.G.A. Approved for all gases including L.P.

Field engineering helped build Janitrol's new, advanced line of Unit Heaters. Valuable user performance data and held service information were correlated over a three year period as a guide to determine the most practical improvements required for better industrial and commercial heating. Then the actual design and construction improvements in the new Janitrol Unit Heater line became the responsibility of Surface Combustion engineering staff.

This policy of analyzing all practical heating requirements first has resulted in equipment with far greater user acceptance. So, you can count on Janitrol for not only advanced design and efficiency but also for practical, easy maintenance under all kinds of rugged operating conditions.

Because more and more Janitrol Unit Heaters are being installed by retailers, in places of amusement, restaurants, and all kinds of service businesses, special attention was given to smart appearance and compactness.

In most cases Janitrols will be found to be more compact and to provide more headroom than other equipment. Write today for complete specifications and installation data.

A FEW OF JANITROL'S MANY OUTSTANDING FEATURES

★ New Cartridge Type Ribbon Burners: Designed for easy removal and interchangeability for different type gases. Special chrome alloy steel for high temperature and corrosion resistance. Separate burners for each heat exchanger make for high efficiency and even heat distribution.

★ Improved, Long-Life Tubular Heat Exchangers: High efficiency of Janitrol's unique design makes possible extreme compactness. Interior suspended alloy steel turbulators accelerate heat transfer. Improved vertical design minimizes dust and dirt collection, contributes to better air flow.

★ Improved, Automatic Pilot: New actuating lever and switch design assures long life, positive operation. While pilot is more positively positioned, assembly can be removed in a few seconds.

★ Combination Fan and Limit Control: Only Janitrol provides dual overheat safeguard as standard equipment, in case of stuck gas valve fan continues to dissipate heat preventing damage to unit or adjacent area.

★ Motor and Fan Assembly: Resilient mountings minimize vibration and noise. Overlapping blade fan design provides maximum air velocity with quiet operation. Direct-a-Flow housing provides uniform airflow over entire unit.

★ Smart, Quality Appearance: Smooth dark grey hammerloid baked enamel finish on steel case homogenously in most surrounding. Bottom panel is hinged for opening without removal for inspection of burners and bottom of heat exchangers.

SURFACE COMBUSTION CORPORATION • TOLEDO 1, OHIO
note it. Maybe it is, but the whole thing started simply as an acknowledgment of a letter to the editor.

**SPEAKING OF ADVERTISING,** you never can tell how long a given advertisement will continue to pull. That goes for newspaper advertising placed by builders and dealers just as well as it goes for manufacturers who place advertisements in *American Builder.*

**FOR EXAMPLE,** a letter was written to our office on August 26 of this year. It came from a lumber and building material dealer, and said in effect that “some time ago” the dealer had purchased from *American Builder* some signs for erection on building jobs. He wanted some more of them. Our reply was that he must have us confused with someone else. We have no signs of any kind for sale. The dealer came right back and insisted that he had purchased the signs from *American Builder* as a result of an advertisement in the magazine. An exhaustive search revealed that before the time of anyone now actively connected with the staff the signs actually had been advertised and purchased as the dealer insisted.

**ACTUALLY,** the “some time ago” mentioned by the dealer was the year 1925, just 24 years ago. While it is a little unusual to get a reply to an advertisement 24 years after it was run, it is not unheard of. Thus, the point that you never can tell when the results will come or how far-reaching they will be.

**THERE ARE CASES** continually of builders who receive customers in their offices in response to advertising run before the war. People save the ads against the time when they will be ready to build, and then follow through on them.

**THEN THERE IS** the classic case of the retail lumber dealer who advertised a roofing material. Thirty-one years later a prospect showed up at the lumber yard with the old ad, and wanted the material. In this case the advertised material had been changed and improved so much that the retailer had to do another selling job on the prospect.

*EDITORS’ Round Table (Continued from page 55)*

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**NOT “PIPE DREAMS” . . . BUT FACTS!**

Facts that Prove Bermico Can Slash Your Building Costs

Use Bermico and save money, time, trouble all along the line. For several reasons . . . all good: Bermico’s convenient 8-foot length is so much lighter . . . weighs only a third as much as other types . . . it handles easier on truck or job. Simple as ABC to lay, too. No joining compound necessary. A few hammer blows—joints are tight! And stay tight even when the ground settles!

What’s more, Bermico is rootproof and watertight . . . unaffected by atmospheric extremes. And the smooth uniform bore delivers a high capacity water flow.

Each length of Bermico must measure up to a strict and unvarying engineering standard. That explains why millions of feet of Bermico are now serving in house-to-sewer connections, septic tank disposal and drainage systems.

For the full story of how Bermico Sewer Pipe can cut costs, boost profits, streamline your effort, write to: Dept. A-110, Brown Company, 500 Fifth Ave., N. Y.
By using K&M “Century” Asbestos-Cement Siding on all these fine homes, the builder has equipped them with two great basic sales features:

1. Every buyer gets proof of a smarter, more practical home.

2. Every buyer can see that community property values are enhanced by the entire project’s fine, harmonious character.

Both these values will endure. For the cypress-grained, weathered finish of K&M “Century” Siding will always look younger than its age. It will balk weather’s worst moods. It won’t rot, nor feed flames, rodents and termites. Not even paint is needed.

What a list of talking points, when you recommend this K&M Siding! And for you it saves labor. You can make speed and get a uniformly sleek job with the easily-handled 12” x 24” units. That’s how K&M “Century” Asbestos-Cement Siding helps you to quote right and deliver quality.

Get set to close that sale next time! Ask your K&M Dealer now for full information. Or get off a letter to us.

KEASBEY & MATTISON
COMPANY • AMBLER • PENNSYLVANIA
SEPTIC TANKS are in the news again. Mr. W. L. Dodds writes as follows: "I note in the Editors' Round Table August issue Mr. Foss' criticism of my "How to Do It" article in the June issue. After checking, I'll have to plead guilty to his charges.

"WHAT I was trying to put across was not how to build a septic tank, but how to construct the deadfall type of form to pour the top. I made the drawing hurriedly and failed to check on the size when I put it down. We govern the size according to the FHA specifications, whether for one bathroom or two, and figure 231 cu. in. to the gallon. Thus the tanks would be deeper for the depth of the cube if measured from the average level rather than the top of the form.

"WE HAVE BUILT these tanks, varying from 400 to 700 gallons over a period of several years, and I know of only one that had to be cleaned. And that was caused by placing the opening from cell one into cell two a couple of inches too high. The surface mat in cell one blocked the opening. As I mentioned before, the deadfall form was what I was trying to get across. Next time I'll check all details."

A BUILDER in Winnipeg, Canada, wrote, "As you may be aware, the construction of 'slab' houses in the Winnipeg area in the past has been on an experimental basis only, due to the unpredictable nature of our peculiar soil conditions. Not more than a dozen such houses have been built in this locale. Due, however, to the increasing interest being shown in 'slab' construction by Winnipeg builders, the availability of engineering data on this type of construction is becoming more and more necessary. Because of the large number of 'slab' houses being built in the U.S.A., I felt that your office might be in a position to supply such information or advise me where I might obtain same."

THE INFORMATION, plus additional sources were supplied. It occurred to the editors, however, that others might want to be of assistance to the Winnipeg builder. If so, we'll be glad to pass on to him any suggestions that come in.
**HOME:**

Meeting Place for Decision-Makers

WHERE else does a family decide to

*Add a wing,*  *Finish a wall with wood,*  *put Lots of storage in a small dining room*?

For home is where husbands and wives put their heads together to discuss ideas (and brands) that will improve their living—whether they’re building, remodeling or putting in new equipment.

That’s why more than 3,000,000 select, home-conscious families turn to Better Homes & Gardens every month.

Here, in 100% service editorial and advertising columns, they find the information they want that will make their good homes even better. (In the building classification, BH&G leads all major magazines in editorial lineage and advertising revenue.)

Moreover, these families have the money to purchase the very best—and their buying decisions range all the way from water heaters and thermostats to shower heads and insulation.

It’s a safe bet that your job of selling BH&G-advertised brands will be an easier one when these pre-sold customers walk into your store.

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**APPLIANCES**

Admiral Range  
Admiral Refrigerator  
Admiral Television  
American Gas Arm  
American Kitchen Disposer  
Betty Crocker Iron  
Big Box Timetwirrers  
Bissell Sweeper  
Bruce Broadbent Floor Polisher  
Cadillac Vacuum  
Caloric Range  
Crosley Home Freezer  
Crosley Stainless Refrigerator  
Crosley Television  
Deepfreeze Home Freezer  
Dexter Washer  
Dixie Washer  
Frigidaire Home Freezer  
Frigidaire Range  
Frigidaire Refrigerator  
Frigidaire Washer  
General Electric Home Freezer  
General Electric Television  
General Mills Toaster  
Grand Range  
Hamilton Beach Mixer  
Hoover Vacuum  
Horton Ironer  
In-Sink-Erator Disposer  
Johnson’s Floor Polisher  
Kelvinator Home Freezer  
Kelvinator Range  
Kelvinator Refrigerator  
Kirby Vacuum  
Knapp-Monarch Liquidizer  
Knapp-Monarch Toaster  
Knapp-Monarch Waffle Baker  
Levy’s Vacuum  
Magic Chef Range  
Maytag Washer  
Motorola Television  
Nenco Roaster

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*Typical editorial titles from Sept. and Oct. issues of BH&G.*

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**America’s 1st Point of Sale**

A SCREENED MARKET OF MORE THAN 3,000,000 BETTER HOMES
These brands are being pre-sold to more than 3,000,000 top decision-making homes in Better Homes and Gardens... July, August, September and October issues.

POINT OUT to your customers the brands seen in BH&G. For your supply of free display cards—check list above for the brands you stock—then mail with your name and address to: MERCHANDISING DIVISION, BETTER HOMES & GARDENS, Des Moines 3, Iowa.
DEMONSTRATION: by nature
SHINGLES: by Ruberoid
SALES: by you

The bigger the storm, the more dramatic the proof of Tite-Ons' ability to give maximum roofing protection.

Here's the camera account... as recorded after a tornado in central Indiana last spring. Look closely at the roof: Not a single Tite-On has come loose!

Storm or not... Tite-Ons, with their patented interlocking design, always provide more safe roofing years per dollar... hence turn more home-owners and farmers all over the country into live prospects... and get more business for Ruberoid dealers and contractors.
More and more Builders:
now choose ELJER Brass Goods

because...

STANDARDIZED BROACHING
...all styles of handles fit this one standardized broaching.

LARGE DIAMETER STEM...
built to withstand rugged use.

PACKING NUT... adjustable to compensate for wear of the stem packing.

ENCASED GASKET... assures a tight joint by preventing spreading of packing.

HEAVY-DUTY PACKING...for longer, trouble-free service.

BRASS WASHER... keeps stem packing from spreading and makes it last longer.

STEM THREAD... heavy Acme-type double thread for long wear. Means faucets open and close quickly.

SEAT WASHER... finest quality, for long-lived service.

CHROME-PLATED STEM... heavily plated and polished to retain a gleaming finish over the years.

THREADED SLEEVE... provides ample adjustment for connecting escutcheon.

TOP-QUALITY, STEM-THREAD BUSHING... ruggedly built, easily removable to replace wearing parts.

PROTECTED SWIVEL JOINT...exclusive Eljer design. Protecting curtain gives easy operation with feel of "ball-bearing" action.

SWIVEL DISC HOLDER... prevents turning of washer on valve seat. Gives easy, tight closing. Avoids wear and dripping. Adds greatly to life of seat and washer.

WASHER SCREW... readily removable for replacing washer.

AND with ELJER Plumbing Fixtures...
...you can be sure your clients will obtain extra value from the single source of responsibility. Too, they will appreciate the long-life styling, superb quality and extra conveniences of Eljer Plumbing Fixtures... and there is a size, type and design of fixture for every requirement.

As advertised in the POST

In 1949, Eljer advertising in consumer magazines, like The Saturday Evening Post will reach 115,000,000 readers, many of whom will want Eljer Fixtures. Some of them will be your clients.
ELJER EQUIPPED HOMES DO SELL FASTER BECAUSE
YOU'LL ENJOY THE extra features OF ELJER FIXTURES

The soft, matching colors or immaculate whiteness of Eljer Fixtures mean lasting beauty in your bathroom, but you'll especially appreciate these extra features.

Eljer's Legation Bath has a generous end-seat and a wide, front rim-seat, only 16 inches high . . . easy to step over and ideal for bathing children. Tub bottom is flat, for safety's sake . . . and all parts are within easy reach for cleaning. Thick, vitreous enamel, fused to rugged, rigid cast iron, gives a lustrous, satin-smooth finish.

In Eljer Vitreous China Lavatories, the overflow outlet is concealed under the front, anti-splash rim, leaving the back of the basin smooth and beautiful. The sparkling, glass-like finish resists stains and is impervious to the effects of all ordinary acids.

Vitreous China Water Closets, made by Eljer, operate as silently as a whisper, effectively and efficiently.

Your Plumbing Contractor or Builder will help you select the exact Eljer Bathroom, Kitchen or Laundry Fixtures you would like. For free booklet, "Designed for Living", write Eljer Co., Box 192, Ford City, Pennsylvania.

Eljer's beautiful, chrome-plated brass fittings feature new, exclusive construction principles that assure long, satisfactory service. All wearing parts are easily replaceable. Just another reason for specifying Eljer Fixtures with Eljer Brass, in kitchen, bathroom and laundry.

MANUFACTURERS OF FINE PLUMBING FIXTURES SINCE 1904

ELJER

Factories at Ford City, Pa., Salem and Marysville, Ohio and Los Angeles.
There are over Ten Million Eljer Fixtures in Use

more and more people are asking for the Extra Features available

Only in Eljer's Fine Line of Plumbing Fixtures and Brass Trim
When planning, building or remodeling practically every type of structure, you can wisely recommend Eljer Crystal Drinking Fountains. Quality is high, but the price is low.

Made of *real vitreous china*, the Crystal Fountain is easy to clean and keep clean. Fittings are chrome-plated, featuring a trouble-free strainer, sanitary bubbler, and a completely automatic regulator that maintains a steady stream height—regardless of variations in supply pressure. Water cannot be squirted by placing a finger over the nozzle. That is a real plus-value in schools and public buildings.

Wherever it would be convenient to have a sanitary source of refreshing water, suggest the Eljer Crystal. No other fountain, in a comparative price range, equals Eljer's fast-selling Crystal. For complete information, see your Eljer Distributor or write: Eljer Co., Ford City, Pennsylvania.

*It pays you, it pays us* - because we specialize in Plumbing Fixtures and Brass
Intensive National Attendance Drive Planned for 1950 NAHB Convention

Plans are being completed by the NAHB convention committee for an intensive attendance promotion campaign, to be carried on through regional offices and 214 local association secretaries, which is expected to play a big part in attracting a record number of builders, dealers, architects, mortgage bankers and others affiliated with the home building industry to the national convention and exhibition at the Stevens Hotel, Chicago, Feb. 19-23.

Concentration of the campaign will be from early December until mid-February.

Official registration at the 1949 convention was 14,856 persons. Representatives of groups were as follows: builders, general contractors, subcontractors and realtors—5,709; architects and engineers—467; lumber and building material dealers—3,219; manufacturers and representatives—1,016; financial and insurance representatives—345; bankers and press representatives—327; radio and press representatives—1,675; women—685; material dealers—3,719; manufacturers—657; government officials and miscellaneous—540.

Clayton W. Johnson Appointed Hartford County Secretary

Clayton W. Johnson has been appointed secretary of the Home Builders Association of Hartford County, Conn., with headquarters at West Hartford. He replaces Carl B. Liljedahl, who recently resigned to devote full time to business.

Cleveland Chapter Members Active in Obtaining New Building Code

Members of the Home Builders Association of Greater Cleveland were very active in bringing about the writing and acceptance of a new building code, which is rated as one of the best and most modern in the world. Builders expect the new code to make it possible for them to save home buyers from five to ten per cent in construction costs.

Emil J. Szendy, nationally known figure in building code work, was retained about three years ago to help in the work. In June this year after writing about 800,000 words, the job was finished and the code adopted by the Cleveland City Council.

The code committee of the Cleveland home builders group met many times to study and suggest revisions and rewriting of the old and outdated code. Working on the theory that a building code is a protection factor in many ways, including those of safety and savings, the committee diligently devoted time and effort to this work. Complete agreement on all points was not reached with the city authorities but, by and large, the contributions of the builders added immeasurably to the acceptability of the final draft.

Both Szendy, the author of the code, and the Cleveland builders emphasize that the new code was not designed primarily to save money but rather to set up proper safety standards. The following points, however, do offer opportunities for substantial savings for home builders and, of course, the home buyers:

Use of eight-inch thick basement walls instead of twelve-inch thick walls. This applies to both one and two-story homes. Use of lightweight bituminous fiber floor joists instead of 2x10-inch. Use of 2x8-inch wood joists instead of 2x10-inch. Use of supporting floor joists taking a live weight of only 30 or 40 pounds per square foot instead of 60 pounds per square foot. This means, for example, use of 2x8-inch wood joists instead of 2x10-inch. Use of either metallic or non-metallic electric cable in the wiring system. This means that use of conduit is no longer necessary. Back venting of plumbing up to eight feet instead of up to only three feet. This eliminates three plumbing vents in the average home. Use of lightweight bituminous fiber instead of clay pipe for underground sewer outlets. Permission to erect prefabricated houses except in industrial districts. Use of stress plywood assemblies in floor and walls and cavity wall construction.

(Continued on page 170)
Article in N.Y. Newspaper
Source of Good Will for Long Island Institute

An example of outstanding public relations achievement, valuable both locally and nationally, is a full-page article which appeared in the Sunday, Aug. 7, New York Herald-Tribune, describing the history, accomplishments and aims of the Long Island Home Builders Institute.

The article, which was headlined "Long Island Builders Institute Saves Dollars for Home Buyers," was written by Stephen G. Thompson, the newspaper's real estate editor.

It was pointed out in the story that members of the Institute erect about one-half of the new houses and apartments on Long Island every year; and that, while they work together in the organization for their mutual benefit, they are still in sharp competition with each other and with non-members in selling finished homes to purchasers—and thus it is probably the home-buyer who reaps the greatest net benefit from the organization.

Accorded special mention in the article was the work of the Institute's committee on construction costs, headed by Bernard Kinsky, which makes studies and issues reports on the adaptability of various items to the Long Island area and provides an estimate of the expense or savings to be expected from each.

Also described were special technical forums, "large sessions that have resembled university classes," at which leading engineers have discussed construction problems; the Institute's establishment of its own co-operative group compensation insurance plan which is expected to result in considerable savings for all members; and the work of the committees on building codes and architectural and engineering research, headed respectively by Frank A. Clausen and Architect Rudolph Maten.

Related at some length is effort which the Institute has made to confine building practices to those which serve the best interests of the public and of the industry. An account is given of the code of ethics to which all members subscribe.

Organized in 1941, the NAHB affiliate was inactive during the war but was reactivated in 1945. Leonard L. Frank is the 1949 president and Otto J. Hartwig, executive secretary.

Ohio Meet Set for December 4

The sixth annual Convention and Exposition of the Ohio Home Builders Association will be held at the Biltmore Hotel, Dayton, Dec. 4-6. Headquarters of the state association, which represents more than 1,500 members, is at 16 E. Broad St., Columbus.

The Montgomery County Builders Association, Dayton, will be the host chapter.

Cortright's Column
By Frank W. Cortright

Executive Vice President, National Association of Home Builders of the United States

There are, of course, a number of reasons why Britain's global empire—almost within our memory the greatest since the days of Rome—has disintegrated. Heading the list are the toll of World Wars I and II—and its transition from a capitalistic to a socialist economy.

In war the death dealing blows of the world's continued free economy in England could have prevented the present debacle, the spectacle of its representatives begging us for billions more to be added to an already staggering debt which can never be repaid.

The fact is that the early English settlers of the Plymouth Bay Colony experimented with a socialistic government here as far back as the year 1623, says Henry Hazlitt in Newsweek, June 27, 1949, quotes a letter sent by Betty Knowles Hunt to the New Hampshire Morning Union reciting Governor Bradford's account of the experiment. Here are the highlights of Henry Hazlitt's article describing this:

"Out of their common product and storehouse they set up a system of rationing, though it came to 'but a quarter of a pound of bread a day to each person.' Even when harvest came, 'it arose to but a little.' A vicious circle seemed to set in. The people complained that they were too weak from want of food to tend the crops as they should. Deeply religious though they were, they took to stealing from each other. 'So as it well appeared,' writes Governor Bradford, 'famine must still issue next year also, if not some way prevented.'

"So the colonists, he continues, 'began to think how they might raise as much corn as they could, and obtain a better crop than they had done, that they might not still thus languish in misery. At length (in 1623) after much debate of things, the Gov. (with the advise of the cheefest amongst them) gave way that they should set corn.e every man for his owne particular, and in that regard trust to them selves . . . And so assigned to every family a parcel of land . . .'

"This had very good success; for it made all hands very industrious, so much more corn was planted than other wise would have been by any means. The Gov. or any other could use, and saved him a great deall of trouble, and gave farr better contente."

"The Women now went willingly into the feild, and tooke their little-ones with them to set corne, wherefore he was a gathering weakness, and inability: whom to have compelled would have bene thought great tiranie and oppression."

"The experience that was had in this commone course and condition, tried sundrie years, and that amongst godly and sober men, may well evince the fanitie of that conceite of Platos and other ancients, applauded by some of later times—that the taking away of propertie, and bringing in communitie into a commone wealth, would make them happy and flourishing: as if they were wiser than God. For this communitie (so far as it was) was found to breed much confusion and discontent, and retard much imployment that would have been to their benefite and comfort . . .

"For the yong-men that were most able and fitte for labour and service did repine that they should spend their time and strength to worke for other mens wifes and children, with out any recompense. The strong, or man of parts, had no more in devoision of victails and cloaths, than he that was weake and not able to do a quarter the other could: where as the abler sort of men thought in justice . . ."

"And for men's wifes to be commanded to doe servise for other men, as dressing their meate, washing their cloaths, etc., they deemed it a kind of slaverie, neither could many husbands well brooke it . . ."

"By this time harvest was come, and instead of famine, now God gave them plente, and the face of things was changed, to the rejoysing of the harts of many, for which they blessed God. And the effect of their particular [private] planting was well seene, for all had, one way and other, pretty well to bring the year aboute, and some of the abler sorte and more industrious had to spare, and well to others, so as any generall wants or famine hath not been amongst them since to this day."

The moral is too obvious to need elaboration.
MAKING IT HOT FOR FURNACES IS AN OLD STORY WITH JOHN VEN DOUERN, Chief Assembly Line Inspector for Richmond's New Castle, Delaware, plant. During his 15 years on assembly lines, quality control has become second nature with him. Every step in furnace production, from initial die-cut sheet metal fabrication to final assembly, is under his watchful eye. Shown with him are some of the men who put quality on the line at New Castle.

As a result of close personal inspection and supervision, all Richmond heating units are guaranteed against defective workmanship or material. Also, all units are guaranteed to develop their published ratings—gas units in accordance with the American Gas Association Code—the oil units in conformance with Commercial Standard CS104-46.
BUILDERS SAY

Brick stands first

FOR PERMANENCE

"To build for today... and tomorrow... build with brick."
Who says so? You, yourselves.

That in effect is what you builders said in a recent nationwide survey. "For permanence brick stands first" (and longest).

It's easy to see why you voted this way. The evidence is all around you, in all types of construction—buildings of brick standing strong and beautiful despite time and weather!

And brick gives much more—beauty, structural strength, low maintenance cost, pride of ownership and higher resale value, fire safety.

On these points, too, you builders have made brick your first choice. Remember "brick first" and you'll find more profit for you in today's building... and tomorrow's.

THIS PLANBOOK WILL HELP YOU BUILD LASTING HOMES

You'll find a wealth of valuable builder's information in MODERN BRICK HOMES, our new 50-page planbook. Economy engineered plans for 20 houses are included. Also interesting discussions to help you with location of site, selection of plans, financing, exterior landscaping, interior arrangements. Just send 50¢ with your name and address to our address shown below, Dept. AB-10.

TIPS ON GOOD MASONRY PRACTICE

Dimensions of Wall Ties

Wall ties are an important factor in the construction of cavity walls. There are various types on the market, each serving the purpose with equal efficiency. Below are shown the various shapes and sizes of ties used in tying together the two wythes of a cavity wall.
Low in cost yet high in quality, easy to install yet rugged in service, *alumitile* has unlimited home and commercial uses, striking the modern tone wherever beauty and efficiency in surface finishing are sought.

Available now in quantity in a wide range of decorator colors, both interior and exterior finish, *alumitile* is invaluable for the modernization of old buildings and the construction of new buildings.

People know about it. People are asking for it. They are waiting for you to fill their orders.

---

**WINDPROOF! WEATHERPROOF! FIREPROOF!**

The most attractive, practical and economical metal awnings on the market today. Designed and built of .010 gauge aircraft aluminum for cool comfort, lasting beauty, permanent protection.
HERE'S A TEST EVERY BUILDER SHOULD MAKE!

INSTALL WRIGHT RUBBER TILE in the kitchen, bath and other appropriate rooms the next house you build.

INSTRUCT your salesmen or agent to tell about the floors of WRIGHT RUBBER TILE when he shows the house.

THEN LISTEN to the comments of prospects! Watch their faces when they see the gleaming floors. You will see what we mean when we say that floors of WRIGHT RUBBER TILE make houses sell faster!

No other floor covering is backed by all this proof!

You can’t go wrong when you make the test described above because there are 27 years of proof behind WRIGHT RUBBER TILE.

27 years of use has shown that WRIGHT RUBBER TILE has the longest proved life of any resilient floor covering.

27 years have proved the resistance to damage—the permanent newness—the ease of cleaning that mark the use of WRIGHT RUBBER TILE.

And 27 years have shown that WRIGHT RUBBER TILE makes homes more comfortable and livable—more desirable and more salable.

No other floor covering material is backed by so much proof of superiority—so be sure to specify WRIGHT RUBBER TILE!

WRITE FOR FULL INFORMATION
Get the facts on WRIGHT RUBBER TILE right away! Write us for literature and samples. Wright Manufacturing Co., 5203 Post Oak Road, Houston 5, Texas.

Wright Manufacturing Co., the oldest and most respected maker of rubber floor tile, manufactures:

WRIGHTEX Soft Rubber Tile
WRIGHTFLOR Hard Surface Rubber Tile
WRIGHT-ON-TOP Compression Cove Base

WRIGHT RUBBER TILE
Floors of Distinction
Here it is!

THE NEW,
LOW-COST

PORTABLE SAW-SHOP
you've waited for!

This new, low-cost DeWalt is easy to carry from job to job. When you put it to work you actually have a “saw-shop” on the job, because every time you change the cutting tool, you have another machine.

Light in weight (about 200 lbs. net), this DeWalt is nevertheless perfectly balanced. It is equipped with the entirely new and exclusive DeWalt-built, voltage-relay capacitor motor which operates on either 110 or 220 volts—a motor which develops 2 1/4 to 3 times the horsepower it’s rated for. It is a motor you can depend on for continuous, trouble-free service.

What’s more, this DeWalt can be equipped with legs for inside shop use. With this DeWalt, your men will help you set new standards of performance and quality in building your houses better, faster and at lower costs.

Order one now for immediate delivery. Write for catalog. DeWalt, Inc., 110 Fountain Avenue, Lancaster, Penna.
Architects and builders everywhere now enjoy an easier approach to kitchen planning. They are choosing from, literally, dozens of combinations of top-quality Kelvinator Refrigerators and Ranges...because any combination of these "one-width" Kelvinators fits the same floor-plan to a T! Here is simplified planning, costly changes out of the picture, time and money saved!

Exclusive! Only Kelvinator offers the flexibility of uniform-widths for easier kitchen planning. Simplify and save—by specifying Kelvinator!

GET MORE...Get

"Space-Saver" Package for apartments and low-cost homes! Get Kelvinator's 1949 "Space-Saver" Refrigerator. It is full 6 cu. ft., but only 24 in. wide. Range is only 21 in. wide, with advanced design permitting installation flush against wall. Top-of-the-line quality throughout. For information, write Kelvinator Division, Nash-Kelvinator Corporation, Detroit 32, Michigan.
Issues Behind Public Housing

THERE is one common ground of agreement on which both the proponents and opponents of the Housing Act of 1949 stand united. It is that for the first time in the history of this nation the members of an economic class have been told that they no longer need accept as an individual responsibility the problem of providing housing for themselves. Disagreement starts with speculation on the ultimate political, social and economic consequences of this reversal of principle. Opponents of the act maintain that it is axiomatic that the price of individual liberty is individual responsibility, and that the corollary to that axiom is that ceding either surrenders the other.

Reducing that to terms of the housing act, the opponents argue that the beneficiary of public housing must become the ward of his benefactor—the government—subject himself to government control of his personal life, and thus pay an unsuspected and tragic price for what at first appeared to be a gift. They argue further that latent incentive will be lulled to sleep in the man who reposes the solution of his personal problems in the lap of a government bureau head; and that finally those who pay the price of public housing with mounting taxes will begin to demand the benefits instead of the burden, until eventually only a few who remain will be broken by the tax load of housing the many. The opponents have on their side the only evidence there is—the result of public housing in England.

Today, under the so-called Labor Government in England, at least four out of five housing units must be public. Actually, the percentage of public housing is much larger, and the avowed aim of government is to eliminate all private building. To hasten this, union leaders and government laborites urge labor to demand direct employment by government to eliminate contractors, and in the same breath stridently insist on higher man-hour production. The handwriting on the wall should be clear to British labor. The days of labor unions are nearing an end, and so are the rights of laborers. Skilled craftsmen are dwindling in number, because the spread between government-established wages for craftsmen and laborers is too small to provide incentive. Thus, the inevitable result of "leveling" is lowered standards. No one but government is gaining anything, and government is gaining absolute control over the life of every Englishman. That is the evidence.

This is the question: Will the American people—all of them—labor, capital, management, professions and farmers—permit themselves to be robbed of the heritage of freedom which has given them the highest standard of living ever known and the incentive for even the lowliest born to seek and reach places of eminence; will the American people surrender a way of living that is the envy of the entire world for the myth of free housing and easy living without individual effort; will the American people sleep in apathy while their heritage is stolen by the dictator-minded in labor, government and finance? That is the question, and those are the issues behind public housing.
"The greatest industry show ever staged" is the only way to describe the second annual observance of National Home Week, the brain child of American Builder, which was instantly picked up by the nation's home builders from coast to coast.

Even the most optimistic believers in the possibilities of National Home Week fell far short in their estimates of the number of builders who would participate this year, and in their estimate of the number of houses that would be demonstrated.

Last year, the first observance of National Home Week, saw some 1,500 houses exhibited. This year the total may run closer to 10,000. In an attempt to arrive at an accurate estimate of the magnitude of the Week, American Builder conducted a spot survey, the results of which follow. Of 54 building centers heard from, a total of 6,440 houses were reported to be on exhibit and for sale. These building centers represent an average of about 15 communities each. Thus, the survey revealed 810 communities participating. That there were many more is unquestionable. A reasonable estimate would double that number. Of the 6,440 houses actually reported as being on exhibit, most of them were completed, but nearly every builder chose to exhibit his construction values by leaving several houses

SUPPLEMENTED by heavy advertising from all segments of the industry, newspaper publicity for National Home Week this year reached new peaks in total lineage.


Newspapers and Radio Acclaim

$70,000,000 Home Show

in various stages of completion. Of the total number reported, 325 were shown completely furnished.

One very interesting result of the survey was that 1499 builders were exhibiting the 6446 houses. That meant that the builders were showing an average of four to five houses each.

The estimated value of the houses is $67,392,700. The value of the furnishings in the 325 furnished houses added to this total brought the value of the show to $70,894,700. No industry ever has been able to assemble its products for display purposes in amounts even remotely approximating that value.

When it is realized that the foregoing figures represent the participation of only 54 building centers, and that there were at least twice that many observing the Week, plus a number of small isolated communities that cannot be estimated, and perhaps can never be accounted for, the full significance of National Home Week becomes even more impressive.

Among the participating but non-reporting centers was Pittsburgh, which because of the unique nature of their observance of the Week, found it impossible in advance of their show to estimate their participation. It was well known, however, that Pittsburgh had arranged something approximating a local world's fair.

In every city in which National Home Week was observed issued proclamations establishing the Week. Governors of states, likewise, issued proclamations, and it is from the latter as well as from magazine and association promotion that many small towns away from large centers organized their independent observances with one or two houses.

Numerous retail lumber dealers indicated that while they themselves do not build, they show their premises, put in new window displays, and run special newspaper advertising designed to stimulate remodeling, repairs and new paint jobs. One retailer wrote that while he would do nothing this year, because he had heard of National Home Week too late to prepare anything, he was planning to remodel his yard, and would schedule the remodeling for a grand opening during the 1950 National Home Week.

Heavy newspaper advertising is a standard feature of all observance programs. Local radio programs run a close second, with more than half of the cities purchasing radio time. The Chicago Tribune, which last year carried a 60-page building supplement on the day National Home Week opened, carried an even larger section this year. A newspaper in Memphis ran a 20-page building section this year.

In Dayton, one newspaper carried a 56-page tabloid size building section. The section included a map showing the location of each house on display. In Milwaukee the Pyram of Homes idea, which was successful last year, was repeated.

The theme in Detroit was 1,000 homes on parade, with 95 builders participating. Mayors of many of the cities in the area issued proclamations, and some of the city halls were decorated. All lumber and building material dealers displayed banners on their trucks.

In many communities houses were given away. In Grand Rapids, Mich., an essay contest was conducted on the subject, "Why I should buy or build my own home." A $3,000 treasure hunt was conducted.

In the Texas Panhandle, all cities were participating, and two Amarillo newspapers carried special sections.

Billboard and car card advertising were used extensively. Philadelphia placed cards on the outside of 300 street cars. In several cities, including San Francisco, the observance took the form of a home show.

The foregoing are only a few of hundreds of novel publicity and promotional methods adopted to assure large crowds at the exhibits.

It is safe to predict that National Home Week this year more than justified all the effort that went into it and that next year will see an even greater participation.

Values of the houses exhibited this year ranged all the way from $6,000 to $60,000, with the great majority in the lower price brackets. Perhaps most of the houses were in the two and three-bedroom class selling from $10,000 to $15,000; fully equipped with range, refrigerator, water heater, and in many cases other appliances. Enthusiasm was evident in every center where Week was observed.
Selling Science
Applied
To House Sales

Speculative home building firm has closely co-ordinated promotion and merchandising program utilizing newspapers, radio, direct mail, billboards and carefully selected sales personnel to hold steady volume.

Three years ago when Al Allen and Norm Tandy formed their New Jersey home building firm of Tandy & Allen, they decided to establish their own promotion and sales organization. While they were still operating in the postwar sellers' market, they methodically went about the job of organizing a sales setup to cope with the competition and buyer resistance which they knew was coming, and which has been increasingly apparent in the last year.

Both Tandy and Allen are veterans of World War II. Both had been associated with the building industry prior to their war service, but never as managers of their own businesses. They had ample confidence in their ability to design and construct good houses in planned communities, but both felt a definite weakness in sales competence. Because they are both young—in their early thirties—they wanted to form an organization of young people that would be a permanent, going concern for years. This was one factor in their decision to form a selling branch as an integral part of the operation, rather than to depend on real estate brokers for promotion and sale of their houses. After starting in a small way Tandy & Allen have gradually expanded over the three-year period into a home and community building organization which in July opened a new 600-home project known as Saddle-Wood Hills, adjacent to Hillsdale, N.J., within commuting distance of New York City. Their promotion and sales technique resulted in the sale of 42 houses in the $17,500 to $18,500 price class the first three weeks the project was open. Currently they are selling about as fast as their 125-man trades crew and organization can handle starts and make deliveries within 60 days after ground is broken.

The Tandy & Allen promotion and sales setup is not one designed to sell out the project of 600 houses in the shortest possible time. As Al Allen says: “Our object is to build a community—not a development. We want to stay in business a long time. We want a sound business that will be fairly constant over a long period rather than a business with spasmodic spurts of big volume mixed with periods of relatively low activity.”

R. G. Follette, World War II veteran and experienced

Series of billboards and roadside signs directing home seekers to and through the Saddle-Wood Hills community to the offices of Tandy & Allen, adjacent to the project.
salesman, is sales and promotion manager for Tandy & Allen. He spent a little over two weeks selecting his present staff of three salesmen, each of whom has a different temperament and personality. Thus a quick appraisal of the prospect's personality permits assignment of a salesman who will be most apt to match that of the prospect.

One of the salesmen is the jocular, happy-go-lucky type who can kid people into more interest in the house and confidence in the builders. A second man is a combination of the jocular and quiet, confidence-inspiring type. A third salesman is elderly and very dignified in appearance, the type who appeals to serious-minded executives and small businessmen.

Sales technique on the job is to, first of all, let prospects sell themselves as much as possible. To work this out requires well-planned, co-ordinated handling of the thousands of model home visitors from the metropolitan area. During the hottest summer weather about 2,000 people went through the model home each weekend. The house is open from 10 A.M. to 10 P.M. Two girls are employed to assist Follette and his sales staff on weekend ends. One girl is at the front door. Her job is to limit people actually going through the house to about four at a time. The other girl is inside the house to answer questions, inspire as much confidence as possible in the women visitors and show them around. At the same time two or three salesmen are outside at the rear of the house, or in the garage, sizing up the visitors and answering questions. Those visitors who indicate genuine interest are considered as prospects and turned over to salesmen who are most likely to appeal to them from a personality standpoint. When a prospect is serious about the house, the price, location and other factors, a sizable cash deposit is obtained, subject to refund in case a deal is not consummated. Follette reports refunds are negligible.

Getting 2,000 or more visitors to a model home in the New York metropolitan area in a single weekend is no simple task under present market conditions. As one of the first steps in creating public interest in their houses, Tandy & Allen employed public relations counsel and an advertising agency to handle publicity and advertising in metropolitan newspapers. Town Advertising Associates in Hackensack, N.J., were selected for this assignment. Both the publicity and advertising are dignified and conservative.

ALL the key positions in this building firm are held by veterans of World War II. From left to right, Al Allen, president; Norm Tandy, secretary; Herb Tandy, treasurer, and Robert Follette, sales manager.
The advertising layouts are considerably different from the type generally used for speculative builders. Several examples are illustrated on the accompanying pages.

Other methods of creating public interest are employed. Follette uses direct mail extensively, addressing his messages to apartment dwellers in the area. He is able to obtain lists of these people arranged in income groups. He also obtains a large number of names from people visiting the model houses. A great deal of importance is placed on the “chain” reaction of a model house—one couple telling another about the house and the price.

The importance of billboards and road signs are not underestimated by Tandy & Allen. These are particularly effective for this firm because the setup was carefully planned and well executed. The first large billboard is placed as far as five miles from the development on a heavily traveled highway.

Television and radio are used extensively, some of the programs without a great deal of expense because members of the organization are willing to expose themselves for interviews and public appearances on housing subjects. These appearances are not taken lightly. Much preparation and advance consideration of the subject to be discussed on the program is part of the work.

In addition to the above publicity factors used, a prospect list in the office is worked by mail and by personal

(Continued on page 200)

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<th>PRODUCTS USED IN TANDY &amp; ALLEN HOUSES</th>
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<td>ABC Steel Equipment Co.</td>
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<td>special sash for Twindows</td>
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<td>Armstrong linoleum in kitchen</td>
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<td>Bell &amp; Gossett circulating water pump on furnace</td>
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<td>Benjamin Bros. wood gutters</td>
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<td>Cellulite insulation in side-walls and ceiling</td>
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<td>Chase copper piping</td>
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<td>Creo-Dipt sidewalk shingles</td>
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<td>Flintkote asphalt shingles</td>
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<td>General Electric kitchen range</td>
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<td>Kentile asphalt floor in den</td>
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<td>Kohler plumbing fixtures</td>
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<td>Lightolier lighting fixtures</td>
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<td>Long Island shower stall doors</td>
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<td>Minneapolis-Honeywell furnace controls</td>
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<td>Mosaic tile in bath</td>
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<td>Pittsburgh Plate Glass Co. Twindows</td>
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<td>Philip Carey bathroom cabinets</td>
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<td>Ro-Way garage doors</td>
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<td>Reynolds aluminum foil insulation above crawl space</td>
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<td>Schlage finish hardware</td>
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<td>Tracy kitchen sink and cabinets</td>
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<td>Tuttle &amp; Bailey convectors</td>
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<td>U. S. Striated plywood</td>
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<td>U. S. Radiator Surray hot water boiler</td>
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<tr>
<td>Viciotron kitchen ventilating fan</td>
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<tr>
<td>World Steel Products steel door jambs</td>
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SLIDING doors are used on most clothes closets as space-saving feature. The free-standing fireplace forms a hallway.
VARIED elevations developed from the basic floor plan shown here. As soon as interest lags in a basic design, Tandy & Allen start building and promoting a new design.

BASIC floor plan of the house now in production. The one second floor room may be used as a den or an additional bedroom. Electric kitchen range is standard equipment.
Practical application of design principles that are accepted as standard, when applied to the construction of small homes.

BUILDERS today have accepted functional design as a practical expression for average homes. Edward B. Hawkins, builder and designer of Denver, Colo., as one of the pioneers in this movement, has carried on a development of 35 houses over the past two years in the northeast section of this city.

Functional is a word that is handled about rather carelessly when describing the architecture of a house. Basically it refers to the type house where the plan is considered all important, and the shell, or exterior, is a direct projection of the plan. This is in conflict with the other familiar types where the exterior takes the prominent place, and the plan, positions of windows, etc., are given minor consideration. The awakening of the functional type has produced a better plan and a more satisfying exterior in the average house design.

Hawkins houses vary in cost from $10,000 to $23,000 each, with the average cost being approximately $14,500.

The houses vary in type as well as size, none having less than two bedrooms. While the houses shown in this issue are confined to the one-story...
A PLAN profile which normally would not produce an interesting facade is made fresh and sparkling with the addition of a flat roof portico across part of front. Plan below

CABINET keeps the washer out of sight, yet it can be available for immediate use by simply lifting cover and opening the door; not in use cover becomes counter

ANOTHER version of above plan with change in roof pitch and overhang, addition of flower box, and dressed up garage doors
HAWKINS method of wall construction shown in drawing below. Foundation is poured in usual manner, then groups of four \( \frac{1}{2} \)-inch round reinforcing bars are placed vertically at four foot centers around foundation. Shop-made units, illustrated, are erected between each set of dowels, held in place with temporary bracing. These units create a form for columns four feet on centers. The interior finish of \( 1 \frac{1}{4} \) inch precast gypsum vermiculite slab and insulation can be applied at the time forms are erected, or applied after closing in building.

VIEW toward wall with interior gypsum units complete; insulation and steel for columns in place, slabs aligned and braced, wall ready for application of reinforced concrete exterior slabs, and pouring of columns.

EXTERIOR view of present gypsum wall set up ready for application of exterior precast reinforced concrete slabs. Note steel set up in column ready for pour development is the block arrangement, where houses are not placed in accordance with a fixed property line. The type house that Hawkins builds lends itself well to this method. Many of his houses have the garage projecting well out in front of the house proper. In these cases the extreme projections are placed at the property line, and in other situations the front wall of the house is moved forward. Thus an undulating block formation is established which produces an unusual and effective appearance.

Let's vary from 50 to 55 feet in width. Privacy is obtained for each owner through the use of patios, partial walls on one side of carports, and high wood fences of wide horizontal boards that are made a part of and a continuation of the architectural lines of the house.

Hawkins has developed a type of concrete wall construction that meets the approval of all building authorities, and, which he says, can be built at a cost comparable with an ordinary veneer wall. This wall is based on a four foot modular system with reinforced concrete columns placed on these centers. Precast gypsum vermiculite slabs are placed on the inside between columns, and two inch thick concrete slabs are placed on the outside. Volcanic slags such as perlite are used as the aggregates for slabs to induce lightness for easier handling. A continuous concrete perimeter beam is placed at top of columns.

The heating arrangements in Hawkins houses have changed as new methods have appeared on the market.
USE of precast slabs provides an effective wall pattern. With semi-flat roof it produces an exterior of utmost interest.

DETAIL of floor heating grille at wall

SYSTEM of radiant and forced warm air heating as designed by Hawkins is shown below. After ground is leveled, a fill of crushed stone is laid. Six inch partition tiles are placed on fill to form channels to each side of structure from center concrete distribution duct. A 2½ inch reinforced concrete floor covers the tile. The outlet at the exterior wall is formed by keeping tiles approximately 2 inches from foundation wall. Warm air enters room through a specially made continuous grille placed at intersection of wall and floor. This is supplemental to the heat that radiates through the slab.
PLAN at left contains large central area with abbreviated partitions causing rooms to actually flow into one another. Carport at front doubles as porch. Storage units on one wall form barrier to house.

VIEW of dining portion of living room. End wall is covered with fir plywood squares in blond finish. Space in back of end squares in center area contain shelves for storage of china. Wood louvres are exposed to view through hinged wood panel. This provides ventilation where fixed windows are used.

The present type, which is a combination radiant and forced warm air, has a number of innovations that he has designed. By keeping the tiles below concrete floor approximately two inches away from the foundation wall, the warm air can enter the room through a specially made continuous grille which is placed at the intersection of wall and floor. To achieve uniform air flow in the distribution duct, simple baffles were installed at key points. A portion of the branded materials used in the construction of houses are as follows: Aluminum type awning windows by Metal Window Products Co., Houston, Texas. Armstrong asphalt tile, G. E. furnace, Payne kitchen fan, Crane hot water heater, and plumbing fixtures, Bendix washer, Frantz garage door hardware, Yale, Corbin and Sargent hardware, Corning-Illinois fibre glass, Kimsul and Infra insulation, Libby-Owens Thermopane, U. S. G. Rocklath, Devoe and Reynolds paints, G.E. Disposall and dishwashers, Wright’s rubber floor and wainscot.
SOLID wall of carport is placed adjoining the side wall to form covered passage to front door. Covered porch and storage at rear.

IN this plan the major rooms are placed toward the rear of house. This permits the development of large covered terrace, shielded from the yard by storage room, where garden tools and children's playthings are stored.

CHANGE in wall materials in living room is refreshing. "V" cut horizontal pine boards on fireplace wall have a rubbed antique finish; balance of walls are plaster, painted a dark shade. Simple wood frame around fireplace and around bookcase is effective.

ANOTHER version of house above, of which plan is shown at left. Change of roof, windows and garage deck changes design.
APARTMENTS—Tailored to Fit

GARDEN-TYPE apartments, built by Dave Bohannon, will total 707 in all—
including 54 one-bedroom, 383 two-bedroom and 66 three-bedroom units.

Host of accommodations for various size medium-income families with different needs are offered in large 608 project

One to three bedrooms, one or two bathrooms, separate or collective front entrances are some of the choices offered in the Hillsdale apartments. Tailored to fit the needs of various size families, other conveniences are added to assure continuous demand for rental privileges on the part of tenants.

The apartments, to total 707 in all, are in one of the largest FHA 608 developments on the Pacific coast. Located in Hillsdale, Calif., about 20 miles from downtown San Francisco, they are being built by Dave Bohannon.

A wide variety of room arrangements, achieved through skillful planning by Bohannon and Architect Edwin A. Wadsworth, permits a tenant to have his living room, kitchen and dining room on the first floor with upstairs bedrooms; to have all rooms on the first floor with an individual en-
EXTERIORS of Hillsdale apartments are frame and stucco. All living room windows look out onto courts which are children's play areas.

Trance; or to have one bedroom on the first floor and two on the second. The project is divided into 54 one-bedroom units, 383 with two bedrooms and 66 three-bedroom apartments. Rents which include utilities, range from $90 to $145. Garages cost $7 and carports $5 per month extra.

All buildings, built around courts, are laid out so as to obtain as much privacy as possible for each tenant. Living room windows are on the court side; carports and garages, all built of concrete blocks, are frequently placed so the rear walls separate courts of adjoining buildings. Cars are not visible from apartment windows.

Contrary to the policy governing many projects, the apartments welcome children. Designed so that small children may have protected play areas, the court for each apartment is completely surrounded by a 5-foot hedge which can be entered only from the apartment.

Because building codes in this vicinity permitted frame construction, some savings could be made which were passed on to tenants in the form of additional accommodations. The apartments are finished with quality material throughout. Bruce block floors are laid in living and bedrooms, and Armstrong asphalt tile in kitchens. Windows are Seco steel sash operated by Getty bronze gear cranks. Inset lights in dining and kitchen spaces, Kohler fixtures, Corbin locks, Mission hot water heaters, and venetian blinds are some of the features.

Kitchens are equipped with Gen-

(Continued on page 152)
Finding Ready Acceptance

A combination of stone, vertical boards with battens and split shingles help to spark this house of excellent proportions

A MOVEMENT that has been gaining impetus with each building season is the demand for homes with all rooms on one floor. They take the form of large spreading ranch houses or smaller and more compact units, depending upon locality and availability of ground for building. The desire to eliminate the climbing of stairs, both to second floor and basement is somewhat responsible for this change.

In designing a house for the blueprint series, Matern and York, architects, Jamaica, L.I., N.Y., have followed this trend. They have adopted the basic plan of one of their houses with all rooms on one floor that has found exceptional customer acceptance over the past few years. This house offers the latest refinements to this kind of room arrangement.

Refinements to the exterior are more pronounced than those within house. The 5-12 roof pitch gives the house an attractive low appearance which is pleasing. To maintain proper balance in the design gable ends are faced with “V” grooved vertical boards. This applies also to the area below the living room window. Stone veneer and hand split wood shingles on the sidewalls combine to produce an excellent facade. Flower boxes in several forms placed under windows add to the attractive appearance of the house. The front door is placed at the far end of the house.

Within the home, a vestibule is formed through a separation created by a built-in china cabinet. Living room is comfortable in size with a fireplace on one wall and ample dining area adjoining the side, which in reality is part of the living room. Two bedrooms are provided with the possibility of a third.

In the event there is no immediate need on the part of the home owner for a third bedroom, this area can be used as a dining room. In that case it is suggested that the walls forming the hall be omitted, and that the dining room extend to wall of living room with opening between these rooms increased in size. By cutting a door opening in the wall separating kitchen from dining room, the living room can be extended to include the dining area and the china cabinet used as a bookcase.

Kitchen is of generous size with two walls devoted to cabinets and fixtures with balance of space used for informal dining. Storage space is abundant with nine closets of various sizes distributed equally in all rooms. Basement is provided under entire house with sufficient space for utilities, recreation and storage.

House contains approximately 1100 square feet and is estimated to cost $14,300 to build. This figure will change depending upon the location and the local building conditions.
ROUGH CELL

ROUGH 1ST FLOOR

BOTTOM OF JOINTS

GRADE

CELLAR FLOOR

REAR ELEVATION

SCALE 1:10

ELEVATION

MANTEL DETAILS

SCALE 1:10

SECTION

SHADOW BOX DETAILS

SCALE 1:10
Building material and home equipment dealer, working closely with builders in small communities of northern New York state, has achieved outstanding success in promotion of modular-designed truss-roof unit.

**Aggressive Selling**

**Popularizes Industry Engineered Houses**

The modular-designed, truss-roof Industry Engineered House is popular in the Hudson Falls, N.Y., area. Smart merchandising by a dealer-builder firm which recognized its possibilities as a stimulant to interest in home construction and to increased building volume has the residents in a number of communities not only talking, but buying "I-E" houses.

In 1946 when the Industry Engineered House program was first announced by the National Retail Lumber Dealers Association and the Producers Council, M. E. Smith, aggressive sales manager of the Griffin Lumber Co. in Hudson Falls, was immediately interested. His associates in the firm joined him in his enthusiasm. Houses in the firm's conservative trading area had been built in the square "cracker box" style for years and the Industry Engineered House was recognized as a pleasing new model which could be standardized and merchandized by a dealer-builder in a small community where the market was low-cost and handled largely by small builders working in close cooperation with the lumber dealer. A short session with local bankers brought assurance of adequate financing on a sound basis.

The Griffin Company builds no houses in direct competition with local home builders. Several model houses were erected on a subcontract basis and later sold but all new house customers who come to Griffin's for home building service are referred to local builders for the construction work. It took a great amount of talk on the part of Griffin personnel to get builders interested in changing over to the construction of the "I-E" house, but detailed explanations of the modular system, the principles involved and the savings possible resulted in the conversion of seven builders. One of these has erected six I-E houses.

Griffin Lumber Co., and the builders working with them on this house, find it is very well suited to the climate and requirements of prospective home owners in the upstate New York region. Interest is high in the L-shaped house because of its contrast with the conventional square style which has been common there for generations.

Bulk of the framing for I-E houses erected by Griffin customers is precut in the lumber yard and delivered to the site ready for assembly. Builders have found this a big time-saver throughout, particularly on the roof framing where trusses are used. The 18-foot floor joist material is bought in half-carload lots by Griffin's, cut to the odd 16-foot 7¾-inch length with the left-over material cut to size for solid bridging.
THE I-E house which was awarded to the winner of a contest sponsored by Photoplay magazine this year. Materials for the house and supervision of its erection in Warrensburg, N.Y., were provided by the Griffin Lumber Co., which serves that area.

FLOOR plan of the I-E house with modifications developed as result of experience in building and selling the unit to customers in northern New York state area. A major alteration, not shown here, was in changing roof pitch from 5/12 to 8/12.

After the foundation is boxed, exterior walls are erected and the roof put on before any inside partitions are put in place. Electricians and plumbers then come in and do what work is necessary before the inside finish is to be applied to outside walls. This system requires two visits by the electrician who must return to work on partition installations. Plumbers have been convinced they can measure correctly from outside walls and cut through subflooring for installations without having partitions in to guide them.

After this is done, gypsum board interior finish is applied to all outside walls and the ceiling, still with no partitions to work around. The 4x12 sheets of gypsum board fit ideally when applied horizontally to the walls. The plan used by Griffin permits most joints to come above and below windows, eliminating as much joint work as possible.

Partitions are put up and finished before the finish floor is laid. Griffin's found that, although much time could be saved laying a hardwood floor without partitions and closets to work around, in the end there was no saving. This is because of all the work usually required to repair damage to a finished floor done by plumbers, electricians and other mechanics.

While working with builders and customers in the erection of I-E houses Sales Manager Smith has developed a number of modifications in the original plans. The latest Griffin I-E model home in Glens Falls, N.Y., illustrated on these pages, incorporates the changes. It was found that if everything were installed in the kitchen as shown on the original plan, the area was too small. The built-in ironing board was eliminated and the inside kitchen door centered in front of the dinette area.

The coat closet at the right of the front door crowded the dining space, so it was eliminated. Many buyers like to have the garage attached to the house, and when this is done, as demonstrated in the latest house, it is set...
BRANDED PRODUCTS USED IN
NEWEST GRIFFIN I-E HOUSE
Armstrong linoleum on kitchen and
bathroom floors
Atlas garage door
Balsam wool insulation in side walls
Bendix laundry
Birden lighting fixtures
Bruce pre-finished flooring
Chase copper piping
G. E. Model LB-15 high-velocity forced
warm air furnace
G. E. thermostat
J-M asphalt shingles
J-M mineral wool in ceilings
Kwikset hardware
Lawson bathroom cabinet
Magic Chef kitchen range
Marlite on kitchen and bathroom walls
Morgan kitchen cabinets
Nutone door chimes
Pyrofax gas
Ruud 30-gallon hot water heater
Standard plumbing
USG metal sash in basement
USG gypsum board on interior walls

back on the lot to permit a window in
the end of the living room. The serv-
ice door for the garage thus located
is placed at the side toward the rear
kitchen entrance. This is popular be-
cause it permits the buyer to erect a
 canopy or breezeway over the kitchen
and garage service doors, completely
covering the walk to the garage. This
is easily enlarged into a terrace or
porch, fully protected on two sides
with finished exterior walls of the
house and garage.

Original I-E house plans call for
two flues in the chimney, but Griffin's
have found that one is adequate. It
has also been found that several of
the basement windows can be elimi-
nated.

Outstanding change made in the
original plans by Griffin's—one dic-
tated by climate as well as local tastes
—is the roof pitch. All I-E houses
now being built from plans supplied by
Griffin's have a roof pitch of 8/12 in-
stead of 5/12. The same style and type
of truss is used.

The newest model I-E house by
Griffin's in Glens Falls is heated by
one of the new General Electric high-
velocity forced warm air furnaces
with 4-inch ducts to the specially-
designed registers in each room. This
house, without the garage and with
bevel siding instead of double-course
sidewall shingle exterior, is being
sold in the area for about $8,000, with-
out the lot. The newest model
was erected by a team of builders, all
interested in the I-E house: Lyle
Baldwin, C. Sinkleman, Leland Smith
and Malcolm Smith. Other builders in
the area working on I-E houses or
interested in getting started are:
Ernest Sullivan, Charles Jones, Frank
Holden, Paul Bishop, Arol Brown,
Elgin Pitcher and Frank Chase. Sul-
ivan has built six of the houses.

Griffin's make it easy for the small
builder to take on complete home
building jobs, whether they are the
I-E house or not. Plans are submitted
by the builder to Griffin's. The builder
is given a price on all materials and
equipment required; the firm can do
this easily because everything that is
needed to complete the house is
stocked. When the builder has this list
and total price, he can add his esti-
mate of labor costs and other ex-
penses to arrive at his final figure on
the price of the house.

Because of the aggressiveness of
the Griffin firm in advertising one-
stop service for home owners and
prospects, many persons come directly
to the lumber yard office as their first
step in starting new When
this happens, Griffin's handle every-
thing for the customer, including the
recommendation of a reliable builder,
or the handling of bids on the job to
several builders. Draftsmen are em-
ployed in the lumber yard office to
help customers and builders with de-
( Continued on page 158)
FIREPLACE mantel becomes top of bookcases on both sides, and since it is built low, it adds appearance of greater height to wall. Pittsburgh Plate mirrors are copper backed.

Another House Full of Ideas

A host of built-ins are incorporated in this home — second in new American Builder series, which began with our August issue.

"BUILT-INS for everything" — over a hundred, in all — are featured in this home. They include a built-in dining table, laundry facilities, game table, package wrapping table, bookcases and a radio, besides a complete storage wall in the main hallway, scores of built-in storage drawers and bookcases.

To provide such an abundance of storage facilities, Owner Robert Markey, of Bryan, Ohio, combined his ingenuity with that of Architect Karl B. Hoke, Toledo, and Builder E. O. Behrman of Ridgeville Corners, Ohio. In addition to plenty of storage, Markey wanted to conserve...
on furniture. The answer was inevitably built-ins, and in this case, possibilities for them appeared in the living room right through to small corners in the attic.

Open planning between the living-dining room areas was achieved by an island made up of bookshelves. Top cover of this island lifts off, and a planting box may be inserted if desired. Or, with the cover on, it may be used for vase or knick-knack arrangements. Behind this island, concealed from the living area, a built-in table pulls out of the storage wall partition between the kitchen and dining area. In a recessed position, the table seats four. Pulled out, it will seat ten persons.

**BUILT-IN DINING AREA**

TOP of this seat-island combination may be lifted off and a planting box inserted. Table pulls out to seat as many as ten persons. Here, it is recessed 18 inches into storage wall between kitchen and dining area. Serve-through area and table top are covered with Formica decorative mahogany. Notice handy drawers and storage cabinets. Lighting in this area, as well as around living room ceiling perimeter, is fluorescent base cove. From living area this unit appears to be an island made up of bookcases. The unit represents Markey's desire for informality and a practical savings of space and furniture.
Adjustable Design theme of the living room fireplace is carried out by built-in bookcases on both sides that extend almost the full length of the room. The low fireplace mantel, which becomes the top of the bookcases, adds an appearance of greater ceiling height; and a full length plate glass mirror from the mantel to the ceiling further adds expanse to the appearance of the room.

Markey’s hobbies dictated many features in his home. Specially built storage bins for golf, fishing, hunting and photographic equipment occupy one wall of the hallway. These bins, arranged from floor to ceiling, are opened and pulled out by manufactured flush handles that do not extend out into the hallway for clothes to catch on. On the other hallway wall, Markey has arranged special picture frames so that he can keep an up-to-date display of his latest photographs. An ordinary picture frame is fastened to the wall with a smaller one hinged from the bottom just inside it. The smaller frame, built to hold the picture in place, may be let down from the top by a pin-point handle, to permit the insertion of a different picture as desired. Facilities for wrapping packages are neatly taken care of in the hallway. Paper, tape and all items needed are built into the wall, accessible by opening a panel that is hinged at the bottom. Open, the panel serves as a convenient working table. Closed, the panel, about 20 inches square, becomes a part of the wall, noticeable only by the flush handle.

Interior walls of the study, or den, opposite end of the hall from the living room, are covered with African Zebra wood. Highlight of this room is a game table that, when not in use, folds into the wall. A closet, large enough to house the folded table and several folding chairs, protrudes into the study about four inches, and into the wall about the same distance. Doors on the front of the closet are finished in the same material as the walls.

Built-in bookcases occupy most of two walls in the study. A radio and record player unit, which becomes a part of the bookcases, is connected to a loud speaker built into the wall near the ceiling. Lighting in this room con-
sists of special recessed adjustable spotlights as well as recessed base cove fluorescent lights installed around the complete perimeter of the ceiling. The spotlights, which emit heat, are used for concentrating warmth around any small area in the room.

Conveniences for Mrs. Markey are represented in the kitchen, laundry and sewing room. The kitchen is arranged in a U-shape in front of a handy breakfast nook upholstered in leather. A serve-through area to the built-in dining room table is provided in one wall, directly over the table. The laundry room features a continuous counter arrangement along one wall, allowing plenty of room for placing and sorting clothes. There is a built-in ironing board. Portion of the counter which continues over the sink is hinged at the back, and may be raised and fastened out of the way by a hook when the sink is being used.

The upstairs sewing room represents practical utilization of attic space that is often wasted because of a sloping roof. On one side of this room, a partition was built and, built-in storage cabinets installed. On the other side, a long, convenient sewing table contains a built-in sewing machine, a place for books, linens, radio, and sewing materials. Recessed lights are provided in the plaster ceiling.

Exterior of the home is modest in appearance. Conventionally built, using 2x4 studs and 2x10 ceiling joists 16 inches on center, the home is on a reinforced concrete slab over concrete piers and footings. Floor covering in bathrooms is rubber tile; linoleum in kitchen, and random length select oak in the remainder of the house. Exterior Red Cedar siding is varnished, left in natural color.

**STUDY-RECREATION ROOM**

INTERIOR walls of study are finished with African Zebra wood. Built-in book cases, phonograph record and magazine storage areas occupy largest portion of two walls. Built-in radio and record player, left, is connected to speaker on opposite wall. Spotlights, by General Lighting Co., supply concentrated heat around any chair in room. Base cove lighting is installed along ceiling, right. Bookcase cabinet doors on this wall incorporate special handle designed by Markey and Hoke. Notice abundant electric outlets.

**BUILT-IN LAUNDRY FACILITIES**

CONTINUOUS counter is provided along one side of this laundry room by using the tops of a washing machine, dryer, and this ingenious sink cover. When sinks are in use, this top may be fastened upward by simple hook. The counter is covered with linoleum. Shelves above the sink have sliding doors. Sink unit was dropped below counter level so that faucets could be set flush against four inch piece that hides unsightly pipes. Four inch piece on front part of sink top may be hinged so that when top is in upward position, the piece folds back, out of the way. All hinges used throughout home are invisible type. Drawer pulls fit flush with surface of drawer fronts.
DRISKELL home has 300 cubic feet of storage space

Contemporary

WHAT low pitched roofs and wide overhangs, attached carport and walk-in type wardrobe closets, these homes, priced at $6,500 to $6,900, represent a new concept of low-cost housing in Fort Worth, Texas. Construction economies as well as greater eye-appeal are achieved through careful designing, according to Robert W. Driskell, in charge of construction in the new 160-house Sunset Heights project.

Economies are a result of planning kitchens and bathrooms back-to-back to cut down plumbing costs; of using carports, and of using low pitch roofs that eliminate some roof framing. The carports in this instance, add an appearance of greater size to the homes. Since most low-cost housing approaching this price range contain no facilities for automobiles, the carports have an extra added appeal.

“We believe strongly in offering plenty of value for the money,” Bob says, “and that builders should not take more than a reasonable profit. Extras add to the cost, but in the long run they mean more satisfied clients.”

The homes, on 50 to 65 by 100-foot lots, represent sound construction. They incorporate a new flooring installation method for that area. Over a 4-inch reinforced concrete slab placed on six inches of coarse washed gravel, 1 by 4-inch screeds are laid in mastic. Spaced eight inches on center, about two inches of space is left between the ends of each screed. These two-inch open areas occur alternately, providing a continuous air space. Select 1½-inch oak flooring is then applied over the screeds. The method is FHA-approved.

One load bearing partition, usually through the center of the house, is used in the homes. This, and all wall framing is of 2x4’s, 16 inches on center. Ceiling joists are 2x6’s, 16 inches on center. Steel casement windows and slab doors are used throughout. Exterior wall coverings include brick, vertical boards and batts, vertical
New concept in low-cost housing for Fort Worth offers several plus values that make for enthusiastic buyer acceptance

**Design for $6,500**

Flush boards and redwood natural finish siding. Interiors are of dry wall construction. Twelve basic floor plans and 53 combinations of materials and colors were used to achieve variation in the development.

Pitch of the roofs is one to 12. The firm offers a ten-year guarantee on these 4-ply roofs, which consist of a layer of 30-pound felt nailed on and two layers of 15-pound felt applied with hot asphalt and gravel. Attics are insulated with mineral wool. A gas-fired gravity, warm air central heating unit with 54,000 B.T.U. capacity is used. Warm air ducts lead to each bedroom and the living room.

A durable wallboard material is installed in bathrooms that provides a tile effect, and a shower-tub combination is included. Additional storage space, other than the walk-in closet in each bedroom and a large linen closet, is offered in a storage room built at one end of the carport. Storage space for the house totals 300 cubic feet.

Complete landscaping is provided with the homes which are located near schools and within 15 minutes drive from downtown Fort Worth. One of the homes can be purchased on a combination GI-FHA 100 per cent loan. Sales are ahead of construction, and each day finds a host of visitors at the project.

Architect Charles E. Armstrong, with whom Bob Driskell worked in designing the homes, achieved practicality—with eye-appeal.

**SALES of modern Driskell homes are ahead of construction.**

Planting boxes are at each end of brick structure, above. Lennox Tallboy, gas-fired gravity warm air furnace, supplies heat. Plumbing fixtures are American Standard. Hardware is Olympic. Masonite wallboard is used in bathroom.

**FLOOR plan shows placement of utilities to economize in plumbing costs.** GI can purchase home by paying $195 down for closing costs, and $51 per month.

**FLOOR PLAN**

**CARPORT adds expanse to these low-cost homes, and in Ft. Worth is adequate protection for car. Structure at end of the carport provides additional storage space.**

**USE of brick with horizontal wood siding adds to appearance of width.**
FRESH and spritely appearance is obtained in this one-and-one-half-story house, designed in the conventional Cape Cod manner.

Pleasing the Purchaser

Houses are designed to meet requirements of each buyer before work is started, thus assuring customer satisfaction.

TO B. A. Martin, contractor and builder, customer satisfaction is of utmost importance. His development of fine homes on the outskirts of Atlanta, Ga., where 120 houses have been completed, would indicate that this idea, carried to its ultimate conclusion, pays dividends.

At the present time there remain 60 lots in this development which are rapidly being occupied with houses in various stages of construction. Martin, who is building primarily for G.I.'s, has found a steady demand for his custom-made houses.

The method used by this builder in planning and selling homes is based upon the idea of obtaining a purchaser for a house before any actual construction work is started. The prospect upon making inquiry is given a choice of lots from which he can choose. These are confined within the area of the project under construction. The prospect is then introduced to John Cherry, the
American Builder, October 1949.

PLAN provides separation for services, plus exterior and interior planting

WOOD cupboards provide ample kitchen storage

Martin has found it to be just as economical to operate in this manner as other builders do by using pre-assembled methods. This builder has a group of splendid mechanic's and subcontractors who have worked together with him for a long period of years. Consequently they know exactly what he wants, and are prepared to do the job in just that way, in a minimum of time.

These men are proficient in the art of handling small power equipment. They are not too much concerned if they have to cut the material on the site, because they are equipped and prepared to do so if need be. All the men understand

WOOD pole screen, planting box and flagstone floor furnish separation from living room

THIS house which is severe in line and profile, captures interest through its use of contrasting colors on the front surface. Large louver surfaces in gable ends assure maximum ventilation in attic area. Pitch of roof is adequate to allow ample storage space between the roof and ceiling.
THIS house presents a straightforward approach to the problem of design as it applies to the small home. Planting surfaces are arranged across the front, and from these areas vertical members carry up to roof; the larger ones support roof overhang while the smaller poles support climbing vines. All add to appearance of house.

how to read plans quickly and accurately; therefore when a special feature in a house comes along, they take it in stride.

The houses illustrated on these pages are representative of those that Martin has completed. They vary greatly in size and architectural features, ranging from 1000 to 1600 in square foot area. The minimum width of lots is 65 feet with depths varying from 150 to 250 feet. Most of the houses have one bath, although a few have one-and-one-half and two baths. The cost of the houses, including lots, range from $10,000 to $15,000, with the greater number of them priced around $11,000 to $12,000.

These homes feature brick veneer over frame for wall construction, vertical and horizontal weatherboarding and redwood siding, depending on the design. Inside walls are plastered, with tile used in bathrooms. Floors are hardwood, roofs of composition shingles.
DESIGNED in the modern mode this house with its vertical wood facing is typical of the Northwest where lumber abounds.

THIS all frame house is one of seven now under construction in Seattle, Wash., by Philip L. Ceis, builder and designer. Built to sell at $8,500 it represents one of the top values in its class.

The house containing approximately 720 square feet exclusive of carport and porch is built on a concrete slab which is placed on 12 inches of gravel fill. Asphalt tile throughout is cemented to the slab. Vertical walls are 2x4 studs with dry wall and knotty pine for interior facing. Wood sheathing and 1x4 "V" joint T & G cedar facing is applied vertically to the exterior and left in its natural color. Roof surfaces are covered with a built-up tar and gravel roof. Utility portion of kitchen contains double laundry trays, hot water heater and automatic washer. House is heated with six electric heaters, distributed one to a room except living room which has two.

This house presents a rather formidable front toward the street. A continuous slope of roof over porch, house and carport gives the impression of unusual width. The large windows and the broad wood surfaces coupled with the low sweeping roof and the vertical facing help to produce a good looking house.

Unusual at $8,500

FIRST FLOOR PLAN

PORCH, carport, four rooms and bath are all closely knit together in a compact unit. Dining area, kitchen and utility are combined in one room with the respective fixtures providing the separation. Large opening combines living room with dining area.
An Experiment

Although the model house shown above with its butterfly roof and glass walls is a distinct departure from the normal traditional design that for centuries has been associated with domestic architecture, the house is shown in its expandable form. The first phase, complete in itself, includes all rooms except garage-storage section with an additional bedroom with private bath and sun terrace above.
In sponsoring the construction of an expandable house, the New York Museum of Modern Art recognized today's primary architectural need while considering the practical problems confronting the potential home builders.

The house in the Museum Garden, designed by Marcel Breuer and built by Murphy-Brinkworth Construction Co., of New York City, stands in the sculpture garden behind the Museum of Modern Art. It is an up-to-date solution to an individually built, architect-designed country home intended to be built by any local contractor.

The reluctance of lending institutions to loan money on houses that radically depart from the traditional has caused builders and potential home owners to shy away from the ultra-modern in home design. It is interesting to note that two loan associations, both of New York City, showed great interest in lending on this type of house after careful scrutiny of its plans and specifications.

An outstanding characteristic of the long rectangular structure is its unusual profile, resulting from the butterfly pitch of the roof. This eliminates the necessity of gutters and drains. A single drain passes through the center of the house where heating prevents freezing. Windows and rooms are protected by roof overhangs. Outdoor areas are divided by free-standing louver partitions or bench-like stone walls.

It is estimated that the expanded house can be built in the East for approximately $27,000. By eliminating the wing containing garage and second floor bedroom and bath, cost can be cut back to about $18,000. This house should be placed on no less than one-half acre of ground.

LIVING area of the combination living-dining room shown above and at right. Ceiling is finished with cypress tongue and grooved boarding. A radiant heating system in the floor slab is planned to make the summer-cool flagstone floor warm in the winter. Stair and balcony railing of heavy rope is held in place by stainless steel thin wire cables. The dining area of the living-dining room is shown at right. This space is separated from kitchen by sliding panels covering counter and open shelving. Combination buffet and bookcase with drop leaf doors are built into adjoining wall.
The Centennial Home of Tomorrow constructed by the Home Builders Association of St. Paul at the Minnesota State Fair Grounds, contains only a trifle more than 1000 square feet inside its perimeter, yet packs a lot of real living space within its walls. Every effort was put forth by its designer Norman R. Johnson, architect, to emphasize the practical both in plan and elevation.

The erection of this exhibit home on the Fair Grounds in connection with the Territorial Centennial was recognized by the builders' organization as an opportunity to demonstrate to the public the progress being made in the home building field. Also, they felt it would tend to silence the critics who say that the builders have been lax in producing new methods of construction and design.

The exterior lines of the house follow the present trend in domestic architecture. The walls are a direct projection of the plan profile capped with a wide spreading semi-flat roof.
Sufficient overhang provides ample shade for all the windows, keeping out the high summer sun and yet letting in the low winter sun thus taking advantage of solar heating.

A phase of the design which should not be overlooked, and yet is responsible for much of the interest created in the front elevation, is the lowering of the roof line over the kitchen portion of house. This change in roof lines is accomplished in spite of the fact that the plan contour is square. It was done simply by providing a semi-flat roof over the living portion of house, with the lower end of this roof extending over the other portions.

The covered terrace and play yard are for all practical purposes and intents a continuation of the house proper, thereby increasing its apparent width. Because the play yard is made an integral part of the house it can be used as an all-purpose area, a new innovation for this part of the country.

The exterior surface material is a happy combination of horizontal wood siding and vertical boards with battens. The street wall of living room is entirely of glass with ventilating units in the lower portion of the wall.

Full height built-ins characterize the interior. This is true of all the rooms. Storage wall units form separations between living room and hall, and kitchen and dining portion of living room. These contain special features such as sideboard, cabinets and bookcases. Full height wardrobes with Modernfold accordion doors extend across one wall of each bedroom.

The kitchen, of course, has the usual complement of wall and base cabinets, including a counter and front, placed on casters, that cover the laundry tubs when not in use. This provides a continuous counter for the fixture wall of utility room. Bathroom also has its share of built-ins. Tile vanity extends across one wall with lavatory in center. Built-in drawers extend from counter to floor. Open cabinets are placed on the two opposite walls with full height mirror directly over and in front of vanity. An ingenious arrangement of storage cupboards are placed on wall containing water closet and tank. Cupboards are built all around the tank to height of window. Face of cupboards are flush with tank.

This home was made possible by contributions from suppliers and labor donated to the project by builders. The undercarriage of house, which was built to be sold, is constructed of heavy timbers to facilitate its being moved to a new site.
**Easy to Live In**

SPLIT-LEVEL houses, favorite type of the designer John N. Highland, Jr., architect of Buffalo, N. Y., allows for more comfort per square foot than any other type. This is due to the fact that the rooms are centered within a limited area and the various levels can be reached with a minimum of effort. This type house is preferred by the individual who shies away from bedrooms located on the ground floor.

These particular houses are a part of the Sunnymeade subdivision located in Worthington, a suburb of Columbus, Ohio. The project is now in process of building by Walter J. Shapter, Jr., developer and builder of this city.

Highland designed homes have distinct characteristics that are stamped indelibly upon each one. This is usually the mark of a master. In these houses it takes the form of unique proportions in the large bay and dormer and their relation to the roof lines. A squat and sturdy appearance is thus obtained which anchors the house firmly to the ground. Projections are held to a minimum. In the erection of these houses Shapter has faithfully retained the salient features of each design, in this manner creating a subdivision of unusual merit.

Feature of the plan are the 32 foot long area that serves as living and dining room separated only by a door height china cupboard, and the large walk-in closets adjoining the bedrooms on second floor. Costs of these two houses are approximately $24,000 each.
TWENTY-FOUR model homes are used in one subdivision by Builder Fritz Burns in new California project. Six are fully furnished and landscaped, and a hostess is on hand in each to answer questions.

Kaiser Homes are building an entirely new community, "Panorama City," in San Fernando Valley, Calif. The original program is already sold out, and several hundred more houses are being built. They advertise their homes at $9,950—"some lower; some higher." They offer no "giveaways."

The selling program is built around model homes—24 of them in a single subdivision. Just as the automobile dealer spotlights immaculately beautiful cars in his show windows, Kaiser Homes show their models exquisitely furnished on fully landscaped lots.

Of the 24 model homes six are furnished—16 are "As Delivered" models and two are "Construction" models. The six furnished models were decorated by interior decorators of the large home furnishings stores which supplied the furniture. They were given a free hand with respect to colors of paint and wallpaper, and carpeting, and an elastic budget to work out their ideas. As an example, the decorating, furnishings, and furniture in one of the models would cost a buyer $3,200 to duplicate.

"Everybody is a prospect—either now or later" is the highly successful sales philosophy of this builder in California. Others run from $4,000 to $5,000. It might seem that few young couples would be able to afford this much furniture and that therefore it would be better to furnish the models more plainly. However, the purpose is to show what can be done to make a small home beautiful and livable and thus create a desire for both the home and the furnishings. Few are expected to purchase the complete ensemble but all can choose ideas which have particular appeal for them.

A hostess is maintained in each furnished model to answer questions about the houses and the furnishings and to watch over the latter. The hostesses are generally between 27 and 35 and are chosen for their personality and appearance—not the glamour-girl type, but, as the sales manager stated, "One who looks as though she knew how to keep house."

The hostesses are given a preliminary training so that they can discuss both the furnishings and the qualities of the house; however, when anyone shows interest in the houses they immediately call one of the salesmen. The model homes are kept open from noon to nine o'clock on weekdays and ten a.m. to nine on Saturdays and Sundays. All models are kept immaculate. They are thoroughly cleaned each morning by a porter and each hostess is provided with a broom and dustcloth and it is her responsibility to keep her house spotless during the day. An untidy house, a disinterested hostess, can discourage a prospect and lose a sale and thus be a liability instead of an asset.

Because the furnished models are painted, papered and equipped with furniture which sometimes resembles built-in pieces, Kaiser Homes have found that it is necessary to have another set of models in order to keep people from being confused as to exactly what they will receive in a standard house. The "As Delivered" models are finished as a buyer's home.
CONSTRUCTION models permit buyers to see how walls, floors and ceilings are built will be when it is turned over to him. Salesmen have instructions never to close a sale without first taking the prospect to the particular "As Delivered" model he is buying. In this way misunderstandings are avoided.

At first there were only a few of these "As Delivered" models but as the number of visitors to the tract multiplied and as building operations spread to the farthest parts of the tract, it seemed wise to establish these models at strategic points throughout the entire tract. There was little cost involved because they are standard houses and the only expense is the landscaping, signs and floodlights. Each such house furnishes a station for a salesman; it keeps people on the tract longer and exposes them to more selling influence.

The "Construction" models are houses in the framing stage and their function is to show how the walls, floors and ceilings are built. These and other hidden parts are discussed with prospects and this does much to build up confidence because it gives the impression that the basic construction is sound.

The landscaping, maintenance, cleaning, lighting and manning of 24 hours during hours when people can visit it—it will not do the job.

Newspaper advertising is the chief means for getting people into the tract. Kaiser Homes have an advertising manager who spends his full time in preparing and scheduling the advertising, publicity and handling the sign work. There are five metropolitan newspapers in Los Angeles and a great many community papers. Large ads, three or four columns by fifteen or twenty inches are used in all of them. Denominational publications including the Pacific edition of the Christian Science Monitor are also used. The ads are of a dignified yet homey type and give a lot of detail about the houses.

In order to determine where to concentrate his advertising and sales effort Burns recently had two "tack maps" made to analyze (1) the former addresses and (2) the employment addresses—of purchasers. A tack was stuck into a map of the Los Angeles area for each purchaser representing the locality from which he came. It was found that a large percentage of buyers formerly lived in the San Fernando Valley in which the tract is located and it was reasoned that therefore they must know the Valley and like it—and that it was likely that there were more of these people to be brought from the densely populated parts of the valley. He found that a substantial percentage also came from metropolitan Los Angeles and therefore it was necessary to use the Los Angeles papers in order to reach them.

A similar map was made for employment addresses and it was found that about one-third of the buyers were employed in the valley, and another third in Hollywood, and the remaining third in downtown Los Angeles. This indicated that the majority like to live close to their employment but that due to the good transportation from Los Angeles now available and the new freeway under construction, a great many people are willing to drive or ride fifteen or more miles to work each day in order to enjoy the advantages of valley living.

Another means of determining what media to use has been worked out. Small cards on which are listed the various media used are passed out at the model homes and visitors are asked to check the name of the newspaper or the type of medium which brought them to the tract. These are coming in in good numbers and it is believed they will be helpful.

It is the practice of most of the papers to run publicity articles for their advertisers. Kaiser Homes take full advantage of this and each week submit a properly prepared article to each of the papers they use. In addition to the advertising in newspapers, handbills are distributed and direct mail is used to prospect lists.

Signs represent a very important
SIGNS represent an important selling force in the Kaiser program. They are placed at all approaches to the tract, and in front of all model homes in the project selling influence in the Kaiser program. There are many housing developments in the San Fernando Valley and on a good Sunday thousands of people cruise around and stop at the subdivisions which interest them. Panorama City is certain to be one of these. Just as a general lays out his defenses and deploys his troops for attack, so the Kaiser high command has fortified every approach to their tract with model homes, striking signs and salesmen’s stations. No one can drive into this tract without undergoing a barrage of selling power. There are signs at all approaches to the tract and of course at all model homes. They are not cheap signs but well painted in attractive colors, and in an interesting variety of shapes. Many can be seen for blocks. At night the models are floodlighted and one of the high powered searchlights which sends its beams into the air so they can be seen for miles, is used. The cards before mentioned indicate that many people were attracted by this searchlight. An interesting sign and one that builds good will is the one which says "1371 Children Live Here—Drive Slowly."

After the prospects are gotten into the tract they have to be sold, and selling premium homes in today’s market is no job for order takers. The Kaiser sales force comprises 25 regular men who are on the job all week plus 12 additional men who are used only on Sundays. These men are divided into six crews with a crew manager over each. His job is to supervise the work of his men, see that they are at the stations assigned or doing the follow-up work assigned and to help them close sales, etc. The salesmen work on a straight commission basis and the crew managers receive an over-riding commission on the production of their crews. The entire sales force is under the supervision of a general sales manager, and under the close scrutiny of Fritz Burns. As a matter of fact, Burns moved from his big house in the city to one of his tract houses in order to be close to the operation. The men are thoroughly trained and know all of the points of superiority of Kaiser homes over competition which is very necessary in order to sell at higher prices. Sales meetings are held each morning sometimes addressed by a technical man who discusses construction and changes and improvements, and frequently by Burns who goes into selling techniques. The men are encouraged to relate their experiences in making or losing sales the previous day and the reasons why are then brought out and discussed. At these sales meetings coffee is served and a spirit of goodfellowship among the various men is cultivated.

In order to engender rivalry and competition among the six crews a weekly contest is held and each member of the crew which sells the most houses during the week receives a prize. The contest is built around horse racing and a large bulletin board resembling a race track was built and cut-out horses were numbered corresponding with the numbers of the crews. Each week the horses are placed in their proper positions according to the results obtained by the teams the previous week, and the results

(Continued on page 154)
Builders' Courage Overcomes Obstacles

Getting their plans approved was where the trouble began for a Pittsburgh firm that had to install a sanitary system before they could build.

If and when awards are given to builders for perseverance, Brown and Vaughn Development Co. of Pittsburgh will be very near the top of the list.

Before they could build a single house in the Longvue Acres development ten miles north of the city's downtown district, the firm: (1) Was refused authority by township officials to install a sewage disposal plant. (They preferred installing the plant and a water system to their other option—septic tanks and wells.) (2) Submitted plans to the state commission and were approved as a public utility company. (3) Applied to local officials for authority to operate as a public utility, at no cost to the township, and were refused. (4) Submitted plans for operation 11 times before they were finally approved. (At no point in the proceedings did the authorities make any recommendations as to plan modifications which would lead to their being approved.)

The development was opened on 54 acres of farm land which cost $800 an acre. It had a good location—about a half-mile from a high speed road to downtown Pittsburgh—but no water or sewers. The first step was the extension of a ten-inch cast iron water line for a distance of a half-mile and the distribution of eight-inch cast iron laterals through the project. This cost $57,000 and was paid entirely by the developers.

A complete sewage disposal plant, with approximately 134 miles of 6, 8, 10 and 12 inch terra cotta sewer pipe, was installed at a cost of $65,000. This, too, was paid entirely by the developers.

Despite the fact that improvement cost was far in excess of the average development, the firm was able to build and sell their houses on a highly competitive market. When the first group was completed and offered for sale from blueprints, on July 1, 1947, 45 found buyers within the month. Within the first 14 months of the development, 125 homes were completed and occupied. The original price range was from $8,750 to $9,900.

The township had originally specified that the lots be 100x200 feet, making provision for septic tanks and wells. By installation of the water and waste disposal systems, it was possible to reduce them to a width of 70 feet.

A monthly fee of $1.50 is charged home owners for operation expenses of the disposal plant, which will serve 250 houses without further expansion. When the project has reached 500 homes, amortization of the investment will begin.

The Brown and Vaughn company was organized as a Pennsylvania corporation, composed of three stockholders, John H. Brown, Janet Ruth
The sale price of this Brown and Vaughn house is $11,200, with lot included. Project has paved streets, all utilities.

Haugh and Theodore M. Vaughn. On its direct payroll are carpenters, plumbers, bricklayers, cement finishers and general laborers. Sub-contractors are used for painting, electrical work, rough plastering and furnace work.

A barn located on the development is utilized as a plant for partial prefabrication. In the building operation, all studding, floor joists, and rafters were precut and sent to the job site. Also fabricated in the mill were all stairs, garage doors, and minor mill work.

Streets are all 24-foot pavement.

ONE of development's typical two-story houses, in the $11,500 price range.
RETAIL store owned by Hass is combined with offices of Portage Reality firm which offers one-stop home selling services

Wholesaler-Dealer—

Combination of business activities helps this leader understand and solve problems of builder and dealer clients

BELLEVILLE store is stocked with well-known merchandise—everything, including the kitchen sink. Adjoining yard stocks wide variety of lumber, millwork

HOMES offered by Portage Reality are either built to sell or contracted for on one-stop buying plan. Everything except land is included in quoted price

CERTAINTY of immediate delivery, whether the order is for a small jag of lumber or a carload of building materials, can be expected by large and small dealers who do business with Hass Wholesale, Inc., South Bend, Ind. This prompt service enables small builders to get almost any material, millwork or lumber they need—when they want it.

To make the service possible, the wholesale firm limits their area of coverage to a small number of counties in Northern Indiana and Southern Michigan. Salesmen cover all of this territory every two weeks and thus are in close touch with all of their customers. They know in many cases what the dealer will need before the dealer himself knows. Backing up the salesmen's calls is a regularly established, prompt delivery service operated out of the company's headquarters in South Bend.

The reason for the salesmen's familiarity with the dealer's needs is that they at one time were dealers
CAPACITY of Hass cement block and brick plant is 5,000 8x8x16 blocks per eight-hour working day. A mix-in-transit concrete service, which company operates in conjunction with plant, right, is the only one of its kind in the South Bend area.

themselves. All salesmen and most key personnel of the firm are former retail yard managers.

The man responsible for this wholesale organization is W. M. (Bill) Hass, who believes a jobbing concern representative must have retail experience before he can properly represent his company. With this background, representatives can “talk the retailer’s language,” know his problems and point of view, and efficiently serve him.

Hass, himself, came up through a long line of experiences in retail work. He entered the retail lumber business in 1907. In 1909 he purchased part interest in a retail yard in North Liberty, Ind., and since then has expanded to include Hass Wholesale, Inc., as well as the Belleville Lumber & Supply Co., the Portage Realty Corp., the only mix-in-transit cement plant in the area, a concrete block and brick plant, and other concerns. Hass Wholesale recently opened a new floor covering department, selling and installing all types of linoleum, asphalt tile and rubber floor coverings, and, as in the case of cement and other wholesale products, this service is available only through recognized dealers.

The wholesale firm keeps a large inventory of lumber, millwork and building materials, which is particularly important to small dealers who have no facilities to keep an inventory of the many new building products that are constantly being offered.

Complete architectural service is offered through the Portage Realty Corp., which is affiliated with the Hass Wholesale company. The services of a registered architect and a staff of draftsmen are available to any of the customers of Hass Wholesale at a nominal cost. All of this is in line with the policy of the wholesale company to enable the dealer-customers to maintain complete control of any construction job from the plans through to its completion. The Portage Realty Corp. also does construction work and handles financing and is a source of information on the latest developments in both FHA and GI financing as well as the construction practices required by FHA. The information is given free to anyone interested.

To bring all Hass activities together, a large annual meeting is held every spring in the company’s office in South Bend. All dealers in the wholesale area are invited. They enjoy entertainment, a banquet and addresses by one or more leaders in the building field. Generally these speakers are top executives of some of the manufacturers represented by Hass Wholesale. These meetings have come to occupy an important place on the calendars of the dealers in the area, and usually about 300 or more attend each meeting.

Package, or one-stop selling, is carried on by the Hass retail companies and also by the Portage Realty Corp. The complete job, whether it be remodeling or a new home, is priced in one sum to include all labor, materials, and financing charges, not including land. The Portage Realty Corp. represents The Lincoln National Life Insurance Company of Fort Wayne, Ind. In making FHA loans, all papers are submitted to FHA and closed without outside assistance from any other financing institution. Since plans are prepared by Portage Realty, and a contract price is given covering all construction, this becomes a one-stop sale whereby the customer never has to go to any other organization for assistance in his building project. Recognized local contractors handle all the firm’s construction work.

EXCELLENT locations are picked for building sites by Portage Realty firm, which builds in all price ranges.
PRICES of these homes in Burkrete subdivision, Jacksonville, Fla., range from $7,500 to $8,000, including range, refrigerator, and washer. They are on lots 75-feet wide.

**Color Has Selling Power**

Paint works as an important sales agent for this builder who first constructs a well-built, low-cost house, then gives it appeal of an expensive home through careful use of color.

TWO and three bedroom homes are built on concrete slab with footings under exterior walls and interior load bearing walls. Ceilings are insulated with mineral wool; between slab and foundation wall, ½-inch rigid insulation is placed.
EXTERIOR paint for homes is carefully selected by a Florida builder on the basis of one color that complements another. He is Lawrence C. Pearce who, in his 40-home Burkrete project in Jacksonville, achieved pleasing variation through this color method that, added to better design typical of Florida homes in this price range, proved to be a chief selling agent.

The homes, ranging in price from $7,500 to $9,000, stand out as exceptional in appearance because of their exterior color arrangements. Typical color arrangements of one home is a combination of light and dark green walls with white roof. The dark green extends from grade level to a dado extending around the under side of the windows. From this point to the top of the walls, light green is applied. Windows and doors are trimmed in white, and gable end is white.

Other homes incorporate a combination of white and green walls, green and ivory, grey and white, or grey and pink. Some are sold white, green or blue. Owners may select the color of cold water paints to use in interiors, which are given two coats. Exteriors are given three coats.

Prospective buyers drawn into Burkrete subdivision through the attractive color combinations are further pleased by extra values offered in the Pearce homes. These values in-clude venetian blinds, range, refrigerator, washing machine, plus the well constructed homes on lots 75-feet wide, all included in the quoted sales price. Costs of three-bedroom homes with equipment range from $8,500 to $9,000. Two-bedroom houses sell from $7,500 to $8,000. The $7,500 home may be purchased by a GI for $750 down, plus $300 for closing costs, and $50 per month. This is a 25-year FHA and 10-year GI financing arrangement.

The homes are built on concrete slabs, with %-inch rigid insulation between the slabs and foundation walls. The inside bearing walls, and exterior walls of concrete block rest on concrete footings. Roof rafters and partition members are cut in the firm’s shop located at the entrance to the project. Roof trusses are nailed in place after the roof is sheathed, so that rafters are pulled in place to avoid an uneven roof.

All construction work is done by specialists. One carpenter works on partitions; one nails rafters, and one man is responsible for kitchen cabinet work, one for interior finish trim, and another for hanging doors. The Pearce firm completes one home every two days.

Lawrence Pearce, active in building for 25 years, started operative building three years ago. Prior to that he did contract work. Currently, he does both commercial construction and contract work on homes besides building houses for sale. Another important feature of the Pearce organization is a modern, fully stocked retail lumber and building material store and yard.

Pearce advertises his homes in local newspapers with ads that vary in size from a few lines to a fourth page. He keeps a completely furnished demonstration home open to the public seven days a week, with two salesmen on hand at all times to handle sales. Newspaper advertisements, Pearce believes, helps draw people to the project, but once they are there, the appearance of the homes make the first impression. Judging from sales of Pearce homes, those first impressions have been good. And what the clients see first is paint—properly applied, with compelling eye-appeal.

BRANDED PRODUCTS USED
Armstrong asphalt tile
Bendix automatic washing machines
Cole space heaters
Crane plumbing fixtures
Crosley refrigerators
Ever-Hot water heaters
Graybar electric fixtures
Kimsul insulation
Lawson steel kitchen cabinets
National hardware
Norge electric ranges
Norge refrigerators
Pittsburgh paints
Pittsburgh plate glass
Standard plumbing fixtures
Thor automatic washing machines
Truscon steel casements
U. S. Gypsum Rocklath
Universal electric ranges
Vikimatic space heaters

LUMBER YARD and office of Lawrence C. Pearce Co., Jacksonville, Florida
New materials and construction methods may result from broad research program under supervision of Texas University

Research Objectives Are Comforts

Answers to more than 100 questions concerning different home construction materials and methods are expected to be found in the Ceramic Housing Research program now underway in Austin, Texas. Under the supervision of the Bureau of Engineering Research of The University of Texas, the program is sponsored by the Acme Brick Co., and directed by The Coates Co., manufacturers of structural facing material. Consultant is the Clay Products Association of the Southwest.

To conduct the research, seven differently constructed homes with identical floor plans will be used. Testing equipment installed in five of the seven homes completed is designed to record the effects on materials of temperature, humidity, soil movement, wind, sun, and practically every other known factor that directly or indirectly affects materials and construction methods. Instruments will be checked by the Bureau of Standards.

Structural, comfort, and economic factors are to be prime considerations. From the standpoint of cooling and heating, for instance, four different phases of research will be made:

1. The thermal characteristics of various materials and methods used in the construction of walls, floors, ceilings and roofs will be studied. This phase will include the rate of heat transfer, the effect of mass on heat transfer and time lag, vapor porosity and other factors influencing human comfort.

2. A study is designed to determine relative comfort characteristics of living spaces.

3. The comparative performance of several inexpensive, or moderate cost cooling systems, including evaporative cooling by water spray, water flooded roof, air circulation through wall, floor and ceiling spaces, attic fans, and others will be studied, as well as,

4. A comparative performance of several types of heating systems, including gravity and forced circulation.
of warm air, floor panel heating, ceiling panel radiant heating and others.

Another objective of the Ceramic Homes Research program will be to gain as much information as possible in regard to bentonitic clays (which change in volume with moisture change), and to attempt to design an inexpensive foundation for these soils that will not cause the building to crack.

In Austin, there are many places where bentonitic clays occur. These clays also occur in many sections of Texas, Oklahoma and the southwest. "While they will support fairly heavy loads without undue settlements," say Texas University representatives concerned with the tests, "the expansion of the soil near the surface causes buildings to crack because of the differential movement. If restrained, these clays will exhibit enormous swelling pressures, ranging in the order of two to four and in some cases as much as 30 tons per square foot. These high pressures make it impractical to attempt to load the clays to prevent swelling."

A reason for this type of investigation as pointed out by the University officials concerns the kind of research done in the past in residential construction which they state has heretofore been somewhat out of geographical balance. "For example," they say, "in eastern and northern United States the climatic conditions are such that the heating problem has had prime influence on residential design. The heating system receives a great deal more attention and has a much greater influence upon the design of the house than does either natural ventilation considerations or a cooling system. The results of this type of research are extremely limited in their significance when applied to the housing problems of either the southern, southwestern or western United States."

Climatic and seasonal peculiarities of these sections of the country create special problems, they state, which demand a different basis of investigation.

Most research work has been done heretofore in low to medium cost housing, these research engineers say. "Since the greatest concentration of industry, for many years, has been in the industrial east and midwestern sections of the United States, it followed that housing research was likewise centered in institutions in these same geographic locations." These are more reasons, according to the University, why a different basis of investigation is needed.

and Economies

FOUR of seven homes to be completed and used for several years for research are shown above. One is frame construction.

ALL slabs in research project are kept free of walls. Dial indicator level, left, determines amount of "curl" to concrete slab.

HOW much each part of foundation rises from original position is measured by this instrument. This knowledge will be used in experimenting with materials to use with clay soil that moves.
Use of Lightweight Aggregates

**SCREENING** perlite-concrete roof deck to 3-inch thickness. Mix of ten parts perlite to one part Portland cement, usually ideal for roof decks, produces monolithic pour weighing about one-quarter as much as sand concrete with about 12 times the insulating value.

One of the new lightweight aggregates, perlite, is fast becoming available for use in plaster and concrete through production by a large number of refiners. The primary properties of perlite aggregate account for the material's high value in plastering. From the standpoint of insulation, for example, perlite-gypsum plasters which carry up to three to four hour fire ratings are already on the market. Generally, the insulating value is dependent on the type and grade of perlite and also on the mixing proportions.

The characteristics of heat insulation also applies to sound insulation. Perlite-produced hard wall plasters have about two to three times the sound absorption value of sand plaster when a white or putty coat is not applied to interfere with its acoustical properties.

The new aggregate's lightness of weight contributes several advantages to finished plaster. Its lightness combines with high bondability to make it easy and fast to apply. The dead-load reduction affected through using perlite aggregate instead of sand may amount to as high as one ton in the plastering of an average size room. The lightness and high compressive strength of the material combine to make perlite plaster resistant to cracking and checking.

While some success has been achieved with perlite in producing fairly heavy load-bearing concretes, its use now is principally in the production of light load-bearing concretes.

Perlite concrete is finding a heavy demand in the construction of roof decks. The new aggregate produces a monolithic pour so light in weight that most existing roofs will take the additional weight. A three-inch thick deck of standard mix perlite concrete, for example, weighs only 10 pounds (as compared to 40 pounds for the same amount of sand concrete). The large dead-load reduction that it makes possible considerably reduces structural steel requirements on new work.

The insulation afforded by the average three-inch deck of perlite concrete is equal to that of a sand concrete deck about three feet deep. The perlite roofing concrete can easily be formed into cants, saddles and slopes. The cant strips can be placed at the same time as the roof fill.

Perlite concrete is particularly valuable as a base layer for radiant heat floor systems. For such systems, the radiant heat coils and ducts are installed on the perlite concrete base, and then covered with ordinary sand concrete. Since the average perlite concrete floor mix is said to have an insulation value about ten times as high as sand concrete, heat transmission toward the ground is minimized. Perlite concrete also contributes good moisture-resisting qualities to floors.

MUCH smaller volume of sand plaster, right trowel, equals the weight of perlite.


POURING concrete slab over radiant heating pipes (left) which rest on a layer of glass insulating material laid on the ground. At right, workmen mop the glass material to a flat roof deck. The insulation may be laid with the standard types of hot bitumens

How to Apply Glass Insulation

RESEARCH on concrete floors has shown that heat loss of slabs laid on the ground is primarily through the edges. Loss through the center of such floors is relatively small, except in cases where panel heating systems are used in the floor. Glass insulating material provides very effective insulation, either when applied around the perimeter and under the border or outer portion of the slab for ordinary concrete floors, or under the entire slab where panel heating is installed.

In insulating the perimeter, the glass material should be applied in a thickness of two inches between the peripheral edge of the slab and the foundation wall. One layer of a standard asphalt-saturated roofer’s felt, cut in strips of suitable width, should be applied to the glass insulation by means of asphalt emulsion. This will prevent the concrete slab from bonding to the insulation.

Under the border or outer portion of the slab, the glass material should be installed to a distance of approximately two feet. The insulating material should be placed on a thin layer of clean, dry sand which covers a cinder or gravel bed at least four inches deep.

When panel heating systems are used with concrete floors, the heat loss to the ground and at the edge is increased because of the higher temperatures maintained in the floors. To prevent excessive heat loss in such floors, rigid waterproof insulation should be provided at the edge and under the entire heated floor area.

When glass insulating material is used under the entire slab, it should be applied dry in a minimum thickness of two inches on a thin layer of clean, dry sand which covers a cinder or gravel bed. The bed should be well-tamped and at least four inches thick. The concrete for the floor slab should be poured directly on the insulating material.

Glass insulation may be used very suitably for masonry wall construction, where masonry blocks, bricks, or tile are used exclusively, as in corewall construction, or in combination with other materials where veneer surfaces, gypsum plaster or special finishes are used.

In wood roof application of the glass material, it can be laid with the common types of hot bitumens which are normally used in applying roofing membranes. The type of bitumen is determined by the requirements of the slope of the deck and should be recommended by the manufacturer of the membranes used.

DATA and drawings through courtesy of Pittsburgh Corning Corp., Pittsburgh 22, Pa.
How to Increase the Usefulness of a Saw

When doing repair jobs it is often necessary to remove some portion of the work in as simple manner as possible; for example, the sill or sub-sill of a window frame or a section of trim. This can be quickly and easily done by using slightly altered tools for the purpose.

By tapping the back edge of a common carpenter's saw at right angles with the edge of a chisel, small nicks or teeth are formed along a few inches of the end of the saw. This back edge can then be used to cut through nails without damage to the saw. By sliding the saw between trim and studding the driven nails can be cut with ease.
—Submitted by O. D. Ensing, Paterson, N.J.

How to Prepare Boards for Glueing

Take the two boards that are to be glued together and place them side by side and secure them temporarily top and bottom with scrap pieces. The scrap pieces are to be secured into the waste part of the boards to be glued.

Place the two boards on saw table. Set fence so that the saw will cut through the joint taking a little off each board. The cut is most cases will be smooth enough so boards can be glued after scrap nailing pieces are removed without boards being jointed. This process levels the sides to be glued assuring a tight fit.—Submitted by John R. McKeegan, Rayland, Ohio.

How to Make a Masonry Wall Plug

A good tight plug for fastening fixtures to a masonry wall can be made with a dowel and a wedge as shown in sketch. A 'V' is cut in the end of the dowel or plug to take the wedge. With the wedge in position this end of the plug is first placed in the hole. The hole drilled in wall is a trifle larger in diameter to allow for spreading of the dowel. When plug is driven in tightly it forms a good solid base for holding screws or nails and will not come loose.—Submitted by Wilbur H. Fulk, Monument, Colo.

How to Make a Mallet Ring Hammer

To prevent metal rings from the head of wooden mallet from working loose and becoming lost, a strap iron was wrapped around ring with excellent results. Groove is cut on both sides of top and bottom of mallet head. An iron band is inserted in each groove. The rings are then placed in position on the head of mallet and the strap iron are bent back over the rings holding them rigidly in position. The strips that bind sheet metal roofing make excellent straps.—Submitted by Oscar West, Bryan, Ohio.
How to Make a Level to Set Stakes

WHERE an instrument is not available for leveling a plot of ground, this home-made level can be used with excellent results.

A 2x6 of undetermined length, depending entirely upon the requirements, forms the base for level. Since this member is seldom straight, and since it is also necessary to clear any irregular areas of ground, a piece of 1x3 12 feet long is nailed to each end of 2x6. Stretch a string tightly between (A) and (B) which is placed at bottom of 1x3's. Take a piece of clear white pine 1x6—four feet long and measure distance (C-D) from string to top of 1x6 and nail member to 2x6; 1x4 is to be mounted level. Distance (C-D) is arbitrary.

In using the level, find center line of plot and drive stake into ground at this point, top of stake to represent finished grade. Place either (A) or (B) end of level on center stake. Place spirit level on top of 1x6. Drive stake in each corner until level with center stake. Measuring down from string to ground will determine its contour. If area is rectangular two center points can be used if necessary.—Submitted by John R. McKeegan, Rayland, Ohio.

How to Support Flooring Over Vents

IN basementless houses with crawl spaces under first floor, an occasional ventilator is placed on the outside wall at the end of joist openings.

Before laying diagonal flooring it is necessary to locate and lay out vents and to set bridging block as shown in drawing. Square flooring is then placed in position and diagonal flooring is fitted around it. This gives good support and allows vent to be full-size of joist used.—Submitted by J. G. Caldwell, San Mateo, Calif.

How to Use Middle Distance Plates

IN the position shown in the drawing these plates are used for the purpose of quickly finding the middle distance of any board. By turning them over they can also be useful for indicating the center of two right angle surfaces. They can also quickly find the center between two vertical members.

Plates are made of sheet metal. The ends are bent over first and both pieces clamped together while cutting the sides. These plates are not intended for rough work with non-parallel sides, but for finished work. They will locate the center quicker than any other method.—Submitted by H. Moore, Hamilton, Ontario, Can.

How to Place Liner on Batter Boards

HER is another method of placing the liner on batter boards. In this way there is no danger of losing the liner as long as the batter boards are in position. To operate, place line through plumb saw cut and then loop through angle saw cuts to tighten line.—Submitted by Richard H. Barnes, Colwyn, Pa.
HOMEMADE fence will prevent making mistakes when laying out a pattern for long rafters, when using the step method with framing square.

Fence is made of a piece of dry hardwood 36 to 38 inches long, 1 inch thick and 1¾ inch wide. Board should be straight and uniform. Saw kerf in 14 inches from each end of board. Leave about eight inches in between the kerfs. Make sure that kerf is wide enough for a square to slip through. Bore holes as shown for ¾x⅜ inch bolt with wing nut.

To use, place the tongue of the square through one kerf and the blade through the other. Slip the straight edge along the square until it coincides with the pitch figures being used and then tighten the wing nuts to hold square in place.—Submitted by W. L. Dodds, Branson, Mo.

ChANGES in basic house designs are providing opportunities for a new and fresh approach to old problems. Space for vestibules need not be taken out of the area of the house proper, but can be added to, or extended beyond the exterior wall line, depending upon the whim of the owner or designer.

The arrangement shown in the detail on opposite page is unusual. In this case the designer has taken advantage of the broad overhang across the front of house by extending the two glass walls of open vestibule up to the underside of soffit. In this manner a practical and attractive feature is added to the exterior appearance.

The two walls of shelter are constructed of 2x4 corner and end posts with large panels of corrugated glass between extending from floor to ceiling. Glass is capped with a moulded wood member at soffit. Most glass manufacturers make a corrugated or fluted glass. Consult their catalogs for types and sizes and follow their installation details to insure satisfactory results.

Details of the double glazed windows and adjoining louvered vents were shown in the August issue of the American Builder. The facing of the exterior walls and soffit is of one-half inch thick striated plywood stained a reddish-brown color to imitate redwood. Plywood is securely glued to vertical furring strips and after allowing time for drying is tightly nailed to studs. In this manner the plywood becomes integral with the framing and thus adds to the rigidity of the wall. Shelter frame and trim, and gutters, are painted a contrasting white.

Soffit vents are continuous around the house. They serve, in addition to several mechanical ventilators on roof, to keep the air circulating in the roof space above the insulation. Reflective insulation is provided by aluminum paint which is applied over the top of the entire roof surface of house.

The partially enclosed shelter around entrance door in this case has proven to be practical as well as economical. The two walls have acted as an effective barrier to ward off the cold winds from the north. It also eliminates the use of another door with its accompanying framing and finished hardware. Floor of shelter is a reinforced concrete slab placed upon loose gravel fill. Concrete curb extends around the two sides two inches above floor line, with wood frame of wall secured to curb.
No. 0.59. DETAILS: BASEMENTLESS HOUSE: ENTRANCE

American Builder's Better Detail Plate

Section: Main Wall & Entrance


Pour concrete floor. Size of floor governed by span.

Fluted glass panel on pine bearing blocks and bedded in mastic.

Note: Posts and beam of clear pine stock. Full size as shown. Copper.

Coating: Plywood. 1/2" Insulation board. Insulated on both sides.

Other elements include:
- Screw nailing
- Moulded metal gutter
- Corrugated or fluted glass
- Base radiator

Detail: Entrance Posts

Detail: Entrance Rooftop

Detail: Entrance Details
MOISTURE, caused by condensation like this above, forms an ideal breeding place for fungi. Subterranean termites, which attack from the ground, need only this moisture and cellulose from wood to live. Because of termites and fungi, several million dollars are spent annually. But today science has made it comparatively easy for the builder to offer homes protected against damage from these forces. And protected homes have a greater sales appeal.

STRUCTURAL wood, like wood in forests, is highly resistant to most chemical and physical forces. But unless it is kept free from moisture and insects, it will normally succumb to forces acting to return it to the soil. Nature’s chief agents that cause this destruction of wood are fungi and termites.

Today, science has made it comparatively easy for the builder to offer homes with structural lumber protected against the effects of these forces. And in an industry of growing competition where buyers are expecting more for their money, homes that offer added values of protected lumber will stand a greater chance of selling. For this reason, and because a builder’s reputation depends upon the quality of homes he builds, it is important to consider the methods of protecting wood, and to know briefly the nature of termites and fungi.

Termites and Termite Control

Termites, which exist in 47 of the 48 states, require only moisture and...
the cellulose they extract from wood to exist. If wood and moisture are not obtainable, neither of the many more destructive varieties can survive.

One common method of protecting wood from the six-legged insects is through structural control. Structural control, involving the use of metal shields to keep termites from getting at wood, is not intended to destroy them. Usually, the purpose of using shields is to force the insects out into the open so that they may be destroyed. FHA recommends that these shields be placed through masonry or between masonry and wood to block off the termites and force them to build tunnels in the open.

Wood should not be placed in contact with the soil. But even if wood floor joists rest on concrete piers, the termite can build an earthen tube from the soil to the untreated wood he is attacking. A metal shield should be placed between the wood and the pier, in this instance (see drawings of structural control methods). FHA recommends that at least 18 inches be provided between the ground and bottom edge of joists in basementless areas. This more nearly provides proper ventilation, which is a safeguard against both termites and fungi.

Chemicals, and methods of chemical treating have so improved in recent years that no longer is the cost of obtaining treated wood a prohibitive factor—if the builder considers the added protection and value treated wood can add to his homes. Leading brands of wood preservatives now on the market offer fungi and

Illustrations and data courtesy of following: Technical Dept., Federal Housing Administration; United States Department of Agriculture, Forest Service, Forest Products Laboratory; Western Pine Association; State Natural History Survey Division, State of Ill.; The Dow Chemical Co., and American Lumber and Treating Co.
termite resistance; they are odorless, clean, and paintable. If the builder does not want to treat his lumber, he can either have it treated or buy pre-treated lumber.

In chemical control of termites, where the builder treats his own lumber, thoroughness of application of the chemical is just as important as the kind of chemical used. Parts of a home that should contain treated lumber for termite or fungi control are:

1. Wood mudsills, caps, pier blocks, cross-bridging, foundation posts, girders, first floor sills, joists, plates, headers and sub-floor.
2. All lumber used in porch construction, including posts, girders, flooring, steps and column bases.
3. Lumber used in basements, including stairs, bins, sleepers, floors, partitions, window and door frames.
4. First floor studs which extend below the sub-floor.
5. Sheathing and siding which extends to the ground or below the top of masonry foundation. The lower two or three feet of sheathing should be treated; however less than this is sufficient.
6. Nailing strips for floors, window and door blocks imbedded in concrete or laid directly on masonry.
7. Fence boards and posts, trellises, arbors, lattice-work and similar decorative details which contact the ground or are exposed to dampness.

If a builder buys pre-treated wood, has wood treated, or buys chemicals to treat wood, he should expect the wood preservative to contain the following characteristics:

1. It should be toxic to decay and stain organisms commonly found in the product treated, and should be toxic to termites.
2. If the builder is to treat his own lumber, the preservative should require a simple treatment, and have a deep and rapid penetrating effect.
3. Should have the ability to remain toxic in treated wood for many years.
4. Should be odorless or with a non-objectionable odor.
5. Should be non-poisonous and non-harmful to men who handle the preservative.
6. Should be non-active to paint coatings and to metals.
7. Should be non-inflammable.
8. The toxic chemical should be of low solubility in water after impregnation.

Methods of Treating

In general, lumber is treated by pressure or non-pressure methods. In a pressure method, lumber to be treated is placed on steel cars and moved into a large cylinder. The cylinder is closed and filled with a wood preservative. Pressure is then applied in the cylinder, and the preservative is forced into the wood. Some pressure processes employ an initial vacuum to assist penetration. A vacuum is applied to the cylinder, taking out some of the air from the wood. Without disturbing the vacuum, the preservative is let into the cylinder and pressure is applied.

Non-pressure methods include submerging the wood in a preservative, brushing the preservative on, or spraying. In determining the best method to use, the builder should be concerned with the extent the chemical penetrates into the wood. And this will depend largely on the nature of the wood.

Fungi

Woods that are continuously saturated in water or continuously dry are not susceptible to attack by wood-destroying fungi. These fungi, which are actually plants growing in the wood structure, require food from the cells or cell walls of wood. But in addition, they must have moisture, air, and a favorable temperature in order to live. Based upon these elements necessary for the fungi to live, the following general recommendations are made:

First, well seasoned lumber should be used, and adequate ventilation provided in the structure to avoid dampness. Condensation of moisture on the woods must be avoided. Again, a good wood preservative is recommended, which will be toxic to fungi and wood-destroying insects.
How Builders Sell Homes

Leaders in building and selling homes from all parts of the country offer their sales ideas in these exclusive American Builder reports. Others follow in later issues.

EDITOR’S NOTE: This article is the first in a series to be published exclusively in American Builder detailing the ideas of outstanding home builders on successful public relations, promotion, and sale of houses in all price classes. The ideas and opinions presented here were obtained by letter from builders of all types in all sections of the United States by W. P. "Bill" Atkinson, Oklahoma City, who was moderator of a panel "Selling Your Houses in '49" at the 1949 NAHB convention and exposition in Chicago. Because of time limitations at the panel session, Mr. Atkinson was unable to use this material in the discussions. It is being published for the first time in American Builder. The quotations are directly from the letters obtained. Names of the builders quoted are being omitted to protect confidences and also to protect those concerned from extra correspondence which follows publicity of this nature. The names are on file in American Builder offices.

A SEATTLE, WASH. BUILDER says: "It is now very necessary to see that the builder gives excellent merchandising, and to some extent he must build up his reputation to such a point that it can never be questioned. The builder must give consideration to special features that will give added attraction to the buyers. I have found that such items as double sinks in the kitchens, tile shower stalls in the bathrooms are a great help in making sales if the builder can see his way clear to place the added cost of such items to the houses. Where the builder is getting into the higher priced homes, it is very necessary to have the best designing that is available. I have been using wall tile in my homes for many of the bathrooms for a sales stimulant and it is very effective when the buyer goes through the houses. In the higher priced brackets, it is necessary to have individually styled plans and to get away from old time basic plan ideas. Also, it is very necessary to hold the profits down to a legitimate profit. I also think that where a builder has a number of homes under construction the furnishing of one house is a great help in making sales. I feature very adequate closet space, and plenty of kitchen cabinets, large windows, and today, more than ever, I think that having the lawns in and the yards landscaped is very necessary to make sales. Where the builder is using hardwood floors, using a good grade makes a big appeal to the buyer as it spells quality all over the house. "In my most inexpensive homes I use a kitchen that is far superior to the price bracket that the house really is in. Where I can see my way to spend a little more money, I feature a G.E. dishwasher and garbage disposal. It is things like these that appeal to the buyer."

ROYAL OAK, MICH., builder offers four suggestions on selling homes: "(1) Use plans that present simple pure architectural designs. Get your attractiveness from proportion, location, and type of windows, etc. (use no fake dormers or gingerbread). "(2) Interiors should be so pleasing that you yourself would be glad to live there. "(3) Keep your sales prices competitive at all times by maintaining sufficient volume of construction to keep overhead down to a minimum. "(4) Organize your sales force and handle your own sales. In this way you cut your sales cost in two, get plenty of advertising when and as you want it, and last but not least you make a name for yourself as a builder instead of the broker becoming famous. The proof of the pudding is that last year approximately 70 per cent of our sales were to our old customers, their friends or relatives."

FROM A SYRACUSE, N.Y., builder came four more suggestions: "(1) Prove to the buyer that you are selling quality. "(2) Show the buyer that you want him to live in happiness after he pays for his home. "(3) Cut all fringes on operating costs so you can give better value for the money. "(4) Do not try to sell a man more than he can handle."

AN AMARILLO, TEXAS, builder advises: "Use the word “free” in every case where it is applicable to anything of value. For example: "(1) Complete check-up and service on your home thirty days after you move in absolutely FREE. "(2) FREE adjustment by an expert on any gas appliance in your home—just call gas company. "(3) FREE mail delivery and no city taxes on the new homes now being built... "(4) FREE park and playground for the kiddies—FREE supervision and open air nursery between the hours of four and six p.m."

IN COLUMBUS, OHIO, a builder had this experience: "After first trying the old stand-by newspaper classified advertising with the usual open-for-inspection picture-type advertisement, and finding a great deal of apathy on the part of the public, we recognized the signal for some type of stimulus. "We then contacted a progressive furniture store and suggested that they completely furnish one of the houses in a modest fashion and in keeping with the price bracket. This was done, and the home was titled... Signs were erected on the front lawn and at the street entrances calling attention to the home. "Next, we contacted our sources of supply and suggested that they call attention to their products which went into the building of the home. With the building suppliers' advertisements plus those which were obtained through the furniture company, namely, appliances, carpeting, furniture manufacturers, etc., we were able to dominate the local newspaper building section by having over a two-page spread. In addition to the newspaper, the open house was broadcast regularly over our local radio station. Over thirty-five hundred people visited the home on the opening day. "This advertising was carried in (Continued on page 160)
A n unusual thing took place at our house during the past week—something that hasn't happened for more than ten years. It was so surprising that it was the subject of the dinner table conversation that evening.

During the day, a pleasant young man had rung the door bell and, in a very efficient manner, had tried to sell us a garbage disposal unit. It would make a good story to say that we were so completely taken off our guard that we made the purchase promptly and that the unit already has been installed, but such is not the case. It wasn't that easy! Up to the moment all the personable young man has accomplished is to increase our interest in what he is trying to sell. What he does from now on will determine whether we buy his unit or some other kind—and when we do it.

For a long time we have been intrigued by the national advertising of certain well-known manufacturers of garbage disposal units. The idea appealed to us greatly. It still does. Sooner or later we propose to have one when a number of rocks to ownership finally have been removed. The appearance on our doorstep of a young man who knew what he was talking about leads us to believe that, at long last, the barriers are about to be taken down. However, we shall wait and see. Frankly, we are still a bit skittish about the whole thing.

Why? Fortune Magazine recently gave the answer in an excellent article entitled "What's the Matter with American Salesmanship?" It defines the status quo of the consumer thusly:

"The American consumer is considerably different from the consumer of ten or fifteen years ago. For one thing, his psyche is still badly scarred by depression, and he still demonstrates a stubborn and possibly serious bias for depositing his money in a savings bank rather than spending it. For another, the vast bulk of the population, or at least of the productive population, owns more goods than it ever has before. People take these goods more or less for granted, and find it hard to become as deliriously enthusiastic about the new models as they once did. They also tend more and more to become 'optional' buyers, practicing the truism that the purchase of consumer durables, unlike the purchase of groceries, can be put off. Already possessing a fair refrigerator or vacuum cleaner, they tend to postpone the purchase of a new one until the price or the new model is compelling enough."

It takes more than one call

All of which seems to fit our case exactly. True, we haven't a modern gadget into which we can dump the garbage and watch it disappear down the drain. But we do have a method of garbage disposal which we have been using rather satisfactorily, but somewhat inconveniently, for a good many years. The job of the young man who dropped by a few days ago to discuss the over-all subject with us is to keep coming back with more and better reasons until he finally convinces us that it is good business to draw our money out of the savings bank and invest it in a disposal unit.

Chances are we will never see the young man again. In all probability he is busily engaged in following out the well-known formula of "if you push enough door bells you'll make a certain number of sales—the law of percentages will take care of you." Again we say, it isn't that easy. In this particular case, the push was entirely satisfactory. So was the initial sales presentation. No doubt the young man did a far better job than he has reason to suspect. On the next call he'll probably get a little further along—if he ever comes back.

But even if he does show up again and makes further satisfactory progress he still has a long way to go before we become the proud owners of his disposal unit. Nevertheless, it will be his follow-through that eventually will get the order—a factor which is still almost completely lacking in the great and glorious field of American business. Industrially, we seem to have reached the point where a few salesmen are now abroad in the land asking somewhat timidly or nonchalantly whether we are interested in this or that, but we are thousands of light years away from good old human selling which makes us part cheerfully and willingly with our hard-earned savings.

Has American business lost the ability to sell successfully?

That answer has been well stated in the article in Fortune referred to above. Here it is:

"The major cause of the recession, many a sales executive now admits (if not boasts), is that American salesmanship fell down on the job. Perhaps the explanation is too simple, but there is enough hard truth in it to provide a thumping illustration of the impact of salesmanship on the American economy, and in the future.

"Consider first the record of the last few years. What happened was that salesmanship rusted not only during the war but in three years following the war. The sellers' market of wartime slid into the sellers' market of peacetime as easily as one month gives way to another; the big problem continued to be to make goods, not sell them. So business did not add enough men to its depleted and ageing sales forces; it did not retrain the men it had. Its advertising was often lame and hackneyed. . . . "

"The only remaining shortage, and the most serious shortage, is the shortage of creative salesmanship. . . . Until this is corrected we will continue to be long on goods. . . ."

"The most important educational job ahead of industry, as it retrains its salesmen, is to retrain itself—to cultivate a new spirit of salesmanship permanently in all its activities."

It will take American industry a long time to recover from the debilitating effects of several years of unprecedented prosperity. Perhaps it is not an overstatement to say that a majority will never recover. They have too much inertia to overcome, too much wrong thinking to revamp, too many new things to learn.

Actually many of the oldsters have
two strikes against them before they step up to bat because they first must retrain themselves and indulge in a new type of thinking before they can successfully "untrain" their salesmen and then begin the colossal job of retraining them.

Adding up these many factors merely goes to show the extent of the job that is ahead for each and every component part of our great industrial system of production and distribution.

That no single factor in this mammoth system will escape goes without saying. There are those who still insist that the demand for "low cost housing" will continue to be so great for a long period of time that the big problem will continue to be how to produce rather than how to sell.

This complacent attitude (as far as the need for good salesmanship is concerned) is not justified by what already is taking place in the housing field within the short period of two years.

Whereas the take-it-or-leave-it attitude still prevails in certain areas the over-all picture of housing has changed drastically. Today we hear little of "minimum housing," the worst phrase that was ever tossed together in behalf of a product. On the other hand, the advertising pages of the Sunday newspapers are filled with much about "maximum values" and the pleasing illustrations of attractive homes are accompanied with carefully selected words intended to stimulate the desire to own a home to the point where Mr. & Mrs. Prospect will jump in the new car and hie themselves across town and over dell and dale to become eye-witness to Mr. Builder’s latest creation.

**Builders attitude changed**

It goes without saying that Mr. Builder’s attitude has changed during the past several months—both as to his creation and the potential owner. He is building a better home, doing a better job of advertising and likewise a better job of selling. If for any reason he is falling down on any of these three factors he simply is out of luck.

As to which of these three factors is the most important (assuming that financing is not a major problem) is a good deal like trying to figure out which of the three legs of a stool is the most essential.

In the case of the garbage disposal unit which has intrigued our interest for some considerable time, we have found from the reports of users that the device is entirely satisfactory from a mechanical standpoint. So was the national advertising. It attracted our attention and did everything that the experts claim it should do. When practically the same copy appeared in our daily newspapers two years ago (with a list of six local agencies) we were delighted. The next morning bright and early we were on the telephone in search of information only to encounter an astonishing amount of indifference. True, the sellers’ market was still on but we were undaunted. We kept at it until we ran through the entire list. Finally we encountered an individual who was interested enough to ask the size of the drain pipe in our kitchen sink.

**Rebuffs discouraging**

"Too small," he said with an air of finality that left considerable doubt in our mind as to whether we were ever going to be the owner of a disposal unit unless we built a new house around it.

We haven’t fully recovered from the many rebuffs of the long sellers’ market and “too small” still keeps ringing in our ears. We were surprised indeed when some one finally decided to discuss the matter with us. We have no idea how the young man happened to come by. None of the six suppliers asked our name or put us on the prospect list. Must be another company. Some of these days we hope to find out. The young man would be welcome. We’re sort of hungry to buy something. We’d enjoy leaning back in our chair and twiddling our thumbs while we watch a good salesman do his stuff. Nothing is more interesting and enjoyable. It’s a thrilling experience.

To date we’re still waiting, not for a garbage disposal unit, but several other things that are said to be in plentiful supply. We read full-page ads about automatic washers and dryers, new type refrigerators. We’ve even toyed with the idea of a television set and we’re a push-over for a new car in the next bracket above our present possession, but so far no one has approached us on any of the subjects.

Each month the advertisements become more and more interesting, but in spite of their appeal we go blithely on our way in full possession of our yearnings and our modest bank account. Some of these days the missing ingredient in American business will change our status quo. Efficient, intelligent, personal salesmanship will come to our rescue. Then we shall listen, learn and choose. No doubt the best salesman will get our order. More power to him. We’re ready.
Arrange Tours of Northwest to Follow San Francisco Convention

ARRANGEMENTS are being made by the NRLDA national transportation committee, under the leadership of J. D. McCarthy of the Illinois Lumber and Material Dealers Association, for a direct trip for members by train from Chicago to the national convention in San Francisco, Nov. 6-11, and for tours on the return trip which will combine inspections of lumber operations in the Northwest with entertainment and sightseeing.

On the westbound trip departure from Chicago is scheduled the night of Nov. 3 and arrival in San Francisco for the morning of Nov. 6.

After the convention an option of two tours (1-A and 1-B) will be offered, both scheduled to depart from San Francisco Nov. 12. The itinerary of both trips will include Portland, Ore., and Seattle, Longview and Tacoma, Wash., with the 1-B trip taking an additional day for a tour of Yellowstone Park. Arrival in Chicago on the return trip is scheduled for either Nov. 19 or 20 at 7-45 A.M.

Highlights of the trips will include inspections of the Long-Bell and Weyerhaeuser mills at Longview and the Seattle Cedar Mill, sightseeing along the Columbia River, and a boat trip on Puget Sound. Lumbermen will be given a preference as to which mills, plants and shipping areas they wish to visit; and lumber manufacturers and dealers in the cities on the route are planning entertainment for the visitors.

For lumbermen and their families who have additional time, the transportation committee is cooperating with the Northern California Retail Lumbermen’s Association in arranging a post-convention Redwood Empire tour in Northern California and Western Oregon.

Passing through Marin, Sonoma, Mendocino, Humboldt and Del Norte counties, this tour will include most of the Redwood groves in California, as well as vineyards, fishing communities and flower growing regions. Visits will be made to the world’s largest redwood lumber mill at Scotia, other large mills at Eureka, the new Weyerhaeuser mill near Eugene, Ore., and the mills at Longview, Wash. Lumbermen at these points are planning a number of entertainment features.

Persons registering for the Redwood Empire tour may continue on trips 1-A and 1-B from Portland, schedules being changed to suit the party. Further information about the Redwood tour may be obtained from J. F. Pomeroy, Lumber Merchants Association of Northern California, San Francisco.

Applications for reservations for the trip to San Francisco should be made directly to J. D. McCarthy, Illinois Lumber and Material Dealers Association, 919 Ridgely Building, Springfield, Ill. Post-convention-tour reservations are being handled by M. M. Goodsill, General Passenger Agent, Northern Pacific Railway, St. Paul, Minn.

Aid to Manufacturers Offered By Northeastern Committee

The building materials consulting committee of the Northeastern Retail Lumbermen’s Association, which serves as a testing ground for products developed by manufacturers for the lumber and building material industry, has extended an invitation to manufacturers to discuss their products with committee members at the fall meeting.

The committee is composed of dealer-members of the Northeastern Association who are specialists in several branches of building material retailing—house construction, industrial and commercial trade, millwork, farm trade and boxing and crating.

Conducting their meetings in round table fashion, the committee attempts to assist manufacturers in developing new products for acceptance by the industry. Most of the manufacturers’ questions, according to committee reports, are on styling, packaging and methods of merchandising. The consulting group is not concerned with manufacturers’ sales presentations.

How short can our memories be? For the past five years, the builders, the real estate men, the financing groups, the material dealers, have all been opposing the encroachment of stateism. They vigorously and successfully opposed the WET bill, TEW bill and TWE bill. Beams of testimony were presented before Congressional committees by outstanding members of the industry. Thousands of dollars were spent by individuals in telegrams and phone calls to their Congressmen. All of this was done in an effort to prevent the passage of legislation that we said was detrimental to our National welfare. At last, and only after a bitter fight, the “ALPHA-BETCHA anything housing bill” was passed and became law. This law proposes to do all the things we, as an industry, have said would be disastrous to free private enterprise.

Imagine my surprise and utter amazement when inquiries began coming in to regional secretaries asking how the individual dealer could get on the gravy train. We may have the housing bill with us but I certainly do not believe we should for one moment compromise with it. Certain sections of the country are infested with poisonous snakes, but the local inhabitants don’t live with them—they continuously fight them.

This is your opportunity to assume the leadership in your community and convince your fellow townsmen that any public housing can only lead them further into the realm of stateism. By taking the lead you can (Continued on page 184)
Wage-Hour Division States Policy on Amendments to Fair Labor Standards Act

In a recent statement, the Wage and Hour Division of the U.S. Department of Labor outlined its policy on the overtime compensation provisions of the Fair Labor Standards Act, as changed by the amendment to the Act created by passage of the so-called "Overtime-on-Overtime" bill (H.R. 888).

The Wage and Hour Division statement points out that under the amendment, which is retroactive, certain payments which the Supreme Court held were not "true overtime" pay in the Bay Ridge Operating Co., Inc. v. Aaron and Huron Stevedoring Corp. v. Blue case will now be treated as overtime premiums under the Wage and Hour Law.

The premiums with which the amendment deals are those paid for work on Saturdays, Sundays and holidays, the sixth or seventh day of the work week, and for hours outside of the basic, normal or regular work day (not over eight hours) or work week (not over 40 hours).

The statement also cites the criteria contained in the amendment which must be met in order that these premiums may be excluded from an employee's "regular rate" of pay and be credited toward overtime compensation which may be due him under the Wage and Hour Law for work after 40 hours in a work week.

The terms of the amendment apply retroactively to all industries and are applicable in "rotating shift" situations under which an employee has a bona fide basic, normal or regular work week, even though his days of rest may fall on different days of the week, depending on the shift he is working.

Premiums which do not meet the tests of the amendments may nevertheless be true overtime if paid after a specified number of hours previously worked, according to a bona fide standard, as distinguished from premiums paid merely for undesirable hours or disagreeable work.

Grain Storage Structure Awards Announced

According to a tabulation made public Aug. 18, the Commodity Credit Corp., under the offer to purchase announced July 22, had contracted for the purchase of 14,300 bin-type and comparable grain storage structures, with a total capacity of 114,887,640 bushels. CCC is continuing its analysis of offers received, and also additional offers for delivery within 60 days.

The original invitations had a stipulation which required consideration of delivery within 30 days, but bidders within the price range were wired to submit additional offers for delivery within 60 days.

Two-Page Dealer Ad Marks Chicago Festival Opening

An outstanding two-page advertisement was run by the Edward Hines Lumber Co. of Chicago in the Sunday, Sept. 11, issue of the Chicago Tribune which announced the opening of the city's Home and Home Furnishings Festival.

The advertisement congratulated the different groups which had cooperated to arrange the Festival and devoted a large portion of space to part of the contemplated purchases. It is reported that these may reach a capacity as high as 500 million bushels.

NOTE: This list contains several changes made since publication of an announcement of dates in the August issue. The date of the Montana Retail Lumbermen's Association convention was not available at publication time.

1950 Dealer Association Convention Dates

Predict 4,000 Attendance At 1950 Texas Convention

The 1950 convention and builders show of the Lumbermen's Association of Texas will be held at the Municipal Pier, Galveston, April 23-25. This will be the group's 64th annual convention.

The 1949 meeting, held in Dallas during the spring, attracted more than 150 exhibitors, a convention record. Inquiries about the 1950 show, according to Gene Ebersole, the association's executive vice president, indicate that a new record may be set. Approximately 4,000 lumber and building material dealers are expected to attend the 1950 convention.

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F our years ago, a young generation took over the management of Schoeneman Bros. Co., and launched a merchandising program that has made the firm's dollar volume the biggest in its history.

The new management includes Herbert Schoeneman, president; F. B. Schoeneman, Jr., vice-president; Cecil Schoeneman, treasurer; and Chester C. Schoeneman, secretary, four sons of the five brothers who founded the company back in 1889. Schoeneman Bros. operate twelve yards in Iowa and South Dakota. General offices are still at Hawarden, Iowa; but the Sioux Falls, S.D., yard, where Herbert and Cecil Schoeneman headquarter, has also become an executive branch.

The first thing the new management did was to add new lines. "We did not feel that expansion as far as the number of yards was concerned was as important as doing a job in our existing locations," Herbert Schoeneman explained. "So we went to diversified, allied building materials. There are thousands of them. We have picked up about 200... from a minor hardware item to some type of interior material that would not have been stocked by a lumber yard in the early days.

"We tried to include everything it takes to build a house. But we picked only items closely related to construction: builder's hardware, medicine cabinets, bathroom fixtures, kitchen accessories that can be incorporated into kitchen cabinets, and so on. We even went into some steel items in roof construction. We did the same for rural construction. Our aim has been to make our yards materials stores, so customers can come and get all their needs in one place. We advertise, 'Everything in building materials for the farm and home.'"

Cecil Schoeneman took up the story at this point. "Our next step was to work our lines harder," he said. "Vermiculite products are a good example. We have stocked vermiculite fill for years. Now, it's our insulation leader. Through direct mail, newspaper and radio advertising, we have built up sales from a few bags on a delivery to two and three truckloads on our better jobs. Last week, we sold 450 bags.

"Then we got our rural managers interested in selling vermiculite concrete aggregate for farm floors. We made our farm customers aware of its usefulness in increasing livestock productivity. Each year, our sales of vermiculite concrete aggregate have increased."

Planned, consistent advertising has been an important factor in building business for Schoeneman's. "Twenty-five years ago, the advertising account was a matter of donations," Herbert Schoeneman commented. "Today, we put a definite percentage of our sales into advertising. We (Continued on page 178)
New Products
Offered by Manufacturers

Insulation Hardboard AB1029
Rubberized insulation hardboard is an expanded, synthetic rubber compound for insulation of concrete slab floors. Weighing 4/3 pounds per cubic foot, it has compressive strength of 40 pounds per square inch. High resistance to moisture and vapor. No added water vapor barrier required. Rot, vermin and termite proof. Easily worked with ordinary woodworking equipment, either hand or power operated. Can be cut with a circular saw, band saw or hand saw. Great American Industries, Inc., Ruberoid Div., Bedford, Va.

Router of Many Uses AB1028
Stanley-Carter RS6 router has attachments for planing, beading and fluting, sharpening bits and cutters, for weather strip grooving, dovetail joints, for mortising doors and for universal shaping. Router casing is threaded, and is fastened to desired attachment by turning into threading of that attachment. Depth of cut may also be adjusted by turning router in attachment unit. Each one-fourth turn gives an adjustment of 1/64-inch. There are 16 threads per inch. Motor has 1/2 H.P. and runs at 18,000 r.p.m. Operates on 115 or 230 volts. Stanley Electric Tools, New Britain, Conn.

Steam or Hot Water Convector AB1005
National Art convector distributes heat efficiently with either steam or hot water. For use in homes, schools, stores, offices and institutions, convector has heating elements consisting of aluminum fins permanently bonded to copper tubes. Tubes are silver soldered to cast iron headers providing protection against leakage and loosening of tubes. Readily adaptable to any type of pipe connections. Galvanized steel casing protects aluminum fins in shipment and supports entire heating element when installed. Specially designed enclosures for free standing, semi-recessed, full recessed or wall hung installations. In standard 6, 8 and 10-inch depths and 20, 24, and 32-inch heights. The National Radiator Co., Johnstown, Pa.

Undercounter Refrigerator AB1026
Model U-4, undercounter, four-cubic foot refrigerator, is 34 1/2 inches high, 24 inches wide and 27 inches deep, including hardware. Designed to fit under standard height sink drain boards and kitchen counter surfaces, model requires 24 inches of space for 80 degree door opening. Right or left hand opening. Freezer holds 16 pounds of frozen food and two 14-cube trays which freeze four pounds of ice. Westinghouse Electric Appliance Div., Mansfield, Ohio.

Oil-Fired Gravity Furnace AB1016
Automatic "Modulated" heat is feature of Gopher oil burning warm air gravity-type furnace. Modulated heat results with combination of Gopher burner with new modulating oil valve designed to supply oil for even room temperatures. Limit control reduces modulating valve to pilot flow if any mechanical difficulty should develop. Flame keeps pilot hot at all times, so that when thermostat calls for more heat, all admitted to burner by modulating valve is vaporized immediately without smoking. Furnace is 53 by 36 1/2 by 30 inches. B.T.U. output is 72,500 per hour. Equipped with one gallon humidifier. American Gas Machine Co., 505 Front St., Albert Lea, Minn.

Reflective Insulation AB1010
Reflective Kimsul features an aluminum foil vapor seal cover which is designed to reflect heat and shut out condensation. Firmly bonded to cover is thick blanket of treated fiber plies which produce high degree of thermal efficiency. Features strong tacking flanges to facilitate installation. Compressed to 1/5 installed length, insulation comes in light, easy-to-handle rolls which can be carried home in back of the car. Non-irritating, clean and pleasant to handle. Kimberly-Clark Corp., Neenah, Wis.

New Asbestos-Cement Siding Colors AB1020
Three attractive new asbestos-cement siding colors, pastel green, pastel ivory and steel gray are now available. New 12x24-inch colored siding will be textured in either wave line or straight edge design. The Ruberoid Co., 500 Fifth Ave., New York 18, N. Y.

Photographic Murals for Homes AB1013
Low-cost photographic murals for homes and offices, in either sepia or black and white. Flexible of reduction enables them to fit almost any wall space without sacrifice of subject matter. Pictures reproduced on wallpaper stock are put on like ordinary wallpaper. Washable. Do not have to be backed on board or plywood. Foto Murals, 672 South Lafayette Park Place, Los Angeles 5, Calif.

Time Saving Level AB1012
With new model Ken Corner Level, one man can plumb, level and square two sides of a corner at one time, as well as the top face of each brick when it is placed on mortar joint. Level cannot be twisted out of plumb by hand. If used to set a timber, post, door or window frame, it will plumb two faces at one time. Two "Z" bars of aluminum support horizontal and vertical glass liquid vials containing bubbles, and thus provide jig for setting each corner brick. Singer Kennedy Corp., 21 E. Van Buren St., Chicago 5, Ill.

Masonry Wall Steel Reinforcing AB1003
Dur-O-Wal, patented steel reinforcing for masonry walls, is offered to block manufacturers and building supply dealers. Available in all wall thicknesses, material is 1/2 feet thick. Flexibility of reduction enables them in mortar, it forms continuous lateral reinforcing to prevent cracks. Used as reinforcing to tie face brick to back up block, in double wall construction, where insulating dead-air space is formed; for brick and clay tile wall, as well as for reinforcing block walls. Dur-O-Wal Div. of Cedar Rapids Block Co., 656 12th Ave., S. W., Cedar Rapids, la.

(Continued on page 140)
WALL HUNG CONVECTORS AB1023
Top of this convector, slanted 30 degrees, prevents its use as table or ladder. Tops and fronts are furnished in one piece and constructed of 18 gauge steel, with bodies of 20 gauge. Designed for use in hospitals, schools, institutions and offices where frequent cleaning of floor area is essential. Bodies are attached to wall by means of two keyhole slots, with front fitted into flanged edge of top and firmly anchored in place with screws. Convector is packed as complete units. Tuttle & Bailey, Inc., New Britain, Conn.

NEW LOOK IN METAL LATH AB1007
USG Color-Rite metal lath is painted at one end to simplify warehousing and application. At the plant, paint is sprayed across one end of each sheet. All 3.4 pound lath is sprayed red; 2.5 pound diamond mesh and 2.75 pound flat riblath are sprayed white, and 4 pound ¾ inch riblath is sprayed blue. When dealer or contractor receives a shipment, a glance at end of carton tells him the weight and type. Lather can easily tell correct position for installation. United States Gypsum Co., 300 W. Adams St., Chicago 6, Ill.

OUTDOOR GRILL AB1032
Homer permanent-type outdoor cooking grill is suitable for back yards, parks, playgrounds and beaches. Made of cast iron and aluminized steel, grill may be used as a charcoal or wood fire, or as a fire for roasting and frying. Grill size is 12x20 inches. Height, 28 inches. Weight, 112 pounds. Homer Furnace & Foundry Corp., Coldwater, Mich.

BLOWER TYPE UNIT HEATER AB1033
Pittsburgh Blower unit, Series "CB," is designed for installations which require heated air at great velocities and against great static pressure. Features a squirrel cage fan. In five sizes, with AGA output of 172,000; 136,000; 112,000; 84,000, and 68,000 B.T.U. per hour. Equipped with cast iron heat exchanger and combustion chamber to withstand corrosive effects of burning gases. Combustion chamber and heat exchanger are cast in one piece, and extended heating surface fins on heat exchanger are cast integral. Built-in draft hood absorbs all excessive chimney action. Automatic Gas Equipment Co., 391 Brushton Ave., Pittsburgh 21, Pa.

ADJUSTABLE SPRING HINGE AB10
No. 125 adjustable full spring hinge is ideal for storm doors, combination screen and storm doors, and wood laboratory steel doors with wood partitions. In any finish desired, the hinges can be used either for right or left hand opening. In 3-inch size. Packed one pair in a box, with ⅛ round head screws. Other new products offered by firm include pressed steel door pulls, heavy latches, round knob pulls, door and drawer pulls and adjustable half surface spring hinges. National Manufacturing Co., Sterling, Ill.

FIRE-RETARDANT WOOD TREATMENT AB1006
Protexol-impregnated wood is listed by Underwriters' Laboratories, Inc., as permanently non-combustible. Treatment also renders wood rot and vermin resistant. Wood is treated in sealed cylinder on which vacuum has been drawn. Chemical solution is forced into wood under high air pressure. Wood treating service by carload lots or less, available to dealers or builders. Fox Brothers Manufacturing Co., 2721 Sidney St., St. Louis 4, Mo.

Maintenance hinge for firm's awning window permits painting and cleaning of the top sash for indoors. When top sash is restored to operating position, protection against rain splashing in over top sash is still retained as in the fixed hinge principle of operation. To operate hinge, mechanical disconnects upper links, springs two friction type pins, and lowers sash. When through, he raises sash to regular position, connects links, and unit is ready for normal operation. Gate City Sash & Door Co., Fort Lauderdale, Fla.

PACKAGED STORM SASH AB1031
Fanestra storm sash are now being shipped in cartons, completely assembled and glazed, with all necessary clips, screws and installation instructions. Hopper vents, when specified, are included in the carton, assembled and installed in sash panel. Cartons serve as convenient storage place for storm sash during summer months. All steel residence casement windows made by firm are now being machined to take storm sash, except those windows manufactured in company's California factory for use on West Coast. Detroit Steel Products Co., 3255 Griffin St., Detroit 11, Mich.

SIMPLIFIED CLOSET LATCH AB1009
Dexter closet latch keeps hardware on outside of door. Incorporates a friction bolt, tapered on each side of latching end, and backed by compression spring. Firm enough to keep door securely latched, yet opens and closes with simple push or pull. Knob and rose screw to outside of door, and match rest of interior doors. National Brass Co., Grand Rapids, Mich.
HEAVY DUTY INSULATED SIDING AB1025

Tapered, a large heavy-weight, heavy-duty insulated siding, has realistic tapered effect achieved by heavier tapered coating. Baseboard lies flat against the sidewall so that possibility of sagging is minimized. The Flintkote Co., 30 Rockefeller Plaza, New York 20, N. Y.

PACKAGE COAL FURNACE AB1015

"Warm Morning," Model 900 package coal furnace, serves as gravity or forced air furnace, with or without ducts, or as a circulating-type space heater. May be installed in basement or utility room, when used as a furnace. Forced circulation of warm air in winter and cool air in summer is provided by adjustable blower unit which may be installed at rear or on either side of cabinet. May also be used as high capacity circulating heater for homes, stores, schools, garages, clubhouses or similar structures. Capacity, 80,000 B.T.U.'s at the point of origin. Easy to install, it is nailed or preferably stapled to studs in frame or brick veneer structures. Weight, 30 pounds per 500 feet. Protective Papers, Inc., Dept. A., Union, Ill.

INSULATION MATERIAL AB1017

Leatherback Reflective Storm Blanket insulation consists of a solid sheet pure aluminum foil laminated to all-purpose building paper that provides efficient reflective surface. Two types are plain and reinforced. Plain consists of aluminum foil laminated to asphalt impregnated building paper, and reinforced type incorporates a web of spun glass fibers, imbedded in the laminating agent between aluminum foil layer and asphalt impregnated building paper. Insulates by reflecting radiated heat back to its point of origin. Easy to install, it is nailed or preferably stapled to studs in frame or brick veneer structures.

POWER TOOL KITS AB1021

Painters and floor contractors power tool kit is built around Porter-Cable's Model D-6 Guild Combo-Tool. Kit is equipped with attachments to do several grades of sanding work, as well as to mix paint, drill, cut flashings and pipes, and polish floors. The Combo-Tool weighs less than 6 pounds. Firm also supplies a shop kit and a home kit, similarly equipped.
HARDWARE STACKBINS AB1024
Stackbins-in-Stackracks, for dealers, are ideal units for display and storage of merchandise. Will accommodate a keg of nails and provide storage and display for fittings, screws, bolts, and all types of hardware. Stackbins and stackracks are individual units with which display racks can be built as wide and high as desired. Stackbins slide like drawers for easy weighing and counting. Wide range of sizes. Stackbin Corp., 1195 Main St., Pawtucket, R.I.

PLASTER MORTAR MIXER AB1035
"Power Hoe" mixer, of 6 cubic foot capacity, will handle up to 40 shovelsful of sand. Will keep 18 to 30-man crews steadily supplied with even-tempered, thoroughly mixed plaster and mortar. Tilt-type, with mixing drum and power plant separate, the unit is readily maneuvered about on the job. Handle-lever control of discharge at any point in arc of drum's tilt, with two discharge positions—24 inches for wheelbarrows, and 17 1/2 inches for mortar boxes. With axles telescoped and hub caps removed, mixer will pass through 33-inch doorways. Air-cooled, 6.4 H.P. gasoline engine. Jaeger Machine Co., Columbus 16, Ohio.

PORTABLE MASONRY SAW AB1027
Valor masonry saw is light and portable, yet strong enough to stand up under rough handling. Rigid tube construction offers machine weighing 225 pounds. The 1 1/2-H.P. motor drives both water pump and blade to make an efficient dry and wet cutting device. Available also in dry-cut models. Model knocks down to fit most automobile trunks. The Victor Engineering Corp., Bristol, Pa.

VERSATILE HOIST SYSTEM AB1002
The "Incline-Track," a versatile platform hoist system, hoists wheelbarrow loads of material with speed and economy. Elevator moves on wood track which is built by contractor on job site with standard size 2x6 lumber. Steel channel, with all joints electrically welded, provides sturdiness to elevator platform. System may be used in conjunction with any power hoist capable of exerting 400 pound effort on a single line. King Manufacturing Corp., 3146 W. Chicago Ave., Chicago 22, Ill.

CHECK NUMBERS AND MAIL COUPON FOR INFORMATION
American Builder, 79 W. Monroe Street, Chicago 3, Illinois

NAME ____________________________________________   ADDRESS ____________________________________________

CITY ____________________   STATE __________________

AB1001 AB1007 AB1013 AB1019 AB1025 AB1031
AB1002 AB1008 AB1014 AB1020 AB1026 AB1032
AB1003 AB1009 AB1015 AB1021 AB1027 AB1033
AB1004 AB1010 AB1016 AB1022 AB1028 AB1034
AB1005 AB1011 AB1017 AB1023 AB1029 AB1035
AB1006 AB1012 AB1018 AB1024 AB1030

When you address inquiries direct to manufacturers concerning a new product described here, please mention that you saw it described in American Builder
we make sure Ro-Ways will serve better...longer

Perhaps you have never known before why Ro-Way Doors are so famous for trouble-free operation and why they keep their good looks through so many years.

Here at the factory, we take 12 careful steps to protect your customer's goodwill, your good reputation, and our good name.

Go with us through the Ro-Way Overhead Door Plant. Make 12 stops with us while we point out "A Dozen Ways we make sure Ro-Way will serve better...longer".

STOP 1 See the quality of lumber personally selected by Rowe's own expert buyers at West Coast Lumber Mills (no job lots here).

STOP 2 See that fine quality three-ply Douglas Fir Plywood used for Ro-Way panels. Notice that for this plywood "exterior grade" glue is used...the kind that is highly resistant to moisture.

STOP 3 See how our Multiple Mortisers operate to assure greater uniformity and accuracy in the construction of the wood sections.

STOP 4 See the Ro-Way method of using double-end tenoners for efficient construction.

STOP 5 Watch the careful squaring up of Muntins, Rails and Stiles in each wood section.

STOP 6 See how Ro-Way Drum Sanders give the wood that silky, lustre finish.

STOP 7 Take a look at those Ro-Way workmen putting on the finishing touches by sanding all joints and surface by hand.

STOP 8 Watch the careful Rabbeting of the sections to provide weather-tight ship-lap joints.

STOP 9 Notice how we glue then dowel the Ro-Way door sections with Steel (not wood) dowels.

STOP 10 Watch Ro-Way springs being made right before your eyes. See how we power-meter them to the weight of each door.

STOP 11 See those special machines produce Ro-Way Track Rollers with that "double-thick tread".

STOP 12 Here, after all the hardware has been fabricated, it is Parkerized and painted. That means extra protection against rust and rusty streaks that so often spoil the looks of a door.

All these are extra built-in values without a nickel of added cost to your customers. Every Ro-Way Door is a sound investment in good service and good looks. It pays the owner dividends for years and years. Remember when you specify Overhead Type Doors that "In a Dozen Ways we make sure Ro-Way will serve better...longer".

ROWE MANUFACTURING COMPANY
756 Holton Street • Galesburg, Ill., U. S. A.

Standard sizes available for prompt delivery. Good delivery on special sizes for commercial and industrial use. See your classified telephone directory for names and addresses of Ro-Way Distributors.
Facts (not claims) that every architect should know about

REYNOLDS ALUMINUM REFLECTIVE INSULATION

CRAWL SPACE: Between floor joists over unheated areas, shown unshaded in ground plan above, this is the only practical, economical insulation and vapor barrier. One layer of Type B meets FHA requirements in most areas. Approximate conductance coefficient 0.10. The accepted specification. (Above Garden Apartments, only a small part shown, insulated by The Fireproof Products Co., Inc., N. Y.)

SIDEWALLS: With the increasing use of radiant heating, logic demands this insulation that is radiant heat reflective in the highest degree. Bowed between studs and lapped over stud face, Reynolds Reflective Insulation provides high efficiency at low cost in both conductance and as a vapor barrier.

CEILINGS, RAFTERS: Two layers of Type B, with intervening air space, meets FHA requirements in most areas. Conductance 0.14. Single-faced Type C with blanket insulation laid above is a superior installation. Conductance 0.07. Single layer of Type B, while not sufficient for winter FHA standards in northern areas, is excellent to take off summer sun load.

REYNOLDS Lifetime ALUMINUM BUILDING PRODUCTS

REYNOLDS METALS COMPANY, Building Products Div., Louisville 1, Ky. Offices in 32 Principal Cities

REYNOLDS REFLECTIVE INSULATION HAS A PLACE IN YOUR PLANS ... MAIL THIS COUPON FOR TECHNICAL DATA IN A.I.A. FILE FORM

Reynolds Metals Company, Building Products Division, 2003 South Ninth Street, Louisville 1, Kentucky

Please send me A.I.A. File Folder on Reynolds Aluminum Reflective Insulation.

Name ________________________________

Company Name ________________________ Title ____________________________

Address ______________________________

American Builder, October 1949.
See—yes, and try any of the Nine Clipper Models on your job, before you buy. Shipped on FREE TRIAL direct from your nearest Clipper Factory Branch … Order Today!

FREE TRIAL

Yes Sir, you can cut these materials FASTER—

- NATURAL STONE cut in 12 SECONDS
- VITRIFIED PIPE cut in 18 SECONDS
- GLAZED TILE cut in 21 SECONDS
- GLASS BLOCK cut in 8 SECONDS
- ROOFING TILE cut in 14 SECONDS
- CONCRETE BLOCK cut in 19 SECONDS
- FIRE CLAY BRICK cut in 4 SECONDS

Only with Clipper do you get that smooth, sensitive cutting performance and why… because your Clipper has the "Multiple Cutting Action", Adjust-A-Cut Control, Automatic Tilt Pressure Equalizer, and the "Tangle-Free" Conveyor Cart. Add up these features and you have Clipper—original masonry saw. Every cut, single or straight—simple or intricate, made faster, more economical, and in line with any of the NINE CLIPPER MODELS.

When Dust is a problem choose the model HD for the DUSTLESS (wet) or wet cutting even next to intricate machinery. Tear off the coupon …NOW… for full details on FREE TRIAL.

FREE TRIAL, Send TODAY information on the FREE TRIAL Offer and complete literature and prices on the NINE Clipper Masonry Saws.

NAME _______________________
COMPANY ____________________
STREET _______________________
CITY _________________________
STATE _______________________
ZONES _______________________

CLIPPER MANUFACTURING CO.
2808 WARWICK, KANSAS CITY 6, MO.

SOLD DIRECT... from Factory to User
**A NEW TYPE MIXING BOARD**

**DRAWERS:** The modern kitchen cabinet of today is arranged to include space for every known item in the storage of utensils and the preparation of food. The sketch indicates a drawer located directly under the counter which is designed for the storage of cook books and index file card cases. This drawer would have a division in the center so that books and file case would be separate. File case to be of a size to accommodate 3x5 cards used for loose recipes. Depth of drawer determined by size of books.

**UTILITY BRACKET:** To meet the need for a place on which to secure hand operated meat and vegetable grinders, a small steel angle iron is screwed to the end of wood counter top. Size of angle is 1½x1½x3x¾ inches. It is secured onto the end of counter so that top of angle is flush with top of counter. In the event the counter top is of tile, then screw a wood block on top shelf of angle. This raises the level of the shelf flush with counter. Angle is fastened to counter with two No. 12x1 wood screws. Submitted by Mrs. R. E. Hill, Berkeley, Calif.
**Success Story**

The distribution of Armstrong's Cushiontone through lumber dealers has opened up broad new markets for builders and contractors. All over the country they are finding out that Cushiontone is profitable to sell and install. Cushiontone is easy to sell, too, for it's a fine product.

Made of sturdy fiberboard, each square foot of Cushiontone is drilled with 484 holes. These holes absorb as much as 75% of the sound that strikes the ceiling. Paint won't clog them so Cushiontone can be repainted when necessary without loss of acoustical efficiency. This means many extra years of service.

Ceilings of Cushiontone are both attractive and practical. The surface and bevels have a two-coat white paint finish that reflects light evenly and is easy to keep clean. Installation is fast and economical. Cushiontone can be nailed to wood furring or cemented to any sound, level surface with Armstrong's Acoustic Cement. No special tools or skills are required on most installations.

Many businesses and homes in your area are active prospects for Cushiontone installations right now. For complete information about Armstrong's Cushiontone, see your local lumber dealer or write Armstrong Cork Company, 1610 Stevens St., Lancaster, Pa.
TEXOAK FLOORING

lays straight, stays straight

BUILDERS PREFER BEAUTIFUL TEXOAK FLOORING FOR THESE REASONS:

1. TEXOAK FLOORING is scientifically kiln dried.
2. TEXOAK FLOORING is precision machined in one of the nation's most modern flooring plants.
3. TEXOAK FLOORING is carefully and accurately graded.
4. TEXOAK FLOORING makes the ideal flooring whether you are building one house or a thousand.

For further information, see your distributor or write for our free booklet.

TEXOAK PARQUET FLOORING
Interlocking tongued and grooved floor blocks of beautiful kiln dried oak, 9" x 9" x 25/32". Write for free sample. No obligation.

TEXOAK STAIR TREADS
These beautiful glued warp-proof Texoak stair treads and risers are of fine quality. All your customers will like the rich texture of the wood.

TEXOAK THRESHOLDS
Scientifically kiln dried and machined to a beautiful finish, Texoak thresholds are made under same specifications as our Texoak Flooring.

TEXOAK FLOORING COMPANY
CROCKETT, TEXAS

Please send me the complete story of Texoak Flooring including the new booklet on "How to make flooring profits through proper storage and grading."

Name:
Address:
City State:

American Builder, October 1949.

Catalogs and HOW-TO-DO-IT INFORMATION


636—“LIGHTING FIXTURE DIGEST”—is a convenient reference catalog of lighting fixtures prepared by the Solar Light Manufacturing Co., 1357 S. Jefferson St., Chicago 7, Ill. Included are drawings showing design and cross-sections, accessory lists and general information.

637—"I SEE A DREAM OF A KITCHEN"—is a folder issued by the Morton Kitchen Cabinet Division, Morton Manufacturing Co., 5125 W. Lake St., Chicago 44, Ill. The folder contains illustrations and descriptions of sinks, base and wall cabinets, appliances and other kitchen equipment and carries out the theme of developing a modern kitchen by adding work centers separately.

638—STEEL WINDOWS AND DOORS—“Fenestra Stock Products,” 28-page catalog, illustrates and describes steel windows and doors complete with hardware. Installation details, typical applications and stocktypes and sizes for residence steel casements, including storm windows and screens, basement and utility windows are shown. Issued by Detroit Steel Products Co., 3101 Griffin St., Detroit 11, Mich.

639—“YOUR GUIDEBOOK TO HAPPY HOME-BUILDING”—Attractively finished 20-page brochure with four full color photographs and 67 black and white pictures describes “Enchanting Homes of Western Pines.” Intended for use by prospective home builder or remodeler, booklet shows interior woodwork installations of Idaho White pine, Ponderosa pine and Sugar pine. Western Pine Association, 510 Yeon Building, Portland, Ore.

640—THIRTY-THREE ITEMS OF GAS COMBUSTION EQUIPMENT—are shown in Condensed Catalog 292 of the Bryant Industrial Division, 1020 London Road, Cleveland 10, Ohio. Capacity and dimensional tables for combustion assemblies, gas-air and air-gas mixers, blowers and boosters, burner types, pilot and ignition devices, controls, valves, regulators and other accessories are illustrated and described.

641—HARDWOOD BLOCK FLOORS—Series of five full-color booklets issued to dealers wishing to promote Bruce flooring shows professionally designed room settings with hardwood block floors and conventional hardwood strip flooring. One piece features factory finished flooring. E. L. Bruce Co., Box 397, Memphis 1, Tenn.

642—COMPLETE LINE OF REGISTERS, GRILLES, SCOOPS—36 page catalog includes section entitled “Outlet Sizing and Engineering Data,” and describes new product called “Grille Cores.” Complete line of products described includes a Deflectaire outlet series, ventilating grilles for doors and walls, residential grilles for wall and baseboard, and gravity heating series. Sizing and engineering data. Stewart Manufacturing Co., Inc., 610 Bloomfield Ave., Bloomfield, N. J.

(Continued on page 150)
Because Wal-lite is a building material, we have directed our sales and distribution policies for the greatest possible benefit to Contractors, Builders and the Skilled Craftsmen in the building industry. That's why Wal-lite is sold through Lumber and Building Material Dealers exclusively.

This opens the door for you to have the first opportunity at getting the business that rightfully belongs to you.

Back of this is Wal-lite's high quality and beauty... essential requirements for easier selling and complete satisfaction to your customers.

Large Volume of Wall Panel Business to Continue

The pent up demand for new building and remodeling will continue and almost every job creates a use for Wal-lite. Kitchen and Bathroom jobs alone mean extra profits with Wal-lite Decorative Wall Board and its many other uses will pyramid into thousands of dollars of profitable business for you.

We'll Help You...

A quality product is the first step to successful selling and easier installing. Wal-lite has that quality... plus the beauty that creates desire to buy. Wal-lite's five basic colors and white are selected to meet at least 90% of your customers' preferences. Our fast delivery service assures ample supplies through your dealer and he can supply you with samples and literature that will help you sell the jobs.

Manufactured by...
WALLACE MANUFACTURING CO.
10th and FAYETTE • NORTH KANSAS CITY, MO.
“LAYTITE”
Maple and Birch
FLOORING
The World’s Finest
— Bar None

EASED EDGES
NAILING GROOVE

Write for illustrated 75th Anniversary Booklet

CONNOR LUMBER AND LAND COMPANY
MIXED CARS—Northern Hardwoods, Pine and Hemlock

PHONE No. 3
Teletype No. 26
MILLS: Laona, Wisconsin and Connorville, Michigan

Behind The Mills—The Connor Timber Stands

Catalogs

643—COMPLETE LINE OF TOOLS—80-page catalog No. 20 issued by Red Devil Tools, Irvington 11, N. J., incorporates seven sectional divisions devoted to glaziers’ and painters’ tools, wood and other hand scrapers, paint conditioners, floor polishers, sanders and edgers, and hardware specialties and machines. Several “How-to-Use” pages.

644—“TEN WAYS TO HEAT YOUR NEW HOME”—24-page guide discusses all types of fuels, including solar energy, and all types of heating systems in popular use throughout the country. Illustrated with simple diagrams. Minneapolis-Honeywell Regulator Co., 2753 Fourth Ave. So., Minneapolis 8, Minn.

645—FARM BUILDING CONSTRUCTION DETAILS—Over a hundred detail drawings covering everything in modern barn building practices from concrete manger forms to laminated arch rafters are presented in clear, easy to follow drawings in “Farm Building Construction Book No. 116” issued by Starline, Inc., Dept. 116, Harvard, Ill.

646—RUBBER TILE—“How to Sell, Install and Maintain Wright Rubber Tile” is title of 24-page informative catalog issued by Wright Rubber Products Div. of Wright Manufacturing Co., 5205 Post Oak Rd., Houston 5, Texas. For distributors, dealers, architects, builders, contractors and building managers.

647—SCAFFOLDING—“Waco, The Scientific Scaffolding” is title of 12-page catalog issued by Wilson-Albrecht Co., Inc., 3565 Wooddale Ave., Minneapolis 16, Minn. All-steel, all-welded adjustable scaffolding for residential work is described and illustrated, as are new safety steel stringers and scaffold jacks.

648—TUBULAR STEEL SCAFFOLDING AND EQUIPMENT—Two-color catalog illustrates complete line manufactured by Bil-Jax, Inc., Archbold, Ohio. Included are specifications on maintenance trestles, ladders, ladder jacks, plasterers’ scaffolds, high tower and standard tower scaffolding, and wide variety of accessories.
Johns-Manville PANELS and PLANK
are better because they have these unique advantages:

**Improved Glazecoat finish...**

For years the Glazecoat finish on Johns-Manville Ceiling Panels and Wall Plank has helped to make these Insulating Board products pre-eminent in their field. Now, through research and development, J-M Panels and Plank are available with a new and improved Glazecoat finish that is smoother, harder, and more beautiful than ever. Accidental smudges easily removed with an ordinary art gum eraser.

**Pre-decorated in soft pastel colors...**

Beautifully finished at the factory in a variety of soft pastel colors, the materials require no further decoration. They are ready-to-use when installed, but may be painted if desired, with either oil or water paint. The Glazecoat finish eliminates the need of a primer.

**Lightning Joint conceals all nails!**

This J-M feature speeds alignment and offers the important advantage of concealed nailing. No exposed nailheads to mar the beauty of wall or ceiling. Beveled edges provide a neat “V” groove at the joints. Write for new brochure on J-M Decorative Insulating Board.

Johns-Manville, Box 290, N.Y. 16, N.Y.
E. L. Randel Joins Red Cedar Shingle Staff

E. L. Randel has joined the staff of Red Cedar Shingle Bureau field representatives, according to an announcement from Bureau headquarters.

Randel is a native of Texas and will serve the association in the Gulf Coast and Southwest territories, including California. One of his main duties will be assisting lumber dealers merchandise red cedar shingles.

Apartments (Continued from page 83)

General Electric refrigerators and steel cabinets. Wedgewood ranges are provided. Stainless steel drainboards and counter tops are used. Bathrooms have 2,000 watt Thermidor heaters; floors are tile and tile is applied to height of 5 feet over tubs. Each bathroom has a built-in clothes hamper.

Each apartment has its own individual Payne forced air heater, thermostatically controlled, making it possible for tenants to set their own temperatures. An important feature is adequate storage space with sufficient room so that even trunks can be stored—right in the apartments.

Streets are paved, with roll curbs. All wiring is underground. Sunken garbage cans are provided. There are nine separate laundry buildings and also laundry facilities in some of the apartment buildings. Westinghouse automatic washing machines and Hamilton dryers are equipped with coin slots. The Telephone Company collects the 25 cent pieces to cover rent and service on this equipment.

The Hillsdale apartments will cover more than 25 acres and comprise 39 two-story buildings plus garages, carports and laundry buildings. The buildings, of frame and stucco, are built on a reinforced concrete slab foundation. Lumber comes from the Bohannon timber tract and lumber mills in Northern California. Heavy redwood shakes are made in the firm's own mills.

The location is ideal—close to the Hillsdale station and to a main highway. The project is part of Bohannon's program for the development of 800 acres in this locality. More than 300 single-family homes in the $15,000 to $20,000 class have already been completed adjacent to the apartment site. A huge shopping center is in the planning stage and work is expected to start soon on the first units.
Powerful New Advertising Campaign
To Help You Sell More and More

BONDEX
Cement Paint

EVERYBODY'S DOIN' IT...
BECAUSE BEAUTIFUL BONDEX KEEPS WALLS DRY!

LET IT RAIN—LET IT POUR... MY BASEMENT WALLS WILL SEEP NO MORE!

NOW! OUR WHITE BRICK DREAM HOUSE IS REALLY WHITE!

AND IT WILL STAY THAT WAY BONDEX IS SWELL!

OUR OLD STUCCO HOUSE LOOKS LIKE NEW!

BONDEx KEEPS WALLS DRY!

MORE PEOPLE USE BONDEX THAN ALL OTHER CEMENT PAINTS COMBINED!

COLOR AND STYLE TO CONCRETE BLOCK!

ASBESTOS SIDING TOO!

MORE PEOPLE USE BONDEX THAN ALL OTHER CEMENT PAINTS COMBINED!

PROVIDED, OR AUTHORIZED, THE WHOLE 45-GROUP IDEAS.

BUT THE HOUSE ACTION ALONE WASN'T ENOUGH. THE AIR FORCE COULDN'T GET THE 800,000,000 UNNED FOR THE ENTIRE PROJECT.

RECOMMEND BONDEX—THE BEST-KNOWN CEMENT PAINT IN THE COUNTRY

And your customers will agree that it's the best cement paint, too! Remember, there's more BONDEX Cement Paint used than all other cement paints combined.

So, whether you want to preserve and beautify an exterior—or whether you want to keep walls dry—use BONDEX. You can be proud of your BONDEX jobs...and your clients will be proud of you because they know BONDEX.
— to tie in with the current trend of "more color in the home"— this board displayed in your paint department is a sure sales stimulator!

**SPECIAL OFFER** $51.00 Complete
**IMMEDIATE DELIVERY**

**YOU GET—**
- 1½ dozen of 18 different items of McKinney Genuine Forged Iron Cabinet Hardware —
  - **FOR FLUSH DOORS**
    - Throw Over Latch
    - Plate Latch
    - H Hinge
    - H and L Hinge
    - 6½' Heart Strap Hinge
    - 8½' Heart Strap Hinge
  - **FOR 4½" OFFSET DOORS**
    - Throw Over Latch
    - Plate Latch
    - H Hinge
    - H and L Hinge
    - 6½' Heart Strap Hinge
    - 8½' Heart Strap Hinge

(Regular price through Jobber of these items would be $54.50.)

- Also—a supply of consumer sales literature for counter or mail use.
- And—National Advertising to help build demand for McKinney Forged Iron Hardware.

A timely, practical merchandising idea for quick, easy, profitable sales of the authentic McKinney Forged Iron Cabinet Hardware.

**ORDER FROM YOUR JOBBER—OR SEND THIS COUPON**

McKinney MANUFACTURING COMPANY
1400 Metropolitan St., Pittsburgh 12, Pa.

Please ship through Jobber indicated below McKinney Hardware kit or kits as checked:
- $77 with Pastel Green Board at $51.00
- $78 with Knotty Pine Board at $51.00

<table>
<thead>
<tr>
<th>Firm Name</th>
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</thead>
<tbody>
<tr>
<td>Address</td>
</tr>
<tr>
<td>State</td>
</tr>
<tr>
<td>Name (individual)</td>
</tr>
<tr>
<td>Title</td>
</tr>
</tbody>
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(Jobbers—To assure prompt delivery, please list two jobbers.)

American Builder, October 1949.

**Builder-Salesman**
(Continued from page 109)

are prominently posted on the bulletin board. Humorous names were given to the crews to add to the fun. Prizes consist of wearing apparel, gasoline, and other useful items. All men were provided with jockey caps.

During the week half the sales force is stationed at strategic points throughout the tract where they can keep incoming traffic in sight and talk to those who stop at the models; the other half is following up leads and creating new prospects. On Sundays all the regular force plus the dozen extra men are in the tract. The men are instructed to avoid any appearance of high-pressure work and not to be too abrupt in approaching prospects. Generally they do not accost them until they have gone through one of the models and perhaps have indicated their interest by some remark to a hostess or a friend. They make every effort to get the names of prospects. Failing that, they take their auto license numbers so that they can send literature. This is on theory that anybody who takes his own time to visit a housing development must have some interest in housing—now or later.

The company uses many methods to obtain leads for the men to follow during the week. When a salesman sells a house he goes to the reverse telephone book and gets the names and addresses of ten or twenty men in the neighborhood of the buyer and sends these people a return postcard offering them a free illustrated booklet entitled "How To Own Your Home The Easy Way." Each person who buys a home is asked to fill in a "Certificate For Nursery Stock" on which are spaces for the names of ten people who may be interested in buying homes—and the owner then is entitled to receive ten shrubs, trees or plants free. Later the same owner can earn a box of fine stationery imprinted with the name "Panorama City" by furnishing three additional names. These leads plus those secured on the tract keep the men busy during the week and result in many sales.

Another interesting procedure instituted by Burns is a careful investigation of all FHA rejects. He has found that frequently information about the resources of a family can be uncovered which will lead to acceptance by FHA after they had previously turned the applicant down. As a matter of fact, 31 separate sales have been saved in this manner during the last few months.
GIVES YOU MORE VALUE PER DOLLAR THAN ANY OTHER FLOOR

From the standpoint of wear, Johnson Rubber Tile is the most economical floor you can buy. It takes a beating other floors could not withstand, resists scuffing, denting, roughest usage... yet lasts practically forever, retaining its beauty all the time.

Unlimited patterns can be accomplished from the many charming plain and marbleized fade-resistant colors.

Resists stains, has no pores to catch dirt and grit, is easy to keep spotlessly clean.

Cushions and silences footsteps, lessens fatigue and weariness. Easy to apply.

Special features include diagonal tiles, and custom inserts, tiles with die cut centers, polka dots and stars which may be readily removed and other colors inserted.

JOHNSON GREASE-PROOF TILE

Impervious to ordinary grease, oil, petroleum, animal fats and citrus juices. Unaffected by ordinary acids and alkalies. Ideal for commercial kitchens, restaurants, industry, auto showrooms, bakeries, filling stations, etc.

Dealers Throughout America! Distributors!
A few choice territories still open. Write for details.

—OTHER PRODUCTS INCLUDE—
STAIR TREADS
VINYL PLASTIC SET-ON-BASE COVING
RUG CUSHION

Johnson Industries, Inc.
359 McPherson Highway • Fremont, Ohio

PLEASE SEND LITERATURE ON JOHNSON RUBBER TILE
Here's an easy way to get new essential information that will help you increase your income. Every volume a standard work by leading authority. Remember—it's the informed builder who is the successful builder.

**ESTIMATING**

1. **THE BUILDING ESTIMATOR'S REFERENCE BOOK and Vest Pocket Estimator (not sold separately).** By Frank R. Walker. Most complete estimating and reference book. 1,687 pages, 800 illus., $10.00

2. **SIMPLIFIED CARPENTRY ESTIMATING.** By J. W. Wilson and Clell M. Rogers. Basic text with handy tables. $3.00

3. **THE BUILDING TRADES HANDBOOK.** Ready reference on building subjects. $1.75

4. **CONTRACTOR'S MATERIAL LIST.** A 10-column take-off form for complete material listing. $1.00

5. **SPECIFICATIONS.** Full set of house specifications, spaces for typing details. $0.50

**CARPENTRY AND BUILDING**

6. **HOUSE CONSTRUCTION DETAILS.** Compiled by Nelson L. Burbank. Detail drawings, photographs and text cover every step in house construction. $4.50

7. **DON GRAF'S DATA SHEETS.** Thousands of simplified facts about building materials, planning, and construction. $8.00

8. **PRACTICAL JOB POINTERS.** More than 850 tricks of the trade from American Builder's How-To-Do-It Department. $4.00

9. **ARCHITECTURAL GRAPHIC STANDARDS.** By C. G. Ramsey and H. R. Sleeper, A.I.A. Structural detail drawings for all types of buildings. $8.50

**THE STEEL SQUARE**

10. **FRAMING GUIDE AND STEEL SQUARE.** Practical handbook explaining shortcut methods of framing. $2.00

11. **STEEL SQUARE POCKET BOOK.** By Dwight L. Stoddard. Illustrated and worked-out problems of laying out rafters. $1.25

12. **SIMPLIFIED ROOF FRAMING.** By J. Douglas Wilson and S. O. Werner. New edition of a standard text on roof framing. $2.00

13. **SIMPLIFIED DESIGN OF ROOF TRUSSES.** By Prof. Harry Parker, M.S. Basic design principles of structural members. $3.25

14. **STAIR BUILDING.** By Gilbert Townsend, S.B. Illustrated explanation of design and construction of stairs. $2.50

**PLAN BOOKS**

15. **BLUEPRINT PLANS from American Builder.** Includes 12 completely scaled drawings of modern houses from which local costs can be estimated. $1.00
BOOK ORDER SERVICE

16. AMERICA’S BEST SMALL HOUSES. Excellent photographs and descriptions of 40 new low-cost homes. $3.35
17. HOUSES FOR GOOD LIVING. By Royal Barry Wills. A.I.A. Photographs and floor plans of 34 fine homes by a leading architect. $4.00
18. DUPLEX AND APARTMENT HOUSES. By J. W. Lindstrom. Pictures and plans of 35 duplexes, 16 apartments in most popular styles. $1.00
19. YOUR HOME IN BRICK. Complete information on brick houses, with many shown in full color. $1.00
20. SUNSET WESTERN RANCH HOUSES. Thorough pictorial description of the California ranch house. $3.00
21. CABINS, COTTAGES AND SUMMER HOMES. By B. S. Mason and F. H. Kock. Full instructions for building vacation homes. $2.50
22. SUNSET CABIN PLAN BOOK. Popular book on cabins and cottages. $1.50
23. PREMIER BOOK OF GARAGE PLANS. Full-scale blueprints and pictures of garages. $ .50

HEATING AND PLUMBING
24. MODERN METHODS OF HOME HEATING. Standard systems of heating homes and small buildings. $ .50
25. HOW TO DESIGN AND INSTALL PLUMBING. Describes modern plumbing practice. $2.50
26. STANDARD PLUMBING DETAILS. By Louis J. Day. Drawings showing connections required and how they fit in plumbing installations. $7.00

PAINTING AND DECORATING
27. PRICE GUIDE. By the Painting and Decorating Contractors of America. $1.25
28. PAINTING AND DECORATING CRAFTSMAN’S MANUAL. Sponsored by the Painting and Decorating Contractors of America. $2.00

BRICKWORK AND MASONRY
29. HANDBOOK OF BRICK MASONRY CONSTRUCTION. By John A. Mulligan. For mason contractors, estimators and construction engineers. $5.50
30. MASONRY SIMPLIFIED, Vol. I. By J. Ralph Dalzell and Gilbert Townsend. Complete text on concrete, brick and tile work. $4.50
31. MASONRY SIMPLIFIED, Vol. II. Practical construction details, including glass blocks. $5.00
32. DESIGN OF REINFORCED CONCRETE STRUCTURES. By Dean Peabody, Jr., M.I.T. Fundamentals of structural design in reinforced concrete. $5.50

ELECTRIC WIRING
34. ELECTRICIAN’S DATA. Pocket-sized handbook of data sheets and wiring diagrams. $1.00
35. WESTINGHOUSE HOME WIRING HANDBOOK. By A. Carl Bredahl. For planning wiring of moderate-priced homes. $1.00

MISCELLANEOUS
36. HOME BUILDERS MANUAL FOR CONTRACTORS. Useful material brought together in 3-ring binder for contractors. $5.00
37. PRACTICAL ACCOUNTING AND COST KEEPING FOR CONTRACTORS. $3.00
38. BOOK OF SUCCESSFUL FIREPLACES. How to construct indoor and outdoor fireplaces. $ .50
39. THE SLIDE RULE. By R. T. Strohm and Archibald DeGroot. How to solve problems with several types of slide rules. $2.00
40. BUILDERS’ DATA. Handy loose-leaf sheets and blank forms for keeping data. $1.00
41. LUMBER DATA. Another in the Letax series of pocket-size data books. $1.00
42. DICTIONARY OF TECHNICAL TERMS. By F. S. Crispin. Definitions of Technical words used in building. $3.25
43. MILLWORK. Includes line drawings of standard trim. $2.80
44. MATERIALS AND METHODS OF ARCHITECTURAL CONSTRUCTION. By Charles M. Gay and Harry Parker. Pressed wood, plastics, structural glass and other new materials. $6.50
45. BUILDING AND CONSTRUCTION DESIGN AIDS. Letax Data Sheet book containing a wide range of valuable construction information. $1.00

USE THIS HANDY ORDER FORM

| Book Service Department, American Builder |
| Simmons-Boardman Publishing Corporation |
| 30 Church Street, New York 7, New York |

Enclosed find remittance (plus 10c per book to cover mailing costs) of $.......................... for which please send numbered books circled below. Any book that is not satisfactory may be returned within five days after receipt for refund.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18
19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45

Name..............................................
Address....................................
City................................. Zone.... State..........
A.B. 10-48
New School Design Affords Increased Natural Light

In keeping with modern principles of design, provisions for an extensive amount of natural light

has been made in a rural elementary school recently completed near Ithaca, Neb.

Fenestra intermediate windows, manufactured by the Detroit Steel Products Co., Detroit, Mich., were used on the building's solid window frontage.

The building was designed by Clark and Eneren, Lincoln, Neb., architects, and built by the Wilson Construction Co.

Aggressive Selling

(Continued from page 91)

design problems. The Griffin slogan is: "The Firm That Sells 'Everything for the Home—But the Girl.'"

In addition to the main lumber yard, sawmill and millwork plant at Hudson Falls, a branch store in the main business section of Glens Falls stocks all appliances, wallpaper, paints and other home needs, along with lumber and millwork. A retail store and display room in the principal business section of Hudson Falls handles electrical and gas appliances plus a huge volume of liquefied petroleum business for that area. Coal, coke and fuel oil are handled in another separate establishment in Hudson Falls. A Branch office and small display room are maintained in Corinth. These display rooms and appliance stores were first established in the early thirties, and have proved eminently successful.

Present officials of the 100-year-old Griffin Lumber Co. are: L. B. Griffin, president and general manager; O. T. Griffin, vice president and manager of the Glens Falls store; Charles Kellogg, secretary and treasurer; M. E. Smith, sales manager.

In a nation-wide contest sponsored by Photoplay magazine last winter, the first award winner was presented with a completely furnished E-E house built under supervision of the Griffin Lumber Co. in Warrensburg, N.Y.
A GREAT PROFIT MAKER!

FALL WINTER SPRING and SUMMER

IT'S — SO — SIMPLE — TO CHANGE — THE — SECTIONS TO — SUIT — THE — SEASON

— Service The Year Round —

3 PONDEROSA PIECE PINE

SNO-FLY Combination STORM SASH AND SCREEN UNIT

The top storm section slides into position on metal guide strips attached to sides of window frame. Positioning clips hold storm section firmly in top position.

ADVANTAGES
Easily and quickly installed from the inside of house while top sash of window is closed and bottom sash is fully raised. Stiles on top storm sash are grooved for metal sliding guide strips which, with positioning clips, hold the top storm sash or section firmly in position.

THE UNIT CONSISTS OF
one Top-half storm section—one Bottom-half storm section—one bottom half screen section—and operating hardware.

HARDWARE
All regular operating hardware is furnished including guide strips, positioning clips, spring strikes, coil springs, finger pulls, locking hook and eye and all nails and screws—Plus a pull (lift or handle) for top storm section, two pulls for bottom storm section and one pull for screen section. Ventilating adjuster may be obtained from local lumber dealer.

Above illustration shows top and bottom storm sections in position. No hardware is exposed or visible from the outside.

This illustration shows the screen section and also locates position of pulls on all three sections.

IT'S CARRIED IN STOCK IN POPULAR MODULAR SIZES

SEE YOUR LUMBER DEALER FOR COMPLETE DATA

HUTTIG MFG. CO.

MUSCATINE, IOWA
HYDROCRANE CUTS PRE-FAB ERECTION TIME 60%

The Hydrocrane eases a 700-lb. section of a Page and Hill home into place. To avoid damage, sections must be handled with care — here the Hydrocrane's extremely precise control is a big advantage.

A truck-mounted Bucyrus-Erie Hydrocrane has cut the time for unloading and erecting pre-fabricated homes from 6 or 7 hrs. down to only 2 1/2 hrs. — that is the experience of Petroleum Equipment Co., Milwaukee, Wis., sub-contractor erecting Page and Hill homes. Previously, a motor transport tractor equipped with chain hoist hauled sections from trailer to foundation. The tractor couldn't operate on uneven ground, and much of the heavy work still had to be done by hand.

Here's what the foreman said: "After a couple of hours of bulling these sections around, my men were completely shot. Now the Hydrocrane eases the sections into place; men just steady them. With the extension jib, the crane doesn't have to move an inch. It's the sweetest rig I've seen for this work!"

Petroleum Equipment also uses its fully hydraulic crane for steel erection, hoisting roofing material, digging house connections, setting oil tanks and for yard work. Hydrocranes are built in two sizes, 2-ton, 3 1/2 yard and 3-ton, 3 1/2 yard.

BUCYRUS-ERIE HYDROCRANE DIVISION
SOUTH MILWAUKEE, WISCONSIN

FILL IN THE COUPON FOR FULL INFORMATION

BUCYRUS-ERIE HYDROCRANE DIVISION
SOUTH MILWAUKEE, WISCONSIN

I want the full story on the Hydrocrane

Name: ____________________________
Company: ________________________
Address: _________________________
City: __________________ State: _______

American Builder, October 1949.

How Builders Sell...
(Continued from page 127)

other leading newspapers the following Sunday and drew over four thousand people on Sunday alone.

"The momentum carried for six weeks, and over twenty thousand people visited the home; and we realized over thirty home sales as a direct result. There was, of course, word of mouth follow through; and as a result, we have sold over 75 of the homes and are well ahead of completion.

"We are also attempting what we feel to be a change in real estate radio advertising. We have a five minute morning radio program scheduled to appeal to the housewife, which features a young lady with a deep speaking voice who is capable of delivering a successful sales message. She personalizes the 'home buy' of the day offering description, location, decorative details, cost, down payment and monthly payment. In addition to the direct selling, we also make requests for listings. We have been most successful in results—in sales and listings; and perhaps, best of all, in attracting new clients who have come to us after hearing the radio show.

The vast coverage and more personalized contact with the public that radio advertising gives should be taken into consideration by builders and realtors contemplating advertising."

A BATTLE CREEK, MICH., builder describes these essentials:

"In the first place, we feel it is most essential in selling a house for the salesman, himself, to be sold on it. He should be well versed in its many advantageous features and confident of his claims in talking about such things as the heating system, the weight and durability of castings, the capacity of the furnace in B.T.U.'s, plus the fact that it is properly installed; the savings realized because of proper insulation, the weather resistance of type of roofing used, the compact or convenient arrangement of rooms. In fact, each item has some outstanding feature or quality that makes it especially desirable, and which should be emphasized when talking to a prospective customer. This not only creates a natural desire for ownership, but builds up in the prospect's mind the fact that our salesman knows his business, understands what he is talking about and this is a very valuable result of the sales talk, having far-reaching effects.

"As for advertising, we use the daily newspaper, which we feel is (Continued on page 162)
New American Super 8 Sander cuts more than Two Standard 8's!

SAYS BEN W. KENNEY
KANSAS CITY FLOORMAN

We have just finished another day at the Lucerne Hotel where we have a 35,000 sq. ft. job.

"I just wanted to tell you about the performance we are getting with our new American Super Eight. We had a 55 gal. barrel completely full of dust in 32 hours operation. We are using two standard eights in another part of the building and they are not cutting together as much as the Super 8. Some of these floors are extremely rough but no open coat nor diagonal cutting has been necessary. In fact, there is even little lapping. We have set the drum speed at 2600 r.p.m. and run continuously at this speed.

"Incidentally this fast cutting has been done with the new American Black Demon resin bond. Within thirty days I hope to replace five standard eights with five super 8's!"

Ben W. Kenney, veteran floorman of Kansas City, Mo., started years ago as a horseman in Wyoming. Then he switched to floor sanding and has steadily expanded this business. Shown above is the line-up of American machines and equipment used by the Acme Floor Co., operated by Ben Kenney and Forest C. Kenney...a line-up that means profit for the floorman!

Get twice the speed...lower costs...and more profit in floor sanding with America's sensational new Super 8! Send coupon today for more details!
STEEL WINDOWS

Builders and home owners both appreciate VENTO quality. It's a line of steel casement windows that will bring you satisfied customers...and business-building prestige...for the years to come.

The Builder likes to buy windows that are completely assembled, ready to install...that are sturdyily constructed of heavy section steel to stand rigidly in position during construction, and finally operate smoothly.

The Home Owner likes the moderate price and enduring beauty of VENTO Windows...less costly than wood construction, better in quality than most steel windows. Fine quality workmanship down to the smallest detail has real significance to the man making a "life-time" decision.

Other VENTO features are: heavier construction than other steel windows of comparable price; electrically welded throughout; easily installed screening or storm sash; roto hardware, and locking device.

Write for price list and catalog...today!

VENTO STEEL PRODUCTS COMPANY, INC.
247 Colorado Avenue
Buffalo 15 N. Y.

How Builders Sell...

(Continued from page 160)

necessary in order to keep our name before the public. Then for a special sales campaign, occasionally we put on an open house event, inviting the public and having representatives there to answer their questions. We feel this is quite inexpensive and a very satisfactory method of advertising. Furnace dealers, appliance dealers and representatives of stores handling linoleum, tile, etc., are always ready to cooperate in a program of this kind and we have found it profitable not only in making immediate sales but in building up the prestige of our company."

** **

LOS ANGELES, CALIF., builder sells homes with these ideas:

"We had our decorating staff furnish one of our model homes in second hand furniture for less than $1,000. It turned out to be amazingly attractive and we advertised it in the local papers and circulated pamphlets by placing them in parked cars and in apartment houses in the vicinity of the project. Huge crowds were attracted and excellent results were obtained.

"A community playhouse, we believe, is the greatest sales idea that we have used and is a step in the right direction. It can be used on a project of 300 homes or more and consists of building a club house, swimming pool, baseball diamond, wading pool for the youngsters, barbecue, etc., for the exclusive use of home purchasers. Prorating the cost among all the houses, it would cost the builder not more than $100 per house which can easily be absorbed in the sales price. By properly advertising the idea, people come from miles around to see what it is all about. Complete facilities are free of charge to all property owners and a community organization is formed in which membership is also free to each home purchaser. We have learned that the association is able to collect small monthly dues and maintain its own facilities, or in some cases the county or city park departments accept the facilities and maintain same for a small charge, which is added to the tax bill.

"In addition to the sales angle, we believe that builders would be doing a fine thing for the community if they would install such facilities. It would be a great step forward in helping to keep the kids off the streets and in combating juvenile delinquency.

"We arranged with one of the in-

(Continued on page 164)
Your buyers can see the difference at a glance
the SCHLAGE "Long Backset"* 

First impressions—acceptance—sales for your houses start at the front door, even before the prospect sees the interior.

The Schlage "long backset" is different—individual—exclusive. It permits placing the lock 5" away from the door edge—allows the use of large, eye-catching escutcheons—gives distinction to the entrance of any house.

Would you like to see the lift the "long backset" can give your homes? An attractive brochure illustrates new designs and entrance doors. Write Schlage Lock Company, 2201 Bayshore, San Francisco 19, California.

* "Long Backset"—formerly used only in luxury homes—now available in Schlage's standard residential locks—competitively priced. The same proven Schlage mechanism—the same simple Schlage installation.
IT'S EASY TO PUT SPARKLING NEW BEAUTY IN BATHROOMS

With its tasteful designs that combine lustrous chrome on solid brass with clear, sparkling crystal, Hall-Mack Crystalcrome adds a dramatic new touch to bathroom styling. It is fast becoming the choice of more and more architects, builders and contractors for fine bathroom accessories...accessories that are new in appearance, new in design, yet made for a lifetime of practical daily use.

Crystalcrome Accessories are available for all bathroom needs, from towel bars, soap dishes and paper holders to shelves, robe hooks, and toothbrush holders—and in regular wall and recessed types. If you have not received your copy of the new Crystalcrome Catalog, write today.

Crystalcrome Accessories are a part of the complete Hall-Mack line. Standardize on Hall-Mack—and know that in one line you can find accessories and cabinets that meet your most exacting requirements whether you're planning a millionaire's mansion or a low-cost housing project.

HALL-MACK COMPANY

1344 WEST WASHINGTON BOULEVARD, LOS ANGELES 7, CALIFORNIA
7455 EXCHANGE AVENUE, CHICAGO 49, ILLINOIS

American Builder, October 1949, How Builders Sell...

(Continued from page 162)

insurance companies to put group insurance into effect for the amount of the mortgage, to cover all purchasers in our tract. We gave them the first year's premium which cost around $60, and the mortgage was paid for the purchaser in case of death or total disability. In case of sickness or accident, the payments would be paid for a specified length of time. It was at the owner's option if he wished to continue the insurance after the first year. Strangely enough, this idea did not have any special sales appeal and we discontinued it. It seems that the public is more interested in seeing tangible values, although personally we feel that the insurance deal was a fine thing.

CRANSTON, R.I., builder says, "I tell people that during the course of a lifetime, they purchase three or four automobiles and if they figured out the loss and depreciation that they take on them, they could well afford several homes instead of just one.

"I also tell them that buying a home gives them and their family security, happiness and also a good estate to leave at their death.

"I also tell them what a wonderful feeling it is to own, instead of rent a place in this wonderful country of ours.

"I ask them why they even consider renting a home, when they can purchase one at a monthly payment which is no larger than their present rent. Should it be more, I show them exactly what amount of the payment is applied towards their principal on the mortgage, which proves to them that the interest, taxes, fire insurance and water does not amount to as much as their rent payments.

"I also tell them that they save their earnings and place it in a bank, the bank in turn, loans it to other people to enjoy and own their own home and give them security, so why not take their money and buy a home for themselves.

"I also tell them that they buy life insurance for protection and that the life insurance companies use their money and build homes and apartment projects and also loan it out on mortgages. Thus if they trust the companies to loan out their money as mortgages on real estate, why isn't it safe for them to invest it themselves in a home of their own.

"Also, that no matter what happens in this country, or any other country, whether there are good times or bad, or should the value of money change in this country, the

(Continued on page 166)
MEMO TO BUILDERS:

New Sound Film

"Install it right...with Marlite"

Now Available for Installation Training

30-MINUTE SOUND SLIDE FILM COVERS EVERY
STEP IN CREATING BEAUTIFUL MARLITE INTERIORS

...One good Marlite installation can get you ten!

It's new, ready to help you...the most practical training film you have ever seen! Step by step, in simple clear-cut pictures and dialogue, you'll see the correct Marlite application procedure for every kind of beautiful interior—in homes and all types of commercial installations. See how one customer-pleasing Marlite installation can lead to 10 more!

You'll want to see the film...So write us direct for complete information. We'll tell you about plans to enable you to see this program in an enjoyable and profitable meeting. Simply address Dept. 1003, MARSH WALL PRODUCTS, INC., Dover, Ohio, Subsidiary of Masonite Corporation.

PREVIEW of a few high lights
- The Job-Builder
- Proper Tools
- Start the Job Right
- Wall Preparation
- It's Easy When You Know How
- Tricks of the Trade
- The Complete Installation
There is available a Fully Guaranteed hollow core flush door

The PAINE REZO

Made entirely of wood, by the world’s largest producer of flush doors, this resin-bonded trouble-free door with the patented construction has been time-tried and time-proved by over three million installations in buildings of every type from coast to coast.

Rezo doors are now available to all dealers.

American Builder, October 1949,

How Builders Sell . . .

(Continued from page 164)

only thing that keeps its value is real estate.

"I also tell them that since the world has been created, men have fought for the privilege of being free and also for the security of their homes."

AN ALBUQUERQUE, NEW MEXICO, builder relates these experiences:

"The most successful selling method that I have found is newspaper display advertising, wherein an illustration of house with floor plan is displayed and with full detail as to price, down payment, FHA commitment, etc.

"Fundamentally, however, I believe that successful selling starts back at the beginning, which takes in such things as desirable location, restricted neighborhood, honest and faithful construction.

"Another fundamental, I think, which goes a long way in the successful selling of houses is judging the market. I believe we have definitely filled to a large extent the market for larger and higher priced homes. At the present moment I am starting a low-cost housing operation involving some 125 four room houses that I am going to be in a position to build and sell for $6,975. These houses will have $6,000 FHA commitment. They are of masonry construction, using pumice blocks, have flat roofs, with overhang, hardwood floors, a floor furnace and a carport."

MAGNA, UTAH, builder lists six points in selling homes:

"(1) We set up a model house in each subdivision fully decorated; adhere to its specifications and use the same fixtures and features in the rest of the subdivision so as to avoid any misunderstandings with future buyers. Progressive stages of construction are also pointed out to show sound building.

"(2) Our newspaper advertising is not misleading or exaggerated. Items listed in our advertising are: Footage of house; brick or frame; basement or basementless; With or without garage; number of rooms specifically stated. Down payment, monthly payments and complete loan costs. This eliminates many unqualified buyers and ill-feeling among misled veterans angered by unscrupulous advertising.

"(3) Our selling organization consists of a few of our regular tradesmen, carpenters, plumbers, painters, (Continued on page 168)
farmers, homebuilders and industry are asking for lumber that's

Farmers use "PENTA"-protected wood for barns, hen houses, culvert bridges, and fence posts.

Homebuilders appreciate and want "PENTA"-treated wood because it safeguards their investment. Also, "PENTA"-protected wood can be obtained with a water repellent which increases the wood's dimensional stability and its resistance to check.

In industrial and commercial building, the lower maintenance cost, longer life and greater salvage value of "PENTA"-treated lumber is becoming increasingly important.

Pentachlorophenol is the chemical that protects wood from decay and termites. Build with "PENTA"-treated wood and add to your reputation as a quality builder. Build with "PENTA"-treated wood and build greater customer satisfaction.

For information about where to get "PENTA" solutions and "PENTA"-protected lumber, write Dow, Dept. PE 39A.

THE DOW CHEMICAL COMPANY
MIDLAND, MICHIGAN
How Builders Sell...

(Continued from page 166)
e.g., who are selected and trained to meet prospective customers, and tell them what a nice job they are doing on our houses; thus we get the prospects talking with one another and feeling free to ask anything pertaining to quality and structural soundness of the house. You can readily see we are never without a salesman, and people feel that they are not being pressured by a salesman.

(4) Meeting personally as many prospective buyers on the subdivision as possible and spending enough time with each to create a feeling of sincere interest in his housing needs.

“(5) By far the best help comes from sending a definitely interested and qualified prospective buyer to a previous customer for verification.

“(6) At the time the contract is to be written, which I do personally, I request that any questions about extras or changes be discussed then, to be certain the expense is within the buyer’s understanding. A record of these items is then made before the contract is signed.

“Being sincere in the building and selling profession is the basis of these points.”

George Halvorsen Named Westwood Sales Manager

Appointment of George Halvorsen to the position of general sales manager was recently announced by the Westwood Manufacturing Co., Los Angeles.

George Halvorsen

Halvorsen, who has been active in the builders hardware industry for a number of years, recently left the Schlage Lock Co., San Francisco for which he had been assistant sales manager and had also served in sales, advertising and production posts. From 1939 to 1942 he was in Chicago as Midwest district sales manager for the San Francisco firm.

Sales of all Westwood products will be under his direction.
Pittco Awning Bars

- Pittco Awning Bars are the best that modern engineering skill, artistic taste and quality material can produce. They can be used with all types of awnings, and are adaptable to a wide variety of store front designs.

The extrusion method of producing Pittco Awning Bars assures utmost rigidity, clear, sharp profiles, and the rich, satin-smooth finish that indicates top quality.

Pittco Store Front Metal is available through all Pittsburgh branches and through leading glass jobbers from coast to coast. They will gladly advise you on the selection and installation of the proper Pittco Metal members for any application. Behind every Pittsburgh product and service, Pittsburgh research is constantly striving to help you solve architectural and building problems encountered in the field.

Pittco Store Front Metal
PAINTS • GLASS • CHEMICALS • BRUSHES • PLASTICS
Pittsburgh Plate Glass Company
EXPERIENCE—owner-experience in thousands of houses—has proved wood an ideal material for windows. For wood, with its natural insulating qualities, keeps rooms more comfortable by retarding the passage of heat and cold. Wood discourages condensation and frostng... wood provides an excellent bonding surface for all finishes... lastingly holds any decorative treatment.

EXPERIENCE, too, explains the widespread preference for windows of Ponderosa Pine. Easily workable, Ponderosa Pine permits precision construction in stock-design windows. This same workability, plus a wide selection of sizes and designs in all window styles, affords you unlimited fenestration planning. Ponderosa Pine windows are available toxic preservative treated in accordance with tested standards—added protection where staining, decay, insect attack or humidity are problems.

for friendly living

Ponderosa Pine
WOODWORK

Ponderosa Pine Woodwork
Dept. SAB-10, 38 South Dearborn Street
Chicago 3, Illinois

Please send me a copy of "Ponderosa Pine Woodwork For Today's Home" (Please print)

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

Send for your copy of this new book!
"Ponderosa Pine Woodwork for Today's Home" is a profusely illustrated booklet showing Ponderosa Pine windows, doors and other woodwork in actual room settings. Many illustrations are in full color. You'll find it worth while to keep a copy in your file as a source of ideas. Mail the coupon—there's no cost or obligation.

MONTHLY REVIEW
(Continued from page 67)

Slum reform provisions, tightening of zoning laws, fire prevention regulations, and elimination of nuisance fees are some of the other and equally important sections of the new code. A board of building standards and appeals has been established by city charter provision to administer and interpret the new code. The building commissioner becomes the top code enforcement officer with a greatly expanded staff of inspectors to aid in enforcement.

Dayton Builders Sponsor Conference on Housing

The Miami Valley Regional Housing Conference, the first of its kind to be held in the section, has been scheduled for Oct. 19 at the Miami Hotel, Dayton, Ohio, under the sponsorship of the Montgomery County Builders Association.

Frank W. Gortright, NAHB executive vice president, will open the meeting with a luncheon address. During the afternoon there will be panel discussions on various phases of building. Closing the activities will be an evening banquet, for which another prominent speaker will be engaged.

The association is making an intensive effort to create interest in the conference among chambers of commerce in Miami Valley cities.

The Montgomery County group's first fall general membership meeting was held Sept. 13, with the Land Title Guarantee and Trust Co. as sponsor.

The program will include a film entitled "The Story of a House" and movies of the April Builders Show taken by an associate member, George Zinner. There will be a panel discussion on "Heating the Low-Cost House."

Public Service Release Explains Verbal Contracts

A verbal contract to build a house, when made in connection with a written contract to purchase land only, cannot be held as legally binding, according to a public service release issued by the Chicago Metropolitan Home Builders Association.

Advising the public against the practice of entering into such verbal agreements when purchasing land for residential building purposes, the bulletin emphasized that the agreement to build must appear in the purchase contract. The purchaser was also advised to make certain that price, full plans and specifications, time house is to be built, and other pertinent details are outlined in the purchase contract.

Texas State Conclave Held in Houston

Representatives of all Texas chapters met recently at the Shamrock Hotel, Houston, in the regular fall conclave of the Texas Home Builders Association. E. P. Lambeth of Dallas is president of the state group.
FOR NORMAL HIGHWAY HAULING, conventional 2-Wheel-Drive Trucks, 118” wheelbase, give exceptional economy on gas, oil and tires... built to stand up and take it through years of satisfactory service.

Here is the truck in the light-duty field that hauls loads through to the job when tough going halts ordinary trucks. Four-wheel-drive traction makes the difference!

The sensational 4-Wheel-Drive 'Jeep' Truck hauls a full one ton payload off the road through deep-rutted mud, loose sand or gravel, over ice and snow. It climbs grades up to 48%. Six forward—two reverse speeds provide the right gear ratio for all road and load conditions.

With "go-anywhere" performance you get the economy of low weight (5300 lbs. GVW and 118” wheelbase) along with easy driving maneuverability. Buy this great truck at your Willys-Overland dealers—at terms that suit you best.

4-WHEEL-DRIVE 'Jeep' TRUCKS
Cut Hauling Costs
It's Easy to Sell the Door Home Owners Want!

GLIDE-AWAY LIFETIME GARAGE DOORS
MADE OF N-A-X HIGH TENSILE STEEL

THE ONLY DOOR WITH ALL THESE ADVANTAGES:

"Glide-Away" is the only overhead-type garage door made of N-A-X High Tensile Steel for 50% greater resistance to distortion and denting, and 4 to 5 times greater resistance to rust and corrosion. And look at the other features: One piece, all-welded construction for extreme rigidity. Edges are completely flanged to eliminate all sharp surfaces. Full recessing with only 2½ of headroom required. Space-saver, jamb-type hardware that provides smooth, gliding action without sacrificing interior space. Distinctive jamb-aligner and weather seal that assures perfect closure even for out-of-plumb openings; and easily-adjusted, spring-balanced mechanism that provides effortless operation. Yes, "Glide-Aways" are just what home owners want, because they're built for a lifetime of trouble-free service, good looks and utmost protection.

DESIGNED FOR QUICK, FOOLPROOF INSTALLATION

"Glide-Aways" are so simple to install that anyone can do it quickly and without special tools. Standard sizes include the popular 8' 6" x 7' door for wide, late model cars, in addition to 8' x 7', 8' x 7' 6" and 8' x 8'. Double size is 16' x 7'. Special sizes available up to 16' wide by 8' high. Prices are competitive.

Self-clinching Nail Proves Money Saver for Fastening To Non-Wood Sheathings

ES-NAILS, the new type of fasteners for attaching wood, asbestos, or asphalt shingles to gypsum and insulating sheathing, are proving to be valuable time and money savers for builders all over the country. Recently, arrangements were completed so the manufacturer now has nation-wide distribution. The supply of all sizes and types is plentiful.

The fastener is made from a strip of sheet metal, channelled at both ends and bent around a triangular bar.
Two lengths of concealed nails and two lengths of face nails in the ES-nail line fulfill requirements to attach wood, asbestos, or asphalt shingles to gypsum and insulating sheathing. Concealed nails are made in 1 1/2 and 2 1/4-inch lengths; exposed, or face nails, in 1 3/4 and 2 3/4-inch lengths.

ESNA emphasizes the fact that “ES-nails are a special nail for a special purpose,” and points out that

New Infra-Red Dried Dua-Laps have a harder finish . . . the most beautiful, uniform coating you've ever seen.

Dua-Lap Red Cedar Stained Shingles come to you pre-stained, thoroughly dry. They save time on application. Butted, squared, tapered perfectly for easy application, DUA-LAPS cover more area with fewer shingles, fewer nails and less labor because they can be laid with full 12" or 14" exposure. Ten colors.

Every inch of Red Cedar Dua-Laps contains millions of tiny air cells that seal out cold and heat, seal in room comfort. They withstand extreme temperatures without loss of insulation value, beauty or structural strength. Double coursing is the answer. Dua-Laps offer luxurious, deep horizontal shadows that give old and new homes that rich, "wide siding" effect at substantial savings. Use Dua-Laps on your next job.

Write for free color folder and name of nearest Dua-Lap dealer.
FLOR-EVER has the easiest upkeep—Its smoother, non-porous surface doesn't absorb dirt. It's spot-, stain- and alkali-resistant, grease- and water-proof. The mere swish of a mop leaves it sparkling-clean.

FLOR-EVER adds charm and beauty to every home—quiet and resilient to the step—it comes in a whole rainbow of bright, fade-resistant colors that go right through to the backing—blend well with all decors.

FLOR-EVER is economical—outwears other floor covering in the same price range.

FLOR-EVER is easy to install—it comes by the yard for quick, inexpensive installation. Create your own decorative patterns by using feature strips and borders.

FLOR-EVER is made of Vinylite Brand Plastics—a famous trademark teamed with products of outstanding success—a trademark advertised to the tune of millions of messages each year.

FLOR-EVER is nationally advertised—prospective home-owners see FLOR-EVER's full color national campaign in these key magazines—Better Homes and Gardens, American Home, House Beautiful, House & Garden, McCall's, Good Housekeeping and The Saturday Evening Post.
STRONGER, MORE DURABLE GARAGE DOORS AT LOW COST

...Installed by Thousands of Builders Every Month

Save Money 3 ways!

1. LOW FIRST COST—the result of standardization on 3 models—and large scale production concentrated in one plant. Strand is America's greatest garage door value!

2. LOW INSTALLATION COST—one piece construction and packaged hardware make this the easiest of all doors to install. No "factory-trained expert" needed.

3. LOW MAINTENANCE COST—as the result of rugged all-steel construction, galvannealing, and Strand dependability. Your customers will be happy with their Strand Doors!

Your customers are quick to appreciate the advantages of this "best seller" among garage doors:

The strength and durability of steel—that can't sag, warp, rot or shrink. Uniform steel sheets are milled to exact specifications—there's no absorption of moisture as with some other materials; the weight remains the same in wet or dry weather; this assures uniformly easy operation.

Strand Doors are sturdily built to meet conditions of shipping, delivery and handling. Welded construction is a feature—no screws or bolts to work loose.

These doors are galvannealed for rust resistance with a heavy galvanized zinc coat, plus high-temperature heat-treating that assures an excellent base for paint, without special priming coat.

There are 2 types of Strand Doors for 8' x 7' opening—Receding (track) and Canopy. Also a Double-Garage Door (Receding type only) that fits 16' x 7' opening, unobstructed by center post. Order from your dealer, or

MAIL COUPON FOR INFORMATION AND DEALER'S NAME

ALL-STEEL • GALVANNEALED • OVERHEAD

STRAND GARAGE DOORS FOR SINGLE AND DOUBLE GARAGES
Selected for Six
OF THE NATION'S LARGEST,
NEWEST MULTIPLE DWELLINGS

1. STUYVESANT TOWN
   New York City
2. PETER COOPER VILLAGE
   New York City
3. RIVERTON
   New York City
4. FORDHAM HILL
   New York City
5. PARKLABREA
   Los Angeles, Calif.
6. PARKMERED
   San Francisco, Calif.

HOLLOW STEEL
DOORS and FRAMES

The choice of wise investors

Cost less TO INSTALL!

Cost less TO MAINTAIN!

Outlasts THE BUILDING ITSELF!

Prompt Delivery Anywhere in U. S. A.

American Builder, October 1949

1949 Housing Act Explained


Operations authorized under the various provisions of the act—slum clearance, public housing, farm housing, and housing research—together with a summary of the act itself are included in the pamphlet.

Copies may be obtained from Government Printing Office, at 15 cents per copy.

Self-clinching Nails

(Continued from page 173)

2. For asphalt shingles on 3/4-inch sheathing: 1 3/4-inch, concealed type.
3. For asphalt shingles on 25/32-inch or 1-inch sheathing: 1 3/4-inch, concealed type.
4. For asbestos shingles on 3/4-inch sheathing: face nailing, 1 3/4-inch, exposed type.
5. For asbestos shingles on 25/32-inch sheathing: face nailing, 1 3/4-inch, exposed type.

When head nailing is desired in asbestos shingle application, the shingle may be hung with flat headed roofing nails. Regular asbestos face nails should be used for face nailing at stud points around window frames, and on the first course which is applied on the sill.

ES-nail construction, above all, does not require new or special building techniques or special tools. Standard construction practices are used throughout a job where ES-nails are employed. The fasteners are driven in with a shingling hatchet or carpenter's hammer, just like ordinary nails in regular shingling practice.

The unusual holding power of the ES-nail has been indicated in tests made on asphalt and asbestos shingles. When direct pull is applied, the shingle usually breaks first. Comprehensive tests, conducted by the civil engineering department of an outstanding Eastern university, have further demonstrated the holding power of ES-nails in various non-wood sheathing materials.

Because of its automatic self-clinching action, the ES-nail has also been found unusually effective in replacing broken asbestos shingles on completed houses where interior walls make it virtually impossible to reapply new shingles with the clip method originally used. It is equally possible, by this method, to shingle buildings on which some insulation sheathing was left uncovered—such as army barracks or farm sheds.
HERE'S A NEW, LOW-PRICED

Magic Chef

GAS RANGE with the

DIVIDED-TOP DESIGN THAT WOMEN PREFER!

The convenient working space arrangement of the new Series 1500 Magic Chef is just one of the features that is making it a popular range.

Although it is low-priced, the Series 1500 has many famous Magic Chef features, including the famous Red Wheel oven heat regulator, lifetime-guaranteed burners, full-size oven completely insulated with Fiberglas, and an easy-to-use smokeless broiler. This attractive range is just 36 inches wide and yet it will easily meet all cooking requirements of the average-size family.

THERE'S A MAGIC CHEF TO FIT EVERY BUDGET, EVERY KITCHEN PLAN!

You'll find the right range for your plans—from apartment to fine home—among the complete Magic Chef line. More women cook on Magic Chef than on any other range. Magic Chef, the most popular range in America, will help you "sell" your kitchens.

IN THE FINEST HOTELS AND RESTAURANTS in America, kitchens are equipped with Magic Chef heavy duty gas cooking equipment. Write for specifications.

OTHER PRODUCTS
Combination, oil and wood ranges, oil stoves and heaters, oil furnaces.

FOR COMPLETE DETAILS SEND FOR OUR ARCHITECTS AND BUILDERS FILE

AMERICAN STOVE COMPANY • ST. LOUIS
STANLEY SAFETY SAWS

More powerful... size for size

STANLEY SAFETY SAW

No. W7 0"-2 1/2" capacity, bevel cuts up to 1 1/2" at 45°, 3700 r.p.m.
No. W8 0"-2 1/2" capacity, bevel cuts up to 2 1/2" at 45°, 3500 r.p.m.
No. W9 0"-3 1/2" capacity, bevel cuts up to 2 1/2" at 45°, 3300 r.p.m.

FASTER... More power and less weight.
TOUGHER... Aluminum alloy base, heat-treated. Heavy-duty ground gears. Swivel points on steel trunnions.
SMOOTHER... Gears adjustable for proper mesh. Ball bearing mounted. Forced oil lubrication.
EASIER... Duplex handle with 2-position, independent trigger switches. Simple wing nut depth of cut adjustment and scale for bevel cuts up to 45°.
SAFER... Cutting edge covered at all times. Blower removes saw dust ahead of cut.
COMPLETE... Comes with combination rip and crosscut blade, ripping gauge, wrench, lubricant and carrying case.

Sold by your industrial distributor
Stanley Electric Tools, New Britain, Conn.

STANLEY


HARDWARE • HAND TOOLS • ELECTRIC TOOLS • STEEL STRAPPING

American Builder, October 1949,

Merchandising Program
(Continued from page 132)

carry radio advertising twice a day on the local station. We have a regular monthly quota of inches for newspaper advertising, averaging four ads a week. These range from one column by 1 1/2 inches to two columns by 14 inches. Our local newspaper goes out to a large area around Sioux Falls and covers all but three of our yards. We use the sports and comic pages on Sundays; and if we run on Saturday, we try to get on the page that lists church services and social functions. We check the effectiveness of the advertising by offering give-away items, such as recipe books, clothespins, bags, etc.

"We do a considerable amount of direct mail, and in order to be sure it goes out regularly, we take care of it for all our yards. We have monthly 'Heralds' that list seasonal items. These are printed here in Sioux Falls, and we send them in a package to each yard ready to mail. We use penny postcards, inviting prospective builders to come in and talk over their plans. Our mailings go to businessmen, as well as home owners. Where a customer shows a disposition to build, we follow it up with a personal contact. We make periodical mailings supplied by our manufacturers of specialty materials. We make occupational group mailings: contractors, doctors, dentists, attorneys, and so on. We have placed 60 Scotch light signs on the highways around every one of the towns where we have yards. We try to reach everybody, so we use different approaches. We are a volume house and want to be one; while at the same time we give personalized service."

Last addition to Schoeneman service is the Home Planning Center at the Sioux Falls yard. It contains a complete library on house planning with supplementary suggestions for designing individual floor plans. The use of color, harmonizing drapes, furniture placement, and similar subjects are also thoroughly covered. A display of building materials brings the yard into the center for the convenience of the customer. This air-conditioned, quiet room is a pleasant place in which to relax and cool off on hot summer days while acquiring useful information. Customers frequently spend an entire day, happily browsing and working out previously vague ideas. Farm buildings, stores, and commercial buildings are included.

"We use to spend hundreds of dollars on plan books to give away," Herbert Schoeneman said. "But by

(Continued on page 180)
American Kitchens
Save You Money!

Builders Find Famous, Nationally-Advertised

American Kitchens Actually Cost Less Than Wood Cabinets!

You benefit two ways when you install American Kitchens. They help sell your houses faster... and save you money in the bargain!

Yes, American Kitchens save you money! Completely installed, they actually cost less than quality wood kitchens! And the new American Kitchens line of Economy Sinks brings the cost of these finer kitchens down still further, making them an economical choice for even your budget-priced homes.

American Kitchens help speed up sales, too! For your use of this famous high-quality line gives prospects confidence that you've used quality materials throughout your houses... that they're better “buys” than your competitors' homes!

(Base cabinets are available without tops for composition, tile or stainless steel installations.)

FREE!

Check These Demonstrable Plus Features

1 One-piece drawers—rounded inside for easier cleaning.
2 Finger-tip, lever-type faucets—on or off with flick of finger.
3 Back-splash faucet mounting eliminates dirt-catching ledge—permits larger bowl.
4 Concealed pulls—for beauty, easy cleaning.

5 Flush-sealed linoleum counter tops—waterproof, dirtproof between cabinets.
6 Extended counter tops—permit ample knee room for natural stance.
7 Smart new Serv-Cart—combination serving cart and mobile work center.
8 Concealed cutting board, divided cutlery drawer.


NEW ECONOMY SINKS

NEW-TYPE DISPOSER
—Unique! Can't jam nor ding, thanks to patented pivoted hammer arm.

HETCHERS-STYLED AMERICAN CENTRAL DIVISION
CONNERSVILLE, INDIANA

FREE!
Without enough electric circuits, the lights and appliances in your houses will suffer from "electrical starvation"—and you may starve for sales! People don't want electrically undernourished houses.

An adequately wired home sells readily at a good price, because home buyers nowadays have learned to look for Adequate Wiring.

An Adequate Wiring Certificate is your proof that each house you design and build has:

- Enough outlets, fixed lights and switches.
- Adequate electric service entrance equipment, fed by three ample size wires.
- Enough branch circuits and spares for present and future electrical needs.

The Sign of the Times

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- Enough branch circuits and spares for present and future electrical needs.

Use the services of the local Adequate Wiring Bureau in preparing a complete Adequate Wiring layout and specification, before you put the electrical job out for bids. Get the wiring into the plans for better appraisal—a better loan!

If there is no Adequate Wiring Bureau in your community, write us or your local electric utility for information on how to take advantage of Adequate Wiring in the homes you build.
KNOW-HOW—Pacific Mutual Door Co. since 1912 has provided a dependable and convenient source of supply. Its principal officers and managers have served a total of more than 120 years with Pamudo in all phases of the trade. They understand the customers' needs and know how to meet those needs fully and promptly.

QUALITY—Knowledge of timber sources, manufacturing facilities and methods, grades and uses, combined with scrupulous attention to production and marketing detail, and conscientious guarding of standards, all assure delivery of unvarying and dependable high quality.

SERVICE—Complete stocks in five principal distributing centers, plus facilities for and experience in filling either straight or mixed car orders (from the main office in Tacoma, Washington), enable Pamudo to provide the kind of complete and prompt service so essential to lumber distributors and industrial users.

PRICED RIGHT—Modern production facilities, in the hands of efficient manufacturing men, and long experience in combining rate tariffs and sources of supply with economical loading and routing, together with a practical and timely appreciation of the market, enables Pamudo to deliver quality that's priced right.

PACIFIC MUTUAL DOOR CO.
TACOMA BUILDING • TACOMA 2, WASHINGTON
MILLS OREGON—WASHINGTON—CALIFORNIA
WAREHOUSES FIVE PRINCIPAL CITIES
Garwood, N. J. • Baltimore 31, Md. • Chicago 8, Ill. • Kansas City 3, Kansas • St. Paul 4, Minn.
For Lumber Dealers, Builders, Architects, and Wood Users

Factual, complete and profusely illustrated data on its properties and uses, including photographs of typical pieces of each grade with illustrated recommendations for their use and details of popular paneling patterns. A free copy will reach you quickly when requested on your business letterhead.

WESTERN PINE ASSOCIATION
510 Yeon Building Dept. 111B Portland 4, Oregon

THE WESTERN PINE REGION

* These are the Western Pines
  * Idaho White Pine  * Ponderosa Pine  * Sugar Pine

* These are Associated Woods
  * Larch  * Douglas Fir  * White Fir
  * Spruce  * Cedar  * Lodgepole Pine

Well manufactured—thoroughly seasoned—carefully graded—by all Association member mills

STANLEY-CARTER
Production way of Hanging Doors

"NON-STOP"—production line method

3 men—3 motors—3 machines. Result: More than 3 times as much production because there’s no waste time changing motor from tool to tool, job "moves" along in balance — no waiting to catch up.

With these three Stanley-Carter Tools you can figure the job closer and still make more money.

Stanley-Carter Lock Mortiser
One h.p., 18,000 r.p.m., a fast, heavy duty mortiser that averages about 30 seconds per mortise cutting time. Length of stroke 5", maximum depth 4½", weighs only 26½ lbs. High-speed, smooth cut.

J5 Stanley-Carter Power Plane
One h.p., 18,000 r.p.m., a large and powerful portable plane.

Stanley-Carter Hinge Butt Router
1½ h.p., 18,000 r.p.m., a heavy duty, lightweight portable router. Wide range template adjusts to any door, so cutting is as fast as marking. High-speed, smooth cut means perfect fits. Stanley Electric Tools, Stanley-Carter Sales Dept., New Britain, Conn.
Check these big new advantages:

- Deep 1½" sections...mean added strength, rigidity, permits double glazing.
- Cold-Rolled Steel Construction makes smoother, more accurate sections.
- Cold-Rolled steel surfaces give better surface for painting...neat, attractive appearance.
- Mitred, butt-welded corners mean tighter, smoother joints.
- Easier and better glazing.
- Designed with more hinge clearance at jamb for easier installation.
- Attractive trouble-free hardware.
- Large drainage slots in bottom of outside section.
- Deeper 1¼" muntins add greater strength to entire casement.

Immediate delivery for you.

Yes...this is the sensational steel casement window that's taking the industry by storm...the first really new casement in 20 years! Intensive research has enabled STEELCRAFT to produce a cold-rolled steel sash with deeper sections...one that has so many superior advantages. The viewpoints of men who know what a near-to-perfect casement should be like...the opinions of contractors, glaziers, engineers, architects...actually designed this casement. NOW for complete home owner satisfaction, you can recommend and use this amazingly better steel casement...the casement with many big advantages plus prompt delivery.

Investigate NOW!

Mail this coupon TODAY!

STEELCRAFT MANUFACTURING COMPANY
9178 Blue Ash Road,
Rossmoyne, Ohio (in Greater Cincinnati)

Please send me your free new catalog on the Complete Steelcraft Steel Casement Line.

NAME______________________________________

BUSINESS ADDRESS__________________________

CITY____STATE____

MY POSITION_________________TYPE OF BUSINESS

Write for FREE Catalog...

Write now for catalog on complete STEELCRAFT Casement line...showing construction details, typical installations, best adaptations for your needs.

STEELCRAFT also makes a full line of one-piece steel door frames.
Save time, reduce costs on every job with portable KOHLER Electric Plants

As soon as you put a compact, portable Kohler Electric Plant to work, you’ll see a sizeable gain in time-saving, labor-saving results. Your men can move it rapidly from place to place, for power saws, pipe threaders, cutters, drills and other tools. You’ll soon realize, like many other builders, that you couldn’t make a sounder investment.

When you’re building in outlying districts, where power line service is not available, you can carry your own reliable, light weight, low cost source of electricity right with you. Even where there is power line service at hand, you’ll find a Kohler Electric Plant more practical, convenient and economical to use, because it will save you the time, trouble and expense of arranging for your own power supply.

Whether you need a small generator for hand power tools, or a larger model for greater power requirements, there’s a Kohler Electric Plant that will exactly suit your needs. In every size throughout the range from 350 watts to 10 KW, Kohler Electric Plants have a reputation for exceptional efficiency and service. A Kohler field representative will gladly help you select the most practical unit for your needs. Write for folder E-11. Kohler Co., Kohler, Wis.

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**Great Hoo-Hoo Elects**

The 9th day of the 9th month in the 49th year of the twentieth century saw the gathering of some 299 adherents of the Great Black Cat who assembled in Kansas City for the annual meeting of the Concatenated Order of Hoo-Hoo. Representatives and delegates came from Canada and all points of the U. S. compass.

Unanimously chosen by the delegates as Snark to succeed Stanton was Martin Wiegand, Washington, D. C. Elevated to the office of Senior Hoo-Hoo was Lynn Boyd, Pampa, Texas. Other members of the Supreme Nine elected at the Kansas City meeting were: Junior Hoo-Hoo, Martin McDonald, Port Arthur, Ontario; Scrivernot, Thos. A. Donlin, St. Cloud, Minn.; Bojum, Edwin Fischer, Milwaukee, Wis.; Jabberwock, P. G. Davis, San Francisco, Calif.; Cast-catian, Arthur H. Geiger, Tacoma, Wash.; Arcanoper, Harry B. Weiss, Memphis, Tenn.; Gurdon, Robert J. Stalker, Quincy, Mass.
These three can give your clients automatic heat plus savings up to 52% on fuel bills

1. Automatic Anthracite Stokers—Installed in an existing boiler or furnace, or in new houses, automatic hard coal stokers deliver plenty of heat quickly . . . save up to 52% on fuel bills . . . eliminate fuel worries.

2. The Revolutionary Anthratube—The Anthratube saves on fuel bills . . . its proved efficiency is over 80%. This scientifically engineered boiler-burner unit, with “Whirling Heat” and other revolutionary features, produces quicker response and superior performance than units using other types of fuel. Fully automatic.

3. Anthra-Flo furnace-burner unit—An entirely new type furnace-burner which features a simple burner mechanism, attached by two bolts with all working parts easily accessible. Fully automatic, coal feeds direct from bin across single stationary perforated plate . . . ashes discharge by gravity into container within unit. Available for steam, hot-water and warm-air heating systems.

Today you can offer your clients modern automatic heat with anthracite equipment.

You can show your clients how to save money . . . as much as $100 to $200 every year and yet have plenty of heat—clean heat—even heat—and no worry about future supplies or deliveries.

For complete information about (1) new anthracite stokers (2) revolutionary Anthratube or (3) Anthra-Flo, just fill in and return the coupon below.

ANTHRACITE INSTITUTE
101 Park Ave., Dept.101, New York 17, N. Y.

Please send me more information on
1. New Anthracite Stokers
2. Revolutionary Anthratube
3. Anthra-Flo boiler-burner unit

Name ____________________________
Address ___________________________
City __________________ Zone ______ State ___

PLEASE PRINT
F. S. CORNELL
Wis., L. B. Smith, vice president of the company has announced.

Cornell had been assistant manager of the division, which operates a plant at Kankakee, Ill. He was transferred to Kankakee last spring, after a number of administrative assignments at the Milwaukee plant.

**Prof. William H. Scheick**

**To Be Executive Director Of New Research Board**

Prof. William H. Scheick, co-ordinator of the Small Homes Council at the University of Illinois, has been granted a year’s leave of absence to serve as the first executive director of the newly organized building research Advisory Board in Washington, D.C. The board was organized by the National Research Council and operates under its jurisdiction.

As director of the advisory board he will have the responsibility of formulating its objectives and laying the groundwork for a long-range program. An important amount of building research is concerned with housing, and in this respect Professor Scheick’s new duties will be closely allied with his work in the Small Homes Council, of which he has been co-ordinator since its establishment in 1944.

The board will co-ordinate research activities and stimulate new research on problems of building which need scientific investigation. Since its organization in January, 1949, the board has completed a survey of the progress of modular co-ordination which was made for the Housing and Home Finance Agency.

During Prof. Scheick’s absence, Prof. James T. Lendrum will be acting co-ordinator.
WHEN YOU COMPARE THE **Total Costs**
OF MATERIALS AND APPLICATION—

Your **best buy** is

*BILDRITE* INSULITE SHEATHING

To get the *real* story about sheathing costs you have to figure the total applied costs . . . not just the cost of materials alone. It's the *total* cost that the customer pays for.

LOOK AT THESE FACTS: The things that make up the total applied cost of any sheathing are the labor scale, man hours needed for application, waste of material, insurance, and cost of materials used. You can figure these for yourself.

FOR EXAMPLE: Standard handbooks for estimating building construction state that—

*Wood sheathing horizontally applied has a 12% waste. But BILDRITE has less than 1% waste. Wood sheathing requires 15 man hours to apply 1,000 feet. But BILDRITE takes only 8 man hours per 1,000 feet. See how these savings begin to mount up?*

<table>
<thead>
<tr>
<th>ITEM AND QUANTITY</th>
<th>RATE</th>
<th>TOTAL</th>
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</thead>
<tbody>
<tr>
<td>1,000 sq. ft. 8&quot; wood sheathing (horizontal)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Waste, 12% (120 sq. ft.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Carpenter labor, 15 hours</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Insurance, 10% of carpenter costs</td>
<td></td>
<td></td>
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<tr>
<td>2.8 rolls building paper</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Carpenter helper to apply paper</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Insurance, 10% of helper costs</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL APPLIED COST, WOOD SHEATHING</strong></td>
<td></td>
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</table>

**BILDRITE SHEATHING** Per 1000 Sq. Ft. of Wall Area

<table>
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<tr>
<th>ITEM AND QUANTITY</th>
<th>RATE</th>
<th>TOTAL</th>
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<tbody>
<tr>
<td>1,000 sq. ft. Bildrite Sheathing</td>
<td></td>
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</tr>
<tr>
<td>Waste (Practically none. Less than 1%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Carpenter labor, 8 hours</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Insurance, 10% of carpenter costs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Building paper (None needed)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Helper to apply paper (None)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Insurance on helper (None)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL APPLIED COST, BILDRITE SHEATHING</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

That puts a different light on it...doesn't it? And in addition, BILDRITE provides 2½ times the insulating value and more than twice the bracing strength of wood sheathing horizontally applied! You can't get around the facts. The best buy in sheathing today is INSULITE (BILDRITE) Sheathing!

*Insulite* is a registered trade mark, U.S. Pat. Off.

---

**Double Duty**

INSULITE

The GENUINE

**INSULITE DIVISION, MINNESOTA AND ONTARIO PAPER COMPANY**

DEPT. AB-109, BAKER ARCADE BLDG. • MINNEAPOLIS 2, MINN.

Please have your representative call and give me additional details on sheathing costs.

Name ____________________________

Address ____________________________

City ____________________________ State _______
You're the winner when you get the profits awaiting you in the new construction field. For better business, bigger profits, follow this proven 3-step plan:

**Select** your most profitable prospects from DODGE REPORTS daily construction news. DODGE REPORTS identify those contemplating, or who are in the process of new construction —in the area you specify.

**Plan** your strategy to go after this profitable business. DODGE REPORTS give you complete details about each new construction job, enable you to get your bid in on time based upon known facts about your prospect's needs.

**Act** to close the deal at the right time for most effective results. DODGE REPORTS help you concentrate on the really active jobs... for better, more profitable contracts.

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**WITHOUT COST OR OBLIGATION**, let me see some current Dodge Reports.

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F. W. DODGE CORPORATION

Construction News Division

119 West 40th Street, New York 18, N.Y.
Milcor Steel Access Doors provide instant access to all key points... yet blend invisibly into the wall when closed.

Milcor Steel Access Doors are flush to the wall. Papering or painting right over them is easy. Quickly and easily installed, they tie right to the metal lath, actually saving on building time.

Install Milcor Steel Access Doors on every project. Send for Milcor Manual giving complete details — today!

Tear out this coupon and mail today! F-529G

Inland Steel Products Co., 4025 W. Burnham St., Milwaukee 1, Wis.

Send me, without obligation, a Milcor Manual with full details on Milcor Steel Access Doors and other products in the complete Milcor Metal Lath line.

Name ____________________________

Company ____________________________

Company Address ____________________________

City ____________________________ (_____) State 7

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4025 West Burnham Street * Milwaukee 1, Wisconsin

Baltimore 24, Md. * Buffalo 11, N. Y. * Chicago 9, Ill. * Cincinnati 25, Ohio * Cleveland 14, Ohio


Rochester 9, N. Y. * St. Louis 10, Mo.
 Equip your mechanics with lighter • faster longer-wearing • dual-purpose • self-cleaning
GOLDBLATT TOOLS

Goldblatt masonry tools save time, work, money.
For 64 years, skilled craftsmen have chosen Goldblatt because Goldblatt tools are forged stronger, balanced better, more comfortable, non-corrosive. Every Goldblatt tool is guaranteed for materials and workmanship.

Look to Goldblatt for the finest in masonry tools — and the finest in service. All orders shipped within 24 hours. Please send money order or check with your order. Add 5% for packaging and postage.

Write Today for FREE Catalog
Send for 1949 80-page illustrated catalog describing largest and most complete line of masonry tools for your trade, including Steel Mortar Boxes and Transit Levels.

Goldblatt Tool Co.
1515 Walnut St.
Kansas City 8, Mo.

FIRST CHOICE OF THE TRADE FOR 64 YEARS

SELL BRIGHTER CLEANER HOMES

The cleaner home . . . the well-ventilated home . . . is the home that sells. The new Westinghouse Poweraire Home Ventilator, with the Air-Injector Grille, will help to keep your home bright and clean. It can completely change the air in an average kitchen every TWO MINUTES.

LOOK AT THESE ADDITIONAL FEATURES!
• Modern streamlined design
• Insulated outside door
• Easy to install in practically any wall thickness
• White, snap-on, Air-Injector grille
• Easy to clean
• Single pull-chain control
• Economical to operate

WESTINGHOUSE ELECTRIC CORPORATION
Electric Appliance Division, Dept.10AB, Springfield 2, Mass.

FOR ADDITIONAL INFORMATION

You can be sure . . . if it's Westinghouse

For a BETTER Day's Work

Long Handle CEMENTERS' TROWEL

LEFT—Long Handle Trowel, steel-mounted ash handle 7 feet long, 18-inch blade, $8.00 — 24-inch, $9.00 — 30-inch, $10.50 — 36-inch, $12.50. (Shipped by Express, transportation charges collect.)

RIGHT—Plastering Trowel No. 25—Aluminum mounting, 10½ or 11 inch lengths Each $3.35

CEMENTERS' TROWEL


With the

Plastering Trowel

CEMENTERS' TROWEL

PLASTERERS' TROWEL

PLASTERERS' TROWEL
How to Plan Houses for Greater Sales Appeal

Give people what they want. Then you have sales appeal. It comes from careful planning. Here are some rules America's top builders are following successfully:

DESIGN YOUR HOUSE FOR BETTER LIVING

Make sure each room meets the needs of today's living habits... that each room is attractive, efficient, livable. Kitchens and laundries deserve your particular attention because of greater consumer interest in these features. Lighting, too, is a detail that deserves careful study.

ENGINEER YOUR HOUSE FOR MAXIMUM USE OF SPACE

Develop plans for maximum use of space. For instance, a Westinghouse Electric Water Heater can be placed in a closet to save space. The installation of the Westinghouse Laundry Twins—Laundromat Automatic Washer and Clothes Dryer—eliminates need for a large laundry and drying area.

EQUIP IT FOR QUICK ACCEPTANCE

Builders everywhere are finding the electrically equipped house sells best. With a package mortgage, the house and electrical equipment cost less per month than if the house and equipment were bought on separate payment plans. A booklet recently released by Westinghouse shows how little these appliances increase mortgage payments. For example: the purchase of a Westinghouse Laundromat and Dryer, at retail, would cost the homemaker approximately $30, plus installation. Included in a package mortgage, these appliances add only $3.06 to the monthly payments when included in a 15-year, 4¾% mortgage.

INCLUDE COMPLETE EQUIPMENT

Repeated tests have shown that Exhibit Houses are most effective when kitchens and laundries are completely equipped. From your Exhibit House you can then sell other houses equipped to meet the buyers' needs.

The Westinghouse booklet, "Mr. Builder," is available, free of charge, upon request. It contains many reasons why the house buyer and builder alike benefit from appliances installed in houses during construction. Send for your free copy. Just fill in and mail the coupon below.

Westinghouse Electric Corporation
Appliance Division—Mansfield, Ohio

Gentlemen: Please send me your "Mr. Builder" booklet.

Name:
Address:
City & State:

...of course, it's electric
Leak Detector Tests
Radiant-Heating System

An effective test of a radiant-heating system which revealed three leaks undetected in two previous tests was made recently with an electronic leak detecting instrument developed by the General Electric Corp. The test was made in the Schenectady, N.Y., home of William E. Herrmann, engineer in the firm's Special Products Division.

The instrument, called the G-E Type H leak detector, was described by Herrmann as extremely sensitive to halogens—chlorine, fluorine, bromine and iodine—and capable of discovering leaks of these gases from openings so small as to release only a small fraction of an ounce a year.

To make the test, Herrmann first introduced a gaseous halogen compound (freon) into the 1800 feet of one-half inch copper tubing installed in the unfinished ceiling of his house. Then the tip of the instrument's pistol-shaped pick-up was passed through the air surrounding the tubing. Where traces of the halogen were present, the leak detector indicated the fact on the dial of its electronic unit.

According to Herrmann, about 100 joints in the tubing were checked in this manner in less than two hours. He added that discovery and repair of the leaks prior to plastering was an important economy factor.
Glass costs so little and adds so much. When you want that "big house" feel—economically—you can buy the best and still stay within the budget.

By putting in Libbey-Owens-Ford Window Glass, you'll impress prospects with the quality of the materials used in construction. That famous L-O-F shield on every pane is a hallmark you can be proud of...it shows you haven't cut corners.

Libbey-Owens-Ford Quality Window Glass really is better. Production controls result in clearer vision, less distortion. Slow annealing lessens internal stress—means easier cutting.

For better salability, for maximum quality at minimum expense, be sure to use L-O-F Window Glass in the next house you build. Libbey-Owens-Ford Glass Company, 43109 Nicholas Building, Toledo 3, Ohio.
This low-cost electric hand saw saves time... stands up under steady use, on the toughest cutting jobs!

Fred W. Wappat
ELECTRIC HAND SAWS
make all the cuts you need

F A S T  and ACCURATELY!

... cut tough materials, from wood to steel
... operate simply, safely, easily
... require minimum maintenance.

Model A-8"
2½" cut
$115.00

Model A-9"
3½" cut
$135.00

FREE TRIAL OFFER
It doesn't cost a penny to try a Fred W. Wappat Saw. If your dealer can't supply you, write direct.
If you don't agree it's the best saw you can buy, simply return it—there's absolutely no charge!

PROOF of Fred W. Wappat EFFICIENCY
Best recommendations for Fred W. Wappat Saws come from our thousands of users. For example—the E. H. Lotham Co. says, "On Puerto Rico drydock jobs we used Fred W. Wappat Saws and saved $1,100.00 in labor costs alone!"

Powerful Fred W. Wappat Electric Hand Saws are low in cost—high on quality—they're the product of over a quarter century's experience in making fine electric hand saws. Fred W. Wappat-designed gears, turbine-cooled motors, simple, single-point lubrication increase efficiency and minimize off-the-job repair time and general maintenance. Hundreds of thousands of feet can be cut before a Fred W. Wappat Saw needs attention other than lubrication and blade sharpening.

You make all angle and grooving cuts—fast, with predetermined accuracy. Thanks to practical, field-proven balance, you get easy, fatigue-free operation, saving time and money on awkward, hard-to-reach cutting jobs. And, you cut a wide variety of materials—wood, transite, concrete, light gauge metal, etc.

Fred W. Wappat Electric Hand Saws are known as the saws that give a full day's work, even with inexperienced operators. They're versatile, fast, and dependable—ask anyone who uses one!

Fred W. Wappat, Inc.
135 Valley St., Mayville, N. Y.
(on Chautauqua Lake)

Rubber-insulated aluminum
STORM SASH
for metal casements at low cost

DEALERS WANTED
Wilson storm panels are installed from the inside—they're interchangeable with screens. A hollow rubber gasket prevents transfer of cold from metal casement. 1" dead air space gives maximum insulation. You'll find the Wilson window will make friends wherever sold. Wilson storm windows available K D or completely assembled.

MANUFACTURED BY METAL WINDOW SERVICE CO.
4601 West 47th Street, Chicago 32, Illinois

76,590 CONCRETE BLOCK HOMES
BUILT IN 1947*
every one is a prospect for STONEKOTE

LOW COST—HIGH PROFITS

STONEKOTE leads... All ways!
Churches, store fronts... brick, insulation board, wood siding... almost any type of building needs STONEKOTE. It beautifies as it insulates and strengthens.

Write—Wire
STONEKOTE Corp.
2196 S. 93rd St., Milwaukee, Wisconsin
Now! A Timken Silent Automatic
“Duty-Designed” Oil Boiler

Now! A Timken Silent Automatic
“Duty-Designed” Oil Boiler
for Kitchen Installation!

Here Is The Most Revolutionary Development
In Modern Small-Home Heating!

The best in modern home heating equipment—priced to keep construction costs at a minimum—that's what you get when you specify Timken Silent Automatic "Duty-Designed" oil heating equipment for small homes! Now we proudly present the revolutionary new Timken Silent Automatic KITCHEN-TYPE OIL BOILER—designed to add to new home profits by completely eliminating the utility room! Finished in gleaming white—for kitchen installation—this extraordinary unit combines a house-heating boiler (fired by the famous Wall-Flame Oil Burner), instantaneous water heater, expansion tank, motorized circulating pump and complete automatic controls. Everything's enclosed in a counter-high cabinet topped by a space-saving work surface. Here's the kind of exclusive product development that makes—and keeps—Timken Silent Automatic the leader in its field. A new descriptive folder is yours for the asking. Write for it—now!

Other "Duty-Designed" units include Hi-Furnaces, Hi-Boilers, Lo-Boilers, coil and tank-type Water Heaters, and standard-design Oil Furnaces.

Here's The Heart Of Every "Duty-Designed" Unit
The Timken Silent Automatic Wall-Flame Oil Burner—famous for savings up to 25% or more on ordinary fuel oil costs—has for more than 20 years been "The Accepted Standard" for quality and performance in automatic home heating.

PLANTS AT: DETROIT, MICH. • OSHKOSH, WIS. • JACKSON, MICH. • UTICA, N. Y. • ASHTABULA, OHIO • KENTON, OHIO • NEW CASTLE, PA.
Thousands of dealers are now getting their TRIPLE SEAL requirements from these jobbers and many others:

- American Sash & Door Co., Kansas City, Mo.
- E. E. Bach Millwork Co., Minneapolis, Minn.
- Bardwell-Robinson Co., Fargo, N. D.
- Builders Wholesale Supply Co., Sioux City, Iowa
- Carr & Moehl Co., Des Moines, Iowa
- W. P. Fuller Co., Portland, Oregon
- Houston Sash & Door Co., Houston, Texas
- Indiana Wholesalers, Inc., Evansville, Ind.
- Rock Island Lumber Co., Buffalo, N. Y.
- Scott Graff Co., Duluth, Minn.
- Texas Sash & Door Co., Fort Worth, Texas
- Whitmer-Jackson Co., Rochester, N. Y.

Many profitable trade areas still open. We welcome dealer and jobber inquiries.

SASH BALANCES AND SPRING BRONZE METAL WEATHERSTRIPPING

Complete Unit Carton Packaged — Any Size $3.50

SEE YOUR LUMBER DEALER

THE WEATHERPROOF PRODUCTS CORPORATION

329 Westport Road
Kansas City 2, Missouri

MAKE YOUR HOUSES SAY...

“I’m the Best Buy in Town”

When you finish your houses with Cabot’s Collopakes, you give them added value. These non-fading House Paints have a rich, smooth, porcelain-like surface that always looks fresh and inviting. 32 attractive colors, many unique and obtainable from no other source, afford unlimited color combinations—enable you to give varied exteriors to a whole group of homes built from a single blueprint. Because no fillers or adulterants are used, the shades remain true.

WRITE TODAY! FREE Color Card!

SAMUEL CABOT, INC., 1024 Oliver Building, Boston 9, Mass.

Please send me a Collopakes color card showing such unique shades as Longfellow Yellow, Williamsburg Blue, Haddam Barn Red.

NAME ____________________________

STREET ____________________________

CITY ____________________________ STATE ____________________________

American Builder, October 1949.

New Cable Design For Farm Wiring

A new non-metallic sheathed cable for wiring of chicken houses, hatcheries, barns and other farm buildings where rot, fungus, ice, moisture from condensation and ammonia-laden air are frequently destructive factors is being manufactured by the National Electric Products Corp., Pittsburgh, Pa.

The manufacturers said that features of the new product, called NE-o-Prene Loomwire, are improved resistance to moisture, fire and rot, increased mechanical strength, a smaller diameter, simplified installation and a protective sheath of Neoprene.

Production of the farm cable starts with application to coated copper wire of the Neoprene rubber insulation. The two insulated conductors are spaced by a rubber separator into which twisted Fiberglas cords have been incorporated. Over conductors and spacer is a layer of Fiberglas braid. The outer sheath is of Neoprene.

The cable has the Underwriters’ Laboratories, Inc., seal of approval for use up to 600 volts.
SHINGLE BUYER'S GUIDE

New Barrett Selling Manual Helps Salesmen Sell MORE BARRETT* ROOFS

Typical of the kind of sales helps that are available to distributors of Barrett shingles is the new Barrett SHINGLE BUYER'S GUIDE.

It puts showmanship into selling—enables a salesman to make a convincing, dramatic sales presentation that any prospect can understand and enjoy—covers the whole subject of asphalt shingle roofs, and Barrett shingles in particular.

Profusely illustrated in many colors, including natural color reproductions of the Barrett shingles you sell. Users tell us that this is the finest tool for interesting prospects and closing sales they've ever seen.

Distributors of Barrett roofings can obtain copies from their Barrett salesmen. The price is only a fraction of the actual cost of production. Ask for full particulars.

IT'S CONVENIENT
Folds to 8½ x 11 inches, weighs less than an ordinary novel and is just as easy to carry.

IT'S EASY TO USE
Easels on front and back swing out easily to hold 11 x 17 inch spread in proper positions for table presentation. No snaps or fastenings to worry about.

IT'S CONVINCING
Makes a logical, orderly presentation that keeps the sale right on the line—avoids missed points and misunderstandings.

THE BARRETT DIVISION
ALLIED CHEMICAL & DYE CORPORATION
40 RECTOR STREET, NEW YORK 6, N. Y.

205 W. Wacker Drive
Chicago 6, Ill.

1327 Erie Street
Birmingham 8, Alabama

36th St. & Grey's Ferry Ave.
Philadelphia 46, Pa.
HERE ARE CLOSE-UPS OF OUR "STARS"
POPULAR GARAGE AND BARN DOOR HARDWARE

"GLIDE" TRACK
No. 111

Applied to inside of door... out of the weather... takes any thickness of door.
You can't derail "Glide" Hangers. Have great strength because door is carried directly under center of Track. Smooth operating because of large wheels, roller bearing-equipped. For doors weighing up to 750 lbs.

No. 61 TROLLEY HANGER

For doors weighing up to 350 pounds and from 1 1/4" to 2 1/2" thick, Trolley Door Hanger No. 61 is tops. Set No. 62 includes pair of No. 61 Trolley Hangers, three track brackets, two end caps, and necessary bolts. Hanger has vertical and lateral adjustments, flexible joint allowing door to swing out.

TROLLEY TRACK
No. 110

Trolley Track No. 110 is used with Hangers No. 61 and No. 62 Frantz Trolley Hangers. Any similar hanger may also be used with this track. For all average-weight barn and garage doors (doors weighing up to 350 lbs.), Made of 16-gauge steel, it comes in lengths of 6, 8, and 10 feet.

Write today for details on the complete Frantz Line.

EASILY APPLIED ON-THE-JOB

CUPRINOL

STOPs Rot

C indicates surfaces (or parts) to be treated with CUPRINOL

Here are a few places where Cuprinol treatment gives long lasting quality to the wood. Use it always on sawed ends and bolt holes, even with pressure treated lumber; and on fitted millwork treat all the planed surfaces with Cuprinol — for Cuprinol is a surface applied water repellent that gives dimensional stability as well as protection against rot. Cuprinol forms a perfect bond between wood and paint and gives an excellent base for glazing. Keep it handy for every job. Ask your supply dealer, or write —

CUPRINOL Division, Darworth Incorporated
56 Maple Street
Simsbury, Conn.
How to build home-owner praise

There’s one reason for putting oak floors in the homes you build that, in its importance to you, goes beyond the obvious advantages to a homeowner of beauty, durability, and economy.

This is the special pleasure people experience from oak grain’s versatility in combining perfectly with other materials—from other woods to glass and metals, and with any motif from Victorian to modern.

Building with oak floors is bound to earn you the praise of home-owners who realize in their daily living those satisfactions you told them they would discover.

To help home-owners visualize the style and color adaptability possessed only by oak flooring, show them the new free 16-page booklet, “Planning and Decorating the most important side of a room.” Send for your copies today.
Selling Science
(Continued from page 74)
calls from salesmen or the sales manager.
This entire promotion and sales program is financed on a budget of $300 per house. This covers all sales expense.
Selling effort does not end with Tandy & Allen when a house deal is closed. Thirty days after the buyer moves in a man visits the house to handle any complaints and see that anything which is the responsibility of the builder is disposed of satisfactorily. After another thirty days a second visit is made and thirty days after that a third call is made. This is the routine procedure, whether the buyer calls at the office or not.
The best advertising and sales program will never work, however, unless there is a product of quality and appeal to prospects. Tandy & Allen are conscious of this principle. Allen as the engineer, Gil Tandy as designer, and Norm Tandy as construction superintendent assisted by Herb Tandy, are constantly striving for even better design and quality in construction and equipment. As soon as a basic floor plan and design shows lagging interest, a new one is announced which hits the price range desired and blends architecturally with houses already in the community. As soon as a basic plan is announced and put in production, a new one is started by the designers. Only one plan is worked on the job at a time, although elevations and exterior finishes are varied.
The curvilinear streets are paved and curbed. Foundations are concrete block with a partial basement area containing the furnace and laundry facilities. Heat is provided by an oil-fired hot water boiler and convector system. The tiled baths with colored fixtures, glassed-in shower stalls, fireplaces, electric ranges and ventilating fans in kitchens, are standard in all houses. Floors are hardwood with linoleum in kitchens. Walls are plastered except in the den and lavatory where striped plywood is used.
Windows throughout are double-glazed hermetically-sealed Twindows with a number of them in various rooms mounted in special awning-type metal sash which makes it possible to open them for ventilation. Framing is conventional with all of it cut on the site with power equipment moved to locations convenient to the foundations.
The standard $17,500 price includes a fully landscaped lot with about eight inches of topsoil-seeded for lawn and 15 to 20 shrubs planted. Lots are 100 by 105 feet.
Ten Years Ago...

In August, 1939, this concrete test paving was laid in Second Avenue North, Minneapolis. The badly scaled section of roadway in the background was made with regular portland cement.
The foreground section, laid at the same time, was made with Atlas Duraplastic—the first commercial use of the air-entraining portland cement originated and developed by Universal Atlas.
Both sections, subjected to the severity of ten Minneapolis winters and to heavy applications of de-icing salts, are shown just as they appeared in July, 1949—convincing proof of the characteristic durability of Duraplastic concrete, of its high resistance to freezing-thawing weather and the scaling action of de-icing salts. Longitudinal structural crack shows some ravelling. Note perfect transverse joint.

Today

... Added Durability and Improved Appearance
in structural concrete made with DURAPLASTIC*

From initial paving installations... to the first structural job... to beautiful, modern structural achievements like the one shown here, architects, engineers and contractors have come to rely more and more on the extra durability and improved appearance of concrete made with Atlas Duraplastic air-entraining portland cement.

In Duraplastic’s rapid ten-year growth, its advantages have been applied to all types of mass and structural concrete—for foundations, walls, columns, and floors. It’s ideal for slip-form, gunite, stucco and similar uses.

With Duraplastic, less mixing water is needed for a given slump. The resulting mix is more plastic, more workable, more uniform and cohesive. It’s easy to place and finish. Water-gain and segregation are reduced. Surface appearance is improved and has higher resistance to the effects of weather-exposure.

For structural concrete needs of today and tomorrow, Duraplastic offers better concrete at no extra cost. It provides the precise amount of air-entraining agent interground with the cement for satisfactory field performance. It complies with ASTM and Federal Specifications, sells at the same price as regular cement and calls for no unusual changes in procedure.

OFFICES: Albany, Birmingham, Boston, Chicago, Dayton, Kansas City, Minneapolis, New York, Philadelphia, Pittsburgh, St. Louis, Waco.

Promontory Apartments, Chicago, Ill., nearing completion. Duraplastic used throughout in concrete columns 12 feet deep with network of steel bars and beams. No sign of bleeding or segregation. Contractors report a smooth surface free of blisters or air-bubbles. Architect: Poce Associates; Structural Engineer: Frank J. Kornacker; Contractor: Peter Hamlin Construction Company—all of Chicago.


*“Duraplastic” is the registered trade mark of the air-entraining portland cement manufactured by Universal Atlas Cement Company.

ATLAS DURAPLASTIC
AIR-ENTRAINING PORTLAND CEMENT
MAKES BETTER CONCRETE AT NO EXTRA COST
“We recommended LUMITE as ideal for the new BELL plant.”

RAY C. ORAM, General Manager, Watson Manufacturing Company, Inc.
“Screen Specialists since 1889”

LOOK TO VIKON, THE LEADER IN TILE STYLE FOR COMPLETE CLIENT SATISFACTION

Individual Vikon Metal Tiles, in a choice of sturdy steel, aluminum or stainless steel, are the perfect answer to any decorating problem where tiles are called for. Ideal for use on both walls and ceilings in new homes, excellent for remodeling existing homes and apartments. These are featherlight, individual tiles. You order only the number necessary to complete the job. No waste. For the smartest of baths, kitchens, utility rooms, investigate the wonders of the metal tile of lasting beauty — VIKON.

- 27 fade-resistant decorator colors and stainless steel
- will not warp, crack or craze
- resists heat and household chemicals
- fire-resistant, waterproof, seals out insects

“The Original Individual Metal Tile” Established 1926.
See our catalog in Sweet’s Files

STEEL • ALUMINUM • STAINLESS STEEL

VIKON TILE • COLOR METAL • DURABILITY

MAIL THIS COUPON TODAY

VIKON TILE CORPORATION Dept. 48
Washington, New Jersey

Please send me, without obligation or cost, a full-color descriptive brochure and sample of Vikon Metal Tile. I am interested in tile for:
My home  As a dealer  As a contractor

NAME  
ADDRESS  
CITY  ZONE  STATE

FACTS FOR ARCHITECTS AND BUILDERS

Effects of acids, alkali and solvents—essentially none.
Non-inflammable — LUMITE will not support combustion . . . is self-extinguishing. Softening point 240°F.
Tensile strength, ultimate (of filament) — up to 40,000 lbs. per square inch.
Impact strength — Greater than conventional screening.
Installation — Cut with ordinary scissors. Fold cut edges under 1/8". Tack or staple the screening smoothly and evenly every 1 1/2".
Because of inherent characteristics, LUMITE will gradually draw itself into a snug, firm fit.

For further information consult Sweet’s File or write Dept. AB-5 LUMITE DIVISION, CHICOPPEE MFG. CORP. OF GEORGIA 47 Worth Street, New York 13, N. Y.

*Registered Trade-mark
Don't Let Flush Door Dollars Pass You By!

For Money in Your Pocket on the Residential Market...

Roddiscraft
HOUSEMART DOOR

If you don't handle flush doors, you're missing one out of every three door sales. Yes, recent independent surveys show that over thirty per cent of new home-owners prefer flush doors. Tap this great market with the lightweight Roddiscraft Housemart Door.

You can give your customers a Roddiscraft quality flush door, priced for residential buyers. With the Housemart, you offer them a door that stands out in any company. Smooth, easy-to-finish surfaces blend right in to every decorative scheme. Roddiscraft's exclusive accordion-type 'bent-stressed' veneer core combines "solid core" strength with 50% less weight. The combination of dependability and beauty your customers want is built into every Housemart Door.

Your Roddiscraft representative will be glad to tell you more about the ways in which the Housemart Door can boost your sales and dollar volume, too. Immediate delivery from warehouse stocks.
Booklet Lists Carpentry Apprenticeship Standards

A new edition of the booklet "National Apprenticeship Standards for Carpentry Apprenticeship" has been published by the Bureau of Apprenticeship of the U.S. Department of Labor. The standards were formulated, with the bureau's assistance, by the National Joint Carpentry Apprenticeship Committee, representing the Associated General Contractors of America and the United Brotherhood of Carpenters and Joiners of America.

The booklet contains two parts. The first part outlines the provisions of the national standards and the second explains in detail how these standards may be adopted locally by employer and labor groups.

Included in the publication are: an explanation of the term of apprenticeship; on-the-job work schedules; supplemental classroom instruction; qualifications for apprentice training; individual apprenticeship agreements; certificates of completion of apprenticeship; organization and functions of local apprenticeship committees; registration of apprenticeship programs; and agreements with state agencies or the national bureau. The booklet lists both regional and field offices of the Bureau of Apprenticeship.

Insulite Develops New Dealer Sales Aid

A new sales aid—an album of insulating siding application photographs—is being made available to dealers at cost by Insulite Division of Minnesota and Ontario Paper Co., Minneapolis, Minn.

The album, which measures 9x11 inches, has an embossed cover of black fibre and ten transparent sleeves which accommodate up to 20 photographs. It contains 15 different 8x10 inch glossy photographs of prize applications of shake, shingle, stone and brick design insulating siding.

Insulite officials said that the photograph albums were developed after field research had revealed that dealers frequently required the realism of actual photographs to close sales. Full details about the albums may be obtained by writing the firm at 50 Baker Arcade Building, Minneapolis, Minn.

Bankers Hold Exhibit

The Mortgage Bankers Association of America's ninth annual exhibit of products and services related to housing and real estate financing was held in September at the Palmer House, Chicago, in connection with the organization's 36th annual convention.

Art in Iron

Artcraft produces the finest, most exacting custom-made ornamental iron work from specifications at amazingly low cost. This is in addition to our regular, low-priced, stock ornamental work. Write today for more information, or send specifications direct.

Delivery: Two weeks for custom work; immediate delivery for stock items.

Terms: Payment with order or C.O.D.

Artcraft Ornamental Iron Co.
710 E. Hudson Street, Columbus 11, Ohio


FREE:

Clip this handy memo to your letterhead and mail today!

Artcraft Ornamental Iron Co.
710 E. Hudson Street, Columbus 11, Ohio

Send me FREE by return mail my copy of your new 40-page catalogue titled "ART IN IRON."

NAME
ADDRESS
CITY
STATE
OCCUPATION

American Builder, October 1949.
HOW TO SELL MORE HOUSES

Take a tip from America's "Look-Ahead Builders"...
Make Bendix a part of your blue-print from now on!

Home-buyers today have a new eye for home value. They want extras. Extra comforts. Extra value. Extra convenience.

That's why America's biggest builders erect projects with a Bendix automatic Washer and, in many cases, a Bendix Dryer already installed. These are the inexpensive extras that sell your units fast—and first!

Want more information? Get in touch with your Bendix distributor.

The Bendix De Luxe—For permanent installation in laundry or utility room.

Beautiful, durable, practical. Washes, rinses 3 times, damp-drys. Known to more women than any other washer in its price class. This is your washer for permanent installation. Especially if your plans leave room for a matching Bendix Dryer.

The great Bendix "Economat"—Ideal for small homes, duplex projects or apartments.

Here's the amazing new Bendix automatic that America's gone wild about. Washes, rinses, squeeze-drys—fits anywhere in home or apartment. Never needs bolting down. Widely advertised—nationally known. An asset that's worth many dollars to you, especially if you're building multi-dwelling units!

America's blue-chip builders use Bendix equipment as part of a "package deal!"

Levitt & Sons, Manhasset, N. Y. • Gross Homes, Clayton, Mo. • Taylor Development Co., Richmond, Va. • Place & Co., South Bend, Ind. • Tauxemont, Alexandria, Va. • Byrne Organization, Baltimore, Md. • Merrick-Kleist Homes, Cleveland, Ohio. • Ridge Crest Project, Seattle, Wash. Burns Realty Co., Denver, Colorado.

BENDIX HOME APPLIANCES, INC., SOUTH BEND 24, INDIANA • Makers of Bendix automatic Washers, Dryers and Ironers
SOLVES HANDLING PROBLEMS
AT LOWEST COST!

"Ingenious—never saw anything like it," is how they're describing the new CMC HAN-D CRANE. Advanced method of counterbalancing and utilizing the weight of the towing vehicle is making CMC HAN-D CRANE a great saver of time and money in literally hundreds of ways.

- Lifts, loads, unloads and moves bulky equipment and supplies easier, faster!
- New easy method of coupling to tractor or Jeep power take-off cuts attaching or removing time to minutes!
- Ideal for unloading boxcars—changing tractor tires—servicing heavy equipment—handling all kinds of heavy and bulky equipment.

You need a new CMC HAN-D CRANE. Write today for illustrated folder and prices.

RAYNOR MANUFACTURING CO.
DIXON, ILLINOIS

Model R-120
Is An Outstanding Achievement in DOOR DESIGN

Light and easy to operate—Raynor Model R120 is constructed with heavy duty hardware and Raynor Graduated Seal to assure durable, dependable service.

For additional eye appeal Raynor Doors are available in beautifully machine tooled, raised panels.

Model R120 is typical of the rugged, long lasting design and construction built into every Raynor Door.

Contact your nearest Raynor representative or write direct for complete dealer and distributor franchise information.

LIKE A TEETER-TOTTER...

Tilt-a-Door operates with
• NO SPRINGS
• NO TRACKS
• NO NOISE

...JUST A SIMPLE TILTING ACTION
Aluminum construction is unaffected by weather. No sticking, warping or freezing. Nothing to get "out-of-order"... Nothing to wear out. Noiseless, sturdy and smart. Simple installation.

Exclusive areas available to Dealers and Distributors

TILT-A-DOOR CORP., DEPT. "A"—468 EAST NINE MILE ROAD—DETROIT 20, MICHIGAN

Please send me detailed information on your Aluminum Garage Door.
I am a Distributor □ Dealer □ Builder □ Architect □ Home Owner □

NAME ____________________________
ST. & NO. ____________________________
CITY ____________________________ ZONE _______ STATE _______
NOW a WELDWOOD Flush Veneer Door with Solid Lumber Staved Core

Figure on extra durability, utility, dimensional stability and modest cost when you include the WELDWOOD Solid Lumber Staved Core Flush Veneer Door in your plans.

On your next job—you can plan on obtaining lifelong beauty and satisfaction by specifying this WELDWOOD Door, whether for interior or exterior use.

The Solid Lumber Core gives the door a real feeling of solidity. At the same time the door is substantially lighter than other doors of similar type. Available with face veneers of all the popular species, the WELDWOOD Flush Veneer Door gives you the rich beauty of real wood.

The thoroughly seasoned and kiln-dried basswood lumber laid on edge in staved construction makes the door dimensionally stable—no warping and twisting. And because 100% waterproof phenolic resin glue is used, the door is perfect for either interior or exterior use.

This WELDWOOD Door lends itself especially to cutting light or louvre openings in the field. Or you can obtain the door on order with the openings already dependable, controlled quality...wider choice of shapes and sizes...prompt local service from complete stocks.

UNITED STATES PLYWOOD CORPORATION

55 West 44th Street, New York 18, N.Y.


Everything Points to CHROMEDGE Metal Trims

for dependable, controlled quality...wider choice of shapes and sizes...prompt local service from complete stocks.

The B&T Metals Co.

COLUMBUS 16, OHIO

*CHROMEDGE METAL TRIMS ARE MADE ONLY OF ALUMINUM ALLOY OR OF STAINLESS STEEL
INSECT WIRE SCREENING

There is no screening like wire screening for lasting protection in window, door, and porch screens. Cortland Brand wire screening keeps the pests out and gives years of dependable service. Wire screening will not burn or sag; takes a minimum of tacking for a smooth, tight job; and it gives added security to windows left unlocked.

Cortland Brand wire screening has been tested under all conditions since 1873. For sure satisfaction specify Cortland Brand insect screening whenever you install new or replace old screens. There is a Cortland Brand wire screening for every purpose made to full compliance with U. S. Bureau of Standards specifications for steel, bronze, and aluminum wire:

- **Cortland Gray Wick** - Popular all-purpose grade steel wire, electro-coated and enameled against corrosion.
- **Cortland Bronze** - Special alloy wire, rustless, and not affected by salt air, acids, or gases.
- **Cortland Aluminum** - Lightweight Al clad aluminum wire can't rust or stain.

**Wire** - Poultry Netting - Nails - Wire Screening

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**Armstrong Policy Committee Meets**

MEMBERS of the 1949 Armstrong Cork Co. Building Materials Division policy committee are shown above at their first session of the year in the Armstrong general office in Lancaster, Pa. The representatives were elected by fellow wholesalers at the Building Materials Division convention in May, under the program established in 1948 for the purpose of building and maintaining a firm wholesaler-manufacturer relationship through joint discussion of problems. Left to right, standing, are: W. B. Johnson, Delmarva Sash and Door Co., Lancaster, Pa.; R. K. Becker, Ohio Valley Hardware and Roofing Co., Evansville, Ind.; H. B. Peck, vice president and general manager of Armstrong Building Materials Division; P. L. Ullem, Sweetwater Sash and Door Co., Sweetwater, Texas; J. O. Sampson, assistant manager, Armstrong Lumber Dealer Products Department, Sitting: Miss Alice Johnson, Armstrong secretary; L. V. Jones, chairman of the committee and manager, Armstrong Lumber Dealer Products Department; R. L. Bardwell, Bardwell Robinson Co., Fargo, N.D.; and F. B. Menger, Armstrong general production manager.

---

**MARVALON with MARVASEAL**

Here is the answer to fill the needs of the most porous building materials. Not a water mix . . . Marvelon is a great, new, oil-base coating that comes in several beautiful colors. One coat when used over the oil-base filler Marvaseal, assures ease of application and a beautiful water repellant surface.

**MARVASEAL seals the largest pores**

**MARVELON adds beauty as a finish coat**

For further details write

The AMERICAN ASBESTOS PRODUCTS CO.
Cleveland 5, Ohio

Manufacturers of a Complete Line of Protective Surface Coatings
For garage doors that give trouble-free service... specify RICHARDS-WILCOX 999 Garage Door Hardware

For many years, leading architects and builders have agreed that Richards-Wilcox Door Hardware is the world's finest. Now, with the new line of R-W 999 Garage Door Hardware, out-dated, troublesome swinging garage doors can be converted quickly and easily into the modern, overhead type.

Overhead garage doors hung with R-W 999 Hardware are weathertight, the easiest to operate, and they "stay put." And R-W 999 Hardware comes complete—in one convenient kit—with everything needed for installation and operation.

For further information, simply call or write the nearest Richards-Wilcox office. Ask for free folder with complete facts about R-W 999 Hardware—your surest cure for garage door grief.

Universal-Rundle takes great pride in introducing a new and distinctively designed line of Chrome-Brass Fittings aptly named LUXURY-TRIM. Perfectly proportioned to match U-R's bathroom and kitchen fixtures, Luxury-Trim wears a competitive price tag that will give it mass sales appeal.

You'll appreciate the easy installation and servicing features of Luxury-Trim. Your customers will like the graceful, modern design and the full-bodied quality, never before offered at such low prices!

You'll want to stock the entire line. Write today for complete information on Luxury-Trim, the new, the superior Chrome-Brass Fitting!

SUPERIOR CONSTRUCTION

The entire line of Luxury-Trim fittings for lavatories, sinks, bathtubs and showers is made with Red Brass Castings.*

Triple Chrome exterior (copper on brass, nickel on copper, chrome on nickel).

Recess housing keeps seat washer from spreading!

Parts are easily accessible and may be replaced separately without detaching the complete unit.

*Red Brass is 80% or more copper—much tougher and stronger than yellow brass used in ordinary fittings.
Find Attractive Awnings  
Speed Sale of Houses

The sale of newly-constructed homes has been speeded in many cases recently by inclusion of colorful canvas awnings, the National Cotton Council has reported.

A typical case in which sales appeal was created by addition of the awnings was that of John L. Moravee, a St. Paul, Minn., contractor. One Moravee house, priced at $14,000, had remained unsold for a number of weeks when the contractor arranged for the installation of four green and white striped awnings at a total cost of $59.60. The house sold immediately, at the full $14,000 price.

Moravee had awnings installed on some of his other homes—the cost in each instance being less than $100—and almost immediate sales resulted.

Asphalt Tile Group Issues  
Color Classification Chart

A color classification chart designed to clarify to the trade the various manufacturers' color designations has been issued by the Asphalt Tile Institute. The 15 most widely used colors are listed on the chart. It does not represent the complete color lines of any of the manufacturers.

An example of how colors are classified by the chart is shown in the varied designations of asphalt tile with buff as its basic color, mottled with white and brown. Designation by Duraflex Corp. is C-144; by Bachmeister, Inc., C-23; by Hachmeister, Inc., C-221; and by Hachmeister, Inc., C-767, and by Uvalde Rock Asphalt Co., C-81. The same procedure is used with all 15 colors listed.

Carrying A.I.A. File No. 23-D, the chart has been sent to government and other agencies interested in asphalt tile.

Single copies may be obtained without charge from the Institute, 101 Park Ave., New York 17, N.Y.
Universal
LEVEL-TRANSIT

MOST PRACTICAL
ALL-AROUND BUILDER'S
INSTRUMENT
EVER DESIGNED!

Highly accurate, amazingly rugged, the Universal Level-Transit does all survey and check-up operations in building and road construction!

Quickly convertible from level to transit, its novel type of design protects parts which were formerly exposed to damage and inaccuracies. Other features include: a patented ball-bearing race, lock and release lever system, and perfect alignment adjustments.

12" Telescope, 25 power, horizontal guarded circle, Vanniers to 5 minutes, Vertical arc, 3".

Write today for full details and free booklet "How to lay out building lots."

MANUFACTURERS OF
INSTRUMENTS FOR ENGINEERS,
SURVEYORS AND BUILDERS.
311 West Court St., Milwaukee 12, Wis.

NATIONAL LOCK COMPANY
ROCKFORD • ILLINOIS
MERCHANT SALES DIVISION
The Milwaukee Combination SASH BALANCE and WEATHERSTRIP

Available with or without bronze covers that completely hide spring, as shown above.

PERMITS REMOVAL OF SASH WEIGHTS, INSULATION OF MULLIONS.

Slash Labor Costs!
Simple installation allows one man to easily install 30 or more windows in 8 hours. No high-priced skilled labor needed. This means you can get more satisfied customers at lower cost... higher profit!

Tops in Operation!
Smooth, positive action; accurate balance; finger-tip control plus the perfect seal against draft, dust, moisture. No wood-to-wood contact. Prevents sticking windows and window rattle.

EFFICIENT LOW COST FOR OLD OR NEW BUILDING

ATTENTION MILLS AND LUMBER YARDS
IDEAL FOR PRE-FIT WINDOWS
Can Also Be Sold in Single Unit Packages

Mail this coupon today!

Milwaukee Strip Service, Inc.
4621-23 W. Lisbon Ave.
Milwaukee 8, Wisconsin

Please rush me folder A-10 and price list of Milwaukee Combination Sash Balance Weatherstrip.

Name
Address

American Builder, October 1949.

Rapid Building Technique Used on Tacoma Warehouse

Walls and roof framing for a recently-constructed 50x100 foot Tacoma, Wash. warehouse building 20 feet high were erected in six hours on a previously-completed concrete floor and foundation work. The speedy operation was made possible by building of the four side wall and two gable wall sections on the ground and then lifting them in place with a crane.

The entire job of fabricating the wall sections and lifting them in position was finished in a five-day work week.

Four Weyerhaeuser Timber Co. Monochord roof trusses of 50 foot length were used in the building, which is to be occupied by the Cavanaugh Lumber Co. of Tacoma. Contractor Roy T. Earley handled the concrete foundation work and the details of fabrication and crane lifting.

On the first day of the work week a small crew of carpenters began nailing drop siding on wall studs laid on the concrete floor. Next, doors, window openings, lintels and headers were framed into wall sections and metal flashings put in place over openings. The large timber columns were built into the wall framework. Fabrication of the two gable end wall sections and four side wall sections, each 50 feet long and 20 feet high, was accomplished in four working days.

Starting the fifth day, a mobile crane lifted the rear gable wall to an erect position. It was held with braces running diagonally to stakes in the ground. Four wall sections were then raised and thoroughly nailed together at building corners.

The four Monochord trusses were next raised and purlins put in place. It required about half an hour to lift and place each truss, and bolt the connecting purlins in position. The last end wall section was raised into position about 3 P.M.

Minneapolis-Honeywell Has New North Coast Manager

Promotion of Wayne McCarthy to the position of North Coast regional manager of the Minneapolis-Honeywell Regulator Co. has been announced by Thomas McDonald, the company's vice president in charge of sales.

McCarthy, a native of Helena, Mont., attended the school of Mines at Rapid City, S.D. and the University of Minnesota, where he majored in mechanical engineering. He spent five years in the contracting business at Mitchell, S.D. before joining the Honeywell sales organization in 1937.

BRADFORD MODEL 160

- Only $59.50
- 2" straight cut, maximum: 3/4" minimum
- Bevel cut at 45°, 1 1/4" maximum; 1 3/4" minimum
- Net weight 10 lbs. 4 oz.

THIS new Bradford 6" Portable Electric Saw is ruggedly constructed and fully powered to take on the toughest sawing jobs! Use of highest quality materials throughout assures carpenters, contractors, and maintenance men YEARS of cost-saving service. Powerful 110 volt AC/DC motor. All ball bearing construction. Helical-cut hardened gears. Compact, streamlined, BALANCED design gives greatest accuracy with least effort.

Ask your Bradford distributor to demonstrate this precision-made tool—it's today's outstanding power saw buy! Write for bulletin giving complete specifications.

THE BRADFORD MACHINE TOOL COMPANY
673 Evans Street—CINCINNATI, OHIO
Precision Since 1840

American Builder, October 1949.
EXCEPTIONAL PORTABILITY
for fast moving to fast spotting on the job. Perfect balance and low center of gravity assure fast, safe towing. Hitch is easily made. Tow pole is detached by simply removing a pin. One man can spot it.

MAXIMUM OPERATING CONVENIENCE
for fast operation at the end of the day as well as the start. Grouped controls swinging through short arcs cut operator fatigue. Skip clutch, brake, water valves and discharge controlled without moving from one spot.

LOW OVER-ALL HEIGHT...
only 87 inches with skip up and 72% inches with skip down... permits working in restricted areas and allows for plenty of headroom for parking in garage or other buildings.

PLUS rugged, long-lasting construction, accurate water system, fast, thorough mixing, streamlined "shimmy skip" that gets all the batch into the drum fast, chain drum drive, outside pivoted discharge chute and many other time-saving, profit-making features.

For all the facts, send for your free copy of Bulletin No. 480. Chain Belt Company, 1689 West Bruce Street, Milwaukee 4, Wis.

YOU INCREASE QUALITY AND REDUCE COSTS with all three SISALKRAFT PRODUCTS

1. SISALKRAFT Reinforced Building Paper
SISALKRAFT is the best sheathing paper that money can buy! Costs very little more than ordinary tar paper... but it costs less to apply it. Use SISALKRAFT over sheathing... as a vapor-barrier (FHA-approved)... under wood flooring... over sub-fill (under concrete slabs)... under radiant heated or concrete floor slabs.

2. SISALATION Reinforced Reflective Insulation
At about $25 per 1000 sq. ft., Sisalation saves 50% or more, compared with other types of insulation. Sisalation costs less to apply. Provides both sideward insulation and vapor-barrier (FHA-approved). Lining attics with Sisalation makes them more livable and attractive. Highest quality construction at low cost!

3. COPPER ARMORED SISALKRAFT
For only about 75¢ per window opening, you can get this pure copper flashing. Highest quality, enduring protection... for flashing door and window openings, foundation damp-coursing, ridge roll and other flashing, waterproofing shower stalls... and other flashing uses.

See Sisalkraft Insert in Sweet's BUILDERS' File
Use all three SISALKRAFT products for quality housing at low cost

The SISALKRAFT Co., Dept. AB, 205 W. Wacker Dr., Chicago 6, Ill.
I am □ ARCHITECT □ CONTRACTOR □ OTHER.
Please send data on all three Sisalkraft products and tell me where I can buy them.

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The SISALKRAFT Co., Chicago 6 • New York 17 • San Francisco 5
House for Heating Studies Sponsored at Illinois U. By Warm Air Association

A study of warm air heating systems suitable for low cost homes, sponsored by the National Warm Air Heating and Air Conditioning Association, will be made this winter by the Small Homes Council of the University of Illinois. It will be a part of the warm air heating research program maintained by the association at the University's engineering experiment station for the past 30 years.

Being built for the study is a five room basementless house, typical of those now selling, with lot, for from $9,000 to $10,000. It was designed by William H. Kapple, assistant professor of architecture. Of standard frame construction, the house will measure 32 feet by 29 feet and will consist of a living-dining room, kitchen-utility room, two bedrooms and bathroom.

Floor construction will be of a four inch concrete slab, poured over four inches of gravel fill, with a vapor barrier between the gravel and the slab. The slab will be insulated with one inch thick rigid insulation, located between the slab and the foundation, and extending downward one foot from the top of the slab.

Three heating systems will be studied during the winter—a gravity warm air system with high side wall registers in each room and two return air grilles in the utility room walls; a warm air winter air conditioning system using the same duct work as the gravity system; and a warm air winter air conditioning system with low wall registers in each room and three high side wall return air grilles.

These systems will be operated alternately for periods of approximately two weeks each throughout the heating season, in order that comparative performance of the systems may be observed under all types of outdoor weather.

In studying the systems, strong emphasis will be placed on the comfort of home temperatures. Three miles of wiring built into the house will connect thermocouples and other heating research devices to a central control panel where continuous records of operations will be made.

The house, aside from its testing apparatus, will be representative of contemporary design and building methods. After several seasons of use for research, it will be sold on the open market.

Arrangements for publication of additional research findings, for use by architects, engineers, builders and the lathing and plastering industry, are being considered.
Take a complete low-cost shop right to the job in this portable

Delta Multiplex

Exclusive with Double Radial Action

Radial movements do more work than the usual 3!

Delta Multiplex - Machine of Many Uses! Does all this - and more:

- Cross Cuts
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Exclusive double radial action uses only two instead of the usual three radial movements. This reduces set-up time, provides greater safety, and speeds up production. You get more flexibility to do more jobs, easier operation, fewer adjustments, front control of all moving parts, and full use of the saw travel.

Delta Multiplex has unequalled capacity . . . for low-pitch rafters cuts, for difficult left-hand miter cuts, for-all-around pre-cut work on the job!

Delta Multiplex is the outstanding value for your work today. Send for descriptive literature. Many models available. Easy time payments. Prices start at $195 f. o. b. Norwalk, Ohio.
**The Sensationally NEW Low-Priced**

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20” PLANER

Here is a modernly designed, rugged, high-speed, low-priced planer that is ideally suited for every shop and industrial plant requiring a quality sur-facer. The Parks No. 20 Planer has a four-knife cutterhead with a speed of 3600 R.P.M. and offers two feed speeds—20 and 40 F.P.M., and 40 and 80 F.P.M. Write for complete descriptive literature.

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12’’ x 4’’ Planer

A compact, sturdy, thickness planer that offers mill planer precision and ruggedness at a sensationally low price. Write for descriptive catalog sheet.

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THE SIMPLE TAMBLYN SYSTEM OF ESTIMATING REDUCES BUILDING MATERIALS and LABOR COSTS TO EASY-TO-USE FACTORS!

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Many of the largest and most successful contractors in the United States and Canada—thousands of them—have used the Tamblyn System of estimating. It is tried and tested—it has been used for more than 25 years. Forty years of experience in construction and building is behind it. And you can study the system for 10 days without cost.

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Send the coupon below for your complete Tamblyn System. Examine it in the privacy of your own home or office for 10 days. Try it on new jobs—check it against completed jobs. There is no obligation unless you keep it.

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In Canada: Raymond Mfg Co., Ltd., Montreal
Consult your local telephone book for the names of our Installing Distributors
SAVE 9 STEPS in Door Installation!

...WITH THIS FENESTRA PACKAGE

HERE’S ALL YOU HAVE TO DO:

1. Bolt the strong steel frame together.
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HERE’S ALL YOU DON’T HAVE TO DO:

1. Cut and fit jambs.
2. Cut and fit stops.
3. Cut and fit trim.
4. Mortise frame and door for hinges.
5. Mortise frame and door for locks and strikes.
6. Cut and fit door.
7. Countersink holes.
8. Putty holes.

Fenestra Metal Doors come to you complete with frames and hardware.

Mortising, drilling, tapping and prime painting are all done for you at the factory. Then each Fenestra Door is carefully wrapped to protect the finish. Your dealer has plenty in stock right now. His name is in the yellow pages of the phone book. Call him today.

Doors are also available with the Underwriters’ B Label. For further information, call the nearest Fenestra Office, or write to Detroit Steel Products Company, Dept. AB-10, 2260 East Grand Boulevard, Detroit 11, Michigan.

*Trademark
New Pipe for Radiant Heating Used at Ohio State Medical Center

FIRST large-scale installation of a new buttweld pipe especially adapted for radiant heating is being made in Ohio State University's Medical Center, now under construction at Columbus, Ohio. The pipe is produced by the Jones and Laughlin Steel Corp. at their Aliquippa, Pa. plant. Fabricated of steel the pipe is being used in panel radiant heating systems in the 11-story, 600-bed main hospital building and in a three-story dental building. The Center, when completed, will be the largest in the state.

Panels consisting of 34-inch and 1-inch pipe coiled back and forth in a continuous regular pattern with one inlet and one outlet are used in the Medical Center's steam radiant heating systems. The pipe is produced with a special bending quality for this type of application. A typical panel of 34-inch pipe uses 100 feet of pipe to cover an area 7 feet 6 inches wide by 15 feet 6 inches long; the largest panel is 5 feet wide by 58 feet long, fabricated from 340 feet of 1-inch pipe. Eight hundred fifty panels of various sizes are being used in the building's ceilings and twenty-two in the floors.

In fabricating the panels, 21-foot pipe lengths are used. The pipe is (Continued on page 222)
Announcing—the Newest in Siding

WELDTEX SIDING

BUILDERS: With this siding you can increase the beauty of your homes, and yet reduce their cost.

You've already seen the fine effects that have been obtained with Weldtex® when used in large panels.

Now, that same beauty, that same durability, that same uniqueness, is available in Weldtex Siding.

In Weldtex Siding, the warmth and beauty of natural wood have been augmented by grooving the surface with deep, irregularly-cut striations. These cut-in grooves lend a third-dimensional quality to the surface, breaking up the flat plane and creating pleasant highlights and shadows.

MANY PRACTICAL ADVANTAGES

But Weldtex Siding has important practical advantages, too. There is no objectionable grain-raising or checking. Expansion and contraction are minimized because the striations relieve surface stress.

Joint lines are invisible. Face nails are concealed by the deep-cut grooving.

And, the wide 4-foot panels go up fast. Only 20 panels cover a square. Savings as much as $60 per small house have been reported (based on a reduction of 70% in labor costs).

Best of all, the finished job is weather-tight, with a minimum of seams. Weldtex Siding takes paint and other exterior finishes perfectly, making a beautiful job which adds to the value of any house.

FHA APPROVED

Weldtex Siding is approved by FHA on Federal Housing jobs.

Write for more information and folder showing typical installation details.


UNITED STATES PLYWOOD CORPORATION

55 West 44th Street, New York 18, N. Y.
The principles of good concrete floor construction are simple but vital. Every step is important—the quality of aggregates, amount of water used, proportioning, placing, finishing and proper curing. Strict observance of the principles of quality concrete construction will insure satisfactory floors.

Do you know, for instance, how much water you should use per sack of cement and what the slump should be for the top course of a durable, heavy-duty industrial floor? Or, how soon after floating you can use a steel trowel for finishing?

"Concrete Facts For Concrete Contractors," a free, non-technical booklet, answers dozens of questions about quality concrete. This booklet will be helpful to you and the men who work for you. Write for your copy today.

Lifting the slump cone is a typical test for the consistency of concrete. Distributed only in the U.S. and Canada.

Remember, whether you are building a floor, foundation, wall, patio or driveway, the time-tested methods of control will give you quality concrete. Quality concrete is your best salesman. It makes satisfied customers, spreads your reputation as a quality builder and thus sells more jobs for you.

"Answer: Not more than 5 gal. water, including moisture in aggregates. Slump less than 1" for mechanical finishing, less than 3" for hand finishing.

"Answer: Not until all water sheen has disappeared from surface—usually 30 to 45 minutes.

Portland Cement Association
Dept. A10-3, 33 W. Grand Ave., Chicago 10, Ill.
A national organization to improve and extend the uses of portland cement and concrete...through scientific research and engineering field work...
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Most folks know that "Time is Money," and nowadays they're beginning to buckle down and practice what they preach again. Every minute saved installing locks and latches is as good as money in the bank. That's why it's a good idea to make every lock and latch uniform... to fit a standard boring. With a set of Dexter special installation tools, a carpenter can mount ANY Dexter lock or latch, AND HE CAN DO IT IN LESS THAN SIX MINUTES. Dexters go on in a jiffy, and stay for a lifetime... that means savings for the contractor... satisfaction for the customer.

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National Brass Company
Grand Rapids, Michigan

Makers of Builders, Cabinet, Screen Door and Shelf Hardware

In Canada: Dexter Lock Canada Ltd., Guelph, Ontario
Radiant Heating Pipe
(Continued from page 218)
bent at the correct lengths to form successive coils in a panel of uniform length. An arc of 180 degrees around radii of 3½ inches to 6 inches, depending on the size of the panel, is used in the bending operation. In order to assure an unrestricted flow of hot water and maximum heating efficiency, the inside diameter of the pipe must remain constant after bending.

Ceiling panels in the medical Center are supported by angles 1½-inch by 1½-inch by 3/16-inch, welded to the pipe and running the entire length of the panel. The angles are bolted to ½-inch rods with threaded ends which are securely fastened to the concrete ceilings. After the panel is in position, the underside of the concrete ceiling is sprayed with insulating material. Metal lath is then wired to the underside of the panel and covered with a ¾-inch plaster ceiling. Floor panels are buried in concrete.

The coefficient of expansion of steel pipe being slightly less than that of concrete or plaster, a pipe temperature higher than that of the surrounding concrete and plaster results in an expansion of practically the same extent, assuring structural soundness. Water remains in the pipes the year around, sealing out and eliminating the risk of corrosion.

Furnish Technical Data For Floor Installation

A mimeographed copy of suggested specifications for mastic-applied block and patterned hardwood flooring is available free to architects and builders. The Public Information Department of the Maple Flooring Manufacturers Association has announced.

A full page of illustrated patterned floor designs is attached to the specification material, the designs including the square block, rectangle, and herringbone patterns.
The most complete—ready-to-install unit ever offered . . . the Rusco Prime Window is the result of twelve years experience in design and development of window conditioning. Made of finest quality, tubular, hot-dipped galvanized steel and factory-fitted, the Rusco Prime Window is a trim-appearing efficient unit—practical, durable and trouble-free. Factory-treated and painted—all installation members of toxic-treated wood. Only the wood surround needs field painting.

Requiring no seasonal maintenance, it provides year ‘round insulation, comfort and convenience to the homeowner. . . . Ease—speed and low cost of installation make it the choice of architects and builders.

- All sash frame members made of finest quality, tubular, hot-dipped galvanized steel—Bonderized, zinc chromated and finished with outdoor, baked-on enamel for lasting beauty—cannot warp, stick or bind.
- Toxic-treated wood installation members are furnished complete—for easy installation.
- Waterproof felt weather stripping throughout assures easy, silent operation—complete weathertightness.
- Glass bedded in mastic and held in with stainless steel spline . . . simplifies glass replacement . . . no short-lived, unsightly putty is used.
- Lumite Plastic Screen Cloth—will not rust, rot, corrode or bulge—is left in place the year around.
- AVAILABLE WITH INSULATING WINDOWS—inside-adjustable, self-storing—factory-fitted—complete in frost-break frame.

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TRUSS DOORS

Absolutely warp-proof and with a guarantee to back it up — that's Truss Door*, the greatest door development in many years.

Truss Doors are hollow core, birch faced flush doors with an integral truss that holds them in permanent alignment. Save on installation with straight doors, save on replacements with doors that stay straight.

*Pat. Applied For.

After receiving their final adjustment at the factory, Truss Doors can be stored or hung with assurance that they will always retain their original shape.

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We can't begin to tell you of all the many features that make Flush Doors ideal for every building application. For the complete story, write for our comprehensive folder.

Truss Door Division
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Attract Buyers with this "BUILT-IN" Comfort Feature!

Solid comfort at low cost. That's what you offer when you equip your homes with Gate City Awning Windows. Here's the window that has taken Florida by storm... that cools off hot, stuffy rooms.

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Of course, these windows cost a little more. But — they more than repay that extra cost the first time the rain-deflecting sash saves a redecorating bill!


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GOOD BUILDINGS DESERVE GOOD HARDWARE
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Time, heat or vibration won't make Insl-Cotton insulation settle or pack—rather, it increases in fluffiness and effectiveness! That is because Insl-Cotton is made from live, springy cotton with exceptionally resilient fibers. And those same cotton fibers make Insl-Cotton from 4% to 36%, more efficient than any other available type of building insulation material on the market today. It's cotton too, that makes Insl-Cotton exceptionally light-weight, easy to handle and install—makes it safe and pleasant to apply with no abrasives—nothing to harm skin or clothing. Flameproof (it is tested with an 1800° F. blow torch flame to prove it is non-flammable), Insl-Cotton is fire, moisture and vermin resistant.

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A program for market-expansion was the main discussion topic at the annual meeting of the Douglas Fir Plywood Association, held recently at Tacoma, Wash. More than 250 industry executives from Washington, Oregon and Northern California attended.

Exhibits, which featured plywood uses on the farm, included grain bins, silos and corn cribs. Also shown were house sections with plywood walls, floors and roofs; and photographic panels depicting use of panel material.

Frost Snyder, president of the Vancouver, Wash., Plywood Co., was elected president of the association, succeeding Arnold Koutonen, general manager of the Plywood Division of St. Paul and Tacoma Lumber Co., Olympia, Wash., who held the office two years.

F. L. Johnson, general manager of Anacortes, Wash., Veneer, Inc., was named vice president. Leonard Nystrom, president of Associated Plywood Mills, Inc., Eugene, Ore., and J. H. Smith, general manager of Puget Sound Plywood, Inc., Tacoma, Wash., were re-elected secretary and treasurer.

Koutonen, in his retiring speech, told members that the satisfactory performance of products and the new sales-building drive were the keys to continued good business. Other speakers were Charles E. Devlin, managing director of the association, who outlined the overall strategy and goals of the market-expansion campaign; and Richard N. Jones, associate advertising director of Architectural Forum magazine. Jones stressed the importance of a sustained promotional campaign by all components of the building industry.

It was announced at the convention that several additional firms had been approved for membership by the association. These include Crescent Plywood Co., Crescent City, Calif.; Evans Products Co., Coos Bay, Ore.; Fir Manufacturing Co., Myrtle Creek, Ore.; Humboldt Plywood Corp., Arcata, Calif.; Menasha-Coos Head Plywood Corp., North Bend, Ore.; Pacific Veneer and Plywood Corp., Bel- lingham, Wash.; Southern Oregon Plywood, Inc., Grants Pass; and Western Veneer Co., Lebanon, Ore.
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