How to build a "better value" house
A Cheerful NuTone Chime Always Helps Sell a Home!

KEEP YOUR SALES AT A HIGH LEVEL by adding the “warm, friendly greeting” of a musical NuTone Door Chime at the doorway. Pleasing to the ears... attractive to the eyes... and easy on the nerves.

1 FIRST NEW CHIME SOUND IN 20 YEARS! Beautiful — Rich—Vibrant CHORD TONES—to make any home more elegant and glamorous. Smart brass grille, desert-sand cover, gold grille cloth. Surface mounted. (L-30) 2-door model, $12.95 list. (Patents Pending.)
2 NO WIRING NEEDED. Non-Electric 2-note Door Chime and Brass Nameplate. Turn handle to sound chime. Fits any door. (MC-302) Oyster white, $4.95 list.

EVEN YOUR LOW COST HOMES can afford this beautiful built-in Door Chime. Ivory and brass. 2 notes for front door, one note rear. (K-14) Only $6.95 list. 4 3/4” x 6 1/2” Wall Cut-out.

HOME BUYERS FALL IN LOVE with this modern NuTone built-in Door Chime! It’s in tune with contemporary home design. Ivory and brass, or aluminum and white. (K-15) $9.95 list. 6 3/4” x 6 3/4” Wall Cut-out.

Write for FREE Catalog L-459, showing 21 Chime Models.

NUTONE

NUTONE, INC., Dept. AB-11,
Cincinnati 27, Ohio
The name on this box represents one of the most important features of a Kwikset lockset—a feature that adds immeasurably to its value, nothing to its cost. This feature is the manufacturer's reputation.

Residential builders buy more Kwikset "400" line locksets than any other brand. They know Kwikset's reputation for locksets made to highest quality standards, designed for fast, money-saving installation and backed by Kwikset's famous unconditional guarantee.

When you order Kwikset "400" line, you receive locksets with the extra feature money can't buy—the finest reputation in the industry.
Sterling T-Frame

goes up fast,
prevents warping

Simple in design—low in cost
Steel header and steel split jambs are easily and quickly set into rough opening.

Aluminum Track and Adjustable Hangers with Twin Nylon Wheels. Door is easy to hang with hangers attached.

Engineered exclusively by the leader in sliding door hardware—no other pocket unit like it!

Send for our new 21-page catalog and detailed information or see our catalog in Sweet's Files.

John Sterling Corporation
FORMERLY STERLING HARDWARE MFG. CO. • CHICAGO 18, ILLINOIS
Brand names sell
Here's a good way to convince prospects your homes are of the very best quality! After working with leading manufacturers for 12 months, Edward Rose & Sons, Detroit builders, came up with the "Brand Name Home," which purposely contains as many well-known products as possible.

Make yourself heard
Get active in local level politics if you're plagued by zoning problems and other harassments from civic officials (and what builder isn't these days.) This smart tip comes from Emil M. Keen, board chairman, Long Island Home Builders Institute, who warns: you won't get anywhere by being aloof. Some other counsel from the veteran builder: in those areas where FHA and VA red tape and lack of "speed" are holding up construction, local builder groups should push for intra-state insuring agencies.

Merchandising: a key word
What is needed in today's tough market is top-notch merchandising to sustain interest in your homes after their initial opening. National Homes president, James R. Price suggests builders give their promotion and advertising continuity. You'll gain valuable time for the kind of aggressive selling the current situation requires.

Exterior decoration
One thing is certain! Buyers are becoming more choosy. They want variety in their new homes. One way to disguise that "cookie-cutter" look in large-scale developments is with variations in landscaping. Different treatment of outdoor areas will lend a custom look to an otherwise "static" community.

There's profit in remodeling
Remodeling continues as a good bet for all builders—but particularly those in areas most affected by the current "money pinch." Banks report funds for home improvement loans are plentiful. Comparatively short terms and good interest rates make these loans attractive to lending institutions. OHI groups anticipate total remodeling market in 1956 should top $15 billion—roughly $1 billion over new home building.

Take time out to learn
You'll benefit from a visit to the third annual Producers' Council's home building caravan when it arrives in your area. For the first time, the exhibition is aimed directly at builders, featuring products and ideas to help you sell more houses.

That well-rounded look
Planning a balanced community is a "must" if a builder is to maintain a good reputation over the years. David S. Geer, principal in the planning consultant firm, Geer Associates, strongly advises the use of land planners when rounding out site acquisition for projects. Purchasing the proper land results in a better-planned development.

Cater to the kiddies
Consider children when planning your new homes. That's good advice from Eli Besen, builder of Kennedy Park homes, Pearl River, N. J., who points out that sixty-seven per cent of the families planning to purchase a house by February include at least one child under ten years old. Many parents would gladly forsake a powder room or built-in bar in favor of a play room or place to study for the children.
This big window looks custom-made . . . but it wasn't. It was assembled from two standard Lupton Metal Window units.

Variety and adaptability are two reasons why the use of Lupton Windows is growing. Practically any desired window type can be bought from the complete Lupton line. With Lupton Metal Windows you have a choice of casements in steel or aluminum; aluminum double-hung, ranch and jalousie windows; and aluminum sliding doors; in a wide range of sizes. Well-stocked warehouses help assure prompt delivery. A fifty year old reputation for quality and service helps protect your reputation as a builder and gives you added sales features. Contact your nearest dealer for complete information about versatile, beautiful, practical Lupton Metal Windows and sliding doors.

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700 East Godfrey Avenue, Philadelphia 24, Penna.

Member of the Steel Window Institute and Aluminum Window Manufacturers Assoc.
NOVEMBER 1956

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Can You Call a Man a “Failure” at Thirty?

Men who think that success is only a matter of “a few years” are failures... however young they are!

How often have you heard some young man in business say, “I’ll admit the job I have now isn’t much but, after all, I’m only in my twenties.”

Or: “Just about every executive in the company I work for is between 45 and 65. I have plenty of time to get ahead.”

This mistaken idea that success comes automatically with time is easy to understand. Promotions do come regularly and effortlessly to young men of promise. But the day arrives, often abruptly, when that promise must be fulfilled. Native ability and intelligence can carry a man only to the mid-way point in business—beyond that he must prove his capacity to justify a position of executive responsibility. That calls for a practical, working knowledge of business fundamentals.

The time to build that knowledge—to lay a solid groundwork for your future progress—is now...now while time is still on your side. If you fail to recognize that fact, you’ll know only struggling, skimping and regret when your earning power should be at its height.

FOR THE BUSINESS MAN WHO REFUES TO STAGNATE

Half the world is half asleep! Men who could be making twice their present salaries are coasting along, hoping for promotions but doing nothing to bring themselves forcefully to the attention of management. They’re wasting the most fruitful years of their business lives... throwing away thousands of dollars they’ll never be able to make up.

If you want to discover how to start to succeed while you’re still young—if you want to avoid the heartbreak of failure in later years—send today for “Forging Ahead in Business”... one of the most practical and helpful booklets ever written on the problems of personal advancement. You will discover what the qualifications of an executive are in today’s competitive market... what you must know to make $15,000, $20,000 or more a year... what you must do to accumulate this knowledge.

“Forging Ahead in Business” was written for ambitious men who seriously want to get down to bed-rock in their thinking about their business future; there’s no charge for the booklet because, frankly, we’ve never been able to set a price on it that would reflect its true value. Some men have found a fortune in its pages. If you feel that it’s meant for you, simply fill out and return this coupon. Your complimentary copy will be mailed to you promptly.

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"The better you plan—the better you buy—the better you build—the better you sell" 

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When Mrs. Prospect starts promoting a house to her husband, you can be sure the "sale" isn't far away. That's what usually happens when she sees a kitchen or bathroom equipped with General Electric Textolite plastic surfacing on counters and walls. She knows that G-E Textolite surfacing means care-free maintenance... it resists heat, stains, and scratches... wipes clean in a jiffy, and never needs painting or refinishing! Best of all, she knows that General Electric Textolite gives her a choice of over 80 patterns and colors, including authentic looking wood-grain and marble designs.

INSTALLING A GENERAL ELECTRIC COLOR-STYLE KITCHEN? There's a complete selection of G-E Textolite colors that match exactly or contrast smartly with each of the colors in the G-E kitchen line. For more information, call your G-E Textolite Distributor or send in the coupon below.
Impact

On "Customized Developments"

Sirs: My outfit is more than pleased by your treatment of our Haddonfield program in October’s American Builder. It’s not only the recognition in a national publication. It’s the clear understanding and the excellent presentation of what we are trying to accomplish that’s even more rewarding. With such articles American Builder can serve its important function of showing how builders can do a better job in good times and bad.

—Bob Scarborough, Haddonfield, N. J.

Sirs: A tremendous story for the 1-to-20 builder showing how to customize while delivering project savings. We’re proud to have provided Hotpoint kitchens to fit into this kind of a builder program.

—J. L. Zar, manager, builder merchandising, Hotpoint Co.

The article illustrates the growing recognition of the need to combine smart buying and planning with old-line good workmanship.

“Convincing”

Sirs: I want to take a minute to thank you for the article on our system of component construction. We are convinced that components will soon become of major importance to the custom builder and your clear and concise article should go a long way towards convincing a great many other builders of this probability too.

—Paul Levine, Sales Manager, Fabricators Inc.

There will be more on components in the feature on prefabrication in February American Builder.

Recommended Reading

Sirs: I would like to call your attention to a program of the States Savings and Loan League that I am sure will be of interest to you. Enclosed are copies of “Land Planning” and “Design” handbooks just published by the League as part of a program to do what it can to upgrade land planning, design and construction standards. These handbooks, of course, have been made available to every member of the United States League, numbering more than 4,200 savings and loan associations, but they are also available without charge and upon written request to the League to home builders, insurance companies, mortgage bankers, and any other organization or individual interested housing.

—Don Coenen, manager of publications, U. S. Savings and Loan League, 221 North LaSalle St., Chicago 1, Ill.

"Watch it, Ed, the plumbers are here"

(Cartoon by Virgil Partch—Courtesy Pamona Tile Manufacturing Co.)
"Decay and Termite Damage in Houses"

Prepared by the DIVISION OF FOREST INSECT INVESTIGATIONS, Bureau of Entomology and Plant Quarantine, Agricultural Research Administration; and the DIVISION OF FOREST PATHOLOGY, Bureau of Plant Industry, Soils, and Agricultural Engineering.

TERMITES are the most destructive of the insects that attack wood in houses. They eat the interior of the wood and may cause much damage before they are detected.

Wood damaged by termites can be easily distinguished from decayed wood. Termites honeycomb the wood with definite tunnels; these are separated by thin partitions of sound, firm wood.

Wood decay is caused by fungi, which are plants consisting of microscopic threads...

The decay fungi weaken or destroy the fiber. These cannot work fast at temperatures below 55 to 60°F., and not at all in dry wood. There is no such thing as 'dry rot'; decayed wood is often dry after it has rotted, but not while the decay is taking place.

The decay fungi soften the wood and in the final stages cause it to shrink and crack or crumble.

Scientific multiple aluminum, by insulating against vapor and heat flow, keeps the area beyond the insulation colder and drier, thus retarding fungus growth and timber rot.

"10 Essential SAFEGUARDS AGAINST TERMITES AND DECAY" will be found in U.S. Bulletin 1993, obtainable free by sending the coupon.

Infra Insulation Inc., 525 Bway., N. Y., N. Y. Dept. 811
Manufacturers of Scientific Multiple Aluminum Insulation, which retards Fungus Growth and Timber Rot.

Name ___________________________________________
Firm ___________________________________________
Address _________________________________________

A water-conducting fungus attacked untreated oak piers of this 5 year old house and continued to decay sills, joists, and studs to a height of 6 ft.
The Building Outlook

SMALL TALK

NUMBER PLEASE
Increased number of families using telephone extensions will make built-in telephone facilities a top sales feature in tomorrow's homes. Plug-in spots or "jacks" will enable users to move phones anywhere in the house.

LET THERE BE LIGHT
Mr. "Bulbsnatcher" may not be with us much longer. According to Westinghouse researchers, lighting in the future will come from walls. Engineers are perfecting electro-luminescence—a new light source from phosphor-coated panels about as thin as window panes. Panels can be cut to any desired shape, will switch off and on the same as ordinary light bulbs.

FLEXIBLE PLANNING
New homes will have to be more flexible than they are today for two reasons— the trend to larger families and the increasing number of elderly persons. Cornell University Professor James E. Montgomery says the decision makers in the building industry need to think more of housing in terms of men, women and children.

ROOFING REVOLUTION
Glass roofs are certain to spread to residential building. They are in the form of porous sheets of fibrous glass containing thousands of tiny glass fibers which reinforce the asphalt in built-up roofs. That's the prediction of Harold Aronow, president of Aronow Roofing Co., who expects this glass reinforcement conception to capture most of the roofing market within five years.

NORTHERN EDITION

MORTGAGE MONEY SUPPLIES still are the most talked about problem in and out of the industry as American Builder editors discovered in a recent 60-city tour during NHW. Some local conditions: Chicago, it's increasingly difficult for builders to line up financing... Cedar Rapids, FHA and VA loans are very definitely hard to come by, only being made to preferred borrowers... South Bend, money is expected to get tighter before it eases.

AMAZING DEVELOPMENTS in materials, equipment and construction methods forecast a fabulous future for the homebuilding industry. Cold consensus of businessmen is that home builders can count on a period of continued strength and growth in the next few years. By 1960 economists say we will have a population of 177 million; a labor force of 72.5 million; and approximately 58 million households. The average household income, they say, will be between $5,500 and $6,000. Annually, 1,700,000 new homes will be needed.

ADEQUATE SUPPLIES for home and other construction are seen for 1957, but material costs will probably continue their slow but steady rise. Although there will be very little addition to the labor force, no shortage is anticipated owing, in part, to fewer anticipated starts. The entire construction picture for 1957 appears in AB's forecast feature on page 75.

TOMORROW'S HOUSE doesn't only refer to those homes to be built ten or fifteen years from now. They're the homes you'll be building next year. National Home Week models, as usual, established definite trends as to what buyers will be expecting in new housing. AB editors travelled 30,000 miles during NHW to discover what's new for 1957. What they found begins on page 80.
For as little as $50—Your houses can have Remcon too!

More and more trend-setting homes specify Remcon

With Remcon multi-point switching you can control any light in the house—economically—from as many switching points as you wish. Never before has it been possible to add so much electrical convenience for so little.

Remcon
low voltage switching

With Remcon remote control switching you can control any light in the house from anywhere in the house—economically. For more information, write: Pyramid Instrument Corporation, 630 Merrick Road, Lynbrook, New York.
Pulse of Building

Interpretation

September's 8 per cent decline in housing starts reflected a sharp and geographically widespread drop in residential building permits. At the same time applications for FHA and VA appraisals also declined sharply, indicating fewer starts for the months ahead. Recent announcements of plant expansions during the fourth quarter point to a reversal of the recent downward trend experienced by industrial building.

15 Leading Home Building Areas

Dwelling units built in Metropolitan areas during 1956. (BLS)

<table>
<thead>
<tr>
<th>City</th>
<th>Units</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Los Angeles</td>
<td>49,714</td>
<td>-17</td>
</tr>
<tr>
<td>New York</td>
<td>40,666</td>
<td>-24</td>
</tr>
<tr>
<td>Chicago</td>
<td>28,158</td>
<td>-11</td>
</tr>
<tr>
<td>Detroit</td>
<td>17,673</td>
<td>-17</td>
</tr>
<tr>
<td>San Francisco</td>
<td>12,360</td>
<td>-32</td>
</tr>
<tr>
<td>Washington</td>
<td>9,335</td>
<td>-22</td>
</tr>
<tr>
<td>Miami</td>
<td>8,982</td>
<td>-2</td>
</tr>
<tr>
<td>San Diego</td>
<td>6,425</td>
<td>+10</td>
</tr>
<tr>
<td>Baltimore</td>
<td>6,412</td>
<td>-27</td>
</tr>
<tr>
<td>Cleveland</td>
<td>6,411</td>
<td>-21</td>
</tr>
<tr>
<td>Boston</td>
<td>5,340</td>
<td>-15</td>
</tr>
<tr>
<td>Atlanta</td>
<td>5,230</td>
<td>-20</td>
</tr>
<tr>
<td>Denver</td>
<td>5,180</td>
<td>-34</td>
</tr>
<tr>
<td>Buffalo</td>
<td>5,100</td>
<td>-8</td>
</tr>
<tr>
<td>Milwaukee</td>
<td>4,876</td>
<td>+14</td>
</tr>
</tbody>
</table>

FIFTH STRAIGHT DROP in lumber prices offset gains in metal costs, lowering overall building material prices. Hourly earnings rose to 154.3, five per cent above August, 1955.

Construction Activity

ALMOST EQUALING peak set in August, September's construction outlays hit $4.2 billion, pushing 1956's dollar volume activity slightly above the 1955 record total.
Use window beauty to create an inviting room

The natural wood window beauty of Andersen WINDOWALLS blends with wood paneling and fine furnishings... helps a builder achieve a feeling of warmth and charm. Made of selected wood, chemically treated to prevent decay, WINDOWALLS provide natural beauty... natural insulation against both heat and cold. And these Andersen Casement Windows are easy to open, easy to close, because they are manufactured with extra care and precision by the skilled window craftsmen of Andersen.

For data on building for beauty with WINDOWALLS, see your lumber and millwork dealer, Sweet's Files or write Andersen. WINDOWALLS are sold throughout the country, including the Pacific Coast.

ANDERSEN CORPORATION • BAYPORT, MINNESOTA
Believe it or not, the houses on these pages are relatively conservative. They are a “middle of the road” selection from the first 17 houses to be built in the Homestyle Center, Grand Rapids, Mich., a project designed for the study and display of various solutions to living needs.

The center is operated by the Home Research Foundation, Inc. It will eventually include 50 homes, ranging from colonial to science fiction. Each year some of these will be torn down and replaced with new and different models, ranging in price from $8,000 to $200,000.

Architects, landscape architects, furniture designers and NAHB representatives all are contributing to the Homestyle Center. In addition, many manufacturers will contribute their newest products for the houses.

The house at the top of this page was designed by architect Kazumi Adachi of Los Angeles, and it is representative of the oriental influence which has become of such great importance to the area.

The architect considers his house as a plan for adults living in an urban area. He estimates that its 1250 square feet of space could be reproduced for about $15,000. Most distinctive feature is the arched roof, supported by laminated wooden girders.
“DONUT HOUSE” is designed around a center court. Ralph Rapson is the architect.

HOUSE ON STILTS is built between two concrete lift slabs. Architect was Robert A. Little.

is a house designed by the firm of Painter, Weeks and McCarthy of Knoxville, Tennessee, for the south central region of the country. With its three bedrooms and big family room it is ideally suited for a growing family, and at a cost of $15,000 for 1500 square feet of living space, it fits what is rapidly becoming the medium price range.

Builders will note with interest the use of pre-cast concrete beams and roof decking.

For the midwest, Architect Ralph Rapson of Minneapolis has designed a “donut” house which looks in upon itself. The house is designed for a narrow city lot that would provide little in the way of view; hence it provides its own view in the center court, which also becomes part of the living area of the house.

The house has 1250 square feet of space, could be built, like the preceding two, for about $15,000.

The last house, by Robert A. Little of Cleveland, borrows a page from a book that has up to now been almost the exclusive property of commercial builders: the concrete lift slab. By raising two slabs, Little lifts the house on stilts, uses the lowest level as the carport and living area.

At $50,000, this house is decidedly in the upper brackets. Nevertheless, with increased use of the lift slab, the price may well come down in the future.
America's Most Complete Line for WEATHER-SNUG HOMES

M-D Macklanburg-Duncan Co.

Quality Building Specialties

Numetal WEATHER STRIP

Sets for windows

Handy to buy, handy to use. Here in one attractive package is a complete M-D Numetal Weather Strip set for a single window. Available in standard 28", 30", 32", and 36" double hung windows. M-D packaged sets save selling time... cut handling costs... make inventory easy.

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This stainless steel or bronze coil weather strip is packed two ways — six 18 ft. rolls in free display carton, or in 100 ft. individual cartons.

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Numetal DOOR BOTTOMS


BUILDERS

For highest quality and dependability always specify M-D products. Sold by hardware, lumber and building supply dealers throughout the country!

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Order Today! Your order shipped same day it is received! All M-D products are fast sellers, nationally advertised.
**WEATHER STRIP**

Easiest in the world to put on

This easy-to-put-on weather strip makes friends as it makes you profits. Works perfectly on windows, storm sash or doors. Made of wool felt and white metal. Each individual carton contains one 18 ft. roll with nails and instructions. Packed 12 cartons in display case.

**NUGARD**

Automatic DOOR BOTTOM

Here's the perfect automatic door bottom and draft eliminator for ALL doors. Completely solves old problem of clearing rug or floor every time door opens. Easily installed on right or left hand door. Smartly designed with silvery-satin finish — will not rust or tarnish. Furnished in standard lengths—28", 32", 36", 42" and 48". Packed in individual cartons.

**Nu-CALK**

CALKING COMPOUND

World's best calking compound available in loads, with or without nozzle . . . hand squeeze tubes . . . or 1/2 pt., pt., qt., and gal. cans. Also 5-gal. and 55-gal. drums—gun or knife grade.

**Nu-Glaze**

GLAZING COMPOUND

You can recommend this glazing compound with complete confidence that it always "stays put." Packed in 1/2 pt., pt., and qt. cans, 25 lb., 50 lb., 100 lb., and 880 lb. drums.

**Nu-Phalt**

PLASTIC ASPHALT CEMENT

Ideal for sticking down asphalt shingles and general repair work on roofs and flashings. Comes in handy loads, with or without nozzle; 2 1/2 lb. and 10 lb. cans; 50 lb. pails and 350 lb. drums.

**Macklanburg-Duncan Co.**

Oklahoma City 1, Oklahoma

Leaders in the Building Specialty Field for 35 years!
Our basic material is fine wood. Our basic products are fine, residential windows. We could make metal windows faster and cheaper—but wood looks better, and works better—longer. We'll stay with wood for frames and sash.

We could have decided to make wooden frying pans with metal handles. But, while making wood comparatively fire-resistant is no great problem, we know of no way to make wood transfer heat. It's too good a thermal insulator. The metal handle would get hot while the wooden pan stayed cool.

Or, we could have gone into the manufacturing of wooden ice cube trays. But, again, wood resists transferring cold—so, ice cube trays made of wood would be mighty inefficient.
WooD IS HERE TO STAY

The modern chemical magic which takes place during immersion makes wood water-repellant and rot and insect resistant. Of course, wood never rusts out or corrodes. It's easy to adjust, too, when the house settles (as even the best homes do).

Even before modern day toxic-treating, wood windows usually outlasted the homes in which they were installed. Just check over the materials offered by wrecking companies. You'll find plenty of used wooden windows and doors, still in good condition. Now, wood is an even better material and it blends beautifully with residential settings.

No matter what the home decorating plan—it's easy to varnish, stain or paint wood windows to harmonize. They're much easier to drape, too, and a lot easier to maintain in good working condition.
SHAWNEE "LOADMASTER"
A heavy-duty, industrial type loader which lifts 2 tons to 9 feet dumping height. Shawnee DL-102 kit enables use of loader's hydraulic system to operate any backhoe. Loader removes from tractor by 2 pins and 2 cap screws.

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Another Shawnee exclusive—PUSH-PULL POWER—on the new Shawnee Chief. The top cylinder pushes on the bucket boom and the bottom cylinder is synchronized to pull...provides more digging power.

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SHAWNEE "SCOUT"
Designed with hydraulic "feet" for quick leveling up to dig plumb holes, the D70HL Scout is ready for work seconds after the tractor stops rolling. Working on slopes or with one wheel on curbing makes no difference. Scout D70 available without hydraulic stabilizers.

Model D70 Scout has "A" frame base. Model D70HL with Hydraulic Feet as illustrated.

SHAWNEE MODEL 62
Lowest Priced Backhoe
A smaller version of the Scout designed for lighter digging needs, the Model 62 is exceptionally well built—smooth and fast in operation. Easily attached or removed in approximately 20 minutes.

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AMERICAN BUILDER
'57's biggest question—how many "starts"?

"Inside information"—the kind that usually forms the basis of market predictions—is hard to come by this year. Industry sources, who normally contribute estimates, are shying off.

It's quite understandable. Forecasting the housing market is at its best a hazardous occupation; it depends on so many factors; one error can make you as wrong as dormers on a butterfly roof.

This year it's murder! The trick is to balance a hard-money situation against rising costs, complicated by changing patterns in the structure of the entire industry. Mix this with the assortment of possible consequences of a post-election year, and you find the crystal ball begins to cloud over.

One of the most difficult predictions to make with confidence is the number of 1957 housing starts—especially when experts themselves differ so widely. One well-known government economist forecasts a rock-bottom level of 1.2 million starts. His counterpart in another department sees a total closer to an even one million. An NAHB spokesman can't justify future facing Winston Wright of Ponca City, Okla., who expects his 1957 starts to be off 50 per cent.

Wright, who builds mostly under VA, reports this critical situation will continue unless some capital is channeled into the industry.

Continuation of the present price of money will cause a twenty-five per cent drop in starts to about 200 homes during 1957. That's the word from Richard F. York of David K. Builders, Inc. in Detroit; and, a fifteen per cent drop is anticipated by John Crossland of John Crossland and Co., Charlotte, N. C., who will concentrate on higher-priced homes.

Many builders plan drastic cuts...

But, the best source of information is the builders themselves. Their replies to an AB survey bear out the fact that financing is the magic word.

In those areas where there is sufficient financing available, starts are expected to remain about the same or rise slightly above those in 1956; in already "tight money" areas or in those just beginning to feel the pinch, builders report a decided drop in the number of units they plan to build.

Let's look at the dark side of the picture first!

A ninety per cent drop in starts for 1957 is on the books for Donley P. Stephenson, Abilene, Tex. Actually, this reduction has already begun. Why? It's due to "rising costs of lumber and materials, labor, land prices, costs of development and prohibitive four and five per cent discount rates on mortgage money for FHA and GI houses in the $10,000 to $14,000 price range." Stephenson will concentrate on commercial building plus conventionally financed homes priced above $15,000.

"I have my own subdivision and have been able to continue building, but do not foresee enough starts to pave the next street at the present time." That's the dismaying

...but others schedule more homes

Another builder planning to operate in the higher price bracket next year is Raymond S. Barry of Columbus, Ohio. Says Barry: "Expect volume to be cut if financing situation doesn't improve, especially FHA financing. Even now, we are being hampered with our trade-in sales, as these houses are in the low price range and are sold to people who need FHA financing in order to buy."

As Barry points out, this, in turn, affects sale of the higher priced new homes. To sum it up: buyers available, financing lacking.

Guaranty Loan and Real Estate Co. of West Memphis, Ark., which builds in the $10,000-$14,000 range plans the same or slightly less number of units in 1957. But—and it's a large but—they report an increase of 40 per cent might be possible if nothing down payments were reinstated and FNMA remains in business.

The West Memphis situation clearly points the accusing finger at money as the big bad wolf; huffing and puffing to blow housing starts down. For, in areas where money has been and continues to be ample, 1957 plans call for as many or more homes than were built this year.

Halper Homes, Inc., Newton, Mass., has already pre-sold forty-five per cent of its scheduled 1957 production as a result of National Home Week promotion. And the schedule calls for 10 per cent more houses than were built in 1956.

Alfred W. Halper explains: "Our 1957 volume seller is same model as 1956—a side-to-side split with 1300 sq. ft. of livable space, seven rooms, 1½ baths, porch and garage on a three-quarter acre lot priced at $18,600. This is $600 higher than in 1956 due to new built-in kitchen, slightly larger house and more rigid road requirements." The company has two more models in its 1957 plans.
NAHB directors protest unfair credit policies

Home builders, facing another tough year in 1957, last month rejected an offer of tea and sympathy. They've been sitting at the foot of the credit-restraint table long enough, they figured, and were tired of reaching for crumbs.

As a result, delegates at the annual fall meeting of the board of directors, National Association of Home Builders, in Boston October 4-10, strongly opposed the view of key government officials concerning their position in the currently tight mortgage money market.

NAHB spokesmen said the home building industry was being discriminated against and forced to bear an unfair part of the burden in fighting inflationary influences.

Asks equal treatment

Dick Hughes of Pampa, Texas, past president of the association, expressed the consensus of the directors thus:

“We are not opposed to hard money as such if hard money is really good for the country; but we sure think it would be fine if this rigidity were the same for all, big and small, home builder, appliance dealer, and automobile manufacturer alike.” *(See poem below.)

This was in protest to pleas for concerted anti-inflationary measures by W. Randolph Burgess, Under-Secretary of the Treasury;

Albert M. Cole, HHFA administrator; and Raymond Rodgers, professor of banking, New York University.

Other topics discussed at the week-long meeting included the economic outlook for 1957 and prospects for favorable or unfavorable legislation for the home building industry.

NAHB economist Nat Rogg revealed the early results of an industry-wide survey of builders' activities. For the first time, he disclosed, the median-price house in America has topped $15,000.

Norman P. Mason, FHA commissioner, explained his department's reason for endorsing the inclusion of appliances despite complaints from appliance dealers. Briefly, said Mason, FHA considers the house a sounder investment when the owner has all the equipment he needs to run the house.

Currently, he noted, FHA is considering re-evaluation of its income-to-house price formula. So many wives return to work after their children are born, he said, that it may be advisable to include their income as a permanent part of family income.

Discussing the outlook for low-cost housing, Mason reported FHA studies show that Michigan and New York have the highest proportion of homes costing $9,000 and under.

THE DISCOUNT DILEMMA

*(As related by Dick Hughes at NAHB B of D fall meeting)*

Prudential is out and so is the Met,
And National Life prices can get lower yet.
Take-out and stand-bys are getting much tougher,
And discounts back East, progressively rougher.

Yes, the national picture is getting absurd:
Just look at the offerings of Pringle and Hurd
And glance in your warehouse: we're all in a hole
Despite the predictions of Albert M. Cole.

The election's a-coming. Let's not close the door;
Those January VAs may bring 94.
In the meantime despair not, be happy and gay,
Your best gal ain't left you; God bless Fanny Mae.
ILGWU to invest

in VA financing

Mortgage loans may be easier to obtain if other unions follow the example of the International Ladies Garment Workers Union. The labor organization has signed a contract with Chase Manhattan Bank of New York to invest $20 million of its pension funds in GI mortgages.

In addition the union indicated welfare and general union funds would also be used "to help ease the tight market in money for home mortgages." Also announced: a plan whereby an additional $5 million a year would go towards the purchase of VA mortgage and a possible companion program of equal size for FHA-insured mortgages.

Commented HHFA administrator Albert M. Cole: "You have taken a heartening and constructive step forward in investing... Significant social and economic effects can ensue if others follow your example."

DICKERMAN'S COLUMN

By John M. Dickerman, Executive Director, National Assn. of Home Builders

Needed: an actual government housing "policy"

Barring an unexpected shift in the economic winds—or remedial governmental action—it is probable that the demands of the home building industry for mortgage credit will, for an indefinite period ahead, have to compete in a climate characterized by:

A generally high demand for credit throughout the country.

Higher interest rates for loans competing with mortgage credit.

A federal policy to allow interest rates to seek their own levels which, with demand for money continuing to outpace the supply, means a continuing tight—and perhaps a tighter—mortgage market.

At the current rate of production, home building requires on the order of $28 billion a year in mortgage money. About three-fifths of this amount is met through the roll over in existing debt—amortization payments, prepayments and refinancing.

This leaves approximately $12-$13 billion as a net demand on the money market, and it's now anybody's guess as to what portion of this amount will actually be available to the home building industry—and at what price—in the months ahead.

Market remains steady

Presently there are indications that the seasonally adjusted annual rate of starts will fall below the one million mark in some month prior to the end of 1956. It is even more likely, unless more vigorous remedial government action is forthcoming, that starts will be slower in early 1957. This is because, as every builder knows, financial commitments must be obtained this fall for houses to be built next spring.

It is far from pleasant to have to write these words. It is particularly disturbing to have to so know that there is evidence of no fundamental change in the overall housing requirements and markets.

The vacancy rate is low; family formation has remained higher than anticipated; consumers have indicated their interest in good housing; incomes are improving and the general economic health of the nation can well support a strong housing market.

Facts must be faced

Ironically, it is this economic health and the good prospects for the future that have created the situation that so adversely affects the home building industry. The central banking powers, now being used as a lever in an attempt to control overall economic activity in the face of a threatening inflation, hurt most those industries most dependent upon credit. And the foremost of these is home building.

The facts must be faced, not only by the industry, but by the administration in power and by the Congress. If home building is maintained at a million-plus annual rate—a rate that is both logical and essential—the importance of housing as a national policy and its special problems must be fully recognized. Steps must be taken to develop new and improved credit facilities in the home building field: first to permit home building to compete for available funds on an equitable basis and, secondly, to open up new sources of long-term credit such as pension trust by creating securities (secured by mortgages) which such trusts may readily absorb.

Home shortage foreseen

What the critics of the home building industry and those opposed to new credit facilities seem to be either unable or unwilling to understand is the consequences of inaction at this time. The industry, in asking for new and improved credit facilities, seeks a stable supply of mortgage money, not for the purpose of adding fuel to inflation, but to insure an orderly growth of the housing supply commensurate with the needs and demands of a population growing at a net rate of 2.6 million persons a year.

Without such facilities, housing will lag behind the growth of the economy, behind the growth of the population and behind the needs of millions, particularly those with modest incomes, for new and improved housing. Pressures generated by these conditions will, in the 1960's, inevitably result in a housing shortage that will make that of post World War II insignificant by comparison.

Home building critics would do well to consider the alternative to the orderly growth of the housing supply that the industry seeks. For the alternative is the very situation they profess to be trying to avoid—extreme shortages, attendant inflation and a disorderly housing market.
NRLDA plans "action" clinics

Action clinics, benefiting both lumber dealers and home contractors, are on tap for the third annual National Retail Lumber Dealers exposition, Dec. 10-13, International Amphitheatre, Chicago. Featured will be demonstrations of cost-cutting material handling techniques and fabrication and assembly of component house parts.

Phil Creden, general chairman of the exposition, expects the handling and pre-cutting programs to foster operating economies for dealers, which in turn should lower costs and increase service to builders.

In addition, the eyes of those attending will be focused on three "women-inspired" model homes constructed in a suburban location. A breakfast clinic on design of the houses is scheduled for Dec. 11. It will be headed by Robert Jones, executive director, Middle Atlantic Lumbermen's Assn., with assistance from Annabelle Heath, HHFA, which sponsored the Women's Congress on Housing.

Other clinics include:

- Modern material handling, 1 to 2 P.M., daily—trackside demonstrations of unloading "unit packaged" materials from bulkheaded flat cars and wide-door box cars. Handling clinics will be held each afternoon.
- Pre-cutting techniques, 10 A.M. to Noon, daily—demonstrations of how to provide yard-fabricated house "parts" to contractors. New types of floor panels, roof trusses and panels and interior partitions will be pre-cut and assembled. At other times all modern components will be on display.

Merchandising for dealers will get strong billing, with a full-scale model retail store erected in the Amphitheatre. A power tool merchandising school will be held daily, 10 A.M. to noon.

For the first time, the entire activities of the exposition will be featured in a daily newspaper to be published by American Builder.

DEALER'S VIEWPOINT


What moves best depends on how you move it

Experience has demonstrated conclusively that use of mechanical equipment for loading and unloading, storing and moving lumber and other building materials offers a tremendous opportunity for reducing handling costs and speeding up service to customers in retail lumber yards.

That is why NRLDA has appointed a committee on materials handling and employed a full-time materials handling director. And that is why, for the third straight year, a materials handling clinic and demonstration will be featured at our exposition.

One most encouraging development is the real interest being shown in dealers' handling problems by both the manufacturers of building materials and railroads which move these materials from factory to retail yard. Recent meetings of our committee with those groups have been encouraging.

The cost of unloading a carload of lumber can be reduced as much as 80 per cent when the lumber is strapped into units for unloading by fork lift trucks, provided the freight car is a type which permits lift truck operation. This has led the railroads to turn serious attention to developing and providing both flat cars and box cars to meet these handling requirements.

More and more manufacturers, in turn, are unitizing their products. Unitized packages mean real time savings when loading at the factory, when unloading and storing at the yard, when loading trucks in the yard, and in some instances when unloading at the job site.

The potential savings are so attractive that a good many leaders in mechanical handling are predicting that before long 80 to 90 per cent of all lumber and certain other materials will be unitized.

A survey which NRLDA recently conducted among its members, now being analyzed, indicates widespread interest in mechanical handling on the part of dealers not using such equipment and a high degree of satisfaction with the results of dealers already using it.

Not every dealer is set up to use this equipment profitably, but its use is not confined to large yards by any means. Many dealers with a smaller volume use it to reduce costs and speed deliveries.

Mechanical handling is one more device retail lumber dealers have adopted to give better service.
Builders warned: be realistic in approaching the future

The time has come for builders and the public to stop feeding themselves marihuana and approach the future with some degree of realism. This warning was sounded by John S. Wright, executive vice president of the New Jersey (State) HBA in one of the most hard-hitting statements yet made about home building's future.

While Wright is concerned about financing difficulties facing the industry, he is equally worried about municipal regulations and the fact that the average citizen probably does not think about serious effects a decline in home building could have on the economy.

Anticipating a possible decline of from thirty to forty per cent in units to be built in New Jersey during 1957, Wright accuses current money policies and restrictive municipal regulations.

"Through municipal legislation, dealing with upgrading of zoning, increased lot sizes, excessive and absurd facilities requirements, minimum house laws, look-a-like ordinances and excessive fees and charges have deprived the industry of the opportunity to house all people in this country . . . and has reduced the buying market to 27½ per cent of the total, allowing builders to supply homes for only families enjoying incomes in the top brackets."

Wright called on municipalities to cease shirking responsibility by hiding behind stop-gap legislation and regulations. "They should," he asserted, "pass zoning ordinances that are well balanced and not only created through selfish and snobbish thinking . . . They should stop the competitive move to see which municipality can build the most expensive school that will be the most outstanding monument in the state for the glorification of those in power and the architect."

**Government must act**

Wright joined others who ask for a more realistic approach to the financing problem. Government agencies, he stated, should realize that money is simply another commodity and will always demand a rate of interest in keeping with supply and demand. Some other suggestions are:

- FHA should decrease down-payment requirements and keep mortgage terms flexible. This same adjustment should be effective in the VA.
- FHA and VA should bring land planning requirements into line with proven practices.
- Architects should cease being copyists and imitators and return to the true concept of their profession by being designers and creators of progress.

Builders, themselves, did not escape unscathed in Wright's blast. Among other things, he told them to stop being "fall-guys" for demands by officials, municipalities and labor.

"The builder," he exclaimed, "must take the role of our building ancestors, who were in themselves creative, ingenious and who in the past developed communities of homes for our American people in keeping with our economic progress. They must accept responsibility as leaders in local, state and national government."

**NHW a huge success**

There's no doubt about it: this year's National Home Week promotion proved the public is definitely in the mood to buy houses. First reports indicate NHW in 1956 was the biggest ever. With builders facing their toughest problems, record crowds turned out to see—and what is more important to buy.

St. Louis builders, anxious to discover what their prospective customers wanted in new houses, used NHW to conduct a survey of some 540 persons. Here's what they answered, according to a report by Mel Doernhoef, NHW director for the HBA of Greater St. Louis: 30.9 per cent are looking for homes in the $20,000 price range (most had $1,000 to $3,000 for a down payment); 17.4 per cent wanted to pay $60 to $70 monthly; three-bedroom homes were favored by 51.7 per cent; a whopping 88 per cent wanted some built-in kitchen appliances; 34 per cent intended to buy or build within the year.
New idea in roofs is profitable

1. SAVE UP TO $250 PER HOUSE, ADD MODERN BEAUTY INSIDE WITH NEW TEMLOK ROOF DECK

This new material combines a sturdy deck, complete roof insulation, efficient vapor barrier, and a beautifully finished ceiling in a single easy-to-handle board. Armstrong Temlok Roof Deck needs only beams to support it and built-up roofing to weatherproof it. By eliminating the need for many old-style materials, Temlok Roof Deck can cut handling time by 50% and save as much as $250 per house. In addition, the beautiful open-beam ceiling is a valuable, promotable selling feature.
2. FREE PROMOTIONAL PIECES
HELP SELL YOUR HOUSES

These selling aids will help you sell your houses faster by showing your prospects the many advantages of Armstrong Temlok Roof Deck. All sales helps are yours free for the asking.

A. Personalized booklet for prospects
Tells your prospects why a house built with roof deck is stronger and better. Your name and project name are imprinted on the cover without charge.

B. Selling portfolio for salesmen
Provides data space for practically every feature you offer in your home ... makes readily available answers to all the questions a prospect might ask. Invaluable to your salesmen.

C. Smart display for model home
Eye-catching display points up advantages of Temlok Roof Deck. Actual sample of Temlok shows sturdy construction and attractive ceiling finish. Placed in your model home, this display will supplement your salesmen’s talk.

D. Story of roof deck construction
This 24-page booklet gives your architect and carpenters complete product facts, test data, beam size and spacing charts, floor plans, step-by-step photos, and scaled construction details.

For free copy of “How to Build with Armstrong Temlok Roof Deck” and information on your promotional kit, write Armstrong Cork Company, 3711 Rider Avenue, Lancaster, Pennsylvania.

Plan your new homes with

Armstrong BUILDING MATERIALS
Temlok® Roof Deck · Temlok Sheathing · Temlok Tile · Cushiontone® Ceilings
Here's a modern split for

The split level is a relative newcomer to Michigan, and this handsome model should assure it of a warm welcome and a long stay.

Named the "Space King," the house is built at Loch Alpine, near Ann Arbor, by the Ridgecrest Building Company of Detroit. It is priced at $29,750, including the lot which is a minimum of 100' by 150'.

The Loch Alpine Development Co., headed by Calvin Shubow, intends to preserve a custom atmosphere for the community. No builder may build houses on adjoining lots, and all houses built on the 548-site subdivision will have elevations each of which is different.

When the property was originally platted years ago, a golf course was built. It is now being restored, and will eventually be turned over to the property owners.
THE SPACE KING represents a major victory in the battle to make the split a good-looking house. The strong, simple roof line makes it possible to vary siding materials without destroying the basic unity of the house.

WHERE THERE'S A VIEW it should be looked at. This side of the living room is glassed from floor to ceiling, looks out over the river. The picture also shows the plank and beam construction of the roof, and post and beam walls.

Michigan

KITCHEN CABINETS are finished in handsome light mahogany, run the length of the in-line kitchen. Room is made exceptionally bright by the clerestory windows above, and the regular windows between the rows of cabinets.

THE FLOOR PLAN shows an open, spacious living area with easy pass-through access to the kitchen. The bath is compartmented—separated in such a way that with just one additional basin, the effect of two full baths is created.
FACTORY USE TEST on Eljer brass
cuts your "call backs"...helps
you keep your profits!

Before every Eljer brass fitting is packed for shipment
it undergoes the most exhaustive use tests ... and is
actually tested under water pressure.

In fact, every component of every Eljer fitting
passes through a series of rigid inspections and tests
... from first castings to the finished products.

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Authoritative data shows how you can build homes with COMFORT EVERYBODY CAN AFFORD...and BUILD YOUR PROFITS AT THE SAME TIME

ALCOA ALUMINUM ALUMINUM COMPANY OF AMERICA

Turn the page and learn about the new Alcoa method that helps you calculate heating and cooling costs quickly, easily.
Here's proof straight from Alcoa's Research Report...

Conclusions point the way to heating and cooling the average home for as low as $12.00 a month—using Aluminum-Surface Insulations

Insulations using aluminum have been employed to a limited degree for years. Everybody knew they were good—but nobody knew exactly how good. Alcoa®, wanting scientific evidence, provided funds in 1954 for two basic research projects: one at the National Bureau of Standards, the other at The Pennsylvania State University.

This was not Alcoa research. It was research paid for by Alcoa, but conducted independently by three of the nation's most distinguished authorities in the field of insulation.

Based on the findings of the National Bureau of Standards and The Pennsylvania State University, this statement is now made by Alcoa engineers:

A properly engineered average-size house (1,200 square feet) can be heated and air conditioned throughout the year for as low as $12 a month... and substantial savings can be realized in equipment costs.

TESTS PROVE...

...that aluminum-surface insulation performs its greatest service in summer in ventilated attics, either flat roof or gable roof, when heat is flowing downward.

...that all attics should be ventilated; and in a ventilated attic aluminum-surface insulation performs best.

...that aluminum-surface insulation serves a significant function in winter, when heat is flowing upward.

...that the service performed by aluminum-surface insulation in walls is virtually the same in winter and summer.

...that aluminum-surface insulating materials must be properly installed to be effective.

...that the right amount of aluminum-surface insulation is essential for most efficient heat-proofing performance.

Alcoa's findings are a tool for building and selling

Use them in your construction to... cut equipment costs.  
...install aluminum-surface insulations properly.

Use them to assure your customer... a warmer house in winter with a smaller heating unit and lower monthly bills.  
...lower costs for cooling in summer with a smaller air conditioner.

...a cooler house in summer without an air-conditioning unit.
ALCOA announces million-dollar long-range promotion program

BUILDERS' CLINICS
During 1956 and 1957, Alcoa will sponsor a series of Builders’ Clinics that will bring Alcoa’s research findings to builder groups in forty-five cities across the country. In the form of a live, Broadway-produced show, Alcoa Builders’ Clinics will play to as many as 500 people a day—to builders, architects and contractors—people interested in building better houses and selling them faster. Look for your city among the forty-five listed below.

TELEVISION—MAGAZINES—DIRECT MAIL
Alcoa will use its big, popular Sunday night TV program, the “Alcoa Hour,” to tell 25-million viewers about “comfort everybody can afford.” This new concept of home comfort will be advertised also in leading mass-circulation magazines and promoted through an extensive direct mail program. Before long, everyone will know that it doesn’t make sense to ever again build or buy a house without adequate insulation using Alcoa Aluminum.

Use these figures to help you sell your homes . . . show home buyers that savings like these are possible with aluminum-surface insulations.

<table>
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<tr>
<th>INSULATION</th>
<th>SIZE FURNACE</th>
<th>SIZE AIR CONDITIONER</th>
<th>ANNUAL COST OF OPERATION</th>
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<tr>
<td>None</td>
<td>105,000 btu</td>
<td>4-ton</td>
<td>$288</td>
</tr>
</tbody>
</table>

The table above (for an average 1,200 sq ft house) is based on scientific findings described in Alcoa’s new book, Comfort Everybody Can Afford. This card can get you the full story.

ALUMINUM COMPANY OF AMERICA
Industrial Foil Division, 1656-L Alcoa Building, Pittsburgh 19, Pa.

Gentlemen:
Yes, I’m interested in knowing more about insulations using Alcoa Aluminum. Please send my free copy of your new book, Comfort Everybody Can Afford.

Name: ____________________________ Title: ____________________________
Firm: ____________________________
Street: ____________________________
City: ____________________________ Zone: ___ State: ___
Send today for your free copy of this new Alcoa Book

It will tell you how to

...calculate heating and cooling requirements more quickly and precisely than ever before.

...provide air conditioning for more of the houses you build.

...install smaller furnaces and still get adequate heat.

...install smaller air-conditioning units and still get adequate cooling.

...build a cooler house without air conditioning.

...sell more houses—faster.

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1. For the First Time... New Facts About Aluminum-Clad Insulation
2. The Growing Use of Insulation in Home Construction
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   Table of "U" Values
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Use this card to get your FREE copy

You're always ahead with Alcoa

...greatest name in aluminum!
Hang five doors in the time usually required for one - that's part of the secret of the success of "Wooster" Standardized Steel Doors and Frames. They hang faster uniformly because they are standardized through precision tooling, modular dimensioned, and factory pre-fit. USF "Wooster" Doors and Frames are mechanically engineered and built to standards that eliminate the faults common to custom crafted products. Matching flush panel design - there is a "Wooster" Steel Door and Frame for every interior opening including sliding closet doors.
"LOOK BEFORE YOU LEAP! That's the rule of thumb home buyers are following these days. They're quality-conscious. And we've found it pays to give them what they want. By using and featuring Post-advertised products, we're giving people what they're looking for ... the brand names they've come to know best!" (Manufacturers of building materials, equipment and fixtures place more advertising in the Post than any other consumer magazine.)
Built-in strength and stability enable a heavy-duty loader on the International 300 Utility to lift heavy loads with fork attachment (above), or with a 3/4-cu-yd materials bucket.

**NEW INTERNATIONAL 300 UTILITY TRACTOR**

Here's the low-cost answer to your materials handling and earth-moving problems when you can't justify the overhead for specialized, one-job equipment. The new, heavy-duty International 300 Utility tractor is easily equipped with fork lift, materials loader, backfill and dozer blades, backhoe, crane—any of more than 50 units, all quickly interchangeable.

**The 300 Utility leads its field** with up to 1,000 pounds greater built-in weight for traction and stamina. Cost-cutting, timesaving options include power steering that lets the operator steer with one hand while controlling equipment with the other, on the go. Torque Amplifier provides 10 speeds forward—the operator can increase push or pull-power in any gear without stopping to shift!

**Move Dirt up to 25% FASTER!**

Users report that International 300 Utility power and weight step up output with equipment combinations like this rear-mounted backhoe and front-mounted loader with dozer blade attachment.

Your IH Dealer will demonstrate! Look in the classified directory, phone today. Ask for new, illustrated catalog, CR-239-F, or write International Harvester Company, Dept. AB-11, P. O. Box 7333, Chicago 80, Illinois.

International Harvester products pay for themselves in use—McCormick Farm Equipment and Farmall Tractors... Motor Trucks... Crawler and Utility Tractors and Power Units—General Office, Chicago 1, Illinois.
If Your Future Depends on Satisfied Customers

Specify PERMANENT

CAST IRON SOIL PIPE
For Every Home Drainage System

Goodwill of home buyers is the greatest asset any architect, contractor or developer of a residential sub-division can enjoy. When you specify permanent Cast Iron Soil Pipe and fittings from street to roof vent in every home drainage system, you build goodwill by effecting these economies for home owners for years to come:

SAVINGS IN ROOT REAMING EXPENSE, an operation frequently required when Cast Iron Pipe is not used. Joints of Cast Iron Pipe are packed with oakum, caulked with molten lead—a combination that stops root penetration.

SAVINGS IN PIPE BREAKAGE COSTS— Root removal, heavy driveway pressures, ground settlement, vibration, nail or spike penetration in the walls of buildings can fracture many kinds of substitute pipe material. These cannot break or damage rugged Cast Iron Pipe because of its toughness and high structural strength.

SAVINGS IN YARD AND GARDEN REPLANTING, often required when pipe breaks, but never necessary when Cast Iron Pipe is used for sewer lines.

SAVINGS THROUGH LONGER SERVICE. Cast Iron Pipe will outlast any home. Its record of longevity in stacks and plumbing drainage system is unequalled by any other pipe ever made.

Our Company does not manufacture pipe but has long supplied the nation's leading cast iron pipe manufacturers with quality iron from which pipe is made.

WOODWARD IRON COMPANY
WOODWARD, ALABAMA
this tree was selected for QUALITIZED lumber

because this tree has reached the stage in its growth when it makes into the finest lumber.

During this harvesting process, over-age and storm-damaged trees are removed. The smaller trees are left to prosper in more sunshine and freedom.

Pack River

Scientific kiln-drying developed by Pack River.
Green lumber goes in, QUALITIZED lumber comes out.

Call on PACKY for your lumber needs.
P. O. Box 1432
Spokane, Washington

Member: Western Pine Association • National-American Wholesale Lumber Association
Beginning of a better Bathroom...

Chase® Copper Water Tube and Drainage Lines

It's a better bathroom for everybody when you use Chase copper tube for water supply and drainage lines. Architects, builders and contractors find they can plan a more compact installation, meet budget and time restrictions—because Chase copper tube and solder joint fittings can be installed faster. Copper drainage DWV tube fits within partitions—eliminates expensive "furring out."

Plumbers do the work with less fatigue. For Chase copper tube is lighter in weight, easier to handle, requires fewer joints. The use of copper saves time and material and does a better job.

Insist on Chase copper water tube and DWV copper drainage tube!

FREE! Plumber's Display Card!

Ask your wholesaler or write to Chase for a counter display card of this advertisement in full color as it appeared in the Saturday Evening Post and Better Homes & Gardens magazines!
NEW Steel Panels that Glide Aside—Reveal All the Storage Space

FULL-VU STEEL FOLDING DOORS BY LEIGH bring new convenience to closets. Storage space actually appears twice as large with these modern doors that fold together as they glide aside, exposing the entire closet . . . not half a closet at a time. Homes sell faster with this practical touch of glamor.

PRICED FOR EVERY HOME—Full-Vu steel folding doors cost less than many wood closet door installations. They increase the sales appeal of any home and cut costs at the same time.

QUICK, EASY INSTALLATION—Here’s another big saving for cost-conscious builders. No hinges, no cutting or fitting. One man can make a complete installation in 20 minutes or less. Fourteen sizes to fit all standard openings.

PACKAGED FOR PROTECTION—The exclusive Leigh design permits packaging with door surfaces at center of carton, to take rough handling without damage.

LONG, TROUBLE-FREE LIFE—Full-Vu steel doors are built to last a housetime. They can’t warp or sag, never “jump the track”, never cause costly call-backs. User satisfaction is assured.

NO FINISHING COSTS—You don’t spend an extra dime. These doors come with baked enamel beige prime coat or rich birch grain finish.

FREE—Write for colorful, fact-packed literature.
month after month...

15 1/2 million* men and women “live by the book”
...and the book is Better Homes and Gardens

4,250,000 COPIES EACH MONTH

The pages of BH&G are so rich with “how-to-do-it” that 5,750,000 readers clip articles and ads from “the book.” Are the clippings used? Are they! 5,300,000 say they referred to clippings within the past few weeks...to help them live better, eat better, buy better. 15,500,000 people read an average issue of BH&G. One third of the 123,800,000 people 10 years of age and older in the U.S. read one or more of every 12 issues. That’s 44,150,000 people—and over 40% of them are men! Meredith Publishing Company, Des Moines 3, Iowa.

during the year...

1/3 of America
reads Better Homes & Gardens!

*A 12 Months’ Study of BH&G Readers, Alfred Politz Research, Inc., 1956
ZEGERS Advertising
Helps You Sell Locally!

Millions of people throughout the country — builders, lumber and building supply dealers, home owners and prospective home buyers are reading about Zegers Dura-seal Combination Weatherstrip & Sash Balance in LIFE. Not only is this Dura-seal advertising being read nationally... it is being read locally by your immediate prospects.

In many communities, LIFE is read by as many or more people than the local newspapers. Just imagine the vast number of people in your locality that read LIFE and about Dura-seal.

Zegers is further helping you sell through their booklet, “What Every Home Buyer Should Know About Windows.” Of particular interest to window manufacturers, jobbers, lumber dealers, architects, builders and prospective home buyers, it presents convincing facts about the advantages of weatherstripped and balanced double-hung wood windows. This valuable selling aid is available in quantity to use for promotion. It substantially backs up the LIFE magazine advertising in making your prospects even more aware of how windows can “quality sell” a house.

Attention getting display cards used on window units in lumber dealer stores keep the Dura-seal name and the name of the window unit manufacturer before builders and home owners. Another tool for successful selling — prospects can’t miss the story on this display. It’s a story of quality with which they are familiar as told in national advertising and sales promotion.

More ammunition for your sales arsenal is provided by a sticker placed on the window unit by the manufacturer. It’s imprinted with his name and identifies his units as equipped with Zegers Dura-seal... nationally advertised equipment. Home buyers look for this seal of quality. They’ve read about the many advantages of this product and this sticker is the green light to buy in confidence. This is just one more way that Dura-seal quality is kept before the public eye to help you in your selling job.

“Zegers Dura-seal” is embossed on the parting stop of Zegers Combination Metal Weatherstrip & Sash Balance. Dealers, builders and prospective home buyers look for this mark of quality and know they are getting the “genuine article... Zegers Dura-seal.”

Isn’t this the kind of sales support you’ve been looking for? Write Zegers today for full information!

Here’s Why
ZEGERS
Dura-seal
Provides the Most Effective All-Weather Protection!

A “quality-built” house sells and Zegers Dura-seal provides visible and workable evidence of quality construction. It provides the best protection against cold, dust, draft, dirt, assures quiet, smooth “one-finger” window operation and lifetime trouble-free performance. Home buyers look for this kind of quality. See for yourself what a big difference it makes in home sales and profits. Here are just some of Dura-seal’s outstanding features:

- Self-adjusting jamb member has a concave back surface providing flexibility that maintains a constant air seal and smooth window operation under all conditions.
- Spring and friction provide weather protection and easy operation. Springs lift the window and friction of the jamb housing holds it at any desired position.
- Silent balance springs. Dura-seal has Sil-Vel springs—a velvet-like finish is baked on the galvanized steel springs to assure absolutely quiet operation.
- Tailored attractiveness. Dura-seal provides a “tailored” custom fit. Clean-lined, corrosion-resistant aluminum lasts the life of the building... never needs painting.

Write today for complete information!

ZEGERS INCORPORATED
8000 S. Chicago Ave., Chicago 17, Ill.
QUESTION
Why should I, an ARCHITECT, specify Superior Fireplace products?
Why should I, a BUILDER, use Superior Fireplace products?
Why should I, a DEALER, recommend and sell Superior Fireplace products?

ANSWER
Because, there is a properly designed unit for every type of fireplace.
Because, of the ease of installation and it costs no more to give my customer the best.
Because, it is the most complete line of the highest quality merchandise available and will serve my customers best.

HEATFORM
The Superior Heat Circulating Fireplace Unit

HEATFORM retains the hospitality of the open hearth, yet provides a fireplace with furnace efficiency. Heating chambers around the firebox and upper throat capture and circulate a large volume of heat lost to the chimney by the old-fashioned fireplace.

Because HEATFORM is a complete guide for the masonry walls (hearth to flue) consisting of firebox, throat, smoke-dome, and damper, saving some labor, firebrick, and separate damper, a HEATFORM fireplace costs little, if any, more than the all-masonry fireplace.

HEATFORM has many exclusive advantages, assuring more years of service and greater heat delivery. Look for the name on the dome and damper handle. SPECIFY AND INSIST UPON HEATFORM . . . IT HAS NO EQUAL!

SUPERIOR HI-FORM DAMPERS
Thirty years ago, we developed Superior Form Damper, with its wide throat, high form, and properly located closure blade, to assure proper throat construction and adequate draft. To absorb metal expansion and avoid cracking of masonry, we furnish a blanket of rockwool to be placed between the metal and the masonry. No brick to cut, no throat to plaster thus a substantial saving over an ordinary damper.

Identify your profession or trade. WRITE TODAY for Complimentary FILE KIT of literature and construction detail on this efficient and profitable line of fireplace equipment that is sold through Building Material Dealers everywhere.

SUPERIOR FIREPLACE CO.

DEPT. AB-562
1708 E. 15th St.
Los Angeles 21, Calif.

DEPT. AB-562
601 North Point Rd.
Baltimore 6, Md.

AMERICAN BUILDER
Dick Hughes, past president of the National Association of Home Builders, is using 6 mil VISQUEEN film under slabs of the 900 homes in his Oak Park Village project in Bartlesville, Oklahoma. Dick has already used tough, easy-to-handle VISQUEEN film in over 2000 homes he has built in several cities in Texas and Oklahoma.

He says: "We found VISQUEEN film is the best vapor barrier for use under slabs. Gives our homes permanent protection from damage due to moisture."

Only VISQUEEN film is available in all these sizes: 3, 4, 6, 8, 10 1/4, 12, 14, 16 1/4, 20, 24, 25, 28, and 32 feet.

**Important!** VISQUEEN film is all polyethylene, but not all polyethylene is VISQUEEN. Only VISQUEEN, produced by process of U.S. Patents No. 2461975 and 2632206, has the benefit of research and resources of

**THE VISKING CORPORATION**

Plastics Division, Terre Haute, Indiana

IN CANADA: VISKING LIMITED, LINDSAY, ONTARIO

IN ENGLAND: BRITISH VISQUEEN LTD., STEVENAGE
FULL-POWER SERVICE ENTRANCE

ENOUGH CIRCUITS OF GOOD-SIZED COPPER WIRE
It takes
3 things to bar
"Skimpity Wiring"
from your homes!

Three things can keep "Skimpity Wiring," symbol of inadequate wiring, out of the homes you build. Just be sure their electrical systems are planned to have:

1) Full-powered service entrances of at least 100 amperes. (The minimum NAHB voluntary standard.)

2) Enough circuits of large enough copper wire to power every appliance used, even when other appliances are operating on the same line. Extra circuits, too, for the house to "grow on."

3) Plenty of outlets to put the power where it's needed, when it's needed. Plus handily located switches which allow a homeowner to safely "light his way through the house."

These are the essentials of modern home wiring. They add little to the overall cost of a house. They mean much to the electrically-minded homeowner of today. Plan for them ... it pays!

FREE HOME WIRING WALL CHART!
Send today for Kennecott's handy wall chart showing typical home circuit loads. Use it as a check list when planning electrical systems. Write Kennecott Copper Corporation, Dept. AB106, 161 E. 42 St., New York 17, N. Y.
Kiln-Dried

Lumber Sheathing

for Better Construction with True Economy

- Quality builders usually use wood sheathing for side walls, sub-flooring and roof boards. These builders, in explaining their framing methods, use such words as "strength, rigidity, tightness".

Weyerhaeuser 4-Square Wood Sheathing is stiff and strong, and because it is kiln-dried, it has remarkable dimensional stability. Wood has great nail-holding power. Accordingly wood sheathed side walls resist vibration, such as that caused by motor traffic. This nail-holding ability also permits the secure and economical application of wood sidings and shingles without furring strips.

The cell structure of wood sheathing permits a wall to breathe... to take on and give off excessive moisture. With vapor-proof sealing paper on the inside of the studs, or with a vapor barrier insulating blanket suspended in the stud space, and a wind-proof paper on the outside of the sheathing, a safe, dry, breathing wall is created.

Lumber is also the preferred material for sub-flooring and roof boards. It provides a strong base for applying finish materials, and, as roof boards, the strength to withstand snow and wind loads.

A broad selection of Weyerhaeuser 4-Square Lumber items is offered for use as wall and roof sheathing and sub-flooring. There are species, widths and grades to serve most building requirements.

Many builders find that it pays to remind home buyers of the advantages of lumber sheathing—and to point out that the use of Weyerhaeuser 4-Square Kiln-Dried Lumber Sheathing provides proof of better building value.
The SAW That Cuts Faster — SMOOTHER — Makes Blades LAST LONGER!

Cut in 5 Seconds with CLIPPER Patented Features assure this performance...

MODEL HD
Wet or Dry Cutting Dustless.
A Model to fit every budget,
Priced from $265

CLIPPER BLADES
- BREAK RESISTANT
Triple Reinforced ... in specifications to cut every masonry material ... HARD to SOFT. Another Clipper First! Polk-A-Dot design reduces side friction, delivers maximum power to cutting edge. Break-Resistant — Safer — Lower Cost.

- DIAMOND
Clipper sells more because Clipper sells Quality. Blade after blade, on tile to block. Clipper Diamond Blades outperform, outcut and outlast any other blade. Dependable ... consistent quality.

- ABRASIVES, Wet or Dry
Hard ... Soft. Porous ... Dense. Wet or Dry there's a special Clipper Abrasive Blade to cut any masonry material faster, better with guaranteed lower costs. Clipper quality is your Best Buy.

CLIPPER IS CONVERTIBLE
- LIGHT DUTY CONCRETE SAW
Cut Machinery Bases, Repair patch walks and driveways

TRACK SAWS
Cut Transite Sheets, Stone and Refractory Slabs and Other Large Materials.

MAIL COUPON FOR FACTS

CLIPPER MANUFACTURING CO., KANSAS CITY 8, MO.

Select-A-Notch (patented). It's easy for one man to adjust cutting head — to desired height for cutting any size material. Weight of head is supported by connecting bar. Clipper's deep seating notches always guarantee true cutting head alignment — assure maximum blade life and increased production.

FREE TRIAL
You be the judge — try this new Clipper FREE on your job. The outstanding policy of Free Trial has been in effect since Clipper invented the World's First Masonry Saw nearly 20 years ago.

MAIL COUPON TODAY!

CLIPPER IS CONVERTIBLE

Not Just a NOTCH
A Deep Seating NOTCH!

Not Just a SPRING
A Pressure Equalizer SPRING

MASONRY SAW

MASSACHUSETTS

Not Just a PUMP
A WET or DRY PUMP

Clipper's Sealed Water Pump needs no extra motor — no electrical connections. Permanently attached to eliminate pilferage. Always adequate water to preserve blade life — control DUST. Never too much to soak material or drown operator. Just turn valve — no need to remove belt when cutting dry.

CLIPPER BLADES

MANUFACTURING CO., KANSAS CITY 8, MO.

Sold Only Direct by Factory Trained Representatives
From Factory Branches in Principal Cities — Coast to Coast.

NOVEMBER 1956
How to put “visible value” in your home

Structural wall mirrors of Pittsburgh Plate Glass are another feature which will do wonders in helping you sell your home faster. A “wall of mirrors,” like the one installed in this room, adds a luxury touch. Wall mirrors have the ability of making a small room look big. A narrow room, for example, will assume greater width. And anywhere in the home—in the living room, bedroom, entrance hall—the magic of mirrors gives a “worth more” feeling.

Build it better with Pittsburgh Glass
BUILDERS ALL OVER THE COUNTRY have proved that the installation of Pittsburgh's Twinwindow—the window-pane with insulation built in—helps to make their selling job much easier... more profitable. In fact, more and more home buyers are demanding this "world's finest insulating glass" in every room. They know that Twinwindow keeps rooms warmer in winter, cooler in summer... cuts heating and cooling costs... reduces window fogging and icing... provides the most convenient form of storm window insulation. In this home, Twinwindow was utilized effectively for all window openings. As shown in the cutaway here, Twinwindow units consist of two panes of Pittsburgh Plate Glass, with a sealed-in air-space between, giving them their high insulating properties. The entire unit has a stainless steel frame—exclusive Pittsburgh feature—which protects the seal and glass edges and makes handling quick, safe and easy. Architect: Charles E. Tilton, New York City, N.Y.

Every nickel you spend on glass shows.
And the results far outweigh the cost.

PITTSBURGH FULL-LENGTH DOOR MIRRORS—in bedrooms, bathrooms, and entrance halls—impress prospective buyers. They spell real value. You'll find, as hundreds of other builders have discovered, that a few door mirrors in the homes you build help to get buyers' names on the dotted line. Here's a much-in-demand feature that's easy to put up and adds very little to the total cost. These door mirrors are available in five widths—16, 18, 20, 22, and 24"—and a full 68" tall. They fit more than 90% of all interior millwork doors.

See Sweet's Builders Catalog for detailed information on Pittsburgh Plate Glass products.

PAINTS · GLASS · CHEMICALS · BRUSHES · PLASTICS · FIBER GLASS

PITTSBURGH PLATE GLASS COMPANY

IN CANADA: CANADIAN PITTSBURGH INDUSTRIES LIMITED

NOVEMBER 1956
Every Atlas Plywood flush door, regardless of wood or price, has this one thing in common with every other Atlas Plywood flush door:

It is the top of the grade in which it is classified.

There are two big reasons for this: The Atlas Plywood quality policy of manufacturing up to the highest limit of the grade, never to the lowest. And second, the Atlas Plywood quality control situation which gives Atlas Plywood the "say" at every stage from forest to finished product.

Thus at the same price you can give your customers a better product... the surest way on earth of building a quality name. Let Atlas Plywood flush doors be the quality-key of your business. Write for free illustrated folder showing the full Atlas Plywood line of nationally-advertised flush doors. Atlas Plywood Corporation, Dept. AB-11, Boston 16, Mass. Distributors in all principal cities.

**BIRCH, GUM, OAK and LAUAN**

Special grades and woods on order.

Better on the outside. Atlas Plywood doors are uniformly sanded by a special Atlas process which results in lower finishing costs to builders.

Better on the inside. Hollow core flush doors are all wood, ladder-type with struts dadoed into stiles to give greatest resistance against warping and retain stability.

Better in total construction. Construction members and construction methods are both above the minimum of the standard requirements.

Better service back-up. Atlas Plywood's network of owned supply sources, mills and distributing warehouses enable Atlas Plywood to be "Top-of-the-field" in service, too.

**ATLAS Plywood**

BEAUTIFULLY AT HOME IN ANY TYPE HOUSE

 inset shows how struts are dadoed into stiles.
When a sole proprietor dies — his business can easily die too. With him goes the value of his personality and the "good will" he has created. Suddenly a business which was profitable may become a liability to his heirs and the "sell at sacrifice" notice appears.

You can easily preserve your business for the person, or persons, of your choosing and also safeguard your heirs' interests through Aetna Life's Business Insurance Plan. Your local representative will be pleased to give you full details.

Why not mail the coupon for a copy of our new free booklet "Will This Man Take Your Business With Him When He Dies?" It tells how business insurance can fit your individual situation. No obligation, of course.
What has winter concrete on toll roads got to do with insulation?

Here's one of the toughest tests of efficiency an insulation ever had!

The photo at the right shows a new and revolutionary method which engineers are using to protect freshly poured concrete on many important highway and bridge projects during winter temperatures of freezing or below. Here a Balsam-Wool insulated form is being raised into position to protect a new bridge constructed on the Massachusetts Turnpike.

What does this prove for you—and for the home owner? First, that Balsam-Wool insulation has the low thermal conductivity needed to reduce fuel costs and increase air conditioning efficiency in the homes you plan or build. Second, that the basic construction of Balsam-Wool—sealed in tough, wind-resistant liners—can provide modern protection from air infiltration and chilling drafts. And, third, that the reinforced application spacer flanges of Balsam-Wool can assure a weather-tight insulation job in the home.

Clean...non-irritating...tough, yet easy to handle—Balsam-Wool is an insulation designed for the job. It's sold by lumber dealers only. Wood Conversion Company, Dept. 118-116, First National Bank Building, St. Paul 1, Minnesota.

BALSAM-WOOL
Sealed Blanket Insulation
HIGH IN EFFICIENCY
For 35 Years...

More people

The famous brand-name door that helps builders sell more homes!

- Feature the "OVERHEAD Door" in your model home to dramatize and demonstrate today's outstanding living convenience.
- Let the 100 sq. ft. (or more) of the "OVERHEAD Door" be your point-of-sale proof of quality for the entire house.
- Use the modern magic of the "OVERHEAD Door" with Ultronic operator to draw more people to your Open House.
- Write for details concerning our cooperation in providing this push-button miracle with America's foremost garage door.
have bought
THE
"OVERHEAD DOOR"
TRADE MARK
than any other brand!

And, in 1956, more people
are buying The "OVERHEAD DOOR"
than ever before!

Only The "OVERHEAD Door" offers builders so
many advantages . . . so much service!

COMPLETE RESPONSIBILITY for the satisfac-
tory performance of The "OVERHEAD Door,"
wherever installed, is assumed by Overhead Door
Corporation and its distributors. Each installation is
guaranteed for one year, service provided whenever
needed, and parts available on 24-hour notice.

The "OVERHEAD Door" is advertised in full color
in Saturday Evening Post and Living, and is the only
garage door specified by Show-House architects in
these publications.

A complete line of doors—
including Ultronic operation — in a
complete range of styles and prices.

America's pioneer and leader in upward-acting garage doors

OVERHEAD DOOR CORPORATION
Hartford City, Indiana

MANUFACTURING DIVISIONS
Hillside, N.J. • Nashua, N.H. • Cortland, N.Y. • Lewistown, Pa. • Oklahoma City, Okla. • Dallas, Tex. • Portland, Ore.

NOVEMBER 1956
Thanks to Steel’s Strength...

WINDOW-WALL UNITS HELPED MAKE THIS $10,000 HOUSE A FAST SELLER

Admiral Construction Corporation of Baltimore made this house a stand-out at the price by installing striking steel window-wall units—and how they paid off! As one of Admiral’s top officials put it, “The benefits derived have added substantially to our project’s eye and sales appeal.”

Window-wall units in your new houses would be a good way to add that extra something that means faster sales. But make sure those windows are made of steel. Why? Because only steel has enough strength to permit slender frames and muntins that allow maximum light to enter; that offer best visibility from within. And the superior strength and sturdiness of steel windows is a big advantage in withstanding the stresses often encountered during shipment, at the job site, and following installation in the finished home.

Steel windows do more than add sales appeal. They help you to keep your costs down in two ways: (1) steel windows cost less than most other types, and (2) steel windows cost less to install, because they come factory-assembled (with a steel casing, if desired) for quick, easy installation.

A wide selection of steel windows in all standard types and sizes is available locally. Check with your building supply dealer, or the representative of any nationally-known manufacturer of steel windows.

For many years, manufacturers of fine steel windows have used solid, hot-rolled sections of open-hearth carbon steel made by Bethlehem.

BUILD FASTER...SELL FASTER WITH STEEL WINDOWS

AMERICAN BUILDER
McKINNEY Sliding Door Hardware

- smooth operation
- less inventory
- easy installation

...fits all doors between 3/8" and 1 3/8"
(80% of all requirements)

Packaged in complete sets for 4', 5', 6' and 8' two-door openings.

Set includes:
- Track (aluminum No 1000) or (steel No 1100)
- 2 Pair Hangers*
  (1 pair for each door)
- 1 nylon guide (adjustable to all thickness of doors)

Accessories in the McKinney line include:
- Rubber Bumpers—1020
- 3/4" Round Pulls—1032
- 1 1/4" & 2 3/4" Round Pulls—1030
- 4" x 1 1/4" Oval Pulls—1031

*Patent pending

The Quality Line—ALL McKinney Sliding Door Hardware is carefully manufactured from high quality materials—extruded aluminum or rolled steel (zinc plated) for track...Nylon for rollers...and zinc plated heavy gauge steel for hangers.

McKINNEY MANUFACTURING COMPANY

1715 Liverpool Street • Pittsburgh 33, Pa.
In Canada—Skolnick Ltd., St. Catharines, Ontario

ORDER NOW

Also Available Complete Sets for Pocket Type Doors

from your distributor or write to McKinney
For speed and efficiency—for long, dependable service—for matchless quality, choose Porter-Cable tools. Porter-Cable makes three high-speed Power Planes, including the Model 126 shown above, four Routers, including the versatile Routo-Jig, two Shapers, a Mortiser, and a full line of accessories for each. There are no finer tools in the world—no finer values anywhere. Write today for free catalog and the name of your nearest Porter-Cable Dealer.

Model 126 Porta-Plane, new low price, $99.50.
In handy kit with carbide cutter and accessories, $132.50.
Write for full catalog of the complete Porter-Cable line.

PORTER-CABLE MACHINE COMPANY
601A N. Salina Street, Syracuse 8, New York
saws * belt sanders * finishing sanders * drills * routers * planes
Canada: write Porter-Cable, Ltd., Box 5019, London, Ont. Canadian prices slightly higher.
"Our salesmen stress concealed telephone wiring"
— says Mr. John S. Severin of Severin Construction Company, San Diego, Cal.

"Concealed telephone wiring has become a competitive sales feature," says Mr. Severin. "More and more home buyers are asking for it. Our salesmen stress concealed wiring when talking to potential customers, and we play it up in our radio, TV and newspaper advertising.

"It's easy to understand why people want concealed telephone wiring. It preserves the inside beauty of a house, and it's in line with the modern trend towards built-in convenience. To me, concealed telephone wiring is one sign of a well planned and constructed house."

In thirty years as builders, Mr. Severin and his brother Nels have built nearly 6000 homes, with hundreds more under construction at the moment. They are members of the N.A.H.B., the B.C.A. and many other professional organizations. In company with trend-minded builders across the country, they are convinced of the value of concealed telephone wiring as a quality sales feature.

Your nearest Bell Telephone business office will help you with concealed wiring plans. For details on home telephone wiring, see Sweet's Light Construction File, 8i/Be. For commercial installations, Sweet's Architectural File, 32a/Be.

BELL TELEPHONE SYSTEM
Give your home the convenience of
BILT-WELL STORAGE CABINETS

You need never again complain,
"If I only had more storage space!"
It's yours for any room with BILT-WELL Cabinets
and your own hammer and screw driver. They're that
quick and easy to assemble and install.
Extremely economical, too.
These modern cabinets are available in 90 different
types and sizes and are precision-made of smooth,
clear Ponderosa Pine. And if you wish, you can color-cue
them to any decorating scheme with one of BILT-WELL's
exclusive wood finishes.

Let BILT-WELL come to the rescue in
your present home or the one you plan
to build or remodel. See all the cabinet
types, shapes and sizes by mailing the
coupon now!

BILT-WELL Woodwork
Manufactured by
CARR, ADAMS & COLLIER COMPANY
Dubuque, Iowa

Eye Catching Ads Like These Are Pre-Selling Your Prospects on
BILT-WELL CABINET and WINDOW UNITS

Manufactured from all clear, kiln-dried Ponderosa Pine, BILT-WELL Cabinets are factory pre-fitted and come carton packaged ready for quick, easy assembly and installation. They're economical, too!

hurry! hurry!

AMERICAN BUILDER
Regular, national advertising in such popular magazines as Better Homes & Gardens, House Beautiful, Living for Young Homemakers, New Homes Guide, Home Modernizing and Home Maintenance & Improvement are constantly selling your prospects on the many features of BILT-WELL Cabinets and Windows.

The name BILT-WELL in your new homes and remodeling jobs means that you are using woodwork with national consumer acceptance. It means, too, that you are using the finest wood products available...products that will maintain your reputation as a quality builder.

If you're not already using them, ask your lumber dealer about BILT-WELL Multiple-use Kitchen and Storage Cabinets, BILT-WELL Awning Window Units and other products in the BILT-WELL line.


BILT-WELL Awning Windows are supplied assembled and glazed, complete with weatherstripping, hardware and trim, ready to be installed into rough openings in all standard wall constructions.

Last Month to Enter the 1956 BILT-WELL Builders' Contest

Send in snapshot of any BILT-WELL installation completed this year. Entries must be in by midnight, November 30th! WIN A TRIP TO EUROPE, BERMUDA, HAWAII or MEXICO!

CARR, ADAMS AND COLLIER CO., Dubuque, Iowa

NOVEMBER 1956
“EVERYTHING HINGES ON HAGER!”

C. Hager & Sons Hinge Mfg. Co. • 139 Victor Street • St. Louis 4, Mo.
Founded 1849—Every Hager Hinge Swings on 100 Years of Experience
“You can depend on Barrett Roofing, Mister!”

Prospect: You probably think I’m fussy to ask about the roof. But I’ve had trouble.
Builder: I understand. I’ve had some trouble myself. That’s why I stick to Barrett Roofs these days. In the building business, Barrett is the great, reliable name in roofing.
Prospect: I think I’ve seen their advertising.
Builder: Well, they’ve been making roofs for over 100 years. They know how to make shingles that last . . . and for color, they’re tops.
Prospect: Roof seems fine. Now let’s look at the gutters and downspouts . . .

May 1956

Barrett Shingles. “Roof by Barrett” gives you an extra selling point at no extra cost.
NOW!

a new

PANEL-VENT

with an

even stronger
frame!

Ventilates

while it matches

Here is an improved new way to ventilate Owens-Illinois Glass Block panels without disrupting symmetry of design. It's Panel-Vent, the ventilating unit that matches perfectly the panel in which it's set!

All new, the Owens-Illinois Panel-Vent has an even stronger extruded aluminum frame for longer life, more dependable service.

If you would like more information on Panel-Vent or Owens-Illinois Glass Block for any application, write to Kimble Glass Company, subsidiary of Owens-Illinois, Dept. AB-11, Toledo 1, Ohio.
America's most exciting homes......the quality......the design......sells itself.
Here's a fresh new approach to decorator styling!

MATICO
new Margaret Lowe Colors in
ARISTOFLEX
VINYL-ASBESTOS FLOOR TILE

— smart, colorful, distinctive designs in
durable, economical Vinyl-Asbestos!

Introduced just a few months ago, MATICO's strikingly new and different Margaret Lowe Colors have literally taken the country by storm! Every week more and more architects and builders are selecting these smart, modern tiles for schools, hospitals, institutions, homes — in fact, for virtually every type of project. Here's why. They're refreshingly smart, designed with bright, cheerful colors that add charm and distinction to every room. And they're entirely practical, too. Low-cost, Margaret Lowe Colors stand up under the hardest wear . . . are easy to maintain because they resist dirt, grease, and common household chemicals. Precision cut to butt closely, immediately, they are easily installed on, above, or below grade. If you're looking for a completely different tile flooring — consider MATICO's Margaret Lowe Colors.

Size: 9" x 9"
Thicknesses: Standard Gauge and 1/16"
Colors: 13 Decorator Colors

MASTIC TILE CORPORATION OF AMERICA
Houston, Tex. • Joliet, Ill. • Long Beach, Calif. • Newburgh, N. Y.
Rubber Tile • Vinyl Tile • Asphalt Tile • Confetti • Aristoflex
Parquetry • Maticork • Cork Tile • Plastic Wall Tile
Here Now! NEW CHEVROLET TASK-FORCE 57 TRUCKS!

FIRSt with the MOST modern features

They're out to save you hours and dollars on any hauling job... and they've got big new power plus the modern features that make it a sure thing! They put you way ahead with time- and work-saving advantages you won't find in any other truck!

Again, for 1957, Chevrolet light-duty trucks bring you the industry's most advanced features—new developments that have already been proved in a history-making preannouncement test run! (See how they conquered the Alcan Highway, below.)

For '57 there's bold new styling to match Chevy's remarkable stamina and dependability. There's fleet-action power in Chevy's outstanding engine line-up for '57—with a modern version of the famous 140-h.p. Thriftmaster 6 standard in Series 3000 trucks and the efficient pound-saving short-stroke Trademaster V8 available as an extra-cost option.

Other way-ahead '57 features include advanced Ball-Gear steering, high-output 12-volt electrical system, modern tubeless tires and great optional (extra cost) features such as no-shift Hydra-Matic transmission!

Be sure to check the new cab features, too... the handsome new upholstery, the new steering wheel, the new exterior colors. Your Chevy dealer has all the details, so see him soon! ... Chevrolet Division of General Motors, Detroit 2, Michigan.

Alcan Highway Test Run Proves Chevrolet Ruggedness!

In an AAA-certified endurance run, 6 light, medium and heavy-duty trucks carrying typical cargoes roared up the 1,520-mile Alcan Highway (normally a 72-hour run) in less than 45 hours! In dramatic fashion, new Chevy trucks conquered one of the world's most challenging roads to display the great performance qualities they'll bring to your roads!
This beautiful oak floor is 29 years old!

No other floor gives such durability and lasting style

Beauty and durability . . . these are the qualities home buyers value most. Oak floors are preferred by 4 out of 5 because Oak, better than any other flooring material, combines timeless beauty with carefree ease of upkeep and high resistance to wear.

Oak Floors are preferred for all homes

In today's homes . . . whatever the style, whatever the price . . . you're way ahead in buyer-appeal when you use beautiful, durable Oak Floors.
If you neglect fire-safe construction

will your homes be selling you?

Milcor Metal Lath and plaster provide 5-point protection

There are five vulnerable areas in your houses — places where fire is most likely to start and to be most destructive. When you apply Milcor Metal Lath and plaster at these danger points, you provide construction that is rated to withstand the passage of fire for one hour or more. Pound for pound, no other construction offers fire-ratings equal to metal lath and plaster.

Here are the five areas in which you should use Milcor Metal Lath and plaster for fire-safe construction:

1. on wood-stud bearing partitions and walls, and as fire-stops between studs;
2. in ceilings under inhabited floors, especially in areas over heating plants;
3. at heating ducts and flues, and behind cooking equipment;
4. under stairs and on stair walls;
5. as base and reinforcement for exterior stucco.

The complete line of Milcor products also includes Corner Beads, Casing Beads, Studs and Channels, Screeds, Mouldings, Corner-Ex and Access Doors — all designed to help you build better homes.

Milcor Catalog No. 254 available upon request.
WHERE WE’VE BEEN...

VALUE OF NEW PRIVATE AND PUBLIC HOUSING IN 1947-49 PRICES

WHERE WE’RE HEADING...

1957: Dangers and Opportunities Ahead

LIKE A MAN watching his mother-in-law drive his new Cadillac over a cliff, builders view their 1957 business prospects with mixed emotions. What they are viewing are significant changes in the structure of the entire construction industry. Most significant fact is that, while housing starts will still be down (about 1.1 million), dollar volume in every segment of the industry will be substantially up (some $64-billion total).

Feelings are varied because no one knows for certain whether these changes bode well or ill during the year ahead. Danger points? Sure. But plenty of opportunities, too. Trouble is, you can’t always tell them apart without a scorecard.

To provide this scorecard, American Builder editors for the past few weeks have been gathering information from all corners of the industry.

The results appear on the following pages.

There you’ll find summaries of the most important developments slated to affect your business in 1957, along with specific forecasts on these vital factors.

Immediately following these forecasts is a round-up of building trends discovered by American Builder editors who toured the country during National Home Week.

Thus, in this issue you have a complete package of information on 1) what is happening to the construction industry and 2) how builders are meeting the situation.

FOR WHAT’S AHEAD, TURN PAGE →
How $64 billion in construction

PRIVATE NEW RESIDENTIAL CONSTRUCTION will take
$15.3 billion, about the same as in 1956

Despite the continued low in number of housing starts (see page 78), dollar volume will hold steady in 1957.

One obvious reason: mounting costs, coupled with the shift to more expensive houses (median price per house is now about $14,500, will top $15,000 in 1957, as compared with $12,300 only two years ago). Last year about one third of houses started were built to sell for more than $15,000; this year the proportion has been much higher.

FHA’s recent action in lowering the required down payment from 7 percent to 5 percent on low-price houses is viewed as meaningless in most areas. HHFA Administrator Albert M. Cole claims there is “a real untapped” market for this low-cost housing, and FHA is currently considering lowering its minimum property requirements. But rising costs make it practically impossible for the majority of builders to put up a suitable house for under $10,000.

However, the 1956 Housing Act will stimulate more cooperative housing.

Savings are up; mortgage money may be more available. Credit will be eased in the spring, but effects probably won’t be felt till fall.

PRIVATE NEW NON-RESIDENTIAL construction will gain
8% over 1956, total more than $16-billion next year

With credit restrictions up and the supply of mortgage money for residential building down, commercial and industrial construction will boom. Not so much stores (with housing starts down) as offices (with continuing low vacancy ratios). Construction and materials costs will be up. Cost of financing is already at peak, but interest on borrowing is tax-deductible, so industry prefers to build now rather than wait for further increases in costs.

Industrial expansion may not be as great as it has been in the past year or two. Current boom has just about run its usual 18 month course.

Household formations are at a low point right now, as a result of low birth rates during the Thirties. The labor force, which expanded tremendously in ’55 and ’56, is not likely to grow so fast in ’57.

Over-all, the outlook is good. Look for:

- Gain in industrial building from $3-billion to $3.4-billion.
- Gain in commercial building from $3.5-billion to $3.7-billion.
- Gain in churches, schools, hospitals, etc. from $2.3-billion to $2.6-billion.
- Gain in public utilities from $5-billion to $5.4-billion.
- Mild drop in farms from $1.5-billion to $1.3-billion.
will be spent in 1957

PUBLIC CONSTRUCTION, at $15-billion, will show an 11% increase in dollar volume over 1956

Every segment except hospital and institutional building will be up in 1957—5-10 percent.

Greatest potential is, of course, in the highway bonanza. Critical question is how fast this program will get rolling. Chances are good that this program, largest ever undertaken by federal and state governments in peacetime, will zoom from $5-billion-plus currently to $6-billion or more in ’57.

Now, this is significant in many respects:
- New highways stimulate residential, commercial, and industrial construction and create new opportunities for all other kinds of building.
- New highways rip out a lot of houses, which must be replaced. They make more land accessible and, therefore, suitable for building.
- Highway construction loans soak up some debt money that might otherwise be available to home buyers.

The dangers are these:
- When communities spend part of their funds on roads, they have less for other facilities. (On the other hand, federal-aid funds could free local funds for other types of construction.)
- Highway construction loans soak up some debt money that might otherwise be available to home buyers.

Clearly, the advantages heavily outweigh the disadvantages that will accrue.

MODERNIZATION, ALTERATION, AND MAINTENANCE will gain the most, from $15-billion in 1956 to $17.5-billion in 1957

This segment is the key to the $64-billion question. Added to the $46.5-billion total for new construction, it provides American Builder's forecast for the over-all construction market in 1957.

This segment also provides builders with one of their biggest opportunities in the year ahead.

As Operation Home Improvement moves into high gear, there is every possibility that dollar volume of maintenance and repairs will exceed the $17.5-billion predicted.

Urban renewal (involving 300,000-500,000 units per year) will be a significant factor in preventing a sharp dip in number of starts. (NAHB points to the fact that every dollar of federal money spent for urban renewal generates five dollars of new construction.)

New highways, cutting their swaths in the wake of heavy demolition of houses, will have an effect here, too.

Furthermore, this year for the first time, most municipal building inspectors are enforcing local codes concerning houses no longer fit to live in. While there was a shortage of dwellings they went easy. In the past two years the condemnation rate has climbed; it will climb even higher in 1957.
1957 may be a bit rough but

FORECAST: Election will have little effect on credit situation

In regard to credit policy, it won’t matter much who’s in the White House—and Congress—next year. The Federal Reserve Board is by law independent of the administration. Moreover, both Ike and Adlai favor it that way.

The FRB itself feels its first duty is to head off inflation; it will probably maintain its hard-money policy.

Of course, if the Democrats get in, there’s a greater likelihood of tax cuts in the lower-income brackets. These would provide more disposable income—presumably for home buying.

On the other hand, if the Republicans stay in power, big corporations may be favored in tax legislation. That would encourage more industrial expansion.

Research Institute of America’s Henry Lund points out, “If the economy shows any signs of weakness by the second quarter, Congress and the administration may well move quite radically and create . . . a new inflationary trend by the second half of 1957.”

FORECAST: 1957 housing starts will rise slightly, total 1.1 million

Figure on about 1,075,000 starts in 1956 and 1.1 million in 1957. Urban renewal (at least 300,000 units next year) will be a major factor in preventing a sharp dip in the number of starts in ’57. The trend otherwise will be down, for two reasons:

1. There is little indication of any credit easing—at least until spring. And such relief would not affect the mortgage money market till the fall.

2. Prices of houses will continue to rise but unemployment may crop up, reflecting some lag in sales and an excessive-inventory situation.

Long-term trend is for lesser demand for houses from now till mid-1960s. Then the bumper crop of war babies will begin to come of marrying age. After that the climb will be almost vertical.

FORECAST: Builders will find more ways to deliver better houses

Evidences of upgrading in standard of living by more and more families is the growing demand for bigger, more expensive, better-equipped houses (see National Home Week trends, pages 80-93).

Luxury touches are everywhere in abundance. Accent is on more two-car garages, quality built-ins, fuller and more lavish bathrooms.

What’s more, builders are putting more effort into merchandising these features.

They use more brand name appliances—and toot them loudly in advertising and promotion, including ambitious displays at the model site.

They offer increasing trade-in arrangements.

A parallel trend will develop toward narrower lots, according to Dr. Ralph Johnson, NAHB’s construction and research director. “We’ll see more semi-detached and row houses because of rising costs of land,” says Johnson.

“The two-story and story-and-a-half are coming back. Also, paradoxically, both the
dining and family rooms in the same house. Less of the L-shape living-dining areas.

"Traditional styling and land-development techniques will be back next year.

"Builders, however, will find themselves having to adopt newer construction methods."

**FORECAST: Costs will continue up but supplies will be adequate**

One reason builders will have to learn and use better construction techniques is the mounting costs in materials, land, labor, and money.

Wages, already up over 10 percent from last year, may go higher in 1957.

Freight rates are a good bet to get a boost. Supplies should be ample, except possibly for spot shortages of steel and cement due to the expanded highway program.

Next year builders will make greater use of component parts and plastic materials.

**FORECAST: Mortgage money shortage will spur other types of building**

Without a doubt, shortage of mortgage money will continue to be the No. 1 problem. Demand will continue to far outstrip supply—at least at the fixed VA and FHA rates. Industry doesn't mind paying a premium to borrow money, since it can write off most of the cost on taxes.

One likely result of a continued shortage will be that big builders will sell by contract and many smaller builders will cut back drastically on home building and turn to other types of construction.

**FORECAST: Home market will be stronger after readjustment in 1957**

Right now the number of nonfarm households is increasing at the rate of 900,000-1,000,000 a year. Total is well over 49 million. Next year it should hit 50 million.

Employment and income are at all-time highs. According to Boeckh figures, 66.5 million were employed in mid-1956, leaving unemployment at its lowest level in history. Meanwhile, personal income went up some $5-billion to $323-billion.

Take-home pay, correspondingly, is breaking records, and two-thirds of the nation's 43 million families have incomes over $3,000 a year. Fastest-growing segment is the over-$5,000 class, which now contains nearly half of all families.

There's a good chance that the postwar inflationary spiral will taper off in 1957 and lead into a period of healthy readjustment. Not deflation. Present huge industrial expansion is the reason. Output of goods will continue at extremely high rates.

Significance to builders: All of these factors point to the development of a steadily strengthening home market. It will gain further momentum in next year's burgeoning economy.

Little danger of repetition of the collapse in the 1920s due to overbuilding. As pointed out by the National Industrial Conference Board, "If the 13 percent of output which construction outlays constituted in 1925-29 was a signpost of danger, it has not yet been approached in the postwar period."

went to find out how builders are meeting the challenge

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National Home Week: staff field report

How builders are placing

What will offset slump? More house.
How? More space and more ornament.

The eye-catching contents of the next fourteen pages were picked up by ten American Builder editors visiting forty sections of the country for Parades of Homes and National Home Week displays. We hedge-hopped about 30,000 miles and saw enough of the 10,000 houses in the nation-wide celebration to feel confident that the trends and ideas shown here represent what's actually going on in building.

If many of the houses shown are well above the $20,000 bracket, it's because builders are going into higher-priced houses and conventional mortgages, as tight mortgage money and higher costs make it tough to produce CINDERELLA IN TEXAS. Thick shakes, diamond panes, scalloped trim are signature of "story-book" style—a new era? Franchised by Vandruff of Calif., 25 models on 4 plans are being built by Julian Keith, Houston.

Gingerbread Spreads Out

"Twentieth century gingerbread" may make some designers mutter, but its use on "Cinderella" and "Hansel and Gretel" dwellings has helped sell houses, so the infection is spreading south and east.

Even where shaggy shakes and dippy-doodle trim have not yet been snatched up, the trend toward ornamentation is universal. Buyers are holding out, so builders must offer not only good plans and more built-ins, but also "eye appeal." So colonials dress up with extended porch treatments, as well as bow windows and cute panes.

Two levels: ornamented utility

CLEAN LINES of two-story house (not a split) by Charles Rubelzky are softened by shutters, planter boxes ($35,000). Multi-levels are now found wherever land is high-priced or hilly. Bethpage, Long Island.
their bets for 1957

NOTHING MINIATURE about this story-book house. Keith Flippin's entry in Pasadena-San Marino BCA Parade ($30-59,000) has 2126 sq. ft., La Canada, Calif.

FRENCH PROVINCIAL is standard style in Kansas City, but Gene Elgin adds bow window, diamond panes. Massive roof makes ranch plan seem larger.

They dress up ranch plans in other ways, too

FRONT PORCH, 8' by 32', "recaptures charm of old South combined with modern design," says builder I. D. Martin. Colonial has 2500 sq. ft. for $30,000. White brick, slender pillars are popular. Montgomery, Ala.

CHINESE EXTERIOR (turquoise blue) and inside decoration dress up Frank Ketch's excellent ranch plan, with low pitch roof and formal landscaping. Oklahoma City.


NOVEMBER 1956

GARAGES, PATIOS, PORCHES →
"I\text{ntegrated design}" is a term that can sum up the attractive assemblage of ideas on these two pages. A fertile source of some of these ideas is indoor-outdoor living. You used to go through the kitchen door to a back stoop or terrace; the garage was a not very attractive structure off by itself. But now garage, patio and storage work together as a basic unit of good design.

On corner lots, you bring the car in through the side or rear, and while you're pouring a driveway you spread it out for a patio. With no tell-tale door in front, you blend the garage section into the front elevation, and repeat decorative detail for unity. A window is the best camouflage.

Inside, the garage has much to do besides store a car. There's dad's fix-it bench, maybe the laundry and deep freeze, probably the air-conditioning condenser, and now the tank of the central vacuum cleaner, as in Carson Cowherd's model in Kansas City and Ramon King's in Tulsa. Storage space is now in well-locked cabinets, for sports and gardening equipment.

Another trick with a corner is the drive-through garage, a perfect breezeway for warm-weather (as proved by convivial Tulsa Parade builders in George Mallerd's model) or rainy day play.

Even when not on a corner lot, the garage need not show a broad-on staring door. The garage is sidewise to the house, so that the wall facing the street can blend with the front elevation. Car passes close to entrance.

Privacy in the Patio

The carport, even more than the garage, helps define the patio. Formerly a flimsy optional extra or do-it-yourself job, the carport is now a welcome design-wise excuse to extend the roof-line of the house. And now the roof has been taught to jump a space before it gets to the carport, a space that's natural for a secluded patio (see top right). Patios, side or rear, flow right into the house through a sliding window wall.

The garage now joins the house...

WHERE'S THE GARAGE? Hint: driveway is at left. "Story-book" details (panes, gable bird house) are camouflage. F. Sample, Oklahoma City.

The patio moves out on its own...

FORMAL PATIO has built-in barbecue, patterned flooring and integrated landscaping for outdoor entertaining. Phillips Redd, Jacksonville, Fla.

The outside porch gets new glamor...

RAISED DECK, roofed by overhang, forms a private outdoor space in hillside contemporary (see p. 93) by Shroder, Hartsdale, N.Y.
... and the carport now has several jobs to do

REPEATED GABLE, extended roof and covered walk to entrance (see p. 88) show carport is built into basic design of brick colonial. Symmetrical facade lends formal dignity to design. Vondal Gravlee, Birmingham, Ala.

ROOF LINE covers patio, then carport, and even makes room for tree at front corner. Note fence and storage space (extreme right) and landscaped setting of attractive modern house by Pindar, Savannah, Ga.

... or flows into the interior through glass doors

MODEST BUT EFFECTIVE, this Texas patio gives shade as well as sun, with garden touch, brick, and sliding glass to both playroom and dining room, for easy outdoor meals and entertainment. Gregory Good, Dallas.

GLASS WALL of Rodney Lockwood’s contemporary is protected from street by brick wall to entrance (center) and garage off left. Fixed glass under gable is protected by generous overhang. Detroit, Mich.

... or new utility with screening and fence

SCREENED PORCH is one of homey features of Better Homes and Gardens Idea house this year (see plan, p. 85). View shows accessibility of carport. Family-kitchen is entered off right, C. T. Donaldson, Montgomery.

PRIVACY FOR PARENTS is a necessary other side of “togetherness” of open planning and family living. Patio and sun-space off master bedroom (see also p. 91) is one answer. Boyd Jackson, Atlanta.

NOVEMBER 1956
Hard-to-impress old timers hear all the fuss about the family room and say it's nothing but the old back parlor or the dining room off the kitchen again. But two main differences pop to the eye: the open movement from one part of the grouping to the other, symbolized often by the common tile floor; and the new easy access to outside, usually via a sliding glass door.

The living room, as a result, is also changing function. Now out of the main stream of traffic, it serves equally well as "spooning room" and as the place to receive the minister.

As it takes on more of the family's functioning, including TV and snacking, the family room (or den or playroom or even "pajama living" room) takes over the necessary equipment. The fireplace, if the buyer wants one, is likely to go there. And once there's masonry going in, why not work in a barbecue, since open-fire cooking is fun all year round? And if the laundry can be closed off for company, why not place it where it can be tended easily?

Privacy vs. Open Plan

The open plan is still going strong, but there is much evidence of a desire for privacy, especially in the kitchen. So we find a returning vogue for folding shutters that fit in nicely with the widely popular colonial interiors. These are hinged to the sides of the pass through, and can be closed when there are dishes in the sink, and full louvre doors to match can be pulled to when there's no time to clear the table in the alcove. Such shutters are found in houses by Charles Martin in Charlotte, and Hollis Copeland in Tulsa.

Traffic patterns show sound thinking. Even where the living room is near the entrance, design-conscious builders route traffic around it, to give mother at least one room she won't have to set straight every day.

Family-kitchen: center of planning

Living rooms are parlor-ized

PLANS by two Parade leaders play up family-kitchen, seclude the living room. Top plan, by Hill Barnett, Montgomery, routes traffic through den; bottom, by "Andy" Latch, Tulsa, circulates past kitchen.
The open plan can be closed off in several ways

MASTER PLAN of B H & G Idea house keeps fireplace in living room, which has cathedral ceiling and collar beams, adds screened porch to family kitchen. Note divided bath.

A GOOD EXAMPLE of a nationwide trend: family-kitchen with cork floor, wood paneling, fireplace, open beams, glass sliders to patio, by W. P. Richardson, Dallas.

CEILING TRACK carries hanging curtain to cut off kitchen from family-dining section, and both from living room in Idea house by James Curley, Middletown, N.J.

A planned entry

MODERN DESIGN with colonial air. Bill Stubbs directs traffic along slate floor away from living room (left). Oklahoma City.

Barbecue is built-in

EVERYTHING ELSE goes on in the family room, so why not some cooking and laundering? Fireplace stack accommodates add-on flue for barbecue and laundry vent. Scholz Construction Corp., Toledo, O.
Economics play a two-way role in the built-in story. Once builders go into more expensive construction, either by choice or because tight money cuts their commitments, they have enough play to build sales appeal into their product. And also, to compete in a falling market, they must put more into a house.

Also, technology gives a boost to built-ins. First factory-made kitchen cabinets moved into the “included” category; then separate oven and range units, then other appliances: disposers, refrigerators, dishwashers, washers and dryers. The GE and Westinghouse kitchen centers have caught on well. Now custom cabinet work is coming back, to fit hoods, bars, and even lighting into a decorative scheme.

**Wood on Wood**

Wood, all over this year’s show, naturally invites built-ins. Once you put in wood paneling or cabinets, it’s hard to stop. You add a counter or bar, as Ed Ryan in Pittsburgh did; you build in hi-fi equipment, like Q. A. Collins in Minneapolis; you make a spectacular family room with birch paneling on walls and slanting ceiling, like Med Cashion in Oklahoma City; you use lowered plank ceilings in some rooms, like Floyd Harrison in the same city’s Electri-Living house; you build in window seats under bow windows, like Don Decker of Omaha; you put in a louvered divider between dining and living room, like J. F. Cleghorn in Montgomery—of knotty pine, of course, so popular in the south.

**Planters Grow Fast**

Planters are coming in strong in Midwest and South, not so much in New England. They add a fresh note to bathrooms (Bob Nuckolls, Tulsa, has one full length alongside a tub), and act as room dividers. They accent entrances, and seem to extend right through window walls into the fireplace.

Intercoms and musical equipment, now luxury inclusions, are being designed into the plans.

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**What goes with wood? More wood built-ins**

[BUILT-IN DESK and bookshelves (adjustable on keyhole stripping) cost builder Carl Guy about $125, gave that “extra” quality to knotty pine family room. Note acoustical ceiling. Montgomery, Ala.]

[BUILT-IN DESK and bookshelves (adjustable on keyhole stripping) cost builder Carl Guy about $125, gave that “extra” quality to knotty pine family room. Note acoustical ceiling. Montgomery, Ala.]
Hood housings: logical next step in built-ins


WORKED EDGE of housing fits cabinet pattern and colonial tone of kitchen by Frank Lowery, Okla. City.

FRENCH PROVINCIAL from chimney pot to custom hood (pottery to match). J. Zimmerman, Kansas City.

Every room is better for built-ins

PLANTER AND VANITY of ceramic tile in Erle Jennings’ well-compartmented bath. Wichita, Kan.

FIRST AWARD WINNER for both interior and exterior design, over 1250 sq. ft., in Milwaukee Parade, July 14-22. Nordale Realty house adds cove lighting to all-built-in kitchen, with Tappan electronic oven, Revco refrigerator.

CHEST and dressing table are well located in wood-paneled closet, in F & B model, Knoxville, Tenn.
Everything mentioned in this staff report so far—indeed, everything a good builder puts into his model—can be a sales point. But we saw so many smart ideas in action that we had to set aside four pages in a sadly inadequate attempt to report some of them. Ed Gavin would have been pleased to see how the building industry is "creating demand by obsolescence" brought on by new ideas and fine skill.

Few of the ideas we saw were gimmicky or odd-ball. Most are practical and can be applied in almost any region.

Besides the glamorous and the novel, there was solid emphasis on such basic elements as heating and insulation. Manufacturers are catching on that the Parade show is a better display for new equipment than the armory home show. Thousands of interested visitors prefer to see the live product in a real setting. Several Parades in the midwest and south had two or three houses with production models of the new Coleman natural gas-impelled air conditioner, with reports of general satisfaction. Parades all over the land had GE and Westinghouse heat pumps, with company men on hand to explain working and costs.

In New England builders are firm with hot water heating, and baseboard distribution is almost universal. In Knoxville, Tenn., all 20 homes have electric heat, most with ceiling cable. In Fort Wayne, Ind., nine of 17 houses have electric heat. And "Adequate Wiring" signs are seen everywhere.

For Example

It's hard to separate "sales ideas" from "built-ins," but at the risk of repetition, here are some features we saw: imported glazed tile for floors and counters; dowel-peg floors; much pegboard for decoration as well as utility; swiveling TV emplacement; marble or laminated plastic window sill; double front doors; expensive wallpapers; folding doors of wood or plastic, as room dividers or closures.

A hatful of sure-fire ideas from south...

A ONE-ROOM REVIEW of current trends: two-way fireplace with corner columns; set-in TV; high-level planter; roman brick divider; exposed beam; glamor lighting; skylight. Andrews-Wood, Birmingham.

It's easy to make visitors feel welcome...

FRIENDLY PORCH looks good and also serves as approach from carport, off left. Columns are widespread southern touch; another is the varied brick texture. Vondal Gravlee, G & H Homes, Birmingham.
... west and north on fireplace sitting

**STRICTLY CALIFORNIA** is three-way stack of Flippin house (see p. 81), shared by living room (right) and patio (left), with swim pool. Note shutters, wood ceiling.

**RECREATION ROOM** in basement has two-way fireplace and barbecue, paneled snack bar, papered wall, corksulated asphalt tile. Furney Bros., *Minneapolis, Minn.*

... when pleasant entries keep a promise of good looks inside

**BUTTERFLIES AND LEAVES** pressed in translucent plastic brighten Adrian's entry, *La Canada, Calif.*

**RICH EFFECT** of mosaic marble and glass fiber screen speaks well for Lloyd Forsse's house, *Wichita, Kan.*

**FLAGSTONE ENTRY** affords view down to patio, up to planter and shadow box. Nordale, *Milwaukee.*

WROUGHT IRON, SUN ROOMS AND OTHER SALES IDEAS FROM ALL OVER THE U.S., ON THE NEXT TWO PAGES
Wrought iron comes in many patterns and has many uses

RANCH BRANDS and symbols were locally fabricated for doorway of Gentry Davis' "red barn" model, Omaha, Neb. Sole separation of kitchen from family section of Erle Jennings' project house is iron feature. Wichita, Kan.

FORMAL PATTERN fits tone of Gordon Burton "modern conventional." Terrace is approached from breakfast area off kitchen, adjacent to family room. Note overhang and spotlights, and landscaped area. Birmingham.

Suits your prospects

LOOK, NO BUILT-IN! "At last, a house where I wouldn't need to get rid of my range," was a frequent response to this startling sight. J. F. Cleghorn, Montgomery.

Putting on the style

PLANTER AND PLASTIC DIVIDER catch the eye first, but note also the high style lighting, built-in hi-fi speaker and china closet. Q. A. Collins, Minneapolis.
Lounging in luxury

MASTER SUITE has roman tub-shower, inset with fleurs-de-lis as reminder of French Provincial style. Sam Cinnamon places the sand-lounge and private patio-within-patio just outside the bath. “Over $50,000.” Kansas City.

Wired sunlight

SUNSHINE ROOM sells well in heavy-dew northwest. Pull-down lamp has automatic timer for the drowsy. Ceiling lamps are also sun-type. Orth-Mahaffy, Portland, Ore.

Textures in white

LOUVERED SHUTTERS are both decorative and useful to close off the kitchen-dining room. Note also plastic brick, marbled tile floor. Jack Worthman, Ft. Wayne, Ind.
Basic construction problems are under control, but new ideas keep coming along. Hillside building grows commonplace as easy land gets scarcer. Experience with split framing is paying off.

Prefabs now join the Parades without special notice: Lester Matlock had a U. S. Steel Coronado on show in Wichita; a Scholz and a National were in Toledo; Allen, Five Star, two Nationals in Fort Wayne; Lumber Fabricators in Birmingham, Crawford in Montgomery. Usually the local builders dress up the basic plan with extras.

"Magazine houses" played positive roles. The Electri-Living houses presented contemporary at its most acceptable, as interpreted by local architects, and were generally well received.

Open beam ceilings were widespread, but some careful builders took a dim view of exposed wood in humid bathrooms, especially structural members liable to swell and twist.

A poured-in-place concrete roof (Daigh Const., Pasadena) and a concrete tile roof in Detroit present interesting possibilities. And the Thermo roof (below) is spreading.

MOST APPROACHES to multi-level building have been thoroughly explored by builders in Pittsburgh, where level sites are rare. Here is an unusual garage set-up as handled by Bond & Co. Note the retaining wall and typical varied use of several surface materials.

TALL WINDOWS, with white mullions framed in white trim, make an open display of handsome freestanding stairway to the basement. Inside, a wrought iron rail accents the top of the stairs. House is by Machen Co., St. Louis, Mo.

White roofs of some of the houses in Pine Valley Estates section of Wichita Parade manifest a trend to low-pitched, built-up roofs. Plastic adhesive bonds the sun-reflecting white or pastel chips.

Carefully oriented, the "Starlite" house by Arthur K. Ehrlich gets sun, but not too much through the "astral skylights" along the ridge beams. Gables are protected by overhangs. La Canada, Calif.
...and opportunities for exciting design

SLOPING PLOT allows two-story effect and full-floor grade-level layout. Cantilevered-raised and covered deck is off the living room (see p. 82) and repeats the direction of the siding. Shroder Co., Hartsdale, N.Y.

Beams can hide a thing or two...or tell the naked truth

BEAM EFFECT is achieved by using Insulite board and two 2x8s furred out with 3/8" plywood; wiring is concealed in lower edges of "beams"; ductwork for air conditioning in center "beam." Mullendore Co., Knoxville.

FREE PLAY of beams and plank ceiling works with inside brick surfaces to achieve a rustic but contemporary effect. Note fireplace at center, flanked by record cabinet. Phillips Redd, Jacksonville, Fla.
Andy Oddstad of Oakland, Cal., is the third member of American Builder's series on the country's biggest operators. A 1500 house a year builder, he did his planning for 1957 last year. And by jumping in with both feet where other builders feared to tread . . . .

J ust fifteen minutes from the center of Oakland, Cal., lie several hundred acres of steep, rugged land with a magnificent view of the San Francisco Bay area. As in every other major building region in the country, land in Oakland is scarcer than hen’s teeth; yet the problems of site preparation on these hills appeared so formidable that builders looked, shuddered, and moved on.

At this point a young builder named Andy Oddstad took a look at the steep ground. He decided that the problems involved were tough, not insuperable; that land costs would be high, but not prohibitive. He persuaded Martin Wunderlich, an earth-moving contractor he'd worked with before, to join the venture. Then he bought the land. He's planning to build 3500 houses there over the next five years.

The details of just how the tremendous task of terracing and grading the steep slopes was accomplished are described further on in this issue. The important lesson here is this: the available supply of good building land close to town is fast running out. In a few years this problem is going to force a complete reappraisal of our entire concept of community planning, but for the moment there are two solutions: first, keep pushing out from the city centers; eventually a point will be reached beyond which people will not buy. And second, use Andy Oddstad's imaginative approach: find “unusable” land close in and use it. The buyer generally will
No. 1 problem: land shortage

be happy to pay the earth-moving premium for a good, close-in neighborhood.

Good land is by no means the only reason for Andy Oddstad's success as a builder. He has put together a smooth-working organization designed to build houses of top quality at the lowest cost that efficiency can produce. The actual process of building makes use of the most up-to-date techniques. All lumber, for instance, is pre-cut by the supplier, and arrives at the site as a marked package. Truss parts also are supplied pre-cut, and are assembled in storage yards on the project. From there they are picked up by a fork-lift truck which delivers them directly to the roof of the house.

Such items as kitchen cabinets, wardrobe room dividers, garage doors and window boxes are built in a mill owned by Oddstad. Outside bids are periodically obtained for these parts. The day these bids are lower, Oddstad says, he'll shut down the mill.

Products used: General Electric Textolite counter tops; Ponderosa Pine cabinets; Schlage door hardware; Hotpoint built-in ovens and ranges; Minneapolis-Honeywell heating controls; U. S. Gypsum sheathing; Certigrade Red Cedar shingles; Stanley garage door hardware; Horizon sliding glass doors; Soule metal windows; Heat-Well furnaces; Crane bathroom fixtures; Jensteel medicine cabinets; Nutone range hoods and fans; and Mission hot water heaters.
HE LICKED THE LAND SHORTAGE PROBLEM continued

THIS SPLIT IS FOR GENTLE GRADES . . .

AND THIS TWO-LEVEL FOR A REALLY STEEP HILL . . .
FLOOR PLAN shows an almost perfect circulation plan, with the kitchen as focal point. Two car garage on lower level permits only a small utility room and half bath. Note the unusual stairway arrangement.

THE SPLIT LEVEL really comes into its own when it's used on the sloping site it was designed for. Use of a simple single roof line prevents the higher part of the house from sticking up like a sore thumb. Price is $19,700.

A TWO-LEVEL HOUSE automatically provides one of the most wanted features in today's house: more space for general storage. And even with the garage downstairs, there's space for a couple of more rooms. Price, $14,950.

TWO-LEVEL LIVING can be turned into a strong selling point. Besides giving more room for the money, the house sits up high enough above its neighbor to provide an uninterrupted view of the city and bay beyond.
Some builders still tie themselves to the old rules: linoleum for the kitchen, tile for the bath, wood everywhere else. Nothing basically wrong; but if you want your floors to help you sell a house by impressing prospects with new ideas, think new.

Every kind of flooring has something new to say, but resilient flooring (tile and linoleum) is now getting a big play for two main reasons: new colors and patterns (terrazzo, marble, spatters, metal inlay) permit almost infinite design variations; and science is licking the on- or under-grade limitations.

Congoleum-Nairn announces Gold-Seal 320 adhesive that permits their Nairon vinyl, cork, and rubber tiles to join vinyl asbestos and asphalt for use on on-grade concrete. Armstrong announces “Hydrocord” backing of sheet plastics for on-grade jobs; it is water resistant, highly inert, unaffected by alkaline moisture rising through concrete.

Another new backing by Armstrong, “Cushion-Eze,” is of foam rubber, to be available under some vinyls. Eliminating the need for lining felt, it promises extra resilience and sound-deadening effect.

Dodge’s SG finish (see lower left) has a fused resin-wax base, applied under high temperature and pressure, that is expected to reduce maintenance. Goodyear announces terrazzo-type “Triple-tone” in 14 styles, “with deep dimensional beauty.”
now there's more to choose from

 Builders can now make a big sales point of glamor on the floor; color, design and materials give plenty of play for decoration.

 The old zoning rules no longer apply: resilient and ceramic tiles now invade every room, and new treatments of wood are keeping it competitive. Free combinations of various floorings are the style.

Wood flooring: new ideas but still the old dignity

The oldest underfoot materials, stone and wood, are coming back strong. They show up in new forms and uses, fit well in modern decoration.

 Builders, striving to give emotional impact to their model houses, have been turning to color and contrast on all their surfaces, not the least their floors. Wood, always the champ in richness of texture, has been getting a new spread of finishes. A home buyer can build color schemes around any shade of floor from “midnight finish” (top right) to burnished natural oak.

 Factory-finished plank flooring, beveled to ensure smooth application, has another eye-appeal: a variation of width in alternating 2 1/4 and 3 1/4” strips. Cost-conscious builders can figure the value of avoiding sanding and finishing. The random-width effect is also found in many brands of pegged or doweled flooring that is so popular in colonial or rustic-ranch models. And the parquet effect is achieved variously by hardwood blocks, hardwood ply (lower right) and thin veneer mosaic-type parquet, all use adhesives for quick laying.

Floors Help Indoor-Outdoor Feeling

Indoor-outdoor living affects floors directly. The terrazzo floor has been moving in from patio to playroom when both are on the same grade. With a window wall between, the flow of space is unbroken. At the front, a brick, concrete, tile or flagstone entrance or stoop is likely to continue into the foyer and even farther.

 The close kitchen-family room tie-up in modern design has brought a re-thinking of floor relationships. The simplest decision is to extend the kitchen linoleum or tile through the family room.

 Here are some ideas American Builder editors saw in National Home Week models: brick or hard tile running from entrance past family room fireplace to back patio; patterned linoleum in nursery; matched linoleum for floor, counter top and kitchen will; mosaic marble around fireplaces.

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FLAGSTONE, MARBLE, CERAMIC AND CARPETING (see p. 230)
CHECKLIST: 10 ways to plan your

Here are two shopping centers, one illustrating
the trend of the residential builder
to get into the field, the other showing what
makes the modern "machine for merchandising"

☐ 1. MARKET SURVEY

Some study, preferably by traffic engineers
and architects, of the area under consideration
is nearly always needed. You'll want to know
the number of families to be served now and
in the future and their average income level.
Ed Ryan's St. Clair Heights serves twelve
developments, two of which are his own.

☐ 2. SITE PLANNING

The big problem here is to find enough acre-
age with the right kind of zoning. Sometimes
you may have to work for months and months
to get the zoning changed, as Ed Ryan did.
Your site should be on or near a main high-
way, and of course, it should have public
sewer and water plus drainage. It should be
at least two or three miles from the nearest
competitor. To support the 100,000 people in
the area, Sunrise Center in Ft. Lauderdale
required sixty acres; St. Clair Heights, on the
other hand, required only 104,000 square
feet of land area, or rather that was all Ryan
needed.

☐ 3. FINDING TENANTS

They are getting increasingly harder to find.
This is one reason why you should start early
to locate the Big Boy. He's your No. 1 tenant
—usually a chain grocery or department
store. Sears has been among the leaders in
this category. Once you find your Big Boy
you can approach banks or insurance compa-
nies about a loan. Ryan had practically no
trouble signing up the Giant Eagle chain, but
you may not be so lucky. He got his financing
from the Lincoln National Insurance Co.,
then proceeded to line up a drug store and the
rest. Banks, bakeries and hardware stores are
also good prospects for your center. The
smaller stores stand to benefit from the traffic
that your No. 1 tenant pulls in. And you'll
find it's the small stores that are your money-
makers.

☐ 4. PLAN

The latest trend in the big regional center is
the mall plan, with clusters of stores con-
ected by canopied walkways and surrounded
by a huge parking space. You can count on
the day of the "Miracle Mile" being over. The
bi-level plan is becoming more popular, with
service entrances under and parking space
over, but for the small center the in-line plan
is still good, though angled for variety.

☐ 5. PARKING

Experts aren't agreed on what a good parking
formula is, but a 4 to 1 ratio is a good start-
ing point (four square feet of parking to one
square ft. of gross rental space). St. Clair
Heights has 108 parking spaces to 26,000
square feet of building area. In general, a
supermarket should have twelve spaces per
1,000 square feet; furniture store, three
spaces; department store, six or seven. Keep
parking within 400 feet of your stores.

☐ 6. LANDSCAPING

The most effective centers, even the small
neighborhood type, are carefully landscaped
to soften their overall appearance and make
them more inviting. This is especially evident
in Sunrise Center, with its tall palms and
grassy areas. Trees serve another purpose too:
they act as landmarks to shoppers in a big
center who have difficulty finding their cars.
Pools are also used with planting to enhance
Sunrise and other large centers.
new shopping center better

BIG CENTER

SUNRISE CENTER in Ft. Lauderdale, Fla., has a two-level plan with an area of 150,000 square feet. Total cost of center, finished, is estimated at $6½ million.

SMALL CENTER

ST. CLAIR HEIGHTS shopping center in Pittsburgh built by Ed Ryan, residential builder. Ryan joins growing list of builders who have gone into this field.

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7. LEASING

Most centers, large and small, tend to give their No. 1 tenant or Big Boy a long term lease. For the smaller stores they use short term leasing. With long-term leasing you have a chance to build up your cash reserves, since interest is high at first and income tax low, while later on the situation is gradually reversed. The small store should have up to five-year leasing, and expiration dates should be carefully watched; otherwise you'll have a lot of vacant stores all at once.

8. MATERIALS

Brick and cast stone are favored, since they don't require painting every three to five years. Redwood is also popular, especially in combination with used brick to give what commonly is referred to as a "neighborly atmosphere." Always the effort should be made to stick to easy-to-maintain materials, inside and out. Ceramic tile, terra cotta, terrazzo and asphalt tile are also popular.

Since a shopping center of almost any size requires a sizeable outlay of capital and equipment, as well as specialized know-how, you will be wise to sub-contract all or nearly all of the work. That's what Ed Ryan did, since he is primarily a residential builder—and wants to keep it that way.

As to the economy question, it would be foolish to tamper with the original plan and method of cutting down costs. You're better off in the long run to stay with the original plan and method of construction at all cost. Let your tenants know this.

9. MAINTENANCE

One of the first questions a tenant asks is who pays for the maintenance. You will have to settle this score on a pro-rata share basis, keeping in mind that maintenance costs vary with the type of air conditioning you use (reciprocating or centrifugal pump), your heating and lighting costs, and the thickness of the asphalt topping on your parking space. Tenants should have separate meters and pay for their own utilities as well as dispose of their own trash.

It will be up to you to keep outside walls, roofs and sidewalks in good repair. At the most, you should figure 10% of gross rental for maintenance.

10. FUTURE EXPANSION

In many ways this is the most important point of all. The present size of Sunrise Center is only a third of what it will be, and in the planning of a regional center it is always well to keep the final phase in mind. Some experts feel that it's better to spread your buildings at first and fill in the holes as you go along. This means setting aside plenty of space for future parking as well. At the very outset you will be asked to submit your future expansion plans to the zoning and planning board.

THE MALL PLAN . . . NO MORE MIRACLE MILES

BIG CENTER

FUTURE EXPANSION for the owners of Sunrise Center is assured. The center is part of a 150-acre parcel owned by Antioch College of Ohio and occupies 37 acres.
PLANTING, POOLS and trees make shopping in Sunrise Center more pleasant and add to overall design. Sunrise is the work of architects Gamble, Pownall & Gilroy of Ft. Lauderdale. It is a pattern for other centers, especially in its landscaping details.

PARKING THE PRIME REQUISITE for any shopping center is lots of parking space. Sunrise Center is a good example.

BIG BOY BUILDER ED RYAN'S No. 1 tenant at St. Clair Heights shopping center is the Giant Eagle chain grocery and drug store.

SMALL CENTER ANGLED IN-LINE PLAN characterizes St. Clair Heights. Center occupies slightly sloped site, which accounts for step-down effect of canopies (see photo above).
NATIONAL HOME WEEK REPORT:
A TRACT BUILDER MAKES
HIS BETS FOR 1957

This handsome split represents builder Carl Freeman's idea of what the 1957 market will call for. At $16,990 it's a fine buy, but as shown by the picture and the floor plan above, it's a far cry from a minimum house.

Under this roof: 1957's most

Your next year's success depends on the predictions you're making now. Here's one man's opinion.

The house shown above is a bet. Builder Carl Freeman has labeled it his "Value House for 1957," is putting his money on it as a winner next year in the market in and around Alexandria, Va.

Freeman has made several significant changes from his 1956 operation—changes that rate a careful look from every builder. Here are some of them:

- **Buying** is keyed less to maximum economy, more to pleasing a market that is smaller in numbers, but bigger in the money it spends per house. Freeman's purchasing now reflects the fact that the "sure sale" is a thing of the past; you've got to please your buyer more, humor your wallet less.

- **Selling** will be tougher next year than last, bad news for builders whose thinking is based on 1950's easy pickings. Today's buyer has more money to spend on his new home, but he's reluctant to spend it until he's absolutely sure he's getting his money's worth.

Freeman has tuned his selling to this 1957 buyer. At a price of less than $17,000, the "Value House" is a lot of house for the money; and just to make sure every potential purchaser within screaming distance knows it, Freeman is kicking off the new model during National Home Week with a class A promotional blast. He's tied it in with the National Lumber Manufacturers Association as a "Lumber House of the Year," and with a local department store for furnishings. And to top it off, the house itself will be given away as a door prize.
significant lessons in building

Planning of the "Value House" is geared to the 1957 market. It's bigger than last year's model, has one less bedroom, but now sports a big family room and a utility room for future finishing. The exterior has been spruced up with cedar clapboards, and a veneer of handsome used brick.

Over-all, the changes Freeman has made are from a low cost house into a relatively luxurious model. And most important, the price increase from the 1956 model is only a thousand dollars.

Building, of course, is the payoff. The best buying, planning and selling programs aren't worth the powder to blow them if the builder can't build a good-house economically. Freeman can, and some of his ideas are shown on the following pages.

Products used: American Standard bathroom fixtures; Andersen windows; Bendix laundry equipment; Bryant furnaces; Carrier air conditioners; Cabot exterior stain; Celotex insulation; Fenestra steel windows; Frazier aluminum windows; Johns-Manville products; Libbey-Owens-Ford glass; Matico Cork-Tone tile; Mercury kitchen fans; Lightolier lighting fixtures; National Electric Co. electrical products; Pacific Coast Douglas Fir lumber; Ponderosa Pine windows and doors; Rheem hot water heaters; Rockwool insulation; Schlage locks; Sisalkraft copperclad termite shields; Sonoco Sonotube pier forms; Wincroft gas ovens and ranges; Trimglide sliding glass doors; Teco connectors; Upson primed siding; U. S. Plywood Corp. plywood; U. S. Steel basement window wells; VisQueen vapor barriers and tarpaulins; Albert Voight medicine cabinets; Metalbestos flues; Skil hand saws; Porter-Cable routers and joiners; Delta band saws and joiners; Walker-Turner band saws and joiners; DeWalt radial saws; Hendrick Panel saw; International Harvester tractors and bulldozers; Shawnee tractor scoops; Allis-Chalmers graders, Hyster fork lifts.
ROOF PANEL is hauled up by workmen. It will be turned ninety degrees, flopped, and dropped so it butts the panel end at right. Beam at lower right will not be covered, serves as a decorative feature of the interior.

SIGNIFICANT LESSONS FOR 1957 continued

Pre-building: it’s Freeman’s key to more house for less money

Prefabrication and component construction are usually thought of in connection with the smaller builder. For him there are advantages of speed, small crews and weather protection that outweigh the generally higher cost of this type of construction and make it more economical in the long run. The big builder usually can do the job more cheaply with conventional on-site construction.

Freeman, a 250-house a year builder, has worked out a compromise which he thinks gives him maximum efficiency. He “pre-builds” his houses in an outdoor area right on the project site. He can maintain maximum quality control in this area, where the most important operations of measuring, precutting and assembly are done, and do it with a relatively small supervising force.

Every wall is built in the shop as a panel and hauled to the site, where the relatively unskilled labor which predominates in the area can assemble the house with a (continued on the next page)

For takeoff and materials list, see page 242.
PATIO SIDE of completed house has sliding glass doors, as well as a pair of floor-to-ceiling windows which make the kitchen unusually open and bright.

SIGNIFICANT LESSONS FOR 1957 continued

minimum of opportunities to make costly mistakes, and with a minimum of supervision. As will be shown later, it is not necessary to set up an elaborate factory to pre-build a development. Freeman uses a couple of acres of meadow and a couple of saw sheds. Transportation is simple when short hauls are involved. Skids, towed by tractors or bulldozers, make the best and cheapest trailers. Another point: with the “factory” so close to the site, replacement of a wrong or damaged panel can be handled with a minimum of red tape. A call or a short truck ride, and a new panel can be delivered almost immediately, or rebuilt within a short period.

SAME SIDE OF THE HOUSE shown during construction. Note large size of the panel being moved into position. It is practical here only because it had to be moved only a short distance from the shop to the building site.
Pre-building in action: in one day, deck, walls, and interior

BY THE TIME PHOTOGRAPHER ARRIVED in the morning, joists were up between levels, first panels had been erected, and crew was laying the sub-flooring. Only one supervisor was needed for the entire field operation.

FIRST WALL PANEL is pushed into place. Extra studs are already installed where partitions meet wall. Crew is larger than normal, as house was built under "crash" program to meet publishing dates, National Home Week.

... and just three weeks later, here's the house completed and
partitions go up, and the house is ready for roofing . . .

COMPLETE INTERIOR WALL is lifted onto top level. The extra large plate on front, extending into outlooker, is to carry front overhang. Every interior partition, from two to twenty feet long, is pre-built.

NEXT TO LAST PANEL slides into place. Designed by Freeman's chief engineer, Arnold Kronstadt, this house was first of the new design to be built; yet panels fitted together perfectly, house went up almost without a hitch.

ready for National Home Week crowds.

THE COMPLETED HOUSE has an attractive long, low look that is accentuated by having the main roof extend out to cover the carport. The cantilevered section at left adds interest to the facade and considerably enlarges the bedroom level, while at the same time it maintains a straight foundation line.

A really efficient pre-building operation can go a long way toward cutting construction costs, even for the mass builder. Here's how Freeman sets up and operates the outdoor "factory" that builds his houses.
Pre-building in action: in one day, deck, walls, and interior

BY THE TIME PHOTOGRAPHER ARRIVED in the morning, joists were up between levels, first panels had been erected, and crew was laying the sub-flooring. Only one supervisor was needed for the entire field operation.

FIRST WALL PANEL is pushed into place. Extra studs are already installed where partitions meet wall. Crew is larger than normal, as house was built under “crash” program to meet publishing dates, National Home Week.

...and just three weeks later, here's the house completed and
partitions go up, and the house is ready for roofing . . .

COMPLETE INTERIOR WALL is lifted onto top level. The extra large plate on front, extending into outlooker, is to carry front overhang. Every interior partition, from two to twenty feet long, is pre-built.

NEXT TO LAST PANEL slides into place. Designed by Freeman's chief engineer, Arnold Kronstadt, this house was first of the new design to be built; yet panels fitted together perfectly, house went up almost without a hitch.

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A really efficient pre-building operation can go a long way toward cutting construction costs, even for the mass builder. Here's how Freeman sets up and operates the outdoor "factory" that builds his houses.
The "Value Home," Fairfax County, Virginia, is an Americana Home in Ridgeview Estates built by Carl M. Freeman, Inc., Washington, D. C., who insures structural superiority in all units of the development with TECO Trip-L-Grip framing anchors.

Selected as the Value Home of 1957
by
FAMILY CIRCLE Magazine, for outstanding design for better family living . . .

National Lumber Manufacturers Association, for versatile use of lumber . . .

AMERICAN BUILDER Magazine, for new techniques in contemporary building . . . including the use of Trip-L-Grip FRAMING ANCHORS that provide stronger nailed joints in wood.

Trip-L-Grips tie-rafters down more securely, and are the most versatile, practical, and economical joist hangers ever developed. They eliminate heavy strap hangers and ledgers - no notching, shimming or toenailing.

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TECO Trip-L-Grip FRAMING ANCHORS

TIMBER ENGINEERING COMPANY, 1319 18th Street, N.W., Washington 6, D. C.

Please send free copy of booklet, "Aids for Better Homes and other Wood Construction," showing where and how to use Trip-L-Grips effectively.

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TWO COMBINATION WINDOW AND WALL PANELS are completed in the cow pasture that serves Carl Freeman as a pre-building plant. Texture-111 plywood is used for both sheathing and siding on his older model houses.

SIGNIFICANT LESSONS FOR 1957 continued

Pre-building: your backyard can be your factory

When it came to setting up a place to build his panels, Freeman took the easy way out. He set up his jigs and tables in what used to be a cow pasture and started building.

There are, of course, regional considerations that permit him to operate this way, but which would stymie builders in some other parts of the country. Winters in Virginia are relatively mild, and men can work outdoors most of the time. But Virginia is notorious for the way its ground can become a gooey mass of mud after anything stronger than a heavy dew. The answer is to preserve the grass “floor” of the factory, and it will hold the ground together and prevent mud from getting bad.

There is another local factor concerning Freeman’s labor situation in Alexandria. When it rains so hard that work outside is impossible, the crews simply go home. They accept the fact that there will be days they can’t work. But in an area where men expect to work five days a week regardless of the weather, a setup like Freeman’s is still possible. A large post-and-beam shed, actually little more than a roof, could be put up for relatively little cost. It would cover the entire work area, keep things moving in any weather.

The storage areas would need no roof; Freeman covers his finished panels with polyethylene tarps until they are hauled to the site.

HERE ARE SOME PRE-BUILDING GIMMICKS
Pre-building in action: here are some of the ideas that

FLOOR PANELS for the deck between the levels are assembled on this table. The section under construction here is the one over the stair wells; ordinarily a tough framing job, precutting and jigs make it a simple nailing operation.

SOLID EXTERIOR WALL PANEL is built. Table can also be used for other sizes and types of panels, as shown by the additional chocks. In background are other jig tables and racks with marked bins of precut lumber.

These ideas help make Freeman's operation an efficient

BETWEEN LEVEL FRAMING, ordinarily a major headache, is simple here. Partition of 2 x 6's balloons between all levels; instead of let-in ledgers, 2 x 4's nailed to the inside face of the partition carry the floor joists.

CLOSE-UP SHOT shows details of mid-level framing. The 4 x 10 is floor panel girder, on this end sits on a 4 x 4 which runs to basement floor. Floor joist in the background sits on a 2 x 4 post which works the same way.
make this outdoor factory a profitable operation

PILES OF ROOF PANELS are covered for the night with polyethylene tarpaulin. Job is quick and easy, permits every pile of panels and every table to be covered each night. Panels are easily identified through the material.

FINISHED PANELS, in this case gable ends, are loaded on skids and hauled to building sites. Skids are cheap and easy to build and repair, and do not bog down in mud. Bulldozers do the pulling when the mud gets really deep.

one; they might save you a dollar or two

FINISH BOARD, with drip caps top and bottom, covers joists between levels. Without it, siding would have to lap, or else panels would have to run from top of house to bottom, would be too big and heavy to be handled easily.

EVEN PATIOS ARE PRE-BUILT. Concrete is poured over these form tables and screeded to the top of the battens nailed on top. The result is concrete flagstones that are easy to handle, can be laid in sand without footings.
New! Luxurious General Electric
Dramatic Sales Appeal to Your Houses—

The General Electric Wall Refrigeration Center is available in Mix-or-Match colors: Canary Yellow, Turquoise Green, Petal Pink, Cadet Blue, Woodtone Brown—or White.
Wall Refrigeration Center Adds
Gives Any-Priced House a Custom Touch!

Offers many installation possibilities. Save construction costs by using it as a wall or room divider

Here, in one compact unit, is a practical new concept in refrigerator design and styling that will put more sales attraction in your houses.

The basic feature of this wonderful General Electric Refrigeration Center is its flexibility.

For example, you can install the 11-cubic-foot General Electric Wall Refrigerator-Freezer without any other units. Simply hang it on the wall on a specially provided mounting bracket.

Or, you can substitute for this, the single, free-standing unit (illustrated left) which consists of the General Electric Wall Refrigerator in combination with General Electric Cabinets underneath; separated by the new General Electric Cabinettes® in the center, with sliding glass panels.

And if you wish to provide more freezer space, you can install one or two of the new General Electric Roll-Out Freezers underneath, in place of regular base cabinets. In this way, you can offer your customers a 16- or 21-cubic-foot refrigeration center all in one!

Call or see your General Electric distributor for more complete details. Household Refrigerator Department, General Electric Company, Appliance Park, Louisville 1, Kentucky.

Progress Is Our Most Important Product

GENERAL \ ELECTRIC

These are the various units. Install one, two or more of these units for any arrangement. Appliances are simply “stacked on.” Saves cost of finishing an exterior wall or erecting a partition wall.

G-E Wall Refrigerator-Freezer. Everything at your eye level. Everything is accessible. And because this appliance hangs on the wall, extra floor space is gained for extra counter surface and base cabinets.

G-E Roll-Out Freezer holds up to 173 pounds of frozen food. Freezer glides out smoothly and silently like a filing cabinet. Top section holds the foods you use most. Bottom section holds bulky foods.
When it comes to beauty in today's home kitchens, home owners and builders agree there's nothing to surpass lovely hand-rubbed birch.

And when we combine this appearance appeal with highly skilled craftsmanship and provide 175 different stock models... then you have the answers to why more and more builders are turning to Yorktowne Kitchens... for every price and type of home.

Yorktowne Kitchens are available from distributor warehouses located all across the country. There's one near you to assure quick delivery on rush orders and to keep down transportation costs.

Nationally advertised to your prospects so that you can tie-in Yorktowne's national advertising with your selling plans.

See how Yorktowne Kitchens provide custom-built quality at run-of-the-mill prices. The coupon brings you full details. MAIL IT NOW!
The Payoff
Departments

New Products and Catalogs... page 131
Builders' Supermarket for new products and equipment, and for manufacturers' literature, on floors and floor coverings, intercom systems, windows and doors, etc. Just detach the reply card on page 130.

How To Do It Better... 196
How to end annoying water leaks under weather stripped doors, how to edge plywood, how to make folding kitchen counters... methods used and tested by other builders.

Ask The Experts... 210
Our staff of experts analyzes reader queries and gives valuable tips. This month the experts discuss a short span roof truss, replacing a porch with a roof deck, bending lumber and a condensation problem.

Convention Calendar... 218
Here is American Builder's listing of all association meetings scheduled to take place in the near future. Check these listings for the meetings you want to attend to learn what your fellow builders are doing.

Keeping Up With The Law... 227
American Builder's legal consultant discusses local ordinances imposing extra fees on home builders to provide for community facilities.

Technical Guide... 234
Informative illustrated article outlining how to utilize lumber properly.

Better Detail Plate... 240
Photos and detailed drawings concerned with column and wall footings for a modern masonry restaurant.

The Month Ahead... 244
Things for builders to think about during the month of December.
WHY SO WORRIED?
you can plan your whole NAHB Convention with the
January Product Show Issue of American Builder

It's a Preview. What's your guess? What will be the talk of the trade at the
NAHB Convention? The business outlook?...credit?...FHA Standards?...
built-ins?...split-levels? Get the inside story...a run-down before the curtain goes up.
In AMERICAN BUILDER's January Product Show Issue. Here it is...with no
punches pulled. People and places, plastics and prefabs. The works! What clinics,
panels and demonstrations will you want to attend? Read the January issue.

A Product Show. Boy oh boy! You'll feel like a kid at the circus...you won't know
what to look at first. New and improved products?...Over 400 strong! All pictured
and described in this one issue. The very same products that will be exhibited at
the Convention. There's sales and profit-builders a'plenty here. But don't rush.
Look them over one at a time. Read about them. Which can you use? Note the
complete information...manufacturer's name and address...hotel and booth exhibit
number. Want more information? A Reader Service postcard supplies it.
It's that simple.

at the Convention. Check AB's Guide and Checklist. It's an alphabetical list
of every participating manufacturer...the product...the hotel and booth number.
Read over the complete list. Check those you want to see.

And More! Plus all the features and editorials that make AB such a profit-packed
package...The Opportunity Page...National and Regional News...Dickerman's
Column...Northrup's Column...How To Do It Better...The Month Ahead...
and all those "What to build," "How to build it" features that pay off for you.
All in the January issue. Coming soon!

January Product Show Issue

American Builder
SOLD!

It looks like random-sized planks. But this wall is paneled with grooved 4-by-8-foot Weldwood V-Plank. The big panels cover the wall quickly and easily. And the factory finish (like that on fine furniture) means no finishing bother for you. Costs less than having your own men do a comparable job too.

V-Plank paneling comes in a wide choice of fine woods. It is guaranteed for the life of the house. More and more builders are featuring wood paneling in their homes... because they find that even one paneled wall can make a customer anxious to close the deal.

You can see the complete Weldwood line at any of our 87 offices in principal cities. In Canada: Weldwood Plywood, Ltd.

WELDWOOD®

WOOD PANELING

A product of United States Plywood Corporation

Weldwood—The Best Known Name in Plywood

What man or woman could resist this spirited setting for a family room! The paneling is Weldwood Samara—a swirling, rosy-blond hardwood. A 12' x 8' wall costs only $52, retail... yet it can be the very feature that clinches a sale for you!

Approximate retail prices per square foot of V-Plank prefinished woods. Walnut 99¢, mahogany 93¢, Korina® 93¢, Samara® 54¢, cherry 93¢, oak 93¢, Nokoro® 63¢.
Mr. and Mrs. America are already "sold" on beautiful...

HARDWOOD PLYWOOD

You satisfy your prospects and sell your homes!

See for yourself how easy it is to obtain the beautiful grain and color effects you want on every job... to individualize each home... yet keep production routine standardized...

Note how fast and easy it is to install this modern building material...

Think of what Hardwood Plywood can do to upgrade your homes—add the quality extra that turns prospects into sign-on-the-dotted-line customers...

And remember, prospects by the millions have already seen attractive Hardwood Plywood in use in feature wall panels, kitchen cabinets, built-ins, entire rooms—have read about it, seen it again and again in every homemaker newspaper column and national magazine, and... know its lifetime value... They want it!

It's Good Business—It's Easy—
It's Profitable
To Use Genuine,

hpi HARDWOOD PLYWOOD!
ASBESTOS, BRICK AND STONE—A DRAMATIC COMBINATION FOR PERMANENT HOME BEAUTY

The colorful new beauty of asbestos siding accents the traditional materials used in this ranch house. Today’s asbestos-cement siding adds extra sales appeal to any new house. In this design, soffits and gable ends utilize flat asbestos sheets. Add an asbestos roof and you can offer a buyer top-to-bottom fire protection and low maintenance for years and years. These are some of the extra sales appeals that asbestos gives builders. For more information on the new beauty and design possibilities of asbestos-cement products, write today for your free copy of “Advanced Designing—1956”.

ASBESTOS-CEMENT PRODUCTS ASSOCIATION
509 MADISON AVENUE, NEW YORK 22, N.Y.
RESTYLE LIVING AND WORK AREAS

With Gold Seal Linoleum—Sequin® is the modern textured linoleum—its basic simplicity makes it right for every decorative plan! And “Sequin” is so easy to clean—household spills just wipe off! Its bright, clear colors are inlaid—for lasting beauty. Its exclusive SuperFlex® backing eliminates need for an extra lining felt... cuts installation time and cost. Available in standard gauge and ¾" yard goods.

It’s easy to sell a remodeling job with Gold Seal® floors and walls!

With Gold Seal Nairon® Plastics—Top the built-ins with non-porous Nairontop*, color-match the floors in clean-easy Nairon Standard Tile and yard goods, or luxurious tiles of ¾" Nairon Custom. Nairon Plastics fit every remodeling need, keep their carefree sparkle year after year. Dozens of exciting patterns with correlated colors—and a Nairon product to satisfy every customer’s taste and purse!

WHEN they’re thinking of redoing a room—or redecorating the whole house—Gold Seal Floors and Walls can clinch the remodeling sale for you! With Gold Seal, you offer the complete line—materials, sizes, colors, prices—right for any and every “operation home improvement.”

Prospects are sure to find what they want in Gold Seal’s tremendous variety of stunning new designs and colors—in versatile Nairon plastics, practical Vinylbest®, quality Inlaid Linoleum, popular Congoleum® and Congowall®—a full choice of tiles including—linoleum, plastic, cork, rubber and asphalt! You’ll sell them right away on remodeling with Gold Seal!

CREATE PLAY AREAS—like this basement floored in Gold Seal Vinylbest Tile. This all-purpose blend of vinyl and asbestos can be installed anywhere from attic to basement, and is ideal over concrete subfloors and radiant heating. It’s outstandingly resistant to moisture, grease, and alkalies—another “plus” when you’re remodeling for recreation! Seventeen colors in 9" tile, ¾" and ½" gauge—another remodeling sale clincher from Gold Seal.

Ask your Gold Seal Dealer about the ABC “Buy Now—Pay Later Plan” and tell your customers about it! It’s one more big reason you’ll sell ‘em with Gold Seal!

GET FULL DETAILS FROM YOUR GOLD SEAL DEALER

FOR HOME—BUSINESS—INSTITUTIONS:

BY THE YARD AND TILES—Inlaid Linoleum * Nairon® Plastics * Vinylbest® Tile Cork Tile * Rubber Tile * Asphalt Tile
PRINTED FLOOR AND WALL COVERINGS—Congoleum® and Congowall® RUGS AND BROADLOOM—LoomWeave®
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FOR THE LOOK THAT’S YEARS AHEAD

Gold Seal®
FLOORS AND WALLS

*Trademark
IF YOU'RE NOT USING WEISER LOCKS...
TALK TO THE BUILDER WHO IS!

The best way to judge any product is to talk to someone who presently is using that product. Talk to any builder now using Weiser Locks. Ask him about the quality, the wide choice of finishes (all at the same price), the guarantee. Ask him if he has any trouble with Weiser Locks after they are installed. Ask him any question that may occur to you. He will convince you that you should be using Weiser Locks.

Yes, if you're not using Weiser Locks — talk to the builder who is!
Tulsa builder selects Emerson-Electric attic fans to add sales appeal to new homes

From experience this Tulsa builder has learned that his homes sell faster when equipped with Emerson-Electric attic fans. He has discovered, as have many other builders coast-to-coast, that home-buyers are aware of the high quality for which Emerson-Electric has been known for 67 years.

Emerson-Electric attic fans are built to give many years of maintenance-free summer comfort; yet are priced for use in multiple home projects. And they are quick and easy to install with no expensive call-backs. So, for quicker sales and satisfied customers, make Emerson-Electric attic fans “standard equipment” in your homes.

Write for complete data. Ask for Fan Bulletin No. 1036
THE EMERSON ELECTRIC MFG. CO., ST. LOUIS 21, MISSOURI

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Help yourself to everything you want in new information and literature about new products shown on the pages ahead. This is one-stop shopping for ideas. Instead of writing a dozen different manufacturers, just circle the numbers on the other side of the card below . . . then drop it in the mail (no stamp needed). AMERICAN BUILDER will forward your request to each manufacturer, who will send you complete data free of charge. Get your pencil out and help yourself . . .
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... more about flooring and floor coverings. Builders' buying guide to this field begins on page 98.

Use the reply card on facing page to get more information on these products.

TWO USES FROM ONE thickness can now be obtained from the structural panel "2-4-1." The fir plywood can serve as a solid one-piece base over supports on 48-inch centers. Combining subflooring and an underlayment panel, 2-4-1 requires fewer pieces for framing, cuts down on construction time and building costs. At right, Tacoma, Wash., builder Charles Peterson uses the panels in a framing system of 4x6 main girders set on posts with 2x4 blocking at panel edges.

Double duty from one-piece flooring

TWO USES FROM ONE thickness can now be obtained from the structural panel "2-4-1." The fir plywood can serve as a solid one-piece base over supports on 48-inch centers. Combining subflooring and an underlayment panel, 2-4-1 requires fewer pieces for framing, cuts down on construction time and building costs. At right, Tacoma, Wash., builder Charles Peterson uses the panels in a framing system of 4x6 main girders set on posts with 2x4 blocking at panel edges.

WALL-TO-WALL carpeting can be laid directly on the subfloor which makes a good underlayment. Result: maximum savings when finish flooring is type that normally calls for underlayment. The 2-4-1 panel is unsanded, 1½ in., seven-ply with a face of C-repaired veneer. This means open defects are no larger than ¼" x ½".

THIN VINYL TILING, oak strip, or any other kind of finish flooring can be laid directly on 2-4-1 fir plywood. The panel provides a stiff floor. Retail price: about 50 cents a sq. ft. Discounts available. From Douglas Fir Plywood Assn., Attn. Thomas Sias, Dept. AB, 1119 A Street, Tacoma, Wash. (Circle No. 11001, p. 130).
FINISHED FLOORING for the unfinished basement is suggested as Terraflex, a vinyl asbestos tile by Johns-Manville. Tiles come in 9" x 9" size, in two thicknesses: 3/16" for schools, hospitals and heavy traffic areas; and 5/16" for residential and light traffic areas. Resilient flooring is durable, non-porous, recommended for on-grade and below-grade installations. Also resistant to grease, oil, strong soaps, mild acids and moisture. From Johns-Manville, Attn. Eldridge Miller, Dept. AB, 22 E. 40th St., New York 16 N.Y. (Circle No. 11002 p. 130).

STAIRS DRESSING UP with B. F. Goodrich's Koroseal. Besides giving the appearance of deep texture carpeting, the stair treads and landing mats, manufactured by Natco, are described as long lasting, with high resistance to scratching, scarring and tearing. Non-skid traction texture is built into design while softness of tread cushions noise. In four colors—rose beige, leaf green, dawn grey and cocoa brown. All easy to clean with broom or vacuum cleaner. Natco Products Corp., Dept. AB, Providence, R.I. (Circle No. 11003 on reply card p. 130).

LOOKING FOR EYE-CATCHING FLOORING? CHECK THESE

THREE-D EFFECT, geometric designs, and other unusual effects in floor and wall designs are suggested by Dodge Cork with use of "Gala-Cork." Vinyl cork tiles for laying on subflooring are cut from 6, 9 and 12" tiles. Ten colors and three cork patterns. List: $.675 sq. ft. Dodge Cork Co., Attn. J. Hollinger, Dept. AB, Lancaster, Pa. (No. 11006, p. 130).

LOOK OF MARBLE can be achieved with new "Cafe" inlaid linoleum. Boldly marked, resilient, the marbelized line comes in six colors, two yards wide with Twin-Ply backing for easy installation. Retail price: about $2.75 sq. yd. Sloan-Delaware Floor Products, Attn. Contract Sales, Dept. AB, Trenton, N.J. (Circle No. 11007, on page 130).

CERAMICS DO THE JOB INTERESTINGLY AND EASILY

INLAID LINOLEUM, a striking solution to the kitchen flooring problem . . . or almost any other room . . . here by Armstrong Cork. Standard gage line of Town House linoleum comes in two series. Newport series features a bold bar and line design. In cream on charcoal, brown and cream on cocoa, and pink and white on charcoal combinations, all designed to fit into almost any decorator scheme. About 35 to 45 cents a sq. ft. installed. Armstrong Cork Co., Attn. Clyde O. Hess, Dept. AB, Lancaster, Pa. (No. 11004, p. 130).

HEAVY-DUTY TILE designed for recreational areas, golf-club floors and other installations where slipping hazards are prevalent. Manufactured in ten colors including buffs, grays, reds and a dark chocolate brown. Golf Club Tile comes in 6 x 6" and 4 x 4" sizes, both ½" thick. Tile is rough in texture, color fast, moisture and dirt resistant and can withstand extraordinary wear in heavy traffic areas. About $2.00 per sq. ft., installed. Mosaic Tile Co., Attn. Karl Keck, Dept. AB, Zanesville, Ohio. (Circle No. 11005, on page 130).

PRODUCTS FOR SALES APPEAL AND QUALITY


FINISHING TOUCH to vinyl tile flooring supplied by matching Amtico Decorstrips. Five different patterns of black or white strips or borders come in 36" length, 3" wide, ½" thickness. Other colors on special order. Price: $1.50 a lineal foot. American Biltrite Rubber Co., Attn. H. D. Turner, Dept. AB, Trenton, New Jersey. (Circle No. 11010, p. 130).

SPARKLING FLOORS of vinyl tile have flakes of metallic color including burnished copper, gold and silver. In solid colors or black and white (above), made from Bakelite vinyl. Nine-inch squares, ½" thick. From $1.00 to $1.20 a sq. ft. Robbins Floor Products Inc., Attn. Jarman Stanley, Dept. AB, Tuscumbia, Ala. (Circle No. 11011, on page 130).
Here's a buy — Dexter's new lock No. 1102 for outswinging aluminum screen and combination doors — and here's why: Aluminum knob and lever handle and 1" x 3" stainless steel escutcheons have weather-protecting finish to match doors. Spindle is durable solid steel. No zinc die cast parts. Rugged tie bolt construction. Slide lock on inside escutcheon locks easily, securely. Adjustable strike and self-locating tie screws assure quick, easy installation. Installs in 5/16" holes. Fits doors ⅝" to 1⅜" thick; available on special order for doors down to ⅜" thick. Will fit door stiles as narrow as 1½". Perfectly suited for use with Dexter Dialmatic Door Closer. Packaged individually or bulk. Write for prices.

DEXTER LOCK DIVISION Dexter Industries, Inc. grand rapids, michigan

In Canada: Dexter Lock Canada Ltd., Guelph, Ontario

In Mexico: Dexter Locks, Plato Elegante, S.A. de C.V., Mexico City

WORLD'S LARGEST MANUFACTURER OF LOCKS FOR SCREEN AND COMBINATION DOORS
Almost a "must" ... the intercom system

**WIFESAVER SYSTEM** by Webster: the Teletalk intercom system which acts as timesaver and safeguard. Simple combination consists of two-way flush-mounting units made of weatherproof brass, one set outside front door, the other in kitchen or front hall. Additional units up to 10 stations can be placed throughout the house. Outdoor unit has separate push button which connects with door bell, chimes or buzzer. Information from Webster Electric Co., Attn. W. E. Dent, Dept. AB, Racine Wisc. (Circle No. 11012 on reply card, page 130).

**BUILT-IN RADIO** with an intercommunication control for two-way conversation between master radio and extension speakers. Phillips Radio offers a flexible system in which extension speakers can be added to master radio units, as well as intercom control, and phonograph jack. Units mount without screws or nails in wall cut out, 4½ x 10 in. Power consumption: 30 watts. List price master radio: $49.95; extension speakers, $12.50. From Phillips Distributors, Dept. AB, 1100 Custer Dr., Toledo 12, Ohio. (Circle No. 11013 on page 130).

**MUSIC, INDOORS OR OUT** suggested by MusiTalk which suggests both a front and rear door answering system plus the ability to pipe music to back porch and patio as well as indoors. New two-way intercom, radio and door reply system is styled in brushed copper. Six-tube radiointercom includes a printed circuit. Master control station, door speaker, four indoor speakers, wire and rough-ins list at $129.50. Additions at slight extra cost. Fanon Electric Co., Inc., Dept. AB, 98 Berriman St., Brooklyn, N.Y. (Circle No. 11014, page 130).

**TIMING CLOCK.** AM radio, complete intercommunication between master and all units available in the new Radio-Com system. Built-in models for home construction as well as fully encased models for table use in offices, are offered. Complete system includes master unit, three room outlets, front door remote and installation kit. Room stations have individual volume controls. All units in copper color. From Trans-Tel Corporation, Dept. AB, 736 N. Highland Ave., Hollywood 38, Calif. (Circle No. 11015, page 130).
TRIM A DOORWAY IN JUST 4 MINUTES with USG® Snap-on Metal Trim. Saves up to 50% in labor time, up to $1.70 per opening in materials cost. No special tools required, no nail holes to fill. Side trim comes ready-mitered; head trim requires only rough mitering. Snaps in place easily—and it's bonderized, easily painted.

REINFORCE CORNERS FASTER with DUR-A-BEAD® Metal Corner Reinforcement. It nails on outside corners, combines maximum protection with ease and speed of application. Provides true, impact-resistant corners; requires only a minimum amount of cement.

MACHINE-FINISH JOINTS AT THE RATE OF 3 MPH! Joints can now be taped at a workman's walking pace, thanks to new joint reinforcement and finishing tools. Taping machine automatically applies PERF-A-TAPE® reinforcement and PERF-A-TAPE Cement to the joint (cement is fed by battery powered
NEW ONE-COAT TEXTURE PAINT. Just one coat of TEXOLITE* Texture sand finish latex paint beautifully conceals minor surface imperfections and taped wallboard joints. No priming required. Flows on freely, leaves no "painty" odor, and it's washable. In 17 ready-mixed colors and white.

SALES BUILDERS FOR HOME BUILDERS

Gypsum wallboard finishing system—available from your U.S.G. building materials dealer—speeds construction of quality walls and ceilings.

Your work is faster and easier when you deal with the builder's most dependable manufacturer—United States Gypsum. Your sales are made more quickly when your interiors have the smoothness, the uniformity, the beauty that say "superior quality"...United States Gypsum quality!

For complete information on products shown here, fill in this coupon and mail to United States Gypsum, Dept. AB-64, 300 West Adams Street, Chicago 6, Illinois.

NAME ___________________________  (Please print)
FIRM ______________________________
ADDRESS __________________________
CITY ____________________________  STATE ___________
Make Your Basements More Useful with SERVICE-WAY!

Home buyers want the latest conveniences that make living easier. And Service-way is one of the most desirable convenience features you can include in the homes you build. It is one of the most practical ways for the average home owner to get full use of his basement.

The Service-way provides quick and easy access to the basement from outdoors. It simplifies the problem of storing garden tools, workshop or recreational equipment. It shortens the route from laundry to clothesline . . . saves tracking dirt through the house. The wide single door swings up out of the way, locking in full open position—provides a large unobstructed opening for bulky objects.

**LIFETIME OF SERVICE**

The Service-way is built of heavy gauge steel, electrically welded and reinforced to last as long as the house. Overlapping flanges on frame and door assure a snug fit—keep out rain, snow and wind. Slide bolts lock the door securely from the inside. The Service-way comes fully assembled, ready to install.

Write for folder and specifications.
HEATILATOR INC.
5611 E. Brighton Ave., Syracuse 5, N. Y.

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**American Builder**

**FLOORS AND WALLS**

Wide range of colors available in vinyl tiles

Sixteen new decorator colors in Carnival Kenflex tiles by Kentile. Extensive color range allows many individual design possibilities. Features mix-match harmonies created especially for modern homes. Tiles are described as having greater flexibility, superior surfaces and colors which go throughout the tiles so that they will be maintained despite hard wear. Blended of vinyl and asbestos fibers, tiles can be installed over any interior floor or on concrete floors. Available in standard sizes. Price: $3.50 to $4.00 per sq. ft. installed. Kentile Inc., Dept. AB, 58 Second Ave., Brooklyn, N. Y.

Circle No. 11016 on reply card, p. 130

Cove base introduced in vinyl and asbestos

Maticove, a flexible vinyl-asbestos cove base, now on the market. Available in 48" lengths that can be easily bent to form precision inside and outside corners. Full, tapered toe, snug fit around floor contours. In black and red. From Mastic Tile Corp., Dept. AB, P.O. Box 1151, Newburgh, N. Y.

Circle No. 11016-A, reply card, p. 130

Large size ceramic facing for commercial buildings

Stylon's new Magna-Tile is a rectangular-shaped ceramic facing (12" x 16") which will open new design possibilities for architects and builders. Suggested for use on store fronts, lobbies, washrooms, corridors, clinics etc., the tile is available in eight Matt-glazed colors and seven "ripple" finishes. Fewer grout lines, wider expanse covered by one piece, mean greater sanitation, lower installation costs. Dealers and contractors' prices: from $1.50 to $1.75 per sq. ft. From Stylon Corp., Attn. L. S. Dabney, Dept. AB, Box 341, Milford, Mass.

Circle No. 11017 on reply card, p. 130

Still more on floors and floor coverings . . . Start "up front" with the Buying Guide on page 98.
Here's the truly advanced low-cost lock for builders of budget-priced residential construction! The improved CORBIN Guardian now provides brand-new styling possibilities for every door in the house — plus stronger, smoother action. It actually outlasts higher-priced locks in breakdown tests! The improved Guardian now gives you 2 handsome lockset designs, 7 sparkling rose designs, and a smart new auxiliary handle. Performance-wise, there are design improvements in virtually every detail of operation. It's the economical way to give all your low-cost construction CORBIN quality throughout. Available in the 5 most-wanted functions. See it at your CORBIN dealer's — specify it on your next job. You can't buy a better lock to save your money.

Corbin Supplies All Home Hardware Needs
You can make every door, closet, and window in the house an extra selling “point” with quality finishing hardware from the complete CORBIN Line. This modern line includes not only improved, low-cost Guardians, but also a wide selection of other fine type locks, door closers, screen door hardware, and miscellaneous items. Whatever you need in finishing hardware for light construction, Corbin can supply it.
KOHLER Electric Plants
for your own low-cost power
wherever the work is done

Portable Kohler model eliminates expense and delays of temporary power line hook-ups. Provides on-the-job power for drills, saws, planers, grinders, vibrators, pipe threaders and cutters. Develops 1500 watts AC. Engineered by Kohler throughout. Two-wheel rubber-tired hand cart available. Other sizes, 500 watts to 35 KW. Write for folder M-1.

Kohler Co., Kohler, Wisconsin
Established 1873

Model 1.5M25, 1500 watts, 115 volt AC.
Manual starting. Also available, 115 volt DC model.

KOHLER OF KOHLER
PLUMBING FIXTURES • HEATING EQUIPMENT • ELECTRIC PLANTS
AIR-COOLED ENGINES • PRECISION CONTROLS

SPEED KING
fast new mixers
with long-proved Jaeger features

(1) Timken shaft bearings have lifetime seals. Used for years in Jaeger plaster-mortar mixers without a single instance of failure where grease seal has been maintained.


(3) Heavy duty engines (or electric drive). Shift lever engages, disengages power.
Send for catalog, low prices, name of dealer.

SPEED KING Manufacturing Co., 521 W. Spring Street, Columbus 16, Ohio
Division of The Jaeger Machine Company

Ready-to-install fireplaces for easy remodeling

Readybuilt fireplaces come in a variety of finishes (including cast brick or marble) and are an inexpensive way of remodeling a room. Fireplaces average 5 ft. in width, 3 ft. 10½ in. in height, 12½ in. shelf and return, and have an opening of 9½ in. Openings will take gas log or shallow electric log. Contemporary mantles have cast quarry stone facings and buff linings. Ivory or blonde finish. Prices from $98.50 to $107.50 f.o.b. Baltimore. Readybuilt Products Co., Dept. AB, 1701-23 Mc Henry St., Baltimore 23, Md.

New cleanliness and air with kitchen ventilator

Fasco's Builders Special line of kitchen ventilators can be easily installed for added cleanliness and fresh air. Fans, which have positive-action outside doors, cushion-sealed for air-tightness, come with motor switch or pull chain starter unit pre-installed before delivery. Procedure allows ventilator installation in either wood or brick construction 4" to 15" deep. Unit's motor snaps into place and is held without mounting screws. Information from Fasco Industries Inc., Dept. AB, Rochester 2, N.Y.

Circle No. 11018 on reply card, p. 130

Circle No. 11019 on reply card, p. 130

AMERICAN BUILDER
DeWalt's mechanical arm gang-cuts studs, braces, cripples, and headers... quickly, easily, accurately. Arm swings to miter position for mass cutting of common rafters from one marking—with straight-line materials handling. DeWalt carries inside for finishing work, special built-ins—minimizes scrap. Converts mill-run lumber to perfect moldings, for added savings.

DeWalt saves on practically every cutting job inside or outside. Arm raises, lowers, swings 360°. Powerful DeWalt-built direct-drive motor rides on arm, rotates 360°, tilts down past 90°, accommodates any circular tool. Join the hundreds of builders who have learned a DeWalt pays for itself on the very first job—in faster, more accurate work, reduced tool maintenance, greater operator efficiency—in dollar savings by the hundreds!

Job-size GW-I illus.—1 1/2 hp motor, 10" saw blade cuts 3" deep, rips 26" wide...$395. Smaller MB-F, with 3/4 hp motor, 9" blade, cuts 2 1/2" deep, rips 24" wide... just $239.

As little as 70¢ a day in monthly payments after 10% down puts a GW-I on your job. Use DeWalt's Easi-Budget Payment Plan. See your supplier or send for FREE BOOKLET.

DeWalt Inc., Dept. AB 56-11, Lancaster, Pa., Subsidiary of AMERICAN MACHINE & FOUNDRY COMPANY

Another AMF Product

DeWALT POWER TOOLS

Please send FREE Booklet on Job-Tested Methods for Cutting

Cutting Costs. I enclose 25¢ for valuable Common Rafter Meter.

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Company ____________________________

Address ____________________________

City ____________________________ Zone ______ State

NOVEMBER 1956

141
How to hang doors faster
and be sure they stay!

Now you can make up to 3/4" vertical adjustments on all your 3/4" and 1 3/4" by-passing doors without loosening the three door screws circled above.

Simply turn the one machine screw... adjust door... tighten machine screw. Serrations and lockwasher keep the door permanently locked in place.

**STANLEY 2800 SLIDING DOOR HARDWARE**

This hanger, of course, is just one part of Stanley's sensational 2800 sliding door hardware that has revolutionized the industry. Now doors go up faster — stay up longer — eliminate call-back headaches.

The set is loaded with extras for the installer's convenience — from the jump-proof track that needs only 1 3/4" headroom, to the adjustable floor guide that fits any width door.

Facia sets are also available, along with the world's largest selection of trim.

Ask your dealer about Stanley's sliding door hardware. Write Stanley Hardware, Division of The Stanley Works, 1014 Lake St., New Britain, Conn., for free copy of booklet G-49R.

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**Mounting ease featured in electric room heater**

Radiant wall panel designed for fast installation by Wiegand combines easy mounting with an unbreakable, all-metal construction and gives protection against electrical, moisture leakage, and rough usage. Other advantages include a heating plate finished so that it gives a unidirectional effect that increases heat output and keeps the back at safe temperatures. Also, the panel may be surface mounted or recessed against wall studs. Edwin L. Wiegand Co. Attn. George Sowash, Dept. AB, 7500 Thomas Blvd., Pitts. 8, Pa.

Circle No. 11020 on reply card, p. 130

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**Self-contained incinerators shipped as complete units**

Goder Disposals comprise a line of self-contained incinerators shipped as complete units requiring only connections such as flue pipe and gas supply. Model 4-SA is a residential incinerator of heavy construction finished in durable baked enamel. Unit features atmospheric burner with automatic safety controls; 38,000 btu hr. Retail: $237. From Joseph Goder Incinerators, Attn. Wayne Breisch, Dept. AB, 4241 N. Monroe St., Chicago 13, Ill.

Circle No. 11021 on reply card, p. 130
Automatic incinerator can be used indoors or out

Designed for installation in basement, utility room, garage or outdoors, the new Duo-Therm gas incinerator model 2202T features a direct-fire "target-jet" burner for faster waste disposal. Model burns wet or dry garbage and bones as well as trash and paper, operates on all types of gas. No motors or connections required. Triple wall construction keeps sides touchcool; new multi-purpose inner flue controls combustion accurately for uniform consumption of any size load. List: $124.95. From Appliance Div., Motor Wheel Corp., Attn. L. Vandertill, Dept. AB, Lansing 3, Mich.

Circle No. 11022 on reply card, p. 130

WINDOWS AND DOORS

Tilting sashes featured for better ventilation

Sashes that tilt into the room are the feature of a new type of double-hung wood windows made by Brown-Graves Co. Known as the Twin-Tilt, the new window gives no-draft ventilation, because both sashes tilt easily inward to any desired angle and hold their position. Sashes will also swing down flat inside the room for safe, comfortable cleaning of all the outside. Screens, storm sashes or window air conditioners need not be disturbed. List prices available. Brown-Graves Co., Attn. Robert Bennington, Dept. AB, 191 E. Miller Ave., Akron, Ohio.

Circle No. 11023 on reply card, p. 130

SPECIFY WIDE LAPPED EXTERIOR PLYWOOD SIDING to emphasize the long, low lines so popular with today's home buyers. Courses of 12, 16 or 24-inch widths add design simplicity, create a new and unusual "scale." Exterior plywood siding is strong, splitproof. Goes up quickly. Cuts application time up to one-third. For really big savings, plywood can be applied directly to studs to eliminate sheathing costs entirely.
In keeping with the historical significance of Valley Forge and with a desire to provide Americans of 1956 with homes styled in the manner of the late 18th century, McClatchy Building Corporation is developing at Valley Forge, Pa. 400 homes in the $27,000 to $40,000 price range.

Each home, an authentic stone colonial, combines contemporary planning with traditional graciousness. Both conventional and split-level designs are featured. The top quality of McClatchy construction assures dwellings of permanence and distinction.

Each of these homes features three bathrooms and a powder room—all equipped with AllianceWare fixtures. Bathroom fixtures are in color—powder room fixtures in white.

Like thousands of developers of fine homes all over the country, McClatchy Building Corporation finds that AllianceWare fixtures—porcelain-on-steel—provide outstanding construction and sales features vitally important to home buying prospects. If you are not acquainted with the many special and exclusive features of AllianceWare, write for the AllianceWare catalog that gives full details.

ALLIANCEWARE, INC. • Alliance, Ohio
Bathtubs • Lavatories • Closets • Sinks
Plants in Alliance, Ohio; Colton, California; and Kilgore, Texas
Sliding glass doors are versatile dividers

Trimview aluminum framed sliding glass doors can be used effectively for both exterior and interior partitions. These Trimview glass doors are designed for rapid assembly and easy installation. They will accommodate either 3/16" crystal or 3/8" plate glass. Schegel wood pile weatherstrip is used for weather protection. Photo shows variety of uses for Trimview doors in office or home. More information from Trimview Metal Products, Dept. AB, Attn. R. Moore, 600 N. Third St., Covina, Calif.

Circle No. 11024 on reply card, p. 130.

WIRING

Wiring devices offer variety of combinations

Newly designed interchangeable line of wiring devices, which can be made up and installed right on the job with maximum of efficiency, available from Leviton Mfg. Co. The variety of components includes single and double poles, three and four way switches; convenience outlets; pilot lights; push buttons; and duplex and triple outlets. Using one, two or three devices to a gang, the combinations are assembled quickly. All fit standard wall plates. Leviton Mfg. Co., Inc. Dept. AB, 236 Greenpoint Ave., Brooklyn 22, N. Y.

Circle No. 11025 on reply card, p. 130.

SPECIFY EXTERIOR PLYWOOD and BATTEN SIDING to add a crisp, well-tailored look to contemporary or ranch-style homes. Big panels give you unusual design flexibility. Battens can be spaced to line up exactly with windows or other openings. Exterior plywood siding cuts application time up to one-third. Won’t split or puncture. Panels 3/8” thick meet FHA requirements for application as combined siding-sheathing.

INSIST ON DFPA GRADEMARKS!


FREE PORTFOLIO OF EXTERIOR FIR PLYWOOD DESIGNS

File folder assembly contains design ideas, application, specification data. Write (USA only) Douglas Fir Plywood Assoc., Dept. AB, Tacoma 2, Washington.

Exterior plywood of other western softwoods also available; look for this DFPA grademark.
Coast builder cuts costs, moves homes 50% faster with carpet

By installing carpet over subflooring, Harlan J. Lee of Royal Homes finds he not only eliminates the cost of finished floors, but moves his homes 50% faster. Women want carpet in their new homes — prefer it 13 to 1 — but their cash and credit are tied up in the house. Under Royal Homes' plan, the carpet is included in the first mortgage. The customer gets the carpet she wants with no cash outlay, no extra payments so the home sells faster.

Royal Homes works with a local carpet retailer to offer their customers leading brands in a variety of colors and patterns. The customer selects his carpet at the showroom and the retailer lays the carpet — so Royal Homes has no inventory or installation problems.

Royal Homes is one of the many builders all over the country — in every price range — who are using carpet as a terrific merchandising item. How about you? Get together with your local carpet retailer to see what carpet can do for you. Or, write the Carpet Institute for further information on selling homes faster by selling them complete with carpet.

Home means more with carpet on the floor — more comfort • quiet • safety • beauty • easier care

Buy carpets designed and made for the American way of life by these American manufacturers:


CARPET INSTITUTE, INC., 350 Fifth Avenue, New York 1, N.Y.
Polarized power outlet fits any standard wallcase

A new three wire polarized flush power outlet featuring straight-thru wiring and pressure-type terminals is announced by Arrow-Hart & Hegeman. Unit is made-to-order for easy, fast installation. Mounting flexibility is achieved by a three hole mounting plate which permits use in either one or two-gang boxes, or in a 4" or 4 1/2 16" sq. box. Safety factors are an L-shaped ground slot and recessed pressure type terminals. Arrow-Hart & Hegeman Electric Co., Attn. Lewis C. Smith, Dept. AB, 103 Hawthorne St., Hartford, Conn.

Circle No. 11026 on reply card, p. 120.

TOOLS AND EQUIPMENT

Simply designed stud driver sets low cost fastenings

A hand tool of rugged design, the "Rap-It" stud driver made by Fastening Devices, Inc., is an economical device for light duty fastening jobs. This handy stud driver sets fastenings in concrete, brick or steel safely and effectively with the aid of a hammer. A single plunger, self-centering tool, it sets any size stud or drive-pin up to 4" long. Mechanism completely eliminates drilling holes when applying anchors. More information from Fastening Devices Inc., Dept. AB, 369 50th St., Brooklyn 20, New York.

Circle No. 11027 on reply card, p. 130.

SPECIFY TEXTURE ONE-ELEVEN to give your homes new buy-appeal. This smart "grooved" plywood combines line and texture to create dramatic pattern of highlight and shadow. Use it for siding, as combined siding-sheathing, or to accent other materials. Goes up quickly; shiplap edges neatly conceal vertical joints. Grooves are full ¼" deep, ⅝" wide, have sharp, clean-cut edges.
Because glass is being used increasingly in residential construction, builders and glaziers recognize the importance of extremely attractive glass areas in the sale of homes. Here's why they are using AMERICAN LUSTRACRYSTAL instead of other heavy sheet glass or plate glass for sliding glass doors, picture windows, floor-to-ceiling glass walls:

ADVERTAGES
LUSTRACRYSTAL VS. OTHER HEAVY SHEET GLASS
- Less distortion
- Greater clarity
- No dull green cast
- No additional cost

Above advantages apply also to American Lustraglass vs. other Single and Double Strength glass.

LUSTRACRYSTAL VS. EQUAL-SIZE PLATE GLASS
- Cost 40% less
- Slightly less distortion-free
- Stronger (more resistant to constant pressure and impact)
- Greater clarity
- No dull green cast
- More lustrous

Order AMERICAN LUSTRACRYSTAL or LUSTRAGLASS by brand. It's available locally through more than 500 glass distributors. Check your telephone directory for listing.
Portable yet powerful: facts about a new nailer

A pneumatic nailer manufactured by Port-A-Matic Tools is light enough to be operated with one hand, yet very powerful. Because of its size, Port-A-Matic nailer operates with ease—even in the crowded conditions on a building site, and is much less fatiguing than hammering. This fast working tool can drive a nail in one second or less. Port-A-Matic is practical, because it nails up, down or at any angle. Tool lists at $250. From Port-A-Matic Tools Inc., Attn. Cass Lane, Dept. AB, Boston, Mass., Minneapolis 15, Minn.

Circle No. 11028 on reply card, p. 130.

Medium-sized scraper now available

A motor scraper weighing 39,600 lbs. and powered by a 6-cylinder diesel engine has been put on the market by Allis-Chalmers. The 14 cu. yd. heaped capacity of model TS-260 is rated for high production in this size scraper. The proper balance between horse-power, capacity, and weight built into this equipment is evidence of power plus, to move full loads, give fast acceleration and ample reserve power. Unusual maneuverability results from hydraulic steering, another feature of the new scraper. Allis-Chalmers Mfg. Co., Dept. AB, Milwaukee, Wis.

Circle No. 11029 on reply card, p. 130.

SPECIFY FIR PLYWOOD FOR SOFFITS, GABLE ENDS, PATIO FENCING and EXTERIOR TRIM. Choose standard panels for smooth, flat, unbroken effect...Texture One-Eleven° ("grooved") plywood for striking pattern and texture. Either kind simplifies cutting and fitting... creates handsome contrast with masonry or other materials. Plywood accents offer ideal solution for quick and easy exterior "face lifting" on remodeling jobs, too.
You Can't Miss with KANT-SAG

New model power saw now on the market

Skil Corporation has placed a new super duty portable power saw on the market. Model 367 is a 6½ inch saw which has 56 per cent more power and 40 per cent more speed than older models. It also gives 164 per cent faster cutting in 2 inch lumber. This blade clears 2 inch dressed lumber in a full 45-degree bevel. Another feature of Model 367 is a built-in calibrated rip fence which is usable from either side. The saw without carrying case is priced at about $95.00. Complete information on portable power saw may be obtained from Skil Corp., Dept. AB, 5033 Eton Ave., Chicago, Ill.

Circle No. 11030 on reply card, p. 130.

New fastener features speedy installation

A labor saving device developed by the Molly Corp. increases the speed of installation four to eight times. Molly Hi-Speed Installer permits the installation of six to eight screw anchors per minute in prepared holes, and does a perfect job every time in any hollow wall construction. Without making any adjustments, the tool can be used with any size Molly screw anchor. No time lost changing from installation of one size Molly to another. This fastener is sturdily constructed for long life and compact to fit easily into any work kit. List price: $14.40. Molly Corp. R. M. Forsberg, Dept. AB, 230 N. Fifth St., Reading, Pa.

Circle No. 11031 on reply card, p. 130.

Unique counter-balanced windows...

Ride Freer
because they are free of friction and pressure devices!

the BACK-BONE of good windows!

A QUALITY PRODUCT WITH A LIFETIME GUARANTEE

174,000,000 NOW IN USE
INEXPENSIVE and QUICK TO INSTALL!

Sold by all leading Building Supply Dealers

Write for catalog today

UNIQUE BALANCE CO
25 Bruckner Blvd., N. Y. 54, N. Y.
Filter system for home swimming pools on the market

Jacuzzi Brothers, makers of pumps and water systems for agricultural and domestic use, are now offering a new line of swimming pool equipment for residential use. Line will include a complete sand-type filter system featuring a new-type five-way selector valve and Jacuzzi self-priming circulating pump with integral pump strainer. Vacuum cleaners, brushes, fittings, pool ladders, diving boards also in line. Jacuzzi Bros. Inc., Dept. AB, 1440 San Pablo Ave., Berkeley, Calif.

Circle No. 11032 on reply card, p. 130.

Stainproof plastic laminate is flexible, too

Bolta-Top is a virtually stainproof surface that will not shatter, crack or flake and provides a flexible surfacing for counter tops, backsplashes and other applications. Bolta-Top has a sheet of rugged vinyl plastic bonded to a fibre backing and covered with a layer of transparent Mygen to give added durability and wear-resistance. Available in widths of 27" and 46", in two patterns with several colors each, it can be installed and bent without metal moldings if desired. About 49 cents a sq. ft. Bolta Products Div., General Tire & Rubber Co., Dept. AB, Lawrence, Mass.

Circle No. 11033 on reply card, p. 130.
CERTIGROOVE CEDAR SHAKES

Number 1 Grade

100% Edge-Groove
100% Heartwood
100% All Clear

These mactase grooved shakes have been processed to CERTIGRADE Red Cedar Standards and meet all of the quality requirements of Commercial Standards S199 55 for Red Cedar Shakes as outlined by the U.S. Dept. of Commerce, Washington, D.C.

RED CEDAR SHINGLE BUREAU

5510 White Building, Seattle 1, Washington
550 Burrard Street, Vancouver 1, B. C.

Insist on Genuine Certigroove Cedar Shakes. Only those shakes inspected by the Red Cedar Shingle Bureau can carry the Certigroove label.* This label is your assurance of number one grade, full count and full coverage.

Make certain you're getting the best. Grade-marked, quality-inspected Certigroove shakes. Anything less—no matter what the cost—is no bargain!

RED CEDAR SHINGLE BUREAU

5510 White Building, Seattle 1, Washington
550 Burrard Street, Vancouver 1, B. C.

*You'll find the Certigroove label either beneath the band of shake bundles or printed on shake cartons. Look for it. It's important to you!
It's love at first sight all over America

Mrs. A. Oliver Ward, proud owner of a new home with a beautiful American Kitchen in Paddock Hills, new St. Louis suburb.

SHE SEES THE American Kitchen
SO...THEY BUY THE HOUSE!

Mrs. A. Oliver Ward, Paddock Hills, St. Louis, is another example of home buyers everywhere who fall in love with the "house-selling" American Kitchen. "When we walked into the kitchen of the Paddock Hills house," Mrs. Ward reports she said, "Oh, Ollie, this is it. This kitchen has everything I've ever wanted."

Like Mrs. Ward, new home buyers across the nation choose the house with American Kitchens "Pioneer"—the stunning new combination of natural birch and antique copper on steel frame. They go for American Kitchens wonderful work-savers... the Roto-Tray Dishwasher, Built-In Ovens and Set-In Ranges.

Mayer, Raischer, Mayer, well known developers of Paddock Hills northwest of St. Louis, say "American Kitchens are a vital factor in selling our houses."

If you haven't already discovered the "house-selling" power of the "Pioneer" wood, copper and steel kitchen and other American Kitchens products, mail the coupon below. Let us show you how American Kitchens will sell your homes faster.

American Kitchens Division, Dept. AB-116
Connersville, Indiana
I'd like to have "no obligation" quotation on my next kitchens.
Please send your new Architects' and Builders' file.

NAME ____________________________
ADDRESS ____________________________
CITY ___________ STATE ___________

NOVEMBER 1956 153
Here's the tool to speed your new construction, maintenance and repair jobs—Shure-Set, the hammer-in fastener that drives like a nail, holds like an anchor in concrete, masonry or steal!

You'll be amazed how easy it is. Gone is the exasperation of concrete nails, the tedious work of drilling, filling, chipping and plugging in an effort to fasten to concrete. Replaces costly preset bolts, ordinarily required to anchor the plate shown above.

Shure-Set makes it possible to drive into hard, cured concrete. Uses no outside power, but makes your own hammer power more effective... guides fasteners with pin-point accuracy.

You can do in 30 seconds what once took up to 15 minutes! Many carpenters, electricians, and plumbers are already saving time and money with Shure-Set...a valuable companion tool to Ramset powder-actuated fastening system.

Catalogs describing Shure-Set and Ramset are yours for the asking. Write for both today.
WHATEVER your Garage Door plans may be...

ONE-PIECE STEEL

RESIDENTIAL or COMMERCIAL...

MORGAN-WIGHTMAN is the ONE SOURCE for ALL your Garage Door needs!

Residential or Commercial, Steel or Wood, One-Piece or Sectional... regardless of your garage door problems, Morgan-Wightman can fill your needs. And at the lowest possible prices!

Windsor Sectional Doors are available in all sizes, with standard sizes in stock for immediate shipment. Made of top quality Douglas Fir, these doors are assembled with hardwood dowels and waterproof glue, shipped sanded and ready for paint. Heavy gauge steel hinges, graduated in size, assure a snug fit against jamb when doors are fully closed. Extra heavy hardware, oil tempered springs and weathertight seals are yours at no extra cost when you buy Windsor Sectional Doors from Morgan-Wightman. Furnished with either Extension or Torsion type springs as you prefer.

Windsor One-Piece Doors are available in all popular sizes, Steel or Wood. Steel Doors are zinc-coated, vigorously resistant to rust and corrosion... shipped complete with hardware and rubber seal strip. Our Wood One-Piece Doors are made of the finest Ponderosa Pine, toxic treated, and come with weatherstrip, locks and the famous Frantz "Over-the-Top" Hardware.

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A NEW REPORT "Plastics in Housing," has recently been published by the Department of Architecture of the Massachusetts Institute of Technology. The M.I.T. study was made possible by a Monsanto grant-in-aid. Copies are available at $2.00 each.

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Catalogs . . .

A NEW GEM in Aluminum bathroom cabinets presented in a folder. Tiffany offers lifetime all-aluminum cabinets with modern simplicity. Also features adjustable shelves, satin finishes, and one-piece hinges. From Tiffany Mfg. Co., Inc., Dept. AB, 2744 N.W. 35th St., Miami, Fla.

Circle No. 11045 on reply card, p. 130

HORIZONTAL SLIDING WINDOW specifics are given in a four-page folder by Stanley. Brochure is complete with illustrations and diagrams. From Stanley Building Specialties Co., Dept. AB, 1890 N. E. 146th St., North Miami, Florida.

Circle No. 11046 on reply card, p. 130

POWER-LITE OPERATOR is one feature of Aluminum Awning Windows described in a four-page folder. Emphasized also are radially splined torque bars, nylon rollers, and interchangeable screens or storm studs. Information available from Ludman Corp., Dept. AB, Miami, Florida.

Circle No. 11047 on reply card, p. 130

FIREPROOFING information in the 1956 edition of "Fireproofing with Perlite," a two-color, eight-page pamphlet. It illustrates basic details of 38 approved fire retardent constructions. Technical data, diagrams, and pictures compactly provided for quick reference by architects, contractors, engineers, and building officials. Perlite Institute, Dept. AB, 45 W. 45th St., N. Y. 36, N. Y.

Circle No. 11048 on reply card, p. 130

FIVE MEANS to an Easy Living Kitchen are presented in a 12-page catalog. Discusses the planning and installation of cabinet sinks, food waste disposers, wall, base, utility, and corner cabinets. Includes diagrams and dimensions. Universal-Rundle Corp., Dept. AB, New Castle, Pa.

Circle No. 11049 on reply card, p. 130

SELECTING LUMBER, an eight page circular gives facts about the grades, types, and quality of lumber. Included is a guide for specific use in house construction, such as sills, joists, etc. Available from the Univ. of Illinois, Small Homes Council, Dept. AB, Urbana, Ill.

Circle No. 11050 on reply card, p. 130

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NEW REVIEWS

HOW TO MAKE BUILT-IN FURNITURE. Mario Dal Fabbro. F. W. Dodge Corp. (New York) 1955. 262 pp, illus. $6.95.

Clear sequence plans and instructions which builders or home craftsmen can easily follow, are featured in this book. The pieces can be built with standard grades and sizes of wood using common woodworking tools.

Section one contains specific instructions for solving many problems of built-in construction including information on: room measurement, handling variable dimensions (such as sloping ceilings), selecting and buying wood, wood finishing, hardware, installation and mounting.

Section two is devoted entirely to 102 built-in projects, ranging in size from a telephone shelf to an entire storage wall with roll-away beds.

Most of the projects include special data on how to adapt the pieces to fit any room.


Prepared by the editors of Architectural Record, this book displays a striking selection of ultra modern U. S. homes. A blue book of modernistic architects is represented, including such outstanding men as Anshen and Allen; Wurster, Bernardi and Emmons; Marcel Breuer; A. Quincy Jones and Paul Thiry; Paul Rudolph and John Pekruhn.

Divided into four sections, part one introduces the editors’ American House; part two vividly portrays 20 of the latest architect-designed houses in the $20,000-$50,000 bracket, with three or four bedrooms, facilities for growing children, functional excellence, beauty of form, texture and color, and adaptability to average sites; part three shows eight experimental houses; and part four, building products.

GENERAL REFERENCE

Simplified Carpentry Estimating
by J. Douglas Wilson and C. M. Rogers
Clear explanations of how to take off from a set of blueprints and specifications a bill of materials for the construction of a frame house. Arithmetical methods of accurately estimating and cross-checking against mistakes, suitable for use of small contractors and lumber dealers, adapted as a text book for students. 5th edition. Pocket size, 304 pages, 123 illus. 60 tables. (#105) $3.75

Time-Saver Standards by the Editors of Architectural Record
Of great utility to the architect and builder and many other technicians. A standard reference work kept up-to-date since its inception. Large page format, 8½ x 11, shows charts and illustrations in high legibility, along with text descriptive of every detail of building practice from site planning and functional elements to the latch on the door for all types of structures. May be inspected on our approval plan. 884 pages. (#101) $12.50

Richey’s Reference Handbook
by H. G. Richey
A working reference for builders, contractors, architects, building materials dealers, carpenters, and building construction foremen. Conveniently arranged for easy use. Among its complete coverage of topics are: waterproofing, building stones, fireproofing, paper-hanging, plumbing, heating and ventilation, electric wiring, hydraulics. Glossary of engineering, architectural, and trade terms. 1,640 pages. 544 illus. (#103) $9.95

Legal Cases for Contractors, Architects and Engineers
by I. Vernon Werbin
Points out rights and liabilities and the more common trouble spots in construction, engineering, and architectural contracts and in general how to protect your interests when entering into a contract and how to avoid legal difficulties. 5½ x 8. 453 pages, 1956. (#107) $6.00

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by Gerald O. and Lillian G. Dykstra
For those engaged in any business or profession involving realty, including builders, homeowners, storekeepers, this is the ideal book for answering innumerable questions. 852 pages, 1956. (#119) $10.00

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Railings made of aluminum stand up under the hardest kind of treatment. Flagpoles made of aluminum stay bright and will never need painting. Curtain walls made of aluminum eliminate maintenance costs due to constant exposure. Sun Shades made of aluminum add exterior beauty, assure interior comfort.

For example, the six items shown above—manufactured of Kaiser Aluminum—are recommended for school construction.

For names of building product manufacturers and Kaiser Aluminum electrical conductor distributors who will be glad to work with you, contact the Kaiser Aluminum sales office listed in your telephone directory. Kaiser Aluminum & Chemical Sales, Inc., General Sales Office, Palmotive Bldg., Chicago 11, Illinois; Executive Office, Kaiser Bldg., Oakland 12, California.

See "THE KAISER ALUMINUM HOUR." Alternate Tuesdays, NBC Network. Consult your local TV listing.

Here is a comparison taken from the cost studies for the two new high schools now nearing completion in Cedar Rapids, Iowa:

<table>
<thead>
<tr>
<th></th>
<th>Copper Conductor</th>
<th>Aluminum Conductor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross Savings Using Aluminum</td>
<td>$70,000.00</td>
<td>$45,000.00</td>
</tr>
</tbody>
</table>

Less additional costs incurred in using aluminum:

- Conduit: $6,500.00
- Connectors: $850.00
- "Tools: $1,500.00
- "Training: $1,000.00
- "Switchboard equipment modification: $2,000.00
- Reserve for contingencies: $2,950.00

Total additional costs: $14,800.00

NET SAVINGS: $10,200

*First job costs only.

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CITY & STATE.

KAISER ALUMINUM ARCHITECTS' SERVICE
919 N. Michigan Avenue
Chicago, Illinois

NAME
ORGANIZATION
ADDRESS
CITY & STATE
Here's a lesson

THE HOUSE THAT WAS AN INVESTMENT was bought by Rochester Gas and Electric Corp., Rochester, N.Y., to show the economics of remodeling. Today the 86-year-old house can compete with any newly built model.

If you're trying to convince yourself—or a customer—that remodeling can be profitable all around, the story of this 86-year-old house may be just what the doctor ordered.

The original cost of the house was $4500—cost to completely remodel, $6775. Kitchen appliances came to $1181. Today the house is valued at $14,000.

The Rochester Gas and Electric Corp., headed by Alexander M. Beebee, Chairman of the Board of Directors, and Robert E. Ginna, President, bought the house to tie-in with an intensive home improvement campaign sponsored by a civic organization, The Rochester Home Improvement Action Committee. Remodeling was supervised by G. L. Breckenridge of the company.

Here's how the job was done.

The house was badly run down. Two old-fashioned bedrooms, kit-

(Continued on page 247)

EYE-SORE, YES—here's what was done: small front porch was enclosed to become an interior vestibule—gave a wider area to the front of the house. Old clapboards were replaced with wood shake shingles with backerboards. Concrete driveway, flower boxes were added. House got two inches of insulation.
in remodeling for real profit

WHAT CUSTOMERS EXPECT IN A REMODELED BATH

OUT-MODED BATH was added off the living room years after the house had been built. It could not be readily reached. Antiquated lead pipes, poor lighting, an old fashioned sink and tub had to be replaced. Equipment in the room was not conveniently arranged.

AFTER the traffic pattern was altered, the bath was easy to get to. New fixtures and equipment were added. The room arrangement was changed, with the sink near the door. Copper plumbing, a tub with connection for overhead shower, twin fluorescent wall lights up-date the bath.

HERE'S WHAT $1181 AND PLANNING CAN DO TO AN OLD KITCHEN

THIS UNSIGHTLY KITCHEN was not part of the original house plan. It was built from a shed. Careless arrangement of equipment, old utilities made it uncomfortable. The cellar stairway was removed and the cellar wall extended to yield working space.

NOW this house boasts a scientific, compact 12' by 12' kitchen. Equipment placed among storage cabinets leaves room for a table and chairs. Appliances cost $1181. Dishwasher, garbage disposal, automatic gas range and oven are some of the many appliances installed.
How he moved up to 3000

Moving that much dirt can run
up a staggering bill; even so,
Oddstad comes out ahead.
Here are the reasons.

In Crestmont, Oddstad’s newest development in Oakland, California, the major problem has been
to tame, both physically and economically, a mon-
strous range of hills.
In one case, as much as 3000 yards of fill had
to be moved, and the average amount per site is
about 2000 yards. At a cost of 45 cents a yard,
this means the builder is slapped in the face with
a bill for $900 before he gets a chance even to set
up batter boards. Obviously this will price him out
of the competitive market—or will it?

Consider for a moment the real estate arithmetic
involved. Oddstad’s land is about 15 minutes from
the center of town, a choice location. Flat land in
this section, if there were any available, would be
worth about $3000 an acre more than Oddstad’s
hilly land. At three sites per acre, the cost of extra
earth moving is thus $2700, and instead of being
priced out of the market, Oddstad is now $300 an
acre better off than the builder who is “on the
level” in the same area.
But here’s another problem. In flat terrain the
builder has more freedom in laying out sites, can
squeeze in at least four per acre. The builder who
elects to hang his houses on the sides of hills won’t
get much more than three sites per acre. So he
starts off with a penalty of 33 per cent on every
lot, or between $1000 and $2000.
The answer here, Oddstad says, lies in a feature
of hilly land: view. Houses cut into the hillside give
the buyer a magnificent panorama of the country
side from his living room window. This single fact
can make such a site worth up to $7000, consider-
ably more than a level site in the same general area.
Other builders were afraid of the enormous
problems of earth moving involved, passed up
Crestmont, and built as far as 20 miles out of town.
Oddstad began with the idea that the job could be
done physically, and the only question was, could
it be done profitably. Obviously, he thinks it can.
THE SHAPE OF THINGS TO COME begins to be apparent as rough grading for main streets gets under way.

AND HERE'S THE RESULT after the dust has settled: a handsome two-level house designed for its sloping site.

yards of earth for just one site...

ROLLINGWOOD, ANOTHER DEVELOPMENT in the Oakland area, was Oddstad's first venture into the development of vertical land, proved to be a great success. Its houses were mostly under $20,000; Crestmont, with higher site costs, will have its houses generally in the above-$20,000 price bracket.

...and made it worth the effort

NOVEMBER 1956

HERE'S HOW IT'S DONE
Earth moving is a specialized art.

First rule for builders: find yourself an expert.

Most builders whose earth moving jobs require a lot of heavy equipment turn to subcontractors who specialize in that field. While it is often profitable for a builder to own light equipment, such as trenchers, backhoes, small bulldozers, etc., really heavy machinery, in most cases, would not make economic sense. It would tie up hundreds of thousands of dollars of operating capital, and virtually put the builder into the earth moving business, since he couldn’t afford to have the machinery lie idle.

The logical step, therefore, is to sub out heavy work to an earth moving contractor. In Oddstad’s case, the earth moving problem was so difficult and of such primary importance to the success of the project that he went a step further and undertook a joint venture with an earth moving specialist, Martin Wunderlich. Wunderlich had done Oddstad’s earth work in the past, so the builder knew he was getting the best equipment and know-how available. The partnership is additional insurance he will get the best possible earth moving supervision.

Wunderlich’s job is a complex one. A typical part is the “Malcolm Avenue Fill” shown on these pages. In 60 days, some 300,000 yards will have to be moved, including 20,000 yards of topsoil that must be set to one side for final grading. Cuts and fills must be balanced so that there is neither extra material to be brought in nor excess material to be disposed of. Similarly, operations must be planned so that fill is hauled over the shortest possible distances. In both planning and execution, it’s a job for an expert.

...and turning “impossible” land

Biggest advantage of an earth moving contractor: a pool

of available equipment

This is the heavy equipment being used on the Malcolm Avenue Fill: three D-8 and three D-9 Caterpillar tractors; four #24 International Harvester tractors; two 5 x 5 Southwest Sheepfoot tampers; two Euclid water wagons; one Caterpillar 12 blade, and two Gar Wood carryalls.

That’s a lot of heavy machinery, and it represents a heavy investment, but it’s only part of the equipment that Wunderlich owns and operates. He has more working on another tract, and on various city and government jobs. If it were necessary to increase the scope or speed of the operations in Crestmont, more equipment of almost any type could be moved in. Thus Oddstad and Wunderlich have an equipment pool they can draw from almost at will.
moving contractor is paying off...

PART OF THE FLEET of massive machinery that is presently working on the Malcolm Avenue Fill in Crestmont. The scrapers are hauling fill from cuts up top to serve as fill for roadbeds and sites lower down.

into first class building sites

JACK OF ALL TRADES is the big bulldozer. It can cut, push dirt, and tow other pieces of heavy equipment.

SHEEPSFOOT TAMPER is used to compact fresh fill. The "feet" enable the roller to pack several inches in depth.

FINAL SETTLING OF FILL is done with water. Rain would do the same thing, but the job can't wait for nature.
Now THESE New Time-Savers Make BETTER BUYS

1. Time-Saving DIRECTION REVERSER
   for "420" Crawler and "420" Utility Tractors

   Lets you move forward or backward in the same speed—no time wasted shifting gears. You simply depress clutch pedal, stop tractor, move the handy direction reverser lever, release clutch and off you go in the opposite direction. Detail at left shows lever in neutral position. Dotted lines show reverse and forward travel positions. Available as optional equipment on "420" Crawler and Utility models.

2. Heavy-Duty 3-POINT HITCH
   for John Deere Crawler Tractors

   Offers you the advantages of "pick up and go" operation with a track-type tractor. You change tools such as rotary cutters, scarifiers and integral scrapers in minutes, raise and lower them hydraulically at a touch of your hand on a convenient lever. Heavy-duty construction. Telescoping draft links. Turnbuckle-type upper hitch link. Leveling adjustments made without leaving tractor seat. For factory or field installation on John Deere "420" or "40" Crawler.

JOHN DEERE Quality-Built
Time-Saving FOOT THROTTLE
for "420" Crawler and "420" Utility Tractors

Provides you with foot control of engine speed. Operates in conjunction with hand throttle to increase engine speed, and consequently ground-speed, approximately 25 per cent—makes possible speeds up to 17 mph on the highway. Also helpful when maneuvering in close quarters. Inexpensive. Easy to attach to tractor. Available as optional equipment for "420" Crawler and Utility models.

5-SPEED TRANSMISSION
for "420" Crawler and "420" Utility Tractors

Gives you an extra speed forward for increased versatility in many operations. On Utility tractors, the new speed is 6 1/4 mph and on the Crawler, 3 7/8 mph. Regular forward speeds are: Utility 1 3/4, 3 1/4, and 12 mph; Crawler 3 7/8, 2 1/4, 3, and 5 1/4 mph. Quickly repays its small extra cost on such work as mowing, finished bladeing, and landscaping. Factory installation only.

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Please send me your illustrated booklet on John Deere Industrial Tractors and Working Equipment. Include name of nearest dealer.

Name:
Title:
Address:
City & State:
H. B. Kaulbach, Builder
San Antonio, Texas

Mr. Kaulbach specializes in large custom homes; builds 10 to 60 a year. Asked why he is so loyal to Insulite products, he answers: “That’s easy ... they help sell homes.”
Look at the design ideas...
cost saving ideas...
in this Texas home!

This beautiful home, with exposed beam interior throughout, was designed by a San Antonio Architect, Reginald Roberts, for his own residence. Here, both distinctive architectural lines and important cost reduction were made possible by Insulite Roof Deck.

Builder H. B. Kaulbach, a long time user of Insulite products, figures the total saving on this job amounted to at least $300, as against old-style materials and methods. “First,” he reports, “we saved about $100—and of course got stronger walls, too—by using Bildrite Sheathing. Then, we applied 5,500 square feet of Insulite Roof Deck. I would estimate that our saving on the roof and ceiling, in labor time alone, was $200 or more compared with the use of wood decking.”

Today, open beam design is sweeping the country—in homes from the topmost luxury bracket down to low-budget project designs. For fine appearance, high structural strength, definitely better insulation, high-speed application and minimum waste, your best choice for any open beam plan is undoubtedly Insulite Roof Deck. Want more information on planning and building with Roof Deck? Write us for free literature—Insulite, Minneapolis 2, Minnesota.

Ten rooms, 3 baths and a 3-car carport are included in the Roberts home. Angles and overhangs provide sunlight and shade as desired. Handsome, massive ceiling beams are 4'x10' rough-sawn fir, finished with pigmented stain.

For any budget, any climate... Insulite Roof Deck gives you a 3-in-1 material—decking, insulation and pre-finished ceiling all in one. Made in 2’x8’ tongue and groove panels, 1 3/4”, 2” and 3” thick. No plastering, painting, staining or waxing needed.

build better and save with

INSULITE

INSULITE, Made of hardy Northern wood
Insulite Division of Minnesota and Ontario Paper Company, Minneapolis 2, Minnesota

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The Unit You Will Use Every Hour of Every Day

There is more flexibility in a tractor with a back-hoe and loader than in any other equipment on the construction site today. You'll use it on more different applications than anything else you own. Trenching for footings, service lines, sewers and drains—digging holes for tanks and catch basins—loading aggregates and levelling and back filling and light stripping—carrying materials and supplies, cleaning up and distributing topsoil—and dozens of other jobs. It's an inexpensive machine you can easily afford to keep on the construction site, full time, for the many odd jobs that crop up so consistently.

The two big reasons why you see more Sherman Power Diggers than any other kind are simply these: You get more production from a Sherman and your Ford Tractor Dealer, having sold so many, is equipped and skilled in helping to keep your machine on the job working at peak output without costly downtime.

Now is the time to see your Ford Tractor Dealer for a demonstration of this dependable, high production back-hoe; or, write for Bulletin No. 743
For new homes or old—this Virden fixture works selling magic

Smart, handsome Virden lighting will help you sell your homes. Buyers today are style-conscious, and the more you put in your homes, at a reasonable cost, the easier they will be to sell.

This reel-concealed, pull-down fixture is one of the best selling tonics you can give your homes. The smartly styled 20” top reflector and the spotlights are finished in gleaming brass... a finish that fits any decor. A thin, strong cable that disappears into the canopy is hidden by a coiled black cord. Fixture holds in any position from 24” to 57”.

This is just one of the many styles of Virden fixtures that will give your home that selling plus. Fill out the coupon below to learn about all the other decorative lighting fixtures by Virden.
GREAT NEW IDEA in

WORK BULL Model 404 with ⁵⁄₈-yd. low-pivoted loader. Like all WORK BULLS, 404 has specially designed industrial front axle and heavy-duty clutch. (Diesel engine is optional.)

WORK BULL Model 303 with ⁴⁄₅-yd. angle dozer and backhoe. Gasoline engine, standard, offers high torque at low speed for better digging. (Diesel optional.)

WORK BULL Model 202 with hydraulic-controlled hoe. Most of the WORK BULL attachments can be switched in 5 to 15 minutes in the field — without special gear.

Davis PIT BULL with ¾ yd loader features torque converter, reversing clutches and 5 speeds forward, 5 reverse. In many cases it outworks high-priced, single-purpose rigs.
Now — from one source — a package of 5 versatile, low-cost tractors with 20 power-matched, easily-interchangeable attachments!

Contractors! Industries! Utilities! Profit from this new idea in greater machine utility and efficiency. Get the benefits of low cost attachment interchangeability ... the high-profit performance of tools matched to power and speed ... the adaptability of job-matched equipment to replace or supplement high-priced, single-purpose units.

What's more, you enjoy the advantages of a single sales and service source — a complete package — available only in the low-cost WORK BULL line.

New, and built to excel where other wheel tractors fail, WORK BULLS pay off in a wide variety of applications ...

As primary equipment, WORK BULLS put former hand work on a power basis ... efficiently handle scattered, work-and-run assignments.

As backup machines, WORK BULLS team with medium-priced, single-purpose equipment ... give you the power equipment ratio that exactly fits the job.

As utility or cleanup tools, WORK BULLS are perfect for hustling around big layouts and relieving big equipment of unprofitable odd-job duties.

Get the complete WORK BULL story now. Write for 24-page illustrated catalog.

Important note to retail distributors — WORK BULL franchises are still available in a few key areas. Write or wire for details.

Look at this wide choice of integrated WORK BULL attachments!

Loaders — 9 or 11 cu. ft.; ¾-yd. or 1¼-yd.
Backhoes — 12, 16, 20, 24 or 36" buckets
Mowers — Reel, rotary or side-mounted
Fork Lifts — 2000 and 4000 lb. capacities
Blades — Bull dozer, angle dozer or grader
Broom or Sweepers
Post Hole Diggers
Rotary Trenchers
Pipe and Cable Layers
Snow Plows
Utility Booms
Scarifiers
Hauling Hitches

M-H-F WORK BULLS
Division of Massey-Harris-Ferguson, Inc.
17-K Quality Avenue
Racine, Wisconsin

November 1956
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with Certain-Teed products

ROOFING—Smartest blends and colors in seven readily accepted styles. Always-popular Thick Butts, for instance; or Saf-T-Loks, real sellers in high wind areas; or Woodtex—only Certain-Teed gives you this heavy-duty shingle with the distinctive built-up graining.

SIDING—You can meet every taste, every budget, with Certain-Teed's colorful weather-resistant sidings. Asbestos cement or asphalt shingles in striped design; asphalt roll sidings in stone or brick patterns; insulating sidings to keep your customers' homes snug all year round.

INSULATION—Widely advertised Certain-Teed Fiberglas* Insulation has tremendous consumer acceptance. You get just the type you'll need—blankets, batts, pouring wool—or the new Foil-Enclosed Fiberglas Insulation wrapped in reflective aluminum foil that gives two-way insulation.

No doubt about it—when you talk Certain-Teed roofing, siding and insulation, you have a convincing sales story to tell.

Talk quality. All Certain-Teed products are widely known for quality. They increase the resale value of any home.

Talk beauty. Show the "lady of the house" actual color samples of Certain-Teed roofings and sidings... show how they harmonize for smart, distinctive exterior decorating.

Talk economy. Tell the "man of the house" about the weather-resistance and long life of Certain-Teed roofing and siding. Point out how Fiberglas insulation pays for itself in fuel savings over just a few years.

Talk Certain-Teed, sell Certain-Teed, throughout 1956—the year to fix! Make the most of home-improvement opportunities in your locality. Your nearby Certain-Teed dealer can supply the quality products you need.

*Trade-mark OCFCorp.
Builders build better at less cost with Olin Polyethylene

Builders everywhere are turning to Olin Polyethylene film as the ideal moisture barrier with many varied uses. In bad weather especially, using Olin Polyethylene as a “closing-in” and protective covering material can save wasted days, keep the work on schedule. Light, easy to handle, and re-usable Olin Polyethylene saves on labor and material costs whether it’s used for protection or in curing and slab construction work — gives you the kind of job you like to see, easier and faster.

And remember this, because it’s unaffected by most acids, alkalies, bacteria, mold and temperature changes, Olin Polyethylene makes a permanent moisture, moisture vapor and draft barrier. Discover for yourself how much of a difference this multi-use film can make on your jobs. You’ll find it will cost you less to build better with Olin Polyethylene. For more information and free booklet showing how Olin Polyethylene will save you time and money write: Olin Film Division, 655 Madison Avenue, New York 21, New York.

Meets FHA Minimum Property Requirements...Fed. Spec. UUP-147 pertaining to moisture vapor control.
Look us up in Sweet’s Catalog! (1957 Edition)
- Industrial Construction File 5/OL
- Architectural File 9/OL
- Light Construction File 3a/OL
Also under...AIA File No. 24-D (NN)

Olin Film Division
655 Madison Avenue
New York 21, New York

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full information on Olin Polyethylene.

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Company ___________________
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Special HARBORITE is specially-resistant to wear, weather and water!

Does the job better than other building materials...lasts longer...competitive in price!

Now it costs no more to build it better! Special HARBORITE has a new special purpose core and back..."C" grade veneers...and a single-sided overlay on a solid face. These innovations make a new low cost possible...yet you still get all the benefits of Harborite's famous super abrasion-resistant face. Special HARBORITE has a superior painting surface...needs only two coats instead of three...requires less maintenance. Special HARBORITE defies grain-raise and checking...is easier to apply...ideal for exterior or interior. Single-sided Special HARBORITE is designed for use where it can be securely fastened to framing. Also available with overlay on both sides at comparable low cost.

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HARBORITE is now available in two grades...Special and Super. HARBORITE Super-Grade is the original overlaid fir plywood...the leader of its field...famous marine grade plywood with two-sided overlay. Ideal for all jobs that require a solid wood core..."B" grade veneers or better. Perfect for cabinetry, built-ins, doors.

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the miracle overlaid fir plywood...now available in

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Home building has progressed from a trade to a flourishing industry and today most homes are produced from components and products that go together with a minimum of labor.

The successful builder selects components and products of recognized quality and proven acceptance for he knows this "prestige" will help him sell homes.

Today's exacting buyers know KAUSTINE FURNACES by their reputation for dependable, trouble-free, economical operation and their record for long years of service.

 Builders know them by their unique, compact designs that save valuable floor space and by their many exclusive assembly features that cut installation costs.

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Kaustine Furnace & Tank Corp.
Perrysburg, New York

TOPS IN QUALITY

There is a Kaustine Furnace or Winter Air Conditioner for every type of home
Average home buyers **BUY**

a better-than-average home **FASTER**

**offer them the dramatic beauty of real wood**

**with low cost G-P Prefinished Hardwood Paneling**

Your prospect is actually upgrading himself when he considers buying this house. He wonders if it will be pleasant to live in, and since he probably plans to move into an even better home within five years or so, he wonders if this house will resell easily. The greater value and distinctive appearance of G-P Hardwood Paneling give him quick assurance on both questions. Your choice of G-P V-grooved Hardwood Paneling helps him picture a scene of family happiness and good living surrounded by these hospitable rooms. This, plus the knowledge that the enduring quality and beauty of wood will bring the same picture to future owners, is what makes average home buyers buy faster.

Look at the advantages G-P Hardwood Paneling offers for profitable installation:

- Completely prefinished and ready to install—no further finishing or waxing required.
- V-grooved on the veneer joints to simulate random planking.
- Edges of panels eased for continuous plank effect.
- Back sealed for stability.
- 4 ft., by 8 ft., and 4 ft., by 7 ft., sizes available in 1/4-inch thickness.

**RIPPLEWOOD**—textured plywood panels—can be painted in lively two-tone color effects. 12"x8" wall—$18.00, 8"x8" wall—$14.00; 8"x4" wall—$10.00.

**G-P STRIATED PLYWOOD**—striking painted or stained—grooving helps conceal joints. 12"x8" wall—as little as $17.00.

*Patent applied for.
Add up these features...

- Adjustable header with continuous strips Mohair pile running full length.
- Easy installation with new rigid frame...may be pre-assembled and installed prior to installation of sash.
- Double Mohair pile weatherstripping at interlocking stiles, preventing air or water infiltration.
- Silent action, floating slide with adjustable ball bearing rollers.
- Attachable fins for easy stucco or shingle installations.
- Moisture cup in track halts condensation from flowing onto floor or carpeting.
- Massive lucite handle.
- Integral sill adapter and kick plate.
- Adjustable strike on jamb.

... Plus These... Doors may be modified for odd-sized openings... Plastic insert in head to prevent rattling... Hollow aluminum extrusions of 6063-T5 alloy.
9 major changes make the

COMPLETELY NEW 1957
SUN VALLEY SENIOR

aluminum sliding
glass door...

Now, all new engineering and structural design in the 1957 Sun Valley Sr. aluminum sliding glass door provide improved appearance, reduce installation time and assure continuous, trouble-free operation. Designed to the preferred specifications of architects and builders to eliminate problems most often involved in door design, installation and operation.

Sun Valley Sr. meets the needs of all types of installations and is especially styled and built for deluxe use. Includes all features that make a sliding door truly practical and functional.

SUN VALLEY IMPERIAL Sun Valley Imperial aluminum sliding glass door has been designed for heavy duty, all-weather double glazing (including Twindow or Thermopane). Meet demands of the coldest...the hottest climates.

The Imperial features...continuous smooth opening-closing operation with adjustable dual tandem ball bearing rollers...double Mohair pile weatherstripping at interlocking stiles, preventing air or water infiltration...heavy extruded aluminum of 6063-T5 alloy...massive lucite handle.

SUN VALLEY JR. Sun Valley Jr. is the aluminum sliding glass door originally designed, built and priced especially for low budget and multiple housing installations. The ultimate in sliding doors...LOW COST combined with MAJOR FEATURES usually found only in higher priced doors.

Important new features...double Mohair pile weatherstripping at interlocking stiles preventing air or water infiltration...reversible locking stiles to permit sliding unit to be sight or left...functionally designed handle with attractive lucite grip...rigid aluminum extrusions of 6063-T5 alloy...integral sill...kick plate for surface installation.

FREE...Write now for your copy of Sun Valley's illustrated folder on all three doors. You'll receive complete specifications...detail drawings...door sizes. Write to

SUN VALLEY INDUSTRIES, INC.
Dept. 210B, 8354 San Fernando Road • Sun Valley, California
How to stop water leakage

The sketch on top of the page shows a problem familiar to most builders. Water running down the outside of an exterior door is drawn under the door by surface tension, and drips off the lowest point, in this case the weatherstripping on the inside.

There are two ways of dealing with this: make a break in the path of the water, or provide a low point on the outside edge of the door. In the first solution above, a saw kerf provides a gap the water can't jump. In the second and fourth solution, low points are built into the door. The third solution is a combination of the two ideas; and since it can be tacked on without removing the door, it would be the best for repairing.

For a new installation, the bottom solution is probably best, as it provides both a gap and an outside low point.


Raising area wells

If the grade level around a house is to be raised, or if a concrete terrace or walk is to be installed at a higher level than the original grade, the cellar window area wells must be raised to the new height.

The sketch above shows a method for doing this without having to do extensive digging, and thus ruin landscaping around the house. The top 2 x 6 distributes the load across the well, and the bottom one fills in between the jack and the top piece. The well can then easily be raised the necessary amount.

T. J. Nychay, Chicago, Ill.

Loose set screws

When you encounter set screws that are continually loosening and backing up, try this method of making them stay put.

Remove the screw and lay the threaded shank on a wrench end, or some other metal surface. Then tap the top of the threads with a hammer. This will flatten the threads slightly and make it harder for the screw to turn and back out.

E. Miller, Lansing, Mich.
Beautiful pegged oak floor at a modest price

There's something about Bruce Ranch Plank that "does things" for even the most modern interior. Perhaps it's the contrasting traditional flavor, or the ever-interesting pattern of random oak strips with walnut pegs. Whatever the reason, Bruce Ranch Plank is appropriate anywhere. It has the charm and appeal of an expensive random-width floor, yet is low in cost. The pegs and the beautiful, durable Decorator Finish are factory applied . . . so there's no sanding or finishing on the job. Installation is simple, like regular strip flooring. Write for color booklet. See our catalog in Sweet's.

E. L. BRUCE CO., MEMPHIS 1, TENN.

Bruce Ranch Plank
Hardwood Floor
Imperial Homes Choose Foldoor!

For making homes sell faster, you can't beat Foldoor by Holcomb & Hoke. These are the folding doors that operate easiest—with 61% less hinge friction. That look better—with exclusive cornice for a "finished" look. And that are sturdy—as proved in thousands of installations. That's why Donald W. Johnston chose Foldoor by Holcomb & Hoke for his entire Imperial Homes project at Peoria, Ill. That's why, whether you're building one home or 1,000 in 1956, it will pay you to investigate Holcomb & Hoke's line of folding doors. Remember, only Holcomb & Hoke makes a complete fabric-covered line. Three price ranges for every home . . . a deal for everybody—a deal for you!

INSTALLING DISTRIBUTORS IN ALL PRINCIPAL CITIES
In Canada: Foldoor of Canada, Montreal 26, Quebec
How to do it better...

(Continued from page 196)

Ventilated siding

The problem of moisture in exterior walls is a common one, particularly in the parts of the country that have severe temperature changes. Here is a built in ventilation system that has been used over a number of years with no paint peeling whatsoever.

Furring strips are laid over the stud positions on the outside of the sheathing, as shown. Horizontal strips are cut short of the stud spacing and nailed on the bottom, leaving an air space on either side. On top, ventilation can be into the attic, or through soffit vents. The big air spaces permit easy flow of air to remove moisture, and should also add insulating value to the wall.

W. Bodley, Angola, Ind.

Hip roof sheathing estimates

Many builders approach the problem of figuring sheathing for a hip roof as a very difficult thing. Actually, it can be done very sim-
TRUSCON "138"

No decorating troubles
A 138-equipped house is a house with a built-in sale. Women prospects have decorating ideas in mind the minute they enter your room. Truscon Double-Hung Steel Windows have a light gray prime coat that's ideal as a base for painting to match room decorations or drapes. No shiny clash or glare. This window can match the home, indoors and out.

No operating troubles
All-steel construction means no warp, no swell, no shrink. Finger-tip operation. No sticking, no rattling. Stainless steel weather stripping and motor-type spring balances with stainless steel tapes are built-in. Hardware is factory-attached. Nothing to go wrong. Given normal maintenance, this window will last for the life of the house.

is the
trouble-free window

Freedom from installation, operating and maintenance troubles has made Truscon's Series 138 the largest selling steel double-hung window on the market. From every angle, this window is trouble-free!

You get it completely assembled as one unit. Simple anchors for any type of wall construction allow easy erection. All bronze hardware is attached at the factory. Your only field work is glazing and decorating to match your own color styling.

Being steel, the 138 can't possibly warp, swell or shrink. Finger-tip operation stays that way. No call-backs. No adjustments.

It's a weathertight window. Stainless steel weather stripping is built-in. It is ideal for use in air-conditioned homes, or with room air conditioners. It is prepared at the factory to receive standard Truscon full or half screens, storm sash or Koolshade® Screens.

A wide range of types and sizes is quickly available through Truscon dealers backed by all the facilities of Truscon's nation-wide warehouse service.

For low first cost, low maintenance cost, weathertightness and simplicity of operation, standardize on Truscon® Series 138 Double-Hung Steel Window—the trouble-free window. Send coupon for complete catalog.
Truscon Steel Doors are trouble-free, too

You can buy Truscon Interior Steel Doors—Swing or Slide types—complete with frames and all hardware. Easy to install! Simply assemble the knocked-down frame, nail to studs, hang the door. No cutting, fitting, planing, sanding needed. You save time and dollars. Truscon Steel Swing Doors are sound-deadened. Sliding Closet Doors glide silently on nylon rollers. Both are prepared for finish painting to match room interiors. NEWS! In lots of 200 or more, Truscon Interior Steel Doors are available finish-painted in your choice of any of 26 colors. Send coupon today.

STEEL
and Steel Products

NOVEMBER 1956
Low-Cost Blade Makes Your Light Tractor an Efficient Earth Mover!

A Heavy-Duty Tool for Landscaping, Grading, Ditching, Scraping, Backfilling.

One man can operate the DANUSER BLADE by himself and make adjustments without leaving the tractor seat. Blade uses the tractor three-point suspension principle with adapter kits available for older models. It is raised and lowered by the tractor's hydraulic system, and turns all the way around so you can push with it.

Rugged construction throughout. Built of reinforced welded structural steel and heavy tubular members. Abrasion-resistant moldboard with replaceable, standard grader cutting edge. Moldboard mounting is supported on two oversize tapered bearings to maintain stability. It shifts 8 inches right or left of center for cutting beyond tractor wheel line.

Danuser built the original rear-mounted blade, and is still producing the finest tool of its kind on the market. Thousands are in daily use throughout the world. Tested and approved by tractor manufacturers.

"Quality Since 1910"

DANUSER MACHINE CO.

534-46 East 3rd Street • Fulton, Missouri

These displays will boost your sales of Red Devil Grady Wedges

Transparent plastic container displays full assortment of most-needed sizes.

As Display Helps you boost sales of these extra-profit wedges.

WCI DISPLAY

Attractive two-color card contains complete home assortment of five different wedges in plastic bag. 12 units to a display card.

WEDGE DISPLAY CARD

Combination display card is die-cut to hold Nos. 5 and 10 wedges for fast service and impulse sales. Contains 36 No. 5 and 24 No. 10 wedges. Also available: No. 5 card—36 No. 5's, No. 10 card—24 No. 10's.

Red Devil Grady Wedges are rust-resistant, chip-proof. Paint them into the head of any handle-type tool—they'll never come out.

YOUR CHOICE of 3 Form Services for Concrete Construction

1. EFCO Steel Forms on a purchase basis for your: (a) Minimum form requirements, (b) Larger form requirements when reuse of the form equipment and simplicity of form work seem to make purchase more practical. Free form erection drawings are supplied owners of EFCO Forms.

2. ECONOMY Steel Forms on a rental basis for your: (a) Larger unusual form requirements, (b) More difficult form requirements. These forms are supplied with supervisory service.

3. SPECIAL ECONOMY Forms on a purchase basis for your special form requirements. These are designed and manufactured to your specifications and are supplied with or without supervisory service.

For details, estimates and catalog, write nearest office.

Economy Forms Corp.

DES MOINES, IOWA

Offices In St. Louis, Mo.; Kansas City, Mo.; Chicago, Ill.; Lincoln, Nebr.; Minneapolis, Minn.; Ft. Wayne, Ind.; Milwaukee, Wis.; Chicag, Ill.; Cincinnati, Ohio; Cleveland, Ohio; Milwaukee, Wis.; Rochester, N. Y.; Springfield, Mass.; Washington, D. C.; Denver, Co.; Charlotte, N. C.; Dallas, Texas; Tulsa, Okla.; Houston, Texas; Los Angeles, Calif.; Oakland, Cal.; Denver, Colo.

How to do it better...

(Continued from page 199)

ply. Merely figure it as you would a gable roof for the same size house and you will get the correct amount.

F. M. Sellers, Peoria, Ill.

Spacesaving kitchen counter

The folding counter shown above should be particularly useful in remodeling small kitchens, where the lack of space makes it difficult to install the amount of counter space generally used in modern kitchens. The surface is covered with one of the new tough plastic laminates.

As shown, the folding counter provides extra storage space behind it, but it could be built flat against the wall and have no storage space.

W. Kraatz, Santa Cruz, Cal.

Can you do it better?

SEND US...

- A brief written description
- A simple sketch
- Snapshots, if possible

Y ou are American Builder's main source of better building methods, so send us your ideas. Good sketches are most important; a free hand drawing is fine so long as it's clear. If we publish your idea, we'll send you $25 for your trouble. Mail contributions to: American Builder, 30 Church St., New York 7, N. Y. Sorry, but contributions cannot be returned.
The Best MID-AMERICAN, for those families that demand the best in luxurious living, leads the Best parade for 1957. Other models—such as the Best 3-bedroom CLIPPER—a quality home being built and sold profitably in metropolitan areas for $8400 (plus land) with government approved financing. Best’s line for ’57 is ideal for project planning—modern Best styling permits an individual touch for each home... flexible designs allow easy construction variations... wide price range and styling available. And Best dealers can count on tested land planning, promotion-advertising. And Best’s Finance Division can secure financing for properly qualified project builders. However, to be assured financing for 1957 construction you must act now.
new angles on windows
ARE SIMPLE TO PLAN

A floor-to-ceiling window-wall with wide-opening ventilating units at the bottom...a “ribbon” of awning-type windows set high in a bedroom wall for privacy...a “stacked” arrangement of horizontal ventilating windows—these are the angles home buyers are looking for—and that's what you can give them with standard PELLA MULTI-PURPOSE WINDOWS.

The 14 sizes, fixed and ventilating, can be arranged in dozens of custom-like combinations. PELLA MULTI-PURPOSE WINDOWS are shipped packaged, completely assembled and glazed, with all hardware attached. The Western Pine frame is flat on all four sides, slips easily and quickly into place. Chemically treated 1¾” pine sash is fully weatherstripped.

PELLA Distributors are located in major cities throughout the U.S. and Canada.

PELLA multi-purpose WINDOWS

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PELLA, IOWA


FIRM NAME
ADDRESS
CITY ZONE STATE
ATTENTION MR.
A pleasing distinction is given to this lovely residence in River Forest, Illinois, by a variety of window treatments. But whatever the style of window, it is framed in sturdy, durable steel, painted to match the light-hued woodwork. R. H. Maiwurm, Architect; Louis H. Castiglia, Builder.

Outstanding feature of this modern home in Washington, D.C. is its window wall—set in frames of steel. Because steel is so strong, it is able to support large areas of glass with slender, inconspicuous frames. Aubino, Edwards & Beery, Architects; Aubino Construction Co., Builder.

In this cottage, a fixed picture window is flanked by casement-type windows. Thanks to steel's rigidity and its freedom from warping, these casement windows will stay easy to open and close for many years of service. And occasional painting will keep them good-looking for the life of the house.
Give your homes greater salability with windows made of steel!

Whatever type of house you build, you'll find that steel windows will blend with the architectural style. They lend themselves to a variety of window treatments, and they become an integral part of the house. And steel windows add to the salability of houses because they are so popular with prospective buyers. Home owners like the strength and durability of steel windows; they appreciate their smart good looks, their freedom from warping and the ease with which they can be painted to match exterior and interior color schemes.

You will find that steel windows are economical to buy . . . easy to handle and install. Because they are so strong, steel windows require no special handling precautions.

For more than forty years United States Steel has been supplying window manufacturers with special rolled sections of high-grade open-hearth steel. You can be sure when you buy windows made of steel that you are getting a quality product, one that will give years of service in the finished house.
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final touch
in the
finer homes
you
build
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FIREPLACE ENCLOSURE with
HEAT TEMPERED GLASS DOORS

- Blends with traditional or contemporary decor. Adds fireside charm and beauty.
- Radiates your fireplace heat like a common light bulb, but on a much larger scale. (Burns wood, coal or gas.)
- No sparks. No smoke
- Complete control of fire
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- Lowers fuel bills

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For BEAUTY,
ECONOMY and
SERVICE...

Specify
WINFIELD
WOOD SECTIONAL
GARAGE DOORS
With exclusive TAPE-R-TRACK hardware!

COMMERCIAL
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Please send me your new, complete Brochure on these outstanding garage door values...WINFIELD!

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to help you sell
BESSLER
DISAPPEARING
STAIRWAYS
quickly... profitably!
easily...

Here's a real 24-hour-a-day salesman for the famous line of Bessler Disappearing Stairways. Hang it anywhere in plain sight, for ready reference by you and prospects. Seven Bessler models to meet any home building or remodeling need.

Millions of Bessler units now in use. Millions of homes, outbuildings, offices, commercial establishments need this efficient stairway. There's a big market for you in your community! Popular prices!

BESSLER DISAPPEARING STAIRWAY CO.
1900-A East Market Street, Akron 5, Ohio

FREE CATALOG!
Gives you complete handy reference data on entire Bessler line, for quick selling or application to any stairway job. Write for it now!
Ask for your FREE copy of the Bessler Wall Chart too.

AMERICAN BUILDER
New! Slimmer TRIMLINE Baseboard Radiation Increases Floor Space 16%!

By The Originators of Fin-Tube and Baseboard Radiation in America.

New, slimmer TRIMLINE designed to take up 16% less baseboard space. Overall depth has been reduced for both recessed and non-recessed installations.

TRADITIONAL VULCAN QUALITY AT LOWEST "INSTALLED" COST

Builders save money on the "installed" cost of proved quality TRIMLINE Baseboard Radiation over the "initial" cost of other types of heating. TRIMLINE has fewer parts, installs faster, cuts on-the-job time.

Proof? Contact your plumbing and heating contractor. Ask him for comparative "installed" costs, your real costs. Ask him today.

TRIMLINE Available in Two Styles

STYLE 1000: 1" copper tube, 2¾" x 3¾"
Alum. fins, 48 fins/ft.

STYLE 800: ¾" copper tube, 2½" x 3½"
Alum. fins, 40 fins/ft.

Write for FREE Catalog Today

THE VULCAN RADIATOR CO.
775 Capitol Avenue.
Hartford 6, Conn.

FREE DESIGN CATALOG — please send me at no obligation your TRIMLINE Catalog 54, giving Dimensional Data, I-R Ratings, Heating System Design and Piping Design Chart.

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COMPANY ____________________________________________

STREET ____________________________________________

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The VULCAN Radiator Company
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HARTFORD 6, CONN.

NOVEMBER 1956
Ask the experts . . .

**Roofing**
- Framing
- Concrete Work
- Heating & Plumbing
- Insulation

**Planning**
- Framing
- Roofing
- Concrete Work
- Heating & Plumbing
- Insulation

**Wiring**
- Framing
- Roofing
- Concrete Work
- Heating & Plumbing
- Insulation

**Concrete Work**
- Framing
- Roofing
- Wiring
- Heating & Plumbing
- Insulation

**Air Conditioning**
- Framing
- Roofing
- Wiring
- Heating & Plumbing
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**Heating & Plumbing**
- Framing
- Roofing
- Concrete Work
- Air Conditioning
- Insulation

**Power Equipment**
- Framing
- Roofing
- Concrete Work
- Heating & Plumbing
- Insulation

**Interior Finish**
- Framing
- Roofing
- Concrete Work
- Heating & Plumbing
- Insulation

---

**Short-span trussed rafter gets go-ahead**

**QUESTION:** Gentlemen, will a truss constructed as drawn above carry on 24-inch centers? If not will it carry on 16-inch centers? The building for which I plan to use it will be built in New York state.

**ANSWER:** We recommend that you use 16-inch centers inasmuch as you are in a snow area. The truss has a 1/12 slope and is subject to considerable load, but because of the short span it should carry easily. Be sure to nail and glue your gussets on both sides of your chords, using either threaded (preferred) or coated nails. For structural members use 1450 stress grade lumber, No. 1 Douglas fir or equivalent. Gusset nails should be 3/4-inch from edge of plywood.

---

**Tying new foundation to old**

**QUESTION:** What is the best way to attach a new addition to an 8” block building with a stucco finish? Since this is to be below grade, how can I stop leaks at the joints?

**ANSWER:** Pour a new foundation and footing for the addition and tie it to the old one with steel dowels. Dowel holes should be large enough to permit dowels to be grouted in. Apply a waterproofing compound at the joints.

---

**Plastering cement block**

**QUESTION:** Could you tell me whether I can plaster directly on a cement block wall, or should I fur out? The wall is to be faced with brick and will have a 2” air space.

**ANSWER:** If the 2” air space is continuous between the brick and block, you can plaster directly. If the house is low and has a tendency toward dampness you should use furring strips. The latter method gives a much better job.

---

**Plates are out of line**

**QUESTION:** We have a 20’ x 20’ garage to repair. The garage has 2” x 4” rafters and plates. The wall plates were not fastened to the top of the brick walls. As a result the plates have been shoved out as much as 2” beyond the brick walls in some places. Please advise how to get the plates back in line.

**ANSWER:** First you should imbed anchor bolts in the mortar between the bricks. They should be 12” diam. bolts placed on 4’ centers. To pull the plates back in line, use jacks at the ridge beam. Nail collar beams to each pair of rafters to prevent sagging.

---

**Metal versus gypsum lath**

**QUESTION:** Is flat rib metal lath over ceiling joists more crack resistant than gypsum lath and plaster? Is cross furring prior to metal lath superior to conventional application?

**ANSWER:** Your trouble may be caused by seepage from a high water table. You have to determine the exact frost level and then dig to that. Pour your footings and reinforce them with bars. If you can’t go down to the frost line, drive several bars into the ground and tie your reinforcing bars to them.

---

**Plywood soffit buckling**

**QUESTION:** I built a house last year with roughly a 3’ soffit. The owner complains of loud cracking noises traveling around the house and buckling of plywood in one spot. The roof is vented at both ends. There is no condensation in the attic. Could the buckling be due to the lack of buck-priming on the soffit, lack of soffit ventilation or temperature changes?

**ANSWER:** Flat metal lath is generally considered to be more rigid. Cross furring is not necessary and is not usually done. If you want a flush ceiling, suspend your joists from a girder or bridle irons. Placing joists on 12” centers will decrease the cross sectional area of the beam.
"Tempo" cabinet hardware

washington® line

TURN PAGE FOR MORE INFORMATION...
Here's a sparkling new cabinet hardware line with scores of decorative possibilities. "Tempo" is different...distinctive...contemporary. Its finishes are beautifully modern. Basically, the "Tempo" line features two sizes of fitted cones and knobs, and two sizes of pulls and plates. These basic designs offer opportunity of creating many varied and balanced color combinations and transpositions. "Tempo" also introduces Washington's widely-known 3/8" inset hinge (No. 1020) in a graceful "velvet-lustre" black finish, matching the rich black surfaces of the knobs, cones, pulls, and plates—balancing this new line completely in every detail. "Tempo" is gracefully ideal for new or refinished cabinets, furniture, and built-ins. Knobs, cones and pulls are die-cast zinc. Plates are of steel.

*Tempo* is a trademark of Washington Steel Products, Inc.

**TEMPO PULL AND PLATE COMBINATION**

<table>
<thead>
<tr>
<th>No. 1307 PLATE</th>
<th>No. 1306 PLATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>2&quot; LONG—1/2&quot; BORING</td>
<td>2 1/4&quot; LONG—1 1/4&quot; BORING</td>
</tr>
</tbody>
</table>

**SPOTLITE\* KNOB AND TEMPO CONE COMBINATION**

<table>
<thead>
<tr>
<th>No. 1211 KNOB</th>
<th>No. 1212 KNOB</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. 1221 CONE</td>
<td>No. 1222 CONE</td>
</tr>
<tr>
<td>1 1/2&quot; DIAMETER</td>
<td>2&quot; DIAMETER</td>
</tr>
</tbody>
</table>

**HERE'S STILL ANOTHER WAY TO GAIN ADDITIONAL COLOR HARMONY**

Use "Tempo" cones with FORMICA® or any plastic laminates to produce even more harmonious and pleasing kitchen cabinets, furniture and built-ins. This adaptation demonstrates the ultimate flexibility of the "Washington Line" of cabinet hardware, expanding decorative horizons to literally thousands of color combination possibilities.

A low cost tool to make "Tempo" discs from FORMICA® or other plastic laminates is available.

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For more information and details on the Washington Line, fill out coupon below and mail to manufacturer.

[Form to fill out and mail]
Greater UNIFORMITY of GRADE
SPILLS GREATER BEAUTY,
PERFORMANCE AND ECONOMY WITH

PALCO Architectural Quality Redwood

VERTICAL GRAIN GRADES

CERTIFIED DRY CLEAR HEART V.G. PALCO REDWOOD

The very finest available. Vertical grain that can't "shell out"—rich redwood colorings throughout—the full benefit of all features found only in heart redwood.

CERTIFIED DRY A GRADE V.G. PALCO REDWOOD

A selected grade of vertical grain containing some clear sapwood—unsurpassed as a paint surface—often chosen for decorative value of color contrasts where more durable heart qualities are not essential.

FLAT GRAIN GRADES

CERTIFIED DRY CLEAR HEART PALCO REDWOOD

The finest flat grain available, with full benefit of all heartwood qualities. PALCO Architectural Quality features the pattern surface cut from the bark side to prevent raised shell grain.

CERTIFIED DRY A GRADE PALCO REDWOOD

Where clear heart is not required, painting is indicated, or decorative color variation is desired, A Grade containing some sapwood may be specified. PALCO Architectural Quality again insures controlled manufacture to prevent "shell out."

Redwood is so different from any other lumber that it requires its own unique grade marks. Whereas "A Grade" compares with the top grade in other soft woods, redwood offers an even higher quality in "Clear Heart," with its exclusive properties of resistance to weather, insects, decay, swelling, shrinkage or warping.

Performance of redwood is vitally dependent on specification of the proper grade for each job. Through the most rigidly controlled manufacturing in the industry, PALCO Architectural Quality offers the highest uniformity of grade—plus the fact that all resawn siding is vertical grain, and flat grain production is controlled so that pattern is run on the proper face, thus avoiding raised shell grain even under severe exposure. Only PALCO gives you this assurance...yet it costs no more.

Specify the best in Redwood
New Design
Lowers Form Cost

It's SYMONS New "Champ" Form

The new Symons "Champ" Form brings to the builder an efficient and accurate form at a cost approximately 20% less than Symons Standard Panel Form. Although designed for light, commercial and residential construction, contractors report the "Champ" is equally satisfactory for use on high pours.

CONSTRUCTION FEATURES

The panel has a 2 x 4 frame with 2 x 4 cross members that lay flat against 1/2" plywood face. Cross members are placed on 12" or 24" centers depending on whether forms are to be used for residential or commercial construction. Pressure against form is transmitted directly to tie through rail plates which are located at each end of cross members and attached to frame.

INTERCHANGEABLE FEATURE

"Champ" Forms are made in the same sizes as Symons Standard Panel Forms—2 ft. wide, end 4', 6' or 8' long. Special sizes will be made to order. The hardware and ties used on Symons Standard Panel Form are also used on the "Champ" Form. This makes it possible to use Symons Standard and "Champ" Forms interchangeably.

FREE ENGINEERING SERVICE

Our engineering staff is experienced with all types of forming and will furnish complete form layouts and job cost sheets on your form work—at no charge or obligation. Our salesmen give advice on form erection, pouring and stripping methods. Builders throughout the country use this service to their benefit and profit.

Rental—"Champ" Forms may be rented with purchase option—all rentals to apply on purchase price.

Air space for condensation?

QUESTION: My feeling about a dead air space is that it should always be ventilated to comply with exterior temperature changes. Do you agree with this, especially in regard to preventing condensation?

G. F. Tanner

Ottawa, Canada

ANSWER: Most moisture problems are caused by lack of ventilation. In your case it would be wise to vent the space between the sub-ceiling and roof deck rather than close off the area with wool batts.

(Continued on page 216)
THE FINAL touch
THAT SELLS YOUR HOUSES

...so perfect to specify
...so easy to install

It's the sensational new
THERMADOR MASTERPIECE
bilt-in Refrigerator-Freezer

This new concept in bilt-in refrigeration is a real money-maker for the builder because it can be installed so easily and quickly, and at a lower cost. The architect finds added attraction in this new bilt-in refrigerator-freezer...it's so eye-appealing, so practical to work with, and fits into any kitchen decor or room arrangement.

The new Thermador Masterpiece is a self-contained refrigerator-freezer with a single refrigerating system. It's installed on the floor—just slide it into the recess. No need for rigid supports or above-floor bracings to add extra dollars to building costs. No separate ventilating grilles or flues required. These extra advantages mean still more money saved.

Thermador was the first with bilt-in ovens and cooking tops. Now the new Thermador bilt-in Refrigerator-Freezer is the final touch that completes the most modern kitchens...and sells homes for you!

Installed on the floor, the new bilt-in refrigerator-freezer slides easily into recess without need for extra bracings. For complete information send coupon today.

Scientifically proportioned for the modern family's everyday needs, the new Thermador Masterpiece has spacious refrigerator area (10.2 cu. ft.) and ample frozen-food storage space (4.0 cu. ft.). Choice of right or left door.

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☐ Bilt-in Refrigerator-Freezer
☐ Other Thermador Products

Please check classification:
☐ Builder ☐ Architect ☐ Wholesaler ☐ Dealer

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Address __________________________
City ___________ Zone ___________ State ___________
Manufacturers News

Several industry associations have elected new officers. M. C. Fairfield, sales manager, Insulite division, Minnesota and Ontario Paper Co., was elected president of National Wool Assn. Meade M. Morris, merchandising manager of insulation products, Celotex Corp., is vice president; and P. A. Voigt, of Johns-Manville, is treasurer.

J. Corwel Tefft, vice president, Claycraft Co., was elected chairman of the Facing Tile Institute. Word H. Payne, vice president and general sales manager, Metropolitan Brick, Inc., is vice chairman; and Joseph J. Cermak was reelected secretary-treasurer.

Miles M. Wilson, vice president, Baldwin-Hill Co., was appointed to the boards of directors of Industrial Mineral Fiber Institute and National Mineral Wool Assn.

William Gaskell, chief service and application engineer for Bryant division of Carrier Corp., has been elected a member of the board of directors, Oil-Heat Institute of America, Inc., and will also head the institute's oil-fired furnaces committee. George H. Berry III, American Terra Cotta Corp., was reelected president of Architectural Terra Cotta Institute.

New officers of Gunite Contractors Assn. are: J. C. Fredericks, F. W. Case Corp., president; N. R. Sanders, Johnson Western Gunite, treasurer; and James Embody, H. W. Embody & Sons, secretary. Portland Cement Assn. is opening a new regional office in Los Angeles and new district offices in Baltimore, Trenton, Portland, Me., and Louisville. Vermiculite Institute has released a 16 mm. sound film, entitled "New Horizons in Plastering."

Welch Brothers Co., formerly of North Chicago, is now occupying its Waukegan plant and offices. Consolidated Cement Corp. has begun shipments of Peninsular portland cements from its new Paulding, Ohio, plant. Lenahan Aluminum Window Co. has purchased an eleven-and-one-half acre site in Jacksonville on which that company and the American Aluminum Window Co. will build manufacturing plants.

Ruud Manufacturing Co., Kalamazoo, has named W. R. Smith factory sales representative in Southern Florida.

Herbert L. Grossens has been appointed to laundry equipment division of Whirlpool-Seeger Corp. (Continued on page 222)
Nail down your future profits with these BOSTITCH timesavers!

BOSTITCH H4 Stapling Hammer

- Drives 3/4" galvanized staple with one blow.
- Lays asphalt shingles on new decking in 25% less time.
- Easy to refill, even with gloves on.

BOSTITCH H2B Stapling Hammer

- For high-speed application of insulation, metal lath, felt underflooring, roofing felt and for scores of light nailing jobs.
- Three models to drive staples with leg lengths from 3/4" to 1/2".
  Two wire sizes.

BOSTITCH T5 Stapling Tacker

- Saves time installing ceiling tile, cornerite, screening, insulation.
- Handles staples in five leg lengths: 5/32" to 9/16".
- Three models for three wire sizes.

Fasten it better and faster with BOSTITCH STAPLERS AND STAPLES

SEE YOUR BUILDING SUPPLY DEALER OR MAIL THIS COUPON
Bostitch, 831 Mechanic St., Westerly, R. I.
Please send me booklet explaining how I can cut costs with your

□ H4 Hammer  □ H2B Hammer  □ T5 Tacker

Name
Address
City       Zone     State

NOVEMBER 1956

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CONVENTION CALENDAR... 1956

Nov. 4-11: Mid-Fla. Assn. of Home Builders, 409 Virginia Drive, Orlando, Fla. Parade of Homes; Tanglewood, Orlando. Rupert Rumpf, Jr., chair.

Nov. 5-10: Grand Rapids Home Builders, 1565 Plainfield N., Grand Rapids, Mich. Do-It-Yourself and Building Improvement Show; Civic Auditorium. W. H. Blackall, chair.

Nov. 7-11: N. J. Home Builders, Military Park Hotel, 16 Park Place, Newark, N. J. Convention; Claridge Hotel, Atlantic City. John S. Wright, manager.


Nov. 11-14: Prefabricated Home Mfrs. Institute, 908 20th St., N.W., Washington, D. C. Annual meeting; LaPlaya Hotel, St. Petersburg, Fla. Conrad Pat Harness, chairman.

Nov. 13-14: Home Builders of Illinois, 130 W. Randolph St., Chicago, Ill. Third Annual Convention and Sales Center; Pere Marquette Hotel, Peoria, Ill.


Nov. 15: Peninsula General Contractors and Builders Assn., 1950 Erecting 100° Rilco Monocord trusses — Big Bear Store, Lincoln Park, Michigan

Contractors are reporting amazing savings on solid timber structural designs. Daily we are getting new information that we would like to pass on to you.

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Rilco Glued Laminated and Fabricated solid timber members speed construction on a wide range of structures. Let us help you with your design and fabrication specifications.


Nov. 18-20: Ohio Home Builders, 57 East Gay St., Columbus 15, Ohio. Convention, Netherland Plaza Hotel, Cincinnati. 95 booths. Clifford M. St. Clair, chair.


Nov. 24-27: Oklahoma State Home Builders Assn., 328 Biltmore Hotel, Oklahoma City 2, Okla. State convention and trade show exhibits: Biltmore Hotel, Oklahoma City. Gus Fields, chairman.


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Write for free booklet on wood laminated and fabricated solid timbers.

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Gold Bond Shingle Backer gives insulation value of $^{3/8}\text{"} insulation board. The shadow line may be obtained with wood furring strips where insulation is not required. Ask your Gold Bond dealer about this striking use—or write Dept. AB-116, National Gypsum Company, Buffalo 2, N.Y.

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WITH SHINGLE BACKER

Gold Bond®
BUILDING PRODUCTS

NOVEMBER 1956 219
9 Reasons Why... Davis is Your Best Back-hoe Buy!!

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Of American Builder published monthly at Bristol, Conn. for November, 1956

1. The names and addresses of the publisher, editor, managing editor, and business managers are: Publisher, Arthur J. McGinnis, 30 Church St., New York 7, N. Y.; Editor, Arthur R. Browder, 30 Church St., New York 7, N. Y.; Managing editor, William Kooling, 30 Church St., New York 7, N. Y.; Advertising manager, Fred A. Clark, 30 Church St., New York 7, N. Y.


3. The known bondholders, mortgagees, and other security holders owning or holding 1 percent or more of total amount of bonds, mortgage, or other securities are: None.

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FRED A. CLARK, Advertising Manager

[SEAL]

EDMUND L. FUJDARK, Notary Public

(My commission expires March 30, 1957)
To you who sell to the new construction industry

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The old haystack routine was a snap — just probe around for the needle with a magnet. Trying to find the needle you want in a needle stack is something else . . . that is what you're doing when you try to determine which prospect is active in construction and which is not. If this guessing game is running up your sales cost and flattening out your sales curve, we suggest you try Dodge Reports. For 65 years Dodge Reports have been finding more and better business for most of the leading firms and salesmen in construction — at lower cost than they can do it in any other way.

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Manufacturers' News...

In another move to expand its position in the builders' hardware and materials field, Ekco Products Company has purchased the Kennanrtrack Corp. of Elkhart, Ind., manufacturer of sliding door hardware. Ekco recently purchased the Ruby Lighting Co. . . Valley Metal Products Co., subsidiary of Mueller Brass Co. has acquired the TruSeal Window Co. . . Tracy Manufacturing Co., Maurice Parker is president of the new firm. . . Electro Engineering Products Co., Inc. has bought the Du Wel power tool line manufac-

dured by Du Wel Manufacturing Co. . . Van-Packer Corp., manufacturer of pre-fabricated chimneys, has been purchased by the Flintkote Co. . . Heating controls division of Minneapolis-Honeywell Regulator Co. has become the residential division. It will be headed by K. L. Wilson, vice president. Under the reorganization the new division will have responsibility for sales of all types of temperature control equipment for homes.

Appointments of three field representatives have been announced by the Clipper Manufacturing Co. William E. "Ed" Dunn joins the Washington, D. C., office; Warren Olsen will be located at Hartford, Conn., and Ray "Bart" Haile will be in the Austin, Tex., office. . . After an absence of two years, Ray F. Zeisloft has rejoined the Crown Tile Corp. . . Stanley Silber has been appointed director of sales for Lewyt Air Conditioner Corp. . . Establishment of a new factory branch office and warehouse to serve New England has been announced by Janitrol Heating & Air Conditioning division of Surface Combustion Corp. Max Tappero has been named New England regional manager. . . Kirk D. Holland, Jr., has been appointed assistant director, field merchandising division, of Fulton.

(Continued on page 225)
For light weight, strength, wide range of use, choose

**WHITE FIR**

one of the dependable woods from the Western Pine mills

Easy to handle, cut, saw, shape and nail, this fine wood is widely used for framing, sheathing, crating, exterior and interior trim and many industrial uses.

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are manufactured to high standards of seasoning, grading, measurement

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For more information or a demonstration on your job, write or call your nearest Homelite representative.

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Self-Priming Centrifugal Pumps . . . Carry these lightweight, dependable pumps anywhere. Non-clogging design . . . 28 foot suction lift . . . capacities up to 15,000 g.p.h. . . . sizes from 1 1/2" to 3". Diaphragm pump also available.

Chain Saws For Every Job . . . Now you can choose from a full line of lightweight, powerful Homelite chain saws. From 3 1/2 to 7 horsepower . . . 19 to 29 pounds. Brush cutting and clearing attachments are available to handle all your cutting jobs.

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Manufacturers’ News . . .

Morrissey Co. . . Two appointments are announced by Typhoon Air Conditioning Co., division of Hupp Corp. C. A. “Pete” Comstock was named district sales manager for Florida and southern half of Georgia and Las Brosell was appointed district manager with headquarters in Los Angeles. . . E. R. Pierce, manager of plate glass sales for Libbey-Owens-Ford Glass Co. for eleven years, has been appointed general manager, distributor sales department. . . Appointment of J. M. Cosgrove as New York district manager and G. R. Ericson as assistant district manager of National Electric Products Corp. has been announced.

Paul B. Walker has been named vice president in charge of sales of Douglas Homes Co. . . Ralph K. Madway, formerly executive vice president, has been elected president of the Main Line Lumber and Millwork Co., succeeding Harry K. Madway, who was elected chairman of the board of directors. . . Joseph R. Hager, Jr. has been elected vice president and director of manufacturing of Gar Wood Industries, Inc.

Newly created position of general sales manager of Pioneer Products division of Witco Chemical Co. has gone to John A. Raggio. C. Burt McKeen has been promoted to sales manager of the door and plywood department, the Mengel Co. . . Raymond E. Schwartz, Jr. and Frank J. Hughes, Jr. have been named sales representatives for Stanley Electric Tools division of Stanley Works. . . Carrier Corporation announces the appointment of M. Everett Barnard as manager of its unit heater department. . . New sales manager, for the range division, Admiral Corp., is Jack Plano. . . Paul R. Kennedy has been promoted to the newly created post of assistant sales manager of home appliances division, Servel, Inc. . . Robert E. Dyas has been appointed manager of contract refrigeration sales for Perfection Industries division, Hupp Corp. . . Victor Lopez has been named chief industrial engineer, Arkansas City, Kan., plant of Pomona Tile Manufacturing Co. . . New advertising and sales promotion director of Jones & Brown, Inc. is Charles “Chuck” Reichblum. . . William D. Lange is new assistant sales manager for Heatilator, Inc.
Customers often express surprise that Muller Mixers and Power Trowels of such excellent quality can be sold for such low prices. There are four reasons: (1) long experience (46 years), (2) specialization, (3) best materials, (4) best distributors.

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Metuchen 4, N.J.
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Extra fee ordinances held invalid by courts

By JOHN F. McCARTHY
Attorney-at-law

The courts repeatedly are striking down local ordinances imposing extra fees on home builders to defray the cost of community facilities. Generally it may be said that such ordinances are invalid. Some typical examples follow.

Redford Township, Michigan, near Detroit, passed an ordinance providing for a fee of $50.00 per house. This was an extra charge, over and above the regular building fees, and was applicable only to builders who started three or more houses within a ninety day period. The purpose of this ordinance was to provide funds for recreational areas and playgrounds. The Circuit Court of Wayne County, Michigan, in a case instituted by Antoine Building Co. against Township of Redford, held this ordinance to be unconstitutional. This litigation had the support of the Builders Association of Metropolitan Detroit and was handled for the plaintiff by Irvin H. Yackness, who also is General Counsel for the Association.

The Michigan Court observed that license or permit fees were incidental to the regulation of the activity licensed or permitted. The Judge emphasized that such fees must be uniform in their application and reasonably related to the incidental costs of regulation. The Court pointed out that such fees must not become a substitute for raising revenue for governmental functions through general taxation.

Another example is found in the Superior Court in New Jersey in litigation involving Ray J. Daniels, a home builder, and the Borough of Pt. Pleasant. An ordinance of the Borough boosted building permit fees from an average of $18.00 per house to a minimum of $200. The purpose of this ordinance was to raise funds for the building of a school. Daniels testified that his building permit fees had risen from $18 to $244 per house. The Mayor of the Borough said that by this means the municipality anticipated revenues of $70,000 a year for the school building fund. The Superior Court Judge, in holding this ordinance to be invalid, ruled that the permit fees were excessive and designed to increase the general revenues of the Borough for governmental functions. This, he observed, might be done, only through general taxation.

A further example involves an ordinance of the Village of Park Ridge, Illinois. The purpose of the ordinance was to provide funds for school grounds and buildings. It provided that each subdivider must pay $300 a lot for each lot in his proposed subdivision for the use and benefit of the community school district. The Attorney General of Illinois, at the request of Chicago Metropolitan Home Builders Association, ruled that this ordinance was invalid. The Attorney General observed that the Village had no express power to require a subdivider to pay $300 a lot for school facilities. He emphasized, in his opinion, that such a charge could not be incidental to the Village’s power to approve subdivision plots because the charge was out of proportion to the necessary cost of examining and approving them. He pointed out, as did the courts in Michigan and New Jersey, that this was only an attempt to raise revenue for governmental purposes.
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One of the most economical
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Write for catalog and no-obligation demonstration of the American Super 8 on your next job.

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Adaptable to any size lot

Shown here is The Franklin Roosevelt, a three-bedroom Lesco Home that reflects a popular new concept in contemporary styling. Cathedral ceilings add charm to the functional interior design. Exterior storage, porch and carport give maximum livability at a minimum cost. Architect-designed in over 30 styles, Lesco Homes go up easily, sell quickly—with two-, three- and four-bedroom styles package-priced at $4,000 to $12,000. Completely approved; easily financed. For more information, write: Dept. AB-11.

NOVEMBER 1956
Hard and soft surfaces lie side by side without a squabble

With so much color in every part of the house these days, you don’t have to worry about what “cold stone” will do to your interiors—especially when stone comes in so many warm colors of its own.

So we find a lot of flagstone, marble and tile, both glazed and unglazed, in living areas as well as service areas like entrances and baths. For example, one of our roving editors found a number of Parade models with imported, delicately colored glazed floor tiles, “good for a lifetime,” leading well into the house from the spruced-up entrance. The Rodney Lockwood house (top left) in Detroit has an excellent but by no means unique use of Vermont slate. Lloyd Forse’s Wichita house (middle) proves how well various surfaces blend: terrazzo type vinyl in kitchen and at side entry, the mosaic marble that is growing so popular for fireplace floors and entries (see p. 89), and the wall-to-wall carpeting of the living room.

Since MPR’s now accept carpeting on slabs without finished flooring underneath, builders take less of a loss in decorating their model houses, since “display carpeting and drapes included” must go into the asking price anyhow. And new thick plywood double-duty underflooring, such as 2-4-1 (see p. 131) makes it easier to put various floorings together.

Flooring and Radiant Heat

Various types of flooring have different thermal conductivity. How this affects radiant floor heating has been the subject of a series of studies at the Floor Slab laboratory of the U. of Illinois by E. L. Sartain and W. S. Harris, reporting in the ASHAE Journal Section of Heating, Piping & Air Conditioning, October, 1955. Asphalt, rubber and other tile with a thermal resistance of less than 0.2 had a negligible effect on the performance of floor panel systems. Carpeting and pad, with a figure of 1.87, “had pronounced effects on the water temperatures, reverse loss from the panel, and the required boiler size,” but “covering a floor panel with carpeting did not appreciably increase the seasonal fuel consumption.”

For more details on flooring products and installation techniques, turn to the New Products section on p. 131.
The Door that Gives You More
-of Everything!

Beauty— the Frantz No. 566 Sectional Overhead shown above, with its smart modern lines, is the finest in garage door design. It's the door that is made for ranch-style homes—the last word in streamlined beauty!

Quality—Compare the 14 construction features, many of them exclusively Frantz and available nowhere else...the patented brakes, the 2-way Spring Adjustment, Automatic Latch-Lock, Cross Angles, and other advancements. Doors are 1 3/4" thick, of kiln dried lumber, with 1/4" fir plywood panels. All hardware, except springs and angles, is zinc plated to prevent rust—the outside handle is chrome-plated.

Easy Operation, Installation
The exclusive Glide-O-Matic action opens the door with a turn of the handle. There is no rebound, thanks to the patented adjustable brakes! Parts are prefitted for easy assembly and fast installation. Standard headroom 13 1/2"—or with low headroom device—6" for single opening sizes and 8" for double width doors.

Low Cost—In spite of the luxury and prestige of the Frantz No. 500 series, modern production techniques have brought the cost to within easy reach of the modest homeowner. Other models cost even less.

Variety—The Frantz 500 series is available in various sizes for single and double width openings. Other Frantz models in sectional, rigid (one-piece) types, and Frantz hardware sets, provide one of the widest and most complete lines available anywhere! Write for Catalogues No. 303 and 107 today.

EXCLUSIVE COASTER-BRAKE DRIVE
Doubles Gear-Life, Cuts Repair Costs
You'll welcome new freedom from maintenance and repairs when you experience the Milwaukee Saw's high blade-speed with increased power and rugged construction. EXCLUSIVE Coaster Brake Drive eliminates tooth-wearing backlash to gears... actually doubles gear-life.

Milwaukee Saws provide BIG Capacity, Light weight, Perfect balance, Safety and Ease of handling in any position, plus greater accuracy of cut. Equipped with grease-sealed Ball and Roller Bearings throughout... helical-cut, hardened steel gears... for smoother, quieter operation... greater power efficiency.

"Wrap-Around" steel shoe provides firm support on both sides of blade. Entire saw rests on work for fatigue-free sawing.

Accurate Miter and Depth adjustments are fast and easy. Bevel cuts at any angle from 0° to 90°. Powerful built-in blower keeps dust away from operator and guide lines clear.

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When you want facts on building and buying

You save time and effort with AMERICAN BUILDER'S 1956 Technical and Marketing Guide. Here in the covers of one reference book are the often-sought answers on structural methods—doors, windows, flooring and wall coverings—hardware & building specialties—plumbing, heating, ventilating & electrical appliances—tools & construction equipment . . . plus an authoritative up-to-the-minute management and buying handbook.

It's conveniently arranged, with handy divisions of both technical and buying information . . . includes a complete classification of building associations, building products, equipment and brand names . . . plus a Reader Service to help you get more data about new product items. It's been in your hands since April . . . it's good all year-round Make the most of it to make your job easier.

GIVE YOUR DOCTOR A CHANCE

400,000 Americans, leading active lives today, are living proof of the fact that cancer can be cured if detected in time. Give your doctor a chance to give you this protection by having a physical checkup every year of your life. This should include a chest x-ray for men; for women, a pelvic examination. Make it a habit . . . for life.
Trussed Design
Butt Weld • Deformed Rods

Dur-O-wal preserves beauty, adds structural soundness and prevents cracking.

Phone, wire or write Dept. 2F today for complete dealer information . . . you have a market for Dur-O-wal in your town. Act now.


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Carrera Glass is ideal for use in bathroom shelves and niche linings. Its glowing beauty will not be marred or dimmed by spilled cosmetics and hot, steamy atmospheres.

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Herman Nelson "TRIFTY" Portable Air Heater

Ideal heater for Home Builders. Choose the portable heater that’s designed especially for your needs . . . the new Herman Nelson "Thrifty"! Gives you low first cost and low operating cost—gives you the safety and dependability of "sealed flame" indirect firing. Oil-fired, uses only 0.7 to 1.25 gallons of fuel per hour. Electric motor powered. The "Thrifty" may be used indoors or out, and canvas ducts may be used to spot heat where wanted. Also has provision for venting, when desired. New simplified control system has only one fuel control valve, one starting switch. Your Herman Nelson dealer offers you liberal trade-ins on your old job-worn heaters!

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Rush complete literature on portable heaters. Also send me your monthly Weather Forecast Chart, at no cost or obligation to me.

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November 1956
From the mass of technical material on the subject of lumber we have selected a number of items concerning the physical characteristics of wood, as well as grading and uses. While this discussion must necessarily be brief, the basic facts given are to acquaint the builder with those features which will help him in utilizing lumber to the best advantage.

**SOFTWOODS AND HARDWOODS**

All lumber is divided, as a matter of convenience, into two great groups, softwoods and hardwoods.

The softwoods in general are the coniferous or cone-bearing trees, such as the various pines, spruces, hemlocks, firs, and cedar.

The hardwoods are the noncone-bearing trees, such as the maple, oak, poplar, and the like.

These terms are used mainly as a matter of custom, for not all so-called softwoods are soft nor are all so-called hardwoods necessarily hard. As a matter of fact, such softwoods as longleaf southern pine, and Douglas fir are much harder than poplar, basswood, etc., which are called hardwoods.

Other and perhaps more accurate terms often used for these two groups are the needle-bearing trees and the broad-leaved trees, referring to the softwoods and hardwoods, respectively.

In general, the softwoods are more commonly used for structural purposes, such as for joists, studs, girders, posts, etc., while the hardwoods are more likely to be used for interior finish, flooring, and furniture. The softwoods are also used for interior finish and in many cases for floors.

**GRAIN AND TEXTURE**

The terms "grain" and "texture" are used in various ways to describe the characteristics of wood. Wood from slow-growing trees in which annual growth rings are narrow is sometimes described as "close-grained":—those from rapidly growing trees with wide rings as "coarse-grained."

Straight grained and cross grained describe wood in which the direction of the fibers (not annual rings) are parallel to, or at an angle with, the sides of the piece. Cross grain includes a spiral grain where fibers wind around the trunk of the tree. The expression "slope of grain" is employed in the grading of structural lumber to describe the extent of cross grain permitted as slope of grain has an important influence on strength.

"Grain" and "texture" refer usually to appearance rather than strength. Fine grain is used to describe woods in which cells are small and thick walled making a compact wood with smooth surface. Coarse-grain woods have cells which are large and open, producing a porous surface where pores are cut at an angle to their longitudinal axis.

Lumber sawed in such a manner that the annual rings, when viewed from the end of the piece, form an angle of 45° or more with the wide faces, is described as edge-grain, vertical grain or rift-sawn softwoods, and as quarter-sawn, or comb-grained in hardwoods.

The term "flat grain," or "plain-sawed" describes lumber in which the annual rings are at an angle of 45° or less, with the wide faces of the piece. "Bastard-sawed" in hardwoods is lumber having both plain-sawed and quarter-sawed portions, thus falling midway between true quarter-sawed and true plain-sawed stock.

**MOISTURE IN WOOD**

Wood may contain moisture in two forms:—As "free water" in the cell cavities and as "absorbed water" in the capillaries of the cell walls.

When green wood begins to lose moisture, the cell walls remain saturated until the free water has been evaporated. The point at which evaporation
of free water is complete and cell walls begin to lose their moisture is called the "fiber saturation point" (fsp). This point occurs between 25 and 30 per cent moisture content for most species.

Moisture in wood is expressed as a percentage of the oven-dry weight and is determined most accurately by weighing a representative sample, drying it at slightly over 212° until no further loss of weight takes place, reweighing, and then dividing the difference between the original and final weights by the final (oven dry) weight. Electric moisture meters offer a simpler though less exact method of determining moisture content.

With slight seasonal variations, wood in use over a period of time attains an equilibrium moisture content (emc) corresponding to the humidity of the surrounding atmosphere. When exposed to similar atmospheric conditions, different woods will have same moisture content regardless of density.

Moisture content has an important effect upon susceptibility to decay. Most decay fungi require a moisture content above fiber saturation point to develop. In addition, a favorable temperature, an adequate supply of air, and source of food, are essential. Wood that is continuously water-seaked (as when submerged) or continuously dry with a moisture content of 20 per cent or less, will not decay.

Moisture content variations above the fiber saturation point have no effect upon the volume or strength of wood. As wood dries below fiber saturation point and begins to lose moisture from the cell walls, shrinkage begins and strength increases.

**STRENGTH OF LUMBER**

Wood, when used in ordinary structures, is called upon to have three types of strength—tension, compression, and shear.

**TENSION**

Tension is the technical term for a pulling stress. For example, if two men are having a tug-of-war with a rope, the rope is in tension. The tensile strength of wood, especially of the structural grades, is very high. That is, it will resist a direct pull.

**COMPRESSION**

If, however, the men at opposite ends of a timber are trying to push each other over, the timber is in compression. Tension and compression represent, therefore, exactly opposite forces. For all practical purposes the compressive strength of wood may be considered to equal its tensile strength.

**SHEAR**

Shear is more difficult to explain. If two or three planks are placed one upon the other between two supports and a load is applied to the middle, the planks would bend and assume a position similar to that shown in Figure 1 on page 236. It will be noted that at the outer ends the boards tend to slip past each other.

If the planks were securely spiked through from top to bottom, the slipping would be in a great measure prevented and the boards would act more as one piece of wood. In every solid timber there is the same tendency for the various parts of the piece to slip past each other. This tendency is called "horizontal shear." A defect, such as a check, which runs horizontally through a piece of timber and tends to separate the upper from the lower part, is a weakness in shear.

To analyze this matter further; assume that these planks were spiked through at the center of the span only, i.e., halfway between the supports. Such spikes would not increase the stiffness of the planks. It is clear, therefore, that there is no horizontal shear near the center of the span (Fig. 2), and that

---

*CROSS SECTION* shows shrinkage and distortion of boards and timbers as affected by the direction of the annular rings; how they are cut in relation to these rings. Tangential shrinkage is nearly as great as radial.

*KNOTS* cause deviation in direction of grain. Influence on strength is determined by area of knot and its location. Three types shown in relation to their effect on the strength of the timber: spike, loose and tight knots.
the shear increases as one approaches either end of the beam. This will explain why steel stirrups are used in concrete beams (weak in shear), why there is usually none near the center, and why they are placed closer and closer together near the ends of the beams.

**UNFOUNDED BELIEFS**

**DEADWOOD**

Sound lumber cut from trees killed by insects, fungi, wind or fire, unless unduly checked, is as good for any structural purpose as that from trees which were alive when cut.

It is true, however, that when sound trees which are dead are sawed into lumber and the weathered, or charred outside is cut away, the resulting lumber can not be distinguished from that coming from live trees except in so far as the lumber from dead trees may be somewhat seasoned at the time it is sawed. It must be remembered that the heartwood of a living tree is fully matured and that in the sapwood only a small portion of the cells are in a living condition. As a consequence most of the wood cut from trees is already dead even when the tree itself is considered alive.

**AIR-DRIED AND KILN-DRIED WOOD**

Comparative strength tests by the Forest Products Laboratory on kiln-dried and air-dried specimens show that good kiln-drying and good air-drying have the same beneficial effect on the strength of wood.

For certain uses, it is possible to dry wood to a lower moisture content by kiln-drying than is practicable through air seasoning. Since most strength properties of wood increase with the loss of moisture, higher strength values may thus be obtained from kiln-dried material than are possible from air-dried wood. This difference in strength, however, is not permanent when the wood is used for the same purpose, since, in use, wood will eventually reach the same moisture condition regardless of whether it is kiln-dried or air-dried.

**BLUE STAIN**

In the sapwood of many species of both softwoods and hardwoods there often develops a bluish-black discoloration known as blue stain. It does not indicate an early stage of decay, nor does it have any practicable effect on the strength of the wood.

Blue stain is caused by a fungus growth in unseasoned lumber. Although objectionable where appearance is of importance, as in unpainted trim, blue stain need cause no concern for framing lumber. Precaution should be taken, however, to make sure that no decay fungus is present with the blue stain.

**PRESERVATIVES**

Coal-tar creosote and the various chemical preservatives used to treat lumber are practically inert with respect to wood substance and have no influence upon it which effects its strength. Likewise, standard water-borne preservatives in the concentrations commonly used in preservative treatment have no important effect on the strength of wood.

All structural materials are subject to attack by certain destructive agents. Wood, while being exceptionally resistant to corrosive action, can be made more resistant to attack by fungi, insects and marine borers by adequate preservative treatment when used where the hazard from these agencies is severe.

Protection from attack by wood destroying agents may also be provided by proper methods of construction and by the selection and use of naturally resistant species.

**GRADES AND USES OF VARIOUS TYPES OF LUMBER, p. 238**

---

(1) **WEIGHT** centered on several planks causes them to slide—with the greatest amount occurring at the ends. Even if the boards are nailed together, this tendency exists. The need for nailing increases toward the ends.

(2) **SHOWN**: the proportions of tension, compression, and shearing when weight is applied to a beam. Compression and tension are zero at the neutral plane—shear is greatest at the same spot.
Another big-selling cedar product from Giles & Kendall for do-it-yourself customers!

KNOCKDOWN CEDAR CHEST UNITS
made of genuine Tennessee aromatic red cedar

You'll make the sales because...
* customers want additional storage space that is moth-proof and handsome.
* this is genuine Tennessee aromatic red cedar.
* customer saves about $25.00 per chest.
* anyone from 12 to 70 is a potential customer.
* only a screw driver is needed.
* good gift item (estimated 50% of sales are for gifts).
* sells steadily the year round.

Wholesale only — for name of nearest distributor, write:

GILES & KENDALL COMPANY
Box "D" Huntsville, Alabama

Cash in on 20% more sales appeal with MOUNT AIRY GRANITE ASHLAR.

Now you can build an expensive look into moderately-priced homes. Exterior facing of entire house with Mount Airy Granite Ashlar actually enhances its value as much as 20% at no more than 8% above normal cost to build.

What's more you can cut down your construction costs. Cut to brick thickness in multiples of brick sizes means less skilled labor can readily knock the sticks into required lengths and set in the wall.

Brick homes have added sales appeal, too, when Mount Airy Granite Ashlar is used for sills, lintels, steps and copings. Before you build — check the quick-sale advantages of Mount Airy Granite Ashlar.

Home buyers are sold at first sight on the dramatic beauty of this distinctively different, light-in-color granite which adapts itself to so many designs... and are more than pleased with its durable maintenance-free characteristics.

Send for Free folder today!

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Mount Airy, North Carolina

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Firm ____________________________
Street __________________________
City ____________________________ Zone ______ State ______

THE NORTH CAROLINA GRANITE CORP. . MOUNT AIRY, NORTH CAROLINA

NOVEMBER 1956
Look to the corner for quality

BeaDEX

 Beautify the room with perfect corners...

Strong, straight BeaDEX corners create the finished quality that attracts buyers... makes your homes more readily salable. Since BeaDEX is attached to the plaster board itself rather than being nailed to framing members, the shrinkage of studs never affects the beautiful appearance of BeaDEX corners. No cracks... no bends... no bulges.

Builders prefer BeaDEX...

BeaDEX provides built-in beauty on any drywall job, and, in addition, gives strength that lasts. Use BeaDEX on your next house and see for yourself.

SEE YOUR BEADEX DEALER OR WRITE

BeaDEX sales, inc.
4615 Eighth Avenue N.W., Seattle 7, Washington
659 Bayview Avenue, Toronto, Ontario, Canada

TECHNICAL GUIDE continued

GRADES AND USES OF VARIOUS TYPES OF LUMBER

<table>
<thead>
<tr>
<th>GRADE</th>
<th>COMMON USAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Select Grades</td>
<td></td>
</tr>
<tr>
<td>B &amp; Better (1 &amp; 2 Clear)</td>
<td>Finishing work</td>
</tr>
<tr>
<td>C Select</td>
<td></td>
</tr>
<tr>
<td>D Select</td>
<td></td>
</tr>
<tr>
<td>Third Clear (or Factory Select)</td>
<td>Sash &amp; doors, woodwork, mouldings &amp; millwork</td>
</tr>
<tr>
<td>Moulding Grade</td>
<td>About the same as third clear. Used for mouldings</td>
</tr>
<tr>
<td>Shop Grades</td>
<td></td>
</tr>
<tr>
<td>#1 Shop</td>
<td>5/4 and thicker for factory cuttings and doors</td>
</tr>
<tr>
<td>#2 Shop</td>
<td></td>
</tr>
<tr>
<td>#3 Shop</td>
<td></td>
</tr>
<tr>
<td>4/4 Shop (or Shop Common)</td>
<td>Same as above, but in 4/4</td>
</tr>
<tr>
<td>Structural Grades</td>
<td></td>
</tr>
<tr>
<td>Select Structural</td>
<td>Stress grades of Douglas Fir, and other construction species</td>
</tr>
<tr>
<td>Structural</td>
<td></td>
</tr>
<tr>
<td>Common Structural</td>
<td></td>
</tr>
<tr>
<td>Common Grades</td>
<td></td>
</tr>
<tr>
<td>#1 Common</td>
<td>Utility grades &amp; paneling</td>
</tr>
<tr>
<td>#2 Common</td>
<td></td>
</tr>
<tr>
<td>#3 Common</td>
<td>Sheathing lumber &amp; crating</td>
</tr>
<tr>
<td>#4 Common</td>
<td></td>
</tr>
<tr>
<td>#5 Common</td>
<td>Temporary construction or dunnage</td>
</tr>
<tr>
<td>Dimension</td>
<td></td>
</tr>
<tr>
<td>#1 Dimension</td>
<td>Equivalent of commons but graded for strength rather than appearance</td>
</tr>
<tr>
<td>#2 Dimension</td>
<td></td>
</tr>
<tr>
<td>#3 Dimension</td>
<td></td>
</tr>
<tr>
<td>#4 Dimension</td>
<td></td>
</tr>
</tbody>
</table>

Note: New west coast grading rules have changed grade numbers to grade names as follows:
#1 grade is CONSTRUCTION
#2 grade is STANDARD
#3 grade is UTILITY
#4 grade is ECONOMY

GRADING OF VARIOUS LUMBER SPECIES

IDAHO WHITE PINE

Supreme - B & Better
Choice - C Select
Quality - D Select
Colonial - #1 Common

SOUTHERN PINE DIMENSION

Dense Select Structural
Select Structural Longleaf
Dense Structural
Prime Structural Longleaf
Dense Structural SE&S
Structural SE&S Longleaf
Merchantable Structural Longleaf
Dense No. 1 Structural
No. 1 Structural Longleaf

REDWOOD GRADES
Clear & A Utility
Clear All Heart Construction Heart
A Grade Sap Common
Select Heart No. 3 Common

REDWOOD, SPECIAL PURPOSE GRADES
Clear All Heart VG Industrial Factory Select
Clear All Heart FG Factory Select
Industrial Clear

REDWOOD SIDING (Bevel, Bungalow, Colonial)
VG Clear All Heart VG A Grade
Clear All Heart A Grade

WESTERN RED CEDAR (Boards)
Select Merchantable No. 2 Boards
No. 1 Boards No. 3 Boards

WESTERN RED CEDAR (Finish)
Selected Clear “C”
B & Better “D”

WESTERN RED CEDAR (Siding)
Clear VG Cedar “B”
“A” “C”

HARDWOOD GRADES
Firsts & Seconds Sound Wormy
Selects No. 3A Common
#1 Common No. 3B Common
#2 Common

OAK FLOORING GRADES
(Prefinished flooring)
Prime Tavern
Standard Tavern & Better
Standard & Better

OAK FLOORING GRADES (Plank flooring)
Mansion Tavern
Fireside

OAK FLOORING GRADES (Unfinished flooring)
Clear Quartered White No. 1 Common White
Clear Quartered Red No. 1 Common Red
Select Quartered White No. 2 Common Mixed
Select Quartered Red Oak
Clear Plain White No. 1 Common & Better
Clear Plain Red Shorts
Select Plain White No. 2 Common Shorts
Select Plain Red

Note: The term “#2 and Better Common” refers to common grades only, from the grade of #2 up.
The term “#2 Common & Better” refers to grades above #2, with #2 included, but this may include selects.
Stock is frequently purchased as “#1 Common & Better, 20/25% #2”, sometimes including a small percentage of #3. The amount is specified.
Select grades are often purchased as “D Select & Better, 10/15% D.”

NOVEMBER 1956

LOOK TO THE CORNER FOR QUALITY

JambeX
Reg. U.S. Pat. Office

Strengthen the jamb for lasting beauty...

Only JambeX is engineered to provide a lasting bulwark for corners against the hundreds of shocks of slamming doors and windows. JambeX is permanently attached to the drywall itself...is not nailed to studs! It is inserted into a sawed kerf in the jamb stock where any shrinkage in the framing members is automatically absorbed without marring the beauty of the original corner.

Builders prefer JambeX...
The long life and unblemished beauty of JambeX is a measurable quality required by thousands of builders in North America. Try it and you'll see why JambeX is preferred.

SEE YOUR JAMBEX DEALER OR WRITE

BEADEX SALES, INC.
4615 EIGHTH AVENUE N.W., SEATTLE 7, WASHINGTON
659 BAYVIEW AVENUE, TORONTO, ONTARIO, CANADA

239
Here's a really modern concrete block
ENTRANCE TO RESTAURANT features metal-sheathed pipe columns and upswept roof. Bearing walls are of concrete block set in stacked bond, left exposed for decorative effect.

The wall and footing section at left is part of a concrete block restaurant, "Coffee Dan's," in Santa Monica, Calif. It reflects a growing trend toward greater use of block in small commercial buildings.

The section is taken through the refrigerator, with its cork-lined, double-thick ceiling and walls. Also shown is a typical metal-covered column and footing supporting an 8-inch steel beam.

The restaurant also uses a standard suspension system for its ceiling, with metal furring and acoustical plaster in most areas, acoustical tile in others. All roof areas have rock wool batts for insulation. Beth Bermuda tile and hot-mopped 45-pound asbestos roll roofing are used.

Fluorescent tubes are recessed in the ceiling and have a series of metal grilles running the length of the service area. Plate glass clerestories admit enough light to balance the fluorescents. Also noticeable is the generous use of planters inside and out.

Designed by
Honnoild and Rex, AIA
Los Angeles, Calif.

November 1956
**A Wastemaster**

Adds More "Sell" to The Homes You Build!

- Immediate delivery!
- No vibration!
- Priced right!
- Easy installation!
- Exclusive "Shavtron" Shredder keeps drains clean and free . . . ideal for septic tank use!
- Umbrella Slinger keeps motor dry . . . always!

**WRITE TODAY** for detailed information!

**A PRODUCT OF THE**

LOCKLEY MACHINE COMPANY

WEIGHTMASTER DIVISION

310 GROVE STREET
NEW CASTLE, PA

---

**BLUEPRINT HOUSE ESTIMATING GUIDE**

<table>
<thead>
<tr>
<th>House</th>
<th>Frame</th>
<th>Split Level</th>
<th>Actual</th>
<th>1500 sq. ft.</th>
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</thead>
</table>

**CONCRETE WORK**

<table>
<thead>
<tr>
<th>Location</th>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**CUT PERFECT OUTLET HOLES**

in dry wall...

*Everything with the QUIC-KUTTER*

- Eliminates repairs
- Saves time
- Always a perfect job

The Quick-kutter guarantees you flawless die-cut outlet holes, in gypsum wallboard every time—without damage to the internal structure or the paper facing of the wallboard.

It eliminates patching completely—saves you time and trouble! Available in 2" x 3", 2" x 4", and 4" round.

**HARTMEISTER MFG., INC.**

2020 W. Barberry Place • Denver, Colo.

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**GUARANTEED DRIPLess**

**SINGLE HANDLE MIXING FAUCETS**

**BATTERIES **

**CONVENIENT DEPENDABLE ECONOMICAL MODERN**

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LEVEILLALL, 83K Webster St., Rockland, Mass.

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**LEVELALL, 83K Webster St., Rockland, Mass.**

**FRAMING LUMBER**

<table>
<thead>
<tr>
<th>Location</th>
<th>Description</th>
<th>Size</th>
<th>Pieces</th>
<th>Lin. Ft.</th>
<th>B.F.M.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**CONCRETE BLOCKS, CONCRETE ACCESSORIES & MASONRY**

<table>
<thead>
<tr>
<th>Location</th>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**TILE WORK**

<table>
<thead>
<tr>
<th>Location</th>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**STEEL & ACCESSORIES**

<table>
<thead>
<tr>
<th>Location</th>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</table>

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*Please send free booklet, "On the Level." Mail me 75" Deluxe LEVEILLALL 91332.55 Regular 50" model at $9.95 I Shop good and full price enclosed."

**AMERICAN BUILDER**

242
DOOR SCHEDULE

<table>
<thead>
<tr>
<th>Size</th>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>3'0&quot; x 6'8&quot;</td>
<td>Flush S.C.</td>
<td>1</td>
</tr>
<tr>
<td>2'8&quot; x 6'8&quot;</td>
<td>Flush S.C.</td>
<td>1</td>
</tr>
<tr>
<td>2'6&quot; x 6'8&quot;</td>
<td>Unit</td>
<td>2</td>
</tr>
<tr>
<td>2'0&quot; x 6'8&quot;</td>
<td>Unit</td>
<td>2</td>
</tr>
<tr>
<td>2'0&quot; x 6'0&quot;</td>
<td>Unit</td>
<td>2</td>
</tr>
<tr>
<td>2'0&quot; x 6'6&quot;</td>
<td>Unit</td>
<td>2</td>
</tr>
<tr>
<td>2'0&quot; x 6'6&quot;</td>
<td>Unit</td>
<td>2</td>
</tr>
</tbody>
</table>

Total 18

Note: All doors are to be ordered from the door schedule to include doors, door frames, trim, casing, steps, saddles, etc.

WINDOW SCHEDULE

<table>
<thead>
<tr>
<th>Size</th>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>6'0&quot; x 2'0&quot;</td>
<td>Gang of 6—Fix &amp; T.H.</td>
<td>1</td>
</tr>
<tr>
<td>6'0&quot; x 2'0&quot;</td>
<td>Sliding</td>
<td>3</td>
</tr>
<tr>
<td>14'0&quot; x 3'0&quot;</td>
<td>Side Swing</td>
<td>4</td>
</tr>
<tr>
<td>2'0&quot; x 3'0&quot;</td>
<td>Gang of 4 Slid &amp; Fix</td>
<td>2</td>
</tr>
<tr>
<td>2'0&quot; x 3'0&quot;</td>
<td>Slid</td>
<td>2</td>
</tr>
<tr>
<td>3'0&quot; x 2'0&quot;</td>
<td>Gang of 3 2 fix—1 Slid.</td>
<td>1</td>
</tr>
</tbody>
</table>

Total 12

Note: All windows are to be ordered from the window schedule in gangs as specified to include sash, frames, trim, stops, casing, hardware, etc.

REMODELING (continued)

chim, bath and backyard shed comprised the rooms.

Lighting and wiring were bad. The basement, exterior and interior walls were poor. Clothes closets were non-existent. Traffic through the house was clumsy.

The first step in remodeling was removal of all plaster and lath from the walls and ceilings. Then the structure was leveled and braced so there was a usable shell to work with.

An old stairway from the kitchen into the cellar was removed. By extending the cellar wall, a cement stairway off the kitchen was added. The kitchen benefited by getting additional space. Although the cellar wall was sound it was recemented.

The basement was cleaned and replastered. Its stone foundation walls were still good. The gas furnace was moved to provide usable space.

A new traffic pattern emerged: walls were ripped out to provide a living-dining area 24-ft. long.

The bedrooms were enlarged with storage space in mind. Two closets were installed.

All the windows were weatherstripped, interior dry-walled, interior and exterior painted.

Some of the hidden features the house now offers are copper plumbing and lots of housepower. Wiring includes a three-wire 100 ampere service entrance with 16 branch circuits.
The Month Ahead

FIRST AID FOR THE BUYER
To the builder as buyer we have been addressing a series of articles on how to be a smart purchasing agent. Last month we gave you the facts on tools and earth-moving equipment. This month it's flooring and floor coverings. Next month we present wall and ceiling materials. We think this series is of vital interest to the builder and advise you to keep a close eye on it.

DIVERSIFY
One of the best rules of any business is not to put all your eggs in the same basket. It applies to the builder too. The huge, dynamic remodeling market continues at a pace nobody dreamed of, as more and more builders are putting their eggs in OHL. December is as good a month as any, for you to get in the act.

PUT YOUR SIGN OUT
The carpenter shortage continues to be a headache with a lot of builders. By December, though, things have loosened a little. Watch your local papers for when the time looks ripe—then run your own ad. Now's the time to pick up a good carpenter or two—when the other builders in your area have stopped looking.

PRE-CONVENTION TIP
The January convention promises to outdo all other conventions—if that's possible. And with some 30,000 builders and manufacturers converging on Chicago, hotel rooms will be as scarce as mortgage money. Our advice: nail down your room reservation now.

Two big meetings—and you are there
Two events during the next month and a half should be of special interest to you. From the 11th to the 13th of November, the Prefabricated House Manufacturers Institute will meet in St. Petersburg, Fla. And a month later, from the 10th to the 13th of December, The National Retail Lumber Dealers Association will hold their annual convention at the International Amphitheatre in Chicago.

American Builder will, of course, cover both of these affairs and bring you detailed reports on the most interesting items. And it will be of interest to those who plan to attend the NRLDA pow wow to know that American Builder is borrowing a page out of its NAHB convention book and putting out a daily newspaper for all who are there.

There may be something here for you
Why should these two confabs be of interest to builders? For a very important reason. The year now ending has been a rough one for the whole industry; tight money and choosy buyers have cut down starts drastically, and it looks as though next year will start off just as unhappily. Both the prefab manufacturer and the lumber dealer feel the pinch just as sharply as you do, and they'll be out to do something about it at these meetings. And whether it's new merchandising ideas from the lumber boys or new designs from the prefabber, it's bound to be something you can use too.

For Christmas, houses and more houses
In this issue we've given you a once-over-lightly on how 1957 shapes up for the builder in all fields. Next month we're concentrating on houses.

And these won't be just ordinary houses, either. They'll be the winners of our "Best Model Homes" contest which closed two weeks ago. As this issue goes to press, the top men of the industry will be judging the entries; and for Christmas, we'll give you the cream of the crop.

Now aren't you sorry you didn't get around to entering? To quote baseball managers all over the country, wait till next year!
YOUR HOMES WILL SELL FASTER WITH FORMICA

To give you the widest range of new "color blended" patterns and the largest selection of modern "postformed" ideas, we help our distributors do these two very important things for you: (1) Carry a complete stock of 70 colors and patterns in convenient, no-waste sizes; (2) Advise and train Formica fabricators in the know-how of modern postforming and up-to-date design. Thus your Formica fabricator immediately has available from his nearby distributor any or all of Formica's 70 colors, patterns and wood grains in cost-saving sizes.

If your requirements cannot be met, we urge you to wire direct to Formica Corp., Dept. T, Cincinnati, Ohio.

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We protect this faith in our product by certifying every sheet with a wash-off Formica marking. It is for your protection and guarantee that you are getting genuine Beauty Bonded Formica.
If it's strength your trade wants—here’s the hanger for the job!

The "BIG 4" Hanger and the Braced Rail are "old timers" in the hardware trade, having served for generations in operating heavy sliding doors.

Hanger has a large protecting hood, heavily embossed for extra strength. Hanger wheels glide along on steel roller-bearings and carry the weight of even the heaviest of doors without signs of strain or wear.

On the farm in the factory or wherever there is need for a large type of sliding door, "BIG 4" will handle the job with smooth operating precision.

The Braced Rail has been especially designed to work in coordination with the "BIG 4" in providing an even perfect tread for the swift gliding hanger wheels.