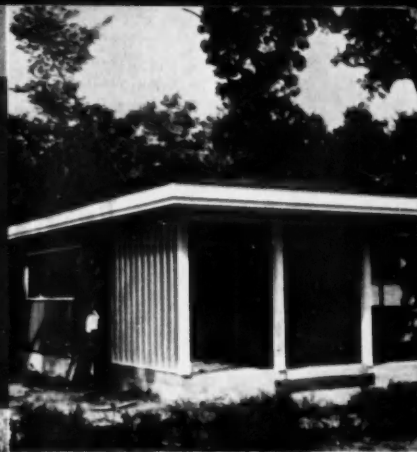


# AMERICAN BUILDER



**YOUR BIGGEST  
SALES PROMOTION**



## **Front Cover House Plans and Details Page 84**

**Financing Mutual Ownership  
Apartments**

**Builder Office Designed for  
Conversion to Residence**

**Kitchen Remodeling Problem  
Solved**

**Blueprint House  
for Narrow City Lot**

**AMERICAN BUILDER ANNOUNCES ITS 1952 NATIONAL HOME WEEK CONTESTS**



the kwikset jig



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adjustable strike



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... with these  
**Door-Frame-Hardware Units!**

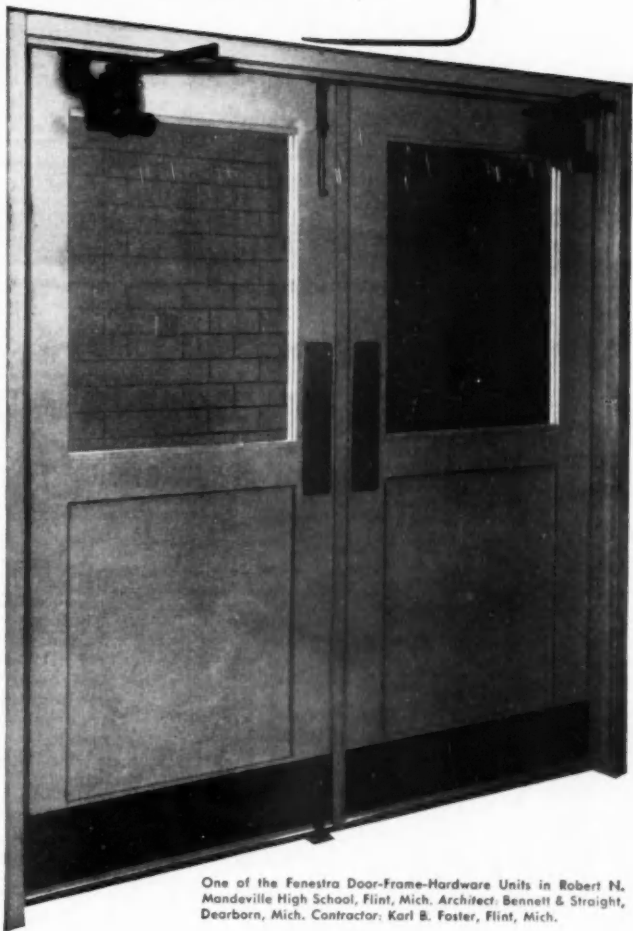
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One of the Fenestra Door-Frame-Hardware Units in Robert N. Mandeville High School, Flint, Mich. Architect: Bennett & Straight, Dearborn, Mich. Contractor: Karl B. Foster, Flint, Mich.

*Fenestra* HOLLOW METAL DOOR • FRAME • HARDWARE UNITS  
save building time, labor, materials and money

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Located on Philadelphia's famed Benjamin Franklin Parkway at 22nd Street

Architects: Roth & Fleisher



E. J. FRANKEL  
Leading Philadelphia Builder

Take it from this successful builder—  
**“I’VE CHOSEN KELVINATOR AGAIN**  
 ...this time for my luxurious *Parkway House*



Offering beauty, spaciousness, comfort, and convenience in each of its 231 apartments, the magnificent Parkway House means “home” to people who appreciate the finest. That’s one reason E. J. Frankel chose Kelvinator for the kitchens.

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AMERICAN BUILDER



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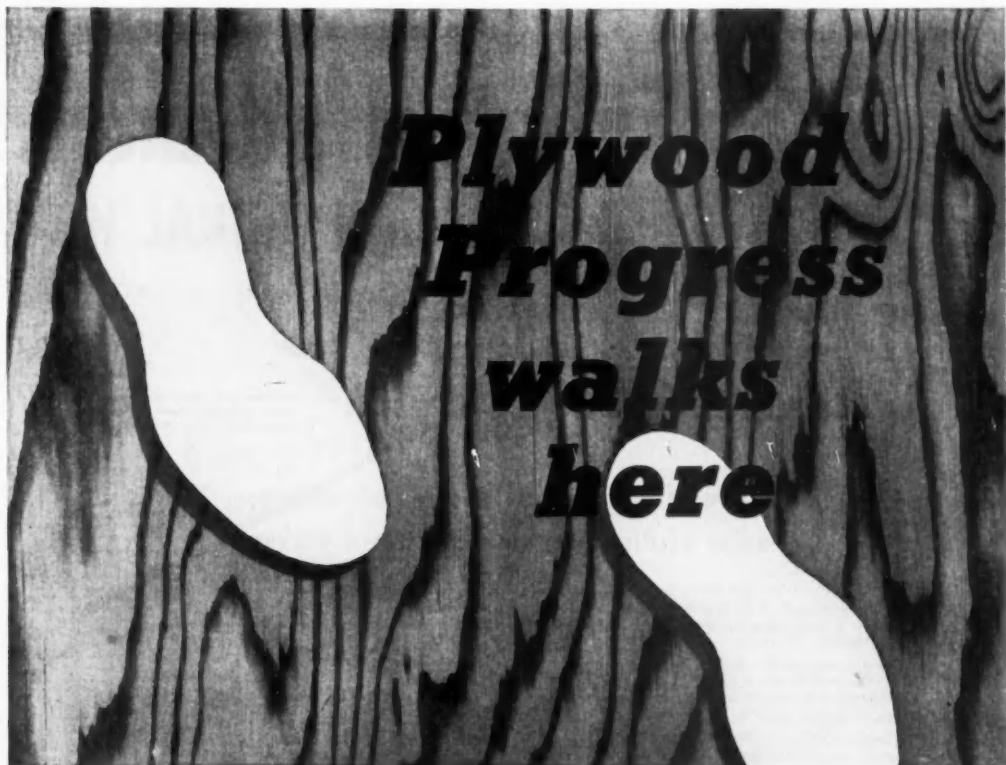
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In NATIONAL HOME



See your local newspaper for the names of builders showing exhibit homes during National Home Week

See the newest in home beauty and comfort,  
including exciting ideas in Youngstown Kitchens!

The National Association of Home Builders every year designates National Home Week as the time for the builders of America to display their latest and best accomplishments in home building.

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Let your factory-trained Youngstown Kitchen dealer show you your dream kitchen in perfect miniature, show you how to save on installation and how easy it is to finance. If building, specify a Youngstown Kitchen. You'll save!

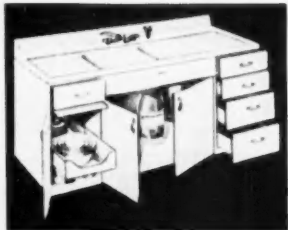
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WARREN, OHIO  
Youngstown Kitchens are sold throughout the World

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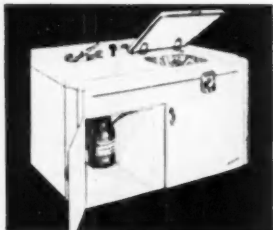


## Youngstown Kitchens

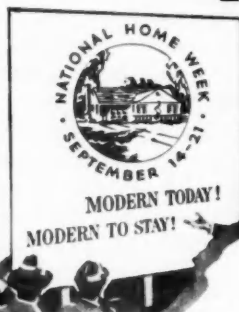
Call Western Union, Operator 75, and without charge get the name of a nearby dealer.



Youngstown Kitchens Cabinet Sink, 66" Deluxe Twin. Sturdy steel, with one-piece, acid-resisting porcelain-enamel top. Flexible rinse spray. Swinging mixing-faucet. Crumb-cup strainer. Five big drawers, including partitioned cutlery drawer. Two compartments. Sliding shelf. Removable cutting board. Soap-box rack. Drain basket. Food Waste Disposer at extra cost. One of 14 luxury models.



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# in modern living

## WEEK exhibit homes, September 14-21



# Mr. Builder!

SHOW your community your newest house, your own latest advances in modern living during National Home Week, September 14 to 21.

Millions will see this full-color, hard-selling double-page ad in September 6 issue of The Saturday Evening Post and in single pages in Better Homes & Gardens, Woman's Home Companion, Farm and Ranch, Living for Young Homemakers, Sunset, and Christian Herald.

This invitation to the public to inspect exhibit homes is our contribution to National Home Week.

Your contribution should be a model home . . . open

for inspection and well publicized. This will do you and the entire home-building industry a great deal of good.

Be sure to join the thousands of leading builders whose exhibit homes will be open for inspection.

It's not too late . . . see your Youngstown Kitchens distributor.

**MULLINS MANUFACTURING CORPORATION**  
WARREN, OHIO

Youngstown Kitchens are sold throughout the World



## Youngstown Kitchens

# For 30 Years America's



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## Nu-WAY WEATHER STRIP Easiest in the world to put on

Any clerk, regardless of experience, can sell Nu-Way Weather Strip! That's because any customer can put it on quickly and easily.

Nu-Way works perfectly on most any type window, storm-sash or door. Made of moth-proof, pre-shrunk, color-fast wool felt and white metal.

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This colorful, attractive display carton really sells the goods! Contains one individual 18 ft. roll of Nu-WAY, with sufficient nails and instructions for easy installing. Stock up today!



Mac says "Be prepared for **COLD WEATHER SALES!**"

**ORDER NOW** — your order will be shipped same day received

# Leading WEATHER STRIPS!

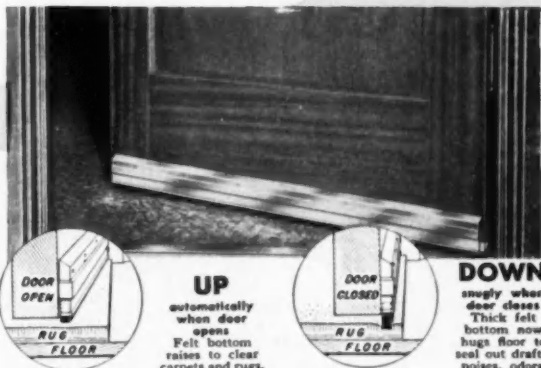
## FOR DOORS

Numetal Weather Strip comes in handy sets for almost all standard doors. Available with regular stainless steel and felt door bottom strip, or with threshold and exposed hook. Easily installed — no special skill or tools needed. Comes complete. All ready to install.



## Nu GARD Automatic DOOR BOTTOM & DRAFT ELIMINATOR

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DUNCAN CO.**

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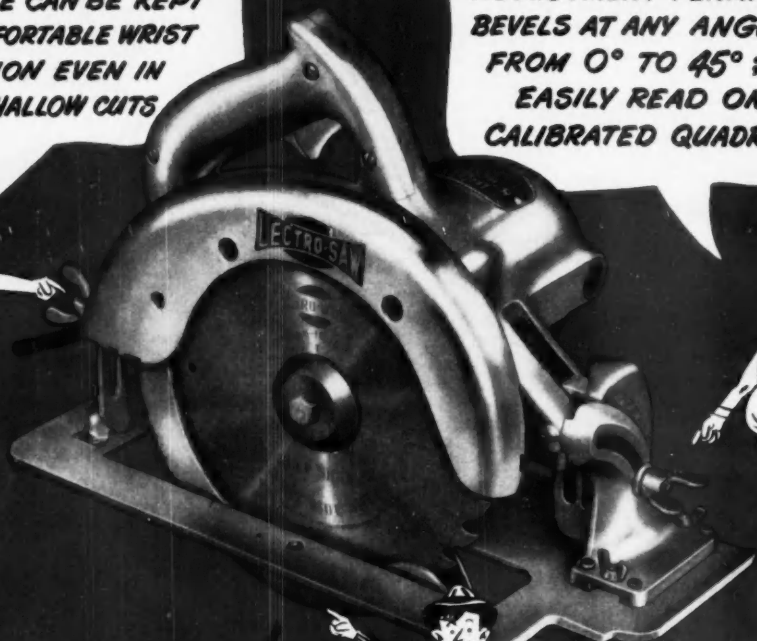
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ADJUSTMENT PERMITS  
BEVELS AT ANY ANGLE  
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EASILY READ ON  
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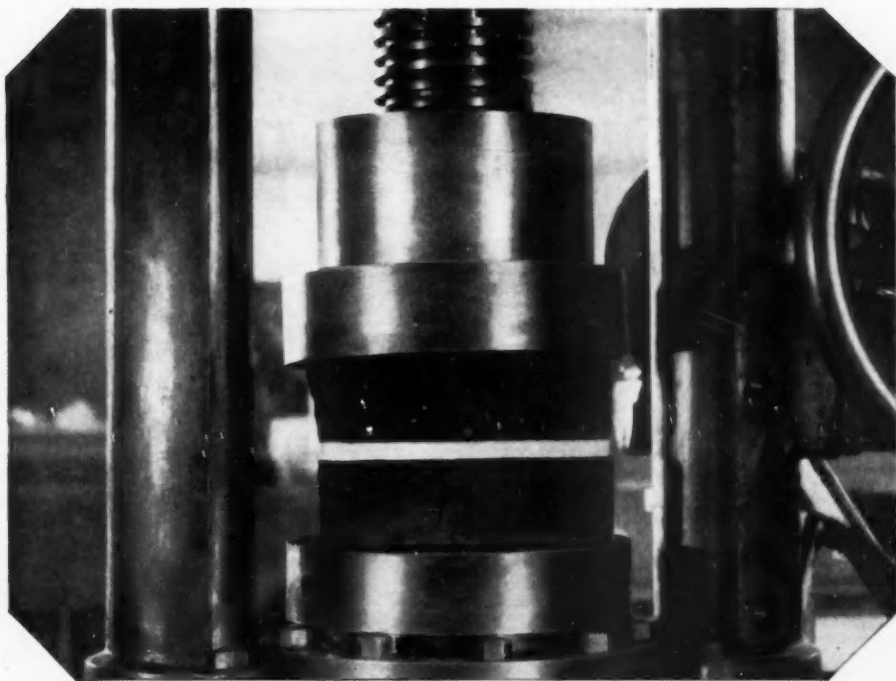
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# BRIXMENT



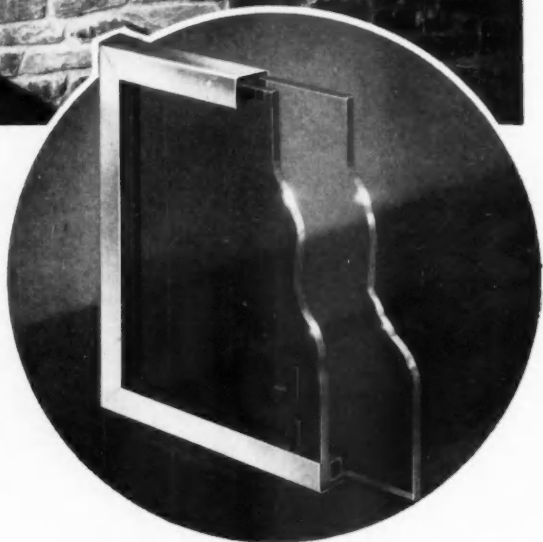
LOUISVILLE CEMENT COMPANY, Incorporated, LOUISVILLE, KY.

# 4 builder-proven



ONE of the most important uses of glass in new or remodeled homes is for picture windows. Here Twindow—Pittsburgh's window with built-in insulation—is particularly effective. For Twindow offers all the advantages of large glass areas, without affecting heating or air-conditioning efficiency. It minimizes downdrafts near windows and, under normal conditions, it reduces the tendency for condensation to form. Twindow is installed like a single pane of glass. There are forty-seven standard sizes available to fit the standard wood, steel and aluminum sash made by leading sash manufacturers. Architect: J. P. Trouchaud, Washington, D. C.

SOLEX-TINDOW gives you an insulating unit, plus a means for reducing the strong heat and brightness of intense sunlight. It is especially recommended for southern and western exposures. This sectional view shows the make-up of a Sorex-Tindow unit. The outer pane is green-tint Sorex—"the best glass under the sun!" . . . the inner light is clear Plate Glass. Between these two panes is a sealed-in air space. The exclusive stainless steel frame protects the seal and glass edges, makes handling easy and safe, cuts installation time on the job.



# ways in which Pittsburgh Glass can help you!

**NOTHING** dresses up a room like a mirror. Home makers appreciate this added touch—for its convenience as well as for the greater cheer and luxurious look it brings. Pittsburgh Mirrors are available in many types to meet any structural or decorative purpose. The mirror shown below was installed with the new Pittsburgh Mantel Mirror Brackets. They come packed with each custom-made mirror you order, make installation simple, reduce on-the-job costs. Ask your local Pittsburgh dealer about these remarkable brackets.



**A BATHROOM** walled with Carrara Glass has life and sparkle. More and more home owners are demanding this quality material that's so easy to handle. They know that Carrara keeps its fresh, new look indefinitely. They know that Carrara doesn't require laborious scrubbing to keep it clean; a damp cloth is all that's needed. Make sure that you utilize this quality structural glass for the walls of bathrooms, powder rooms and kitchens. It's ideal for window sills, too. Ready-built panels are available for both tub recesses and stove backings. Carrara comes in ten attractive colors.

A little extra glass means a lot of extra charm and buy-appeal, regardless of the style or price range of the homes you build or remodel.

Build it better with **Pittsburgh Glass**



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

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**PITTSBURGH PLATE GLASS COMPANY**

**Protectors of your safety**  
Sargent Integrlocks...with the exclusive **SENTRY BOLT**

You can't beat this team for your safety — the "law" on its mounts — and the Sargent Integrlock on your front door all the time.

As smart-looking as a sergeant on parade... that's how an Integrlock looks every day of the year! (See it in its conventional brass and its extra-strong aluminum finishes.)

Built right into an Integrlock is a watchful guard that recognizes no password from an intruder. It's the exclusive Sargent SENTRY BOLT... especially designed in a horizontal position to give it extra strength.

It's easily operated... a quarter turn of the key releases both the latch and the bolt.

The Integrlock balks intruders in this important way, too. The door pin in the knob breaks when subjected to extreme torsion. The knob then spins harmlessly... but you can still operate it with your key.

Another important thing. When you are inside and the SENTRY BOLT has been thrown into position, you can check the positive security by merely trying the knob.

When you throw the SENTRY BOLT of an Integrlock before retiring, you know you are getting that positive protection that brings restful sleep.

Look for this 3-in-1 Sargent Plier at your local hardware store!

Buy a plier that's three tools in one — a Plier, a Wrench and a Wire Cutter. It's the famous Sargent 3-in-1 Plier. Look for it on display on the counters of your local Hardware Dealer. The Sargent 3-in-1 Plier gives you a value... and you'll be pleased with the price!

**SARGENT AND COMPANY, NEW YORK, NEW HAVEN, CONN. • Chicago**

Architects, builders and hardware dealers are greatly enthusiastic about the Integrlock's Sargent Bolt and other Sargent® line locks. Ask them yourself!

**SARGENT  
ADVERTISING**

*Sets  
the Pace*

**IN BUILDING  
CONSUMER  
ACCEPTANCE!**



This significant little figure represents one of the outstanding lock developments of all time. It's the new Sargent SENTRY BOLT, especially designed in its horizontal position for greater strength. It stands for better protection... more satisfied customers for you.

Your recommendation and use of Sargent Locks finds *immediate acceptance* with your customers...

because they are *pre-sold* by continuous Sargent consumer advertising!

Take the Sargent advertisement reproduced here. It will soon appear (in eye-stopping colors) in the September issue of **BETTER HOMES & GARDENS**... after being *pre-tested* and *selected* for effective appeal by a panel of consumers.

Yes, sir, Sargent advertising support is *setting the pace*, just as Sargent Integrlock and "4500" line locks are setting the pace in beauty, design, extra safety features, and ease of installation.

Always recommend and use Sargent Locks... and be sure of customers who will always recommend *you!*

For full information about Sargent locks write your supplier... or us. Dept. 5H.

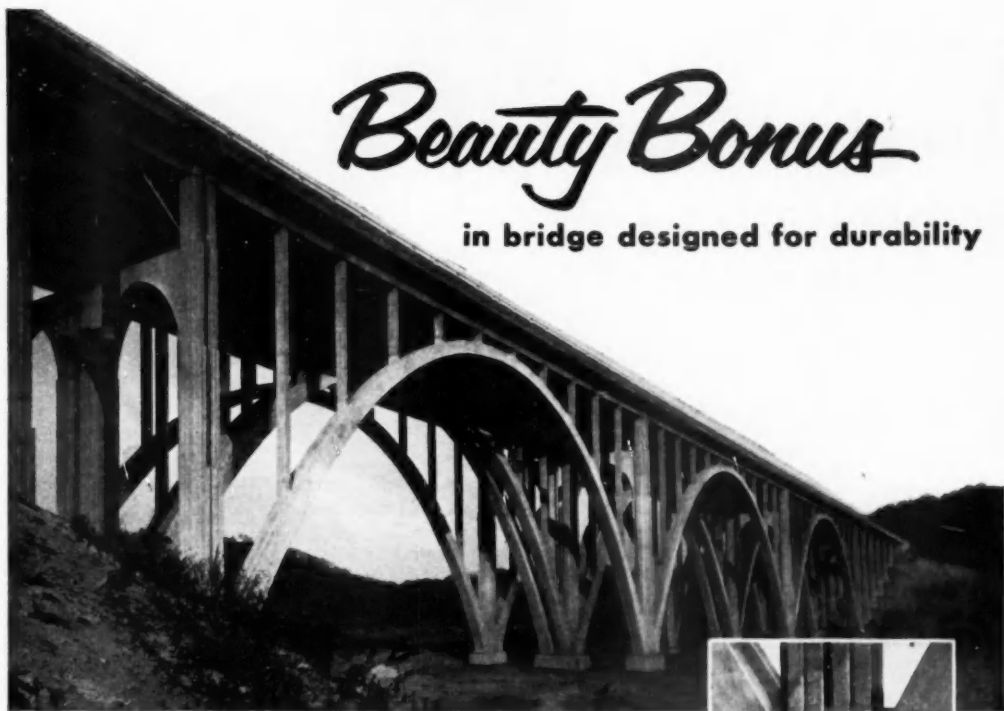


**Sargent and Company, New York • NEW HAVEN, CONN. • Chicago**  
Builders Hardware and Fine Tools since 1864



# Beauty Bonus

in bridge designed for durability



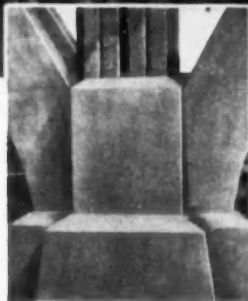
## **DURAPLASTIC\*** gives both —YET COSTS NO MORE

Superior concrete improves the appearance of the handsome design — and when it's more durable, too, that's even better!

Many engineers and contractors know from experience that concrete made with Duraplastic air-entraining portland cement requires less mixing water for a given slump and minimizes water gain and segregation. As on the bridge shown here, this results in generally improved surface appearance. The concrete is also fortified against the ravages of freezing-thawing weather, and paving resists the scaling action of de-icing salts.

There are more reasons why construction men like to build with Duraplastic. It gives a more plastic, more uniform, more workable mix that aids proper placement. That's why you'll want to specify Duraplastic on your jobs!

Yet, with all its advantages, Duraplastic sells at the same price as regular cement. Complies with ASTM and Federal Specifications. Your inquiries are invited. Universal Atlas Cement Company (United States Steel Corporation Subsidiary), 100 Park Avenue, New York 17, N.Y.



Superior surface appearance of concrete made with Duraplastic cement shows in this close-up view of an arch pier. Commercial Street Bridge, Penn-Lincoln Parkway, Pittsburgh, Pa. Designed by Pennsylvania Dept. of Highways. Contractor: Dinardo, Inc., of Pittsburgh.

**OFFICES:** Albany, Birmingham, Boston, Chicago, Dayton, Kansas City, Minneapolis, New York, Philadelphia, Pittsburgh, St. Louis, Waco.

\*"Duraplastic" is the registered trade mark of the air-entraining portland cement manufactured by Universal Atlas Cement Company.

**ATLAS**®

# **DURAPLASTIC**

AIR-ENTRAINING PORTLAND CEMENT

**Makes Better Concrete at No Extra Cost**



AB-D-141

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## **What About Owner-Built Houses?**

**A** RECENT *American Builder* survey disclosed the fact that more than one-third of the houses built last year in a midwest industrial county were constructed in whole or large part by non-professional owners. A projection of this figure nationally indicates that perhaps one-fifth of all the houses built in 1951 were owner built.

Regardless of how closely this projection of the survey reflects the actual number of owner-built houses, an incontrovertible fact is that building costs and restrictive codes in many urban centers are driving people to do their own construction, usually in areas not controlled by codes. This is not intended to take issue with building trades wage scales, or with codes or with builders' profits. It is intended to point out a condition, its causes and some of its probable results.

It does no good to argue with an owner-builder that his time is worth something, and that part or all of his alleged saving is fictitious. The fact is that his time is worth nothing until he uses it in lieu of paying a crew of building tradesmen. Then it becomes worth to him exactly what he would have paid out. His answer to any argument is that he cannot afford to employ labor, that he can afford materials from a local retail source, and that he intends to have a house—the best he can build for himself, regardless of who approves or disapproves of it.

A pitiful few of these owner-built

houses use professional plans and employ some professional labor. The results grade from good in a few cases to architectural and structural horrors, with predominance at the lower end of the scale. Many of them are only the crudest form of elementary shelter. In the absence of state-wide laws governing minimum building standards outside of municipalities there is nothing to prevent a man from housing himself in any manner he chooses.

At first glance the increase of owner-built operations might seem to be of little or no concern to professional home builders, since a majority of owner-builders probably do not represent a market for professionally-built new houses anyway. But since most of these non-professional houses are jerry-built shacks before the roof is on they are ugly, unsafe and imminent germinators of suburban slums. Within a few years nobody remembers who built them. The assumption is that some builder took an indecent advantage of a poor family, and the result is another unwarranted black eye for the building industry.

We take no issue with a man's right to build his own house, but we believe that in the public interest he should meet the standards required of professionals. We believe it to be mandatory that the problems and shortcomings of owner-building be studied by the home building industry before the sins of many non-professionals came to roost on the professional door step.

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# AB Washington News Letter

## For the Light Construction Industry

A special service for American Builder readers. The latest Washington developments affecting the light construction industry assembled by special Washington correspondent and sent by wire to be printed and bound in your American Builder at the last minute before it is mailed. A regular monthly feature.

Washington, July 21, 1952

- ▶ **CONGRESS HAS QUIT FOR THE CAMPAIGNS.** Unless President Truman summons the lawmakers back for a special session, they won't return until next January. Legislation still pending at adjournment is dead, and will have to be introduced again when the new Congress meets.
- ▶ **THOSE LAST FEW DAYS** Congress handled legislation in dump-truck fashion. A new housing act, appropriation bills, the Defense Production Act and the Korean GI bill -- all these whipped through in the closing days of the session.
- ▶ **CONTROL AND ALLOCATION** of home building materials will continue another year. The Defense Production Act is extended until June 30, 1953, insofar as it applies to material controls. Wage and price controls drew a shorter extension. They expire next April 30.
- ▶ **NO MAJOR CHANGE** in price or wage rules is expected under the new production act. CPR 93, the pricing regulation, remains in effect. The Wage Stabilization Board is substantially weakened. It no longer has jurisdiction over labor disputes, and those appointed to the board have to win Senate approval.
- ▶ **A "SMALL BUSINESS" EXEMPTION** in the new act removes from wage control any enterprise in which eight or less persons are employed "in all its establishments, branches, units or affiliates."
- ▶ **REGULATION "X"** is the point of greatest confusion at the moment. Congress did not take away completely the authority by which the Federal Reserve Board-HHFA regulate real estate credit. Instead, the law sets up what homebuilders call a "complicated, unworkable and generally unsatisfactory procedure."
- ▶ **DOWN-PAYMENT TERMS** are hitched to the home building rate. The bill provides, briefly, that if the number of homes started during any three consecutive months is at an annual rate under 1,200,000 units, then the President shall initiate a "period of credit control relaxation."
- ▶ **TWO WEEKS AFTER THE BILL BECAME LAW** there was still no announcement of when the first three-month period would begin. Nor had the President designated any agency to compile the required "seasonally adjusted" starts.
- ▶ **HOUSING STARTS** are currently below the 1.2 million annual rate. On this basis, it would appear that most credit controls will end not later than November 1. During the period of "credit control relaxation," a 5 per cent down payment requirement is the maximum that regulators can impose.
- ▶ **ONCE ENDED,** the controls won't be restored. With winter months ahead, housing starts are not likely to reach the 1.2 million rate before late next spring at the earliest. This rate would have to be maintained for three months before controls could be reimposed. And by that time the Defense Production Act will be so close to expiring that it would be useless to impose credit restrictions.
- ▶ **THERE IS SOME THOUGHT** here that present credit controls will be lifted before the new law can operate. With housing starts below the 1951 rate, the Federal Reserve Board may decide to scrap controls of its own accord. The controls law has "permissive" provisions.
- ▶ **NPA IS STUMPED** by the steel strike. The agency has made no fourth-quarter steel allocations. And it hasn't decided how it will handle the situation when the strike ends. About the only thing certain is that decontrol of steel is indefinitely postponed, more elaborate controls will result, and the fourth-quarter will find much confusion at the mills.
- ▶ **PLAN TO ALLOW MORE STEEL** for construction after July 1 was scrapped. NPA said: "Limitations on self-authorization of orders for steel controlled materials remain unchanged because of the situation created by the work stoppage in steel mills."

- ▶ THE AGENCY DID AMEND copper and aluminum provisions of Order M-100. Home builders can now self-certify up to 250 pounds of aluminum per unit. The right to self-authorize for copper controlled materials has been increased from 35 to 50 pounds in residential units with steel water pipe distribution, and increased from 135 to 175 pounds in dwelling units having copper water distribution systems.
- ▶ CMP REG. 6, the general construction regulation, also was amended. For commercial construction it is now possible to self-certify 1,000 pounds of aluminum per project per quarter. The copper allowance was boosted. Builders can self-certify 750 pounds of copper per project per quarter, instead of 200 pounds as previously.
- ▶ NO SELF-CERTIFICATION is permitted for residential buildings of more than four dwelling units. (Order M-100 covers buildings up to four units only). Larger residential buildings remain subject to unit approval. NFA also dropped its plan to permit self-certification for construction of recreational facilities.
- ▶ "B" PRODUCT MANUFACTURERS have been given more self-authorization authority. They can self-certify much larger quantities of copper and aluminum after July 1.
- ▶ THE NEW HOUSING ACT gives FNMA \$900,000,000 pre-commitment authority. Its use is restricted to programmed defense housing, Wherry-Act and disaster housing. This authority for advance commitments will expire June 30, 1953.
- ▶ HHFA ADMINISTRATOR FOLEY estimates this new FNMA authority will take care of 40 per cent of housing programmed from November 21, 1951, to December 31, 1952. In addition, it will clean up the backlog of defense housing programmed prior to November 1951. The whole thing adds up to about 110,000 units.
- ▶ FNMA CAN RELEASE \$382,000,000 for the purchase of eligible non-defense mortgages. This fund has been tied up in a "set aside" to protect defense housing. Now it can be used for regular over-the-counter purchases of VA and FHA mortgages.
- ▶ THERE ARE TWO RESTRICTIONS: FNMA can purchase non-defense mortgages provided they were insured or guaranteed after February 29, 1952; and no more than 50 per cent of a lender's portfolio can be sold to the agency.
- ▶ OTHER PROVISIONS of the 1952 housing act provide for a \$400,000,000 increase in FHA's mortgage insurance authority. There is a \$50,000,000 increase for government-provided defense housing. The bill also adds \$40,000,000 for defense area community facilities. No money is provided for the housing or community facilities. That has to come in separate legislation.
- ▶ A CATCH-ALL APPROPRIATION BILL, passed by Congress the day it adjourned, gave HHFA the \$50,000,000 for government-provided defense housing.
- ▶ BUILDERS won't be required by law to give that one-year warranty on houses for veterans -- not yet at least. Congress eliminated this provision from the GI bill for Korean veterans. The legislation extends the regular VA loan-guaranty program to veterans with service since June 27 1950.
- ▶ VA HAS SOME NEW AUTHORITY: It can refuse to appraise housing sponsored by persons "identified with housing previously sold to veterans" which proved to have "substantial deficiencies."
- ▶ THE WARRANTY PROVISION may come up again. A House subcommittee has been investigating alleged defects in VA and FHA housing all over the country. When this group makes its report to Congress, look for more talk of a "mandatory warranty" on GI housing.
- ▶ CONGRESS VOTED FUNDS for 35,000 public housing units in fiscal 1953. This compromise figure was agreed to after the Senate approved 50,000 units and the House 5,000. A last-minute move in the House to reject the compromise was defeated by a narrow margin. The final figure of 35,000 compares with 50,000 units authorized last year.
- ▶ JUNE HOUSING STARTS were estimated at 106,000 by the Bureau of Labor Statistics. This figure includes 99,200 private and 6,800 public units. The bureau also revised upward the March housing starts. Instead of 98,000 the total was 103,900.
- ▶ FOR THE FIRST HALF OF 1952, starts are estimated at 567,500. This is slightly below last year's first six months when starts totaled 590,000.
- ▶ WALTER L. GREENE is the new FHA Commissioner. His appointment was confirmed by the Senate on July 2. Mr. Greene has been with FHA since 1934, and he succeeds Franklin D. Richards as top man at the agency. Mr. Richards resigned as of June 30.

# TRENDS *in the Building Field*

## Construction Labor Costs At All-Time High

**T**HE PRICE of most building materials this summer show little change from last year. The price of common brick is up 9 per cent, flooring is down 12 per cent, bathtubs are down 4 per cent and furnaces 10 per cent. Construction labor, however, is up 6 per cent over a year ago.

**A HIGH LEVEL** of residential construction and peak activity in industrial and public construction has kept construction labor continuously employed in the last two years of defense activity. Weekly earnings are at a record high. It could be, however, that labor is pricing itself out of the market.

This spring electricians were earning \$108 per week, plumbers \$93, plasterers \$85 and carpenters \$73 per week. Average weekly earnings of all employees in manufacturing, by comparison, were \$66 per week.

There is evidence that the relatively high prices of construction labor are inducing people to build their own homes. This means good business for lumber dealers but leaves builders and labor out in the cold.

**SOME OWNER-BUILT** homes represent an investment of \$15,000 to \$20,000 or more in materials. The results are equivalent to some of the best professionally-built homes. The prevalence of one-story houses and simplified heating systems make it easier than ever for the public to build their own homes. They are encouraged by consumer magazines and book publishers who tell the public how to build their "dream house" for less than \$5,000. Most owner-builders choose the unincorporated areas outside the city limits for their new homes. The majority of owner-built houses, however, are small and makeshift to a large extent.

A recent survey by the construction

division of the Bureau of Labor Statistics showed that 29 per cent of new homes in Atlanta were owner-built, 25 per cent in Boston, 20 per cent in Chicago, 4 per cent in Dallas, 40 per cent in Pittsburgh and 29 per cent in Seattle. The floor area of many of these houses is less than 700 square feet. Construction cost is usually from \$5,000 to \$10,000.

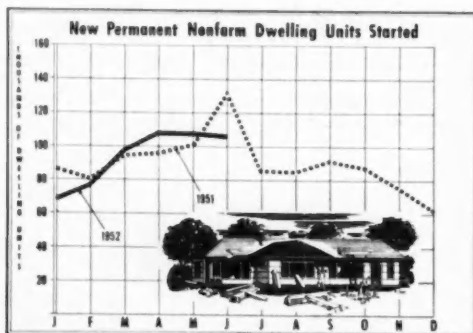
**THE ONLY WAY** that builders can capture this market is by developing a really low-cost house and securing the cooperation of building labor to achieve more productive activity.

Harvard economist Sumner Slichter has come up with the details of "An Average American." Here's how to recognize him. He has an annual income of \$3,600, \$2,500 term insurance, employer-paid hospitalization, \$200 savings bank balance, no other investments, pays \$65 monthly housing costs, and has \$20 a month available for savings.

To almost half of Americans "An Average American" is an economic royalist. It is this under-average income market that builders need to serve with new houses that fit their pocketbooks.

**HOUSING STARTS** have been over 100,000 for the last four months. Starts of 106,000 units in June brings the six months total to 567,500. There is every indication that more than 1,000,000 new houses will be started this year, making this the fourth year in a row that housing starts have passed the million mark.

The decrease of 20 per cent in housing starts registered in June is due to the fact that 42,000 public housing units were started in June a year ago as compared with 6,800 in June of this year. Private starts were actually 10 per cent more than last year.



United States Dept. of Labor  
Bureau of Labor Statistics

AMERICAN BUILDER CHART

### THE SCORE BOARD

#### Per Cent Change Compared With Last Year

	Up %	Down %
<b>Dwelling Units Started</b>		
Month of June		-20%
January through June		-4%
<b>Dollar Volume of Construction (May)</b>		
Dwelling Units		-1%
Residential Alterations	+11%	
Industrial	+15%	
Commercial		-37%
Institutional		-16%
Farm		-5%
Public Construction	+17%	
<b>Total Construction</b>	+4%	
<b>Price Changes (June)</b>		
Common Brick	+9%	
Cement	N.C.*	
Dimension Lumber	N.C.	
Flooring		-12%
Doors	N.C.	
Paint (outside)	+1%	
Bathtubs		-4%
Furnaces		-10%
Asphalt shingles	N.C.	
Window Glass	N.C.	
Nails	+1%	
Insulation Board		-1%
<b>Average Hourly Earnings</b>		
Construction Labor	+6%	
Construction Cost Index Residences	N.C.*	
Retail Lumber Sales (March)		N.C.

\*N.C. = No Change



**"Easiest Working  
Mortar a Man  
Ever Put a  
Trowel To!"**

*Said the Masons who used*  
**LONE STAR  
MASONRY CEMENT**  
*on this*  
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Fort Worth  
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and Lone Star Masonry Cement from:  
**WEST TEXAS CONCRETE PRODUCTS, INC.**  
Odessa



● Ector County, Texas, of which Odessa is the county seat, is one of the fastest growing in the country . . . population has trebled in a decade.

Constructionwise, the county has kept pace with progress, with new homes, hotels, stores, schools . . . schools like ultra-modern Sam Houston Elementary School.

And construction wise, the Contractor concreted the structure throughout with Lone Star Portland Cement for utmost stability and fire-safety, using Lone Star Masonry for the brick work.



"Easiest-working mortar a man ever put a trowel to" . . . that just about sums up the friendly words of the Masons for the workmanlike performance of this Masonry Mortar . . .

Rich, buttery, even texture that makes it easy to spread evenly under the trowel, in longer mortar beds . . . mortar that firmly beds the units, stays plastic, retains water, and produces those clean, smooth, moisture-proof joints which are the mark of the good mason and good masonry cement.

Good reasons why mortar-wise masons these days tell their suppliers—  
"Send me some more of that Lone Star Masonry Cement."



**LONE STAR CEMENT  
CORPORATION**



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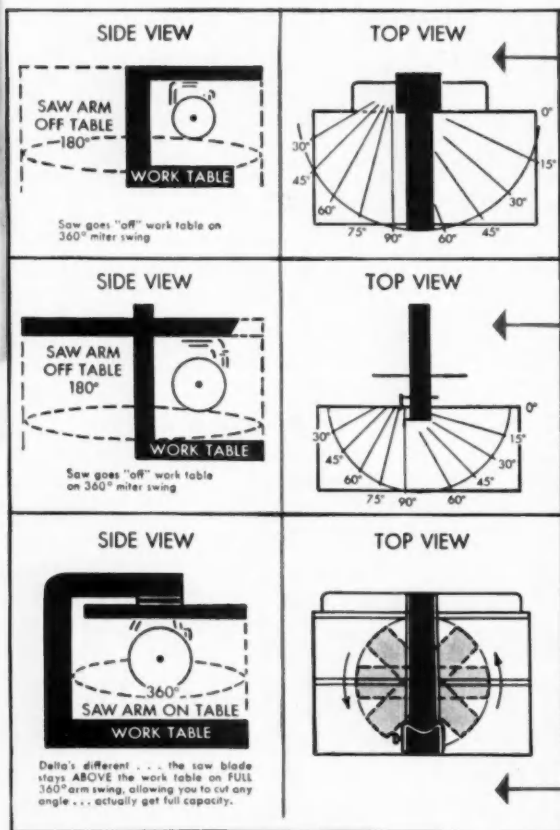
LONE STAR CEMENT, WITH ITS SUBSIDIARIES, IS ONE OF THE WORLD'S LARGEST CEMENT PRODUCERS: 17 MODERN MILLS, 125,600,000 SACKS ANNUAL CAPACITY

# The Only Completely New Saw

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# 12"-14" RADIAL SAW

**ONLY THE DELTA CAN GIVE YOU ALL THE ADVANTAGES OF 360° "TURRET" ACTION!**



### Some Radial Saws Have a Solid Arm

These saws have a stationary arm that pivots 360° around the support column. *Advantage*—the saw can be placed against the shop wall, saves floor space. *Disadvantage*—the arm projects beyond the front of the table, interferes with the operator on many cuts. In addition, the saw pivots away from the work and off the table, limiting miter and productive capacities.

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These saws have a sliding arm that also pivots 360° around the support column. *Advantage*—the arm is out of the way on most cuts, work table is clear. *Disadvantage*—the machine requires twice the floor space and the operator must pull the entire arm. Like the solid-arm machine, the saw pivots away from the work and off the table, limiting miter and productive capacity.

### Only DELTA'S Exclusive "Turret" Action, Above the Work Table, Permits Cutting in All Directions!

Delta's long-awaited new design brings you all the advantages of other types, and eliminates all of their disadvantages. It sets up against the wall in crowded shops, saves floor space, permits straight line materials handling. Work always moves on a level table.

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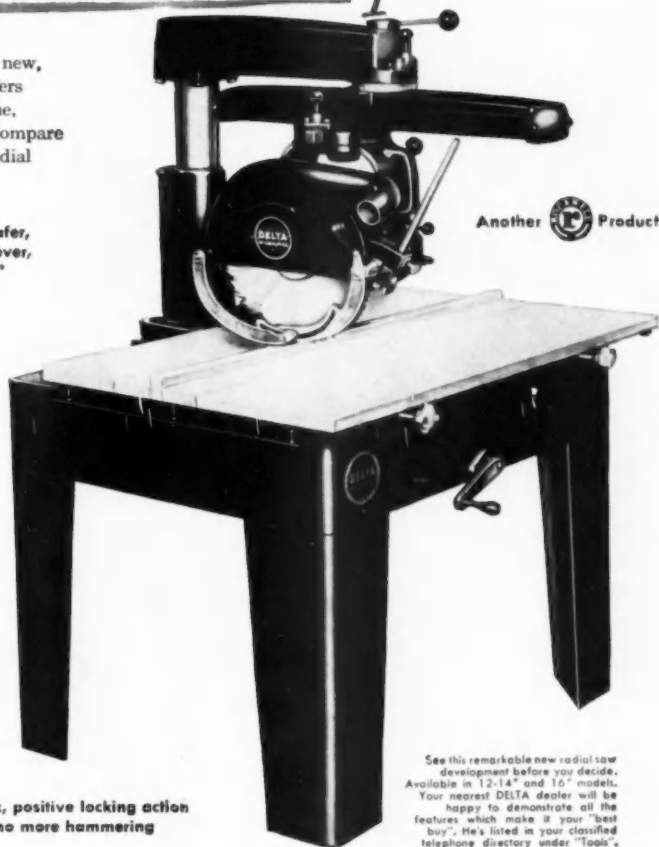
On any count, the new DELTA is the most practical radial saw you can buy.



# on the Market Today

Once again, DELTA does it first! An all new, completely redesigned machine which offers more than any comparable model in value, service, flexibility, safety and long life. Compare these *exclusive* features with any other radial saw in the same price field.

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5. Sensational New "Lo-Rise" Motor—powerful direct drive, totally fan-cooled motor furnished in 2 and 3 HP.
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See this remarkable new radial saw development before you decide. Available in 12-14" and 16" models. Your nearest DELTA dealer will be happy to demonstrate all the features which make it your "best buy". He's listed in your classified telephone directory under "Tools".

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53 MACHINES • 246 MODELS • MORE THAN 1300 ACCESSORIES



Delta is the only radial saw that offers a complete range of right- and left-hand miter cutting—with safe, normal pull action.



Big capacity . . . saw will cross-cut 25" wide on 1" stock, 22" wide on 5" stock . . . will rip to center of 77" wide panel.

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Everybody knows where this

# "Great Lady"

can be found . . . but

does everybody in your town know where *you* are located and what services you offer? You can make your business a familiar landmark in the 'yellow pages' of your telephone directory by featuring your name and services under every appropriate heading.

The 'yellow pages' reach every home in town that has a telephone . . . and every business. Your 'yellow pages' advertising will reach new prospects . . . folks who never knew before just what services you had to offer . . . just when they're ready to have work done.

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FOR FURTHER INFORMATION CALL YOUR

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## Do Your Market Research At the City Hall

There is a mine of market information on building available at your city hall and county building. Builders and dealers who collect the information and interpret it properly will keep abreast of the market, find new sales opportunities and avert costly mistakes in present and long-range planning.

The procedure consists of tabulating building permits at the city hall and the county building to find out who is building what and how much. This may be a formidable operation in a city of a million or more, but worth it to many builders and dealers, even if they have to assign a clerk or clerks to the job for several days.

The information will be particularly helpful in forecasting the market for home building, and finding out how much competition you have. If you are building in a community of 150,000 where 100 new houses are being built each month, the job will take only a few hours and can be assigned to one of your clerks.

Make a 3x5 card for each building permit with the name of the builder, owner, address, size of the building construction cost, and any other information you need from the building permit. File these cards by the name of the builder. At the end of the year you will have a good idea of the size of operations of builders in your community. The permits can be tabulated to show construction costs of houses to give you a target for the price class of your operations.

You may find that a considerable proportion of houses built in your community are owner-built. This is a market that builders need to capture. It is, of course, a good market for lumber dealers. If building permits are issued for areas outside of the city limits be sure to tabulate them also.

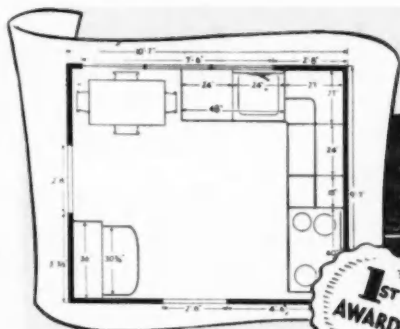
Another source of information for residential building potentials is marriage licenses. A continuing record of the number issued over a period of years and months will help you to forecast demand for new homes.

Builders and dealers need to study the 1950 Census for their communities very carefully. The final tabulations are not complete for all cities as yet, but will be available this fall.

The Census data includes information on family income, number and age of dwelling units, plumbing facilities, vacancies, size of households, overcrowding, number of home owners and renters, and number of homes mortgaged.

Market research will help builders and dealers plan future operations.

AMERICAN BUILDER



## Rex Manor HOMES

William Blackfield home developments in Lafayette, California, received national recognition when they won the first award for economy homes in the Neighborhood Development Contest of the National Association of Home Builders.



## WITH CROSLY IN EVERY KITCHEN, YOUR HOMES WILL WIN PRAISES, TOO!

**Crosley Kitchen Equipment** installed in your homes will work wonders! To women, your Crosley Kitchen can be the deciding factor when it comes to buying a home. To men, the important fact is that kitchen equipment may be included in their package mortgages!

**Install these fine Crosley products** in the houses you build: Shelvador® Refrigerators, Electric Ranges, Wall Cabinets, Base Cabinets, Range and Refrigerator Pantries, Sinks and Electric Food Waste Disposers and Shelvador® Freezers.

Then, when prospects are looking at your homes, have them taken in through the back door first . . . into a shiny Crosley Kitchen. You'll sell *more* homes *faster* if you do!

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MODEL LE-7

One of the compact Shelvador® Refrigerators ideally suited to small homes. Among the many features are across-the-top freezer, shelves recessed in the door and frozen-storage drawer.

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lighter, "whiter," asphalt

# Pastel

in Barrett Dubblecote\* Multi-shingles\*

Right in line with popular demand, right in line with the trend toward airy, fresh and fashionable shades—Barrett's new pastels are loaded with eye appeal for your customers, new profits for you. Now, Pastel Bluegrain, Pastel Greengrain, Pastel Redgrain and White are added to the popular family of DUBLECOTE MULTI-SHINGLE colors. And these highly-promotable new hues are available at the *same low prices as standard colors!*

Add this new color story to Barrett's proved record of leadership in asphalt shingles and you've got a *real* selling punch. You're selling *beauty*, in these shimmering, silvery tones. You're selling new *practicality*, too, because these pastels keep homes cooler in summer by more effectively reflecting the sun's burning rays. And, as always, you're selling *quality*—by the greatest name in roofing—BARRETT. Why not send for free samples today and let these good-looking shingles tell their *own* story? You'll agree that "seeing's believing."

**There's a shingle for every need in BARRETT'S complete line!**

Conventional shingles, locking shingles—a wide variety of styles, in second-to-none colors.

**Don't miss the profit possibilities in all**

**BARRETT building products—S.I.S.\* roofing, EVERLASTIC\* roll roofing, insulated siding, damp-proof coatings, roof cement and coating, sheathing and building papers, built-up roofing, rock wool insulation.**



# shingles by Barrett...

# Colors

For the newest in roofing look to BARRETT...the greatest name in roofing



**THE BARRETT DIVISION**  
ALLIED CHEMICAL & DYE CORPORATION  
40 RECTOR STREET, NEW YORK 6, N. Y.

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Chicago 6, Illinois

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# Now! First time ever..

# SKIL

Model 686



# SKIL

PORTABLE TOOLS

SKIL Products are made only by Skilsaw, Inc.  
5033 Elston Avenue, Chicago 30, Illinois

Skilsaw Factory Branches in 34 Principal Cities  
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# a genuine heavy duty Saw *at only* \$69<sup>50</sup>

THE BIGGEST ADVANCE  
IN SAW DESIGN  
FOR CARPENTERS AND  
CONTRACTORS SINCE THE  
PIONEERING OF THE PORTABLE  
POWER SAW BY SKILSAW!

**SKIL** Homebuilder 6" Saw  
designed and built  
for carpenters and homebuilders

Now SKIL announces a powerful new heavy-duty 6" saw at an amazingly low price. This is a genuine *heavy-duty* saw, fully powered and ruggedly constructed to meet every need.

New features—*exclusive* features at no extra cost—make this saw the biggest and best value of all time—among—*all makes*.

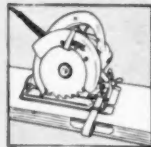
Compare these outstanding features  
with those of any other saw in this price class!



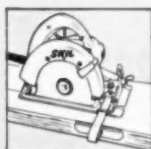
**SPECIAL HOUSING DESIGN**—  
provides auxiliary grip if desired.



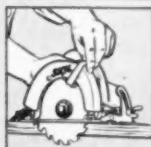
**BALL AND NEEDLE ROLLER BEARINGS THROUGHOUT**—  
for continuous production.



**COMPLETE ADJUSTMENT FOR DEPTH OF CUT**—Only one lock nut to handle. Full adjustment range—0" to 1<sup>15</sup>/<sub>16</sub>".



**PRECISION-INDEXED RIP GUIDE**—(furnished as standard equipment)—may be removed entirely.



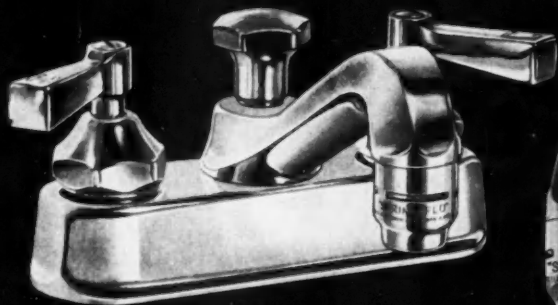
**SAFETY RETRACTOR HANDLE**—  
—on telescoping safety guard.



**BEVEL ADJUSTMENT**—Rugged design for hard usage. Indexed every 5°. Only one wing nut for rapid adjustment.

See Your Distributor or Call Your SKILSAW Factory Branch for Complete Information on SKIL Homebuilder 6" Saw.

**AERATORS NOW AVAILABLE ON ELJER LAVATORY FITTINGS**



E-9350-R  
E-9359-R



E-9320-R  
E-9335-R

E-9340-R  
E-9341-R



**AVAILABLE ON  
Martha Washington and  
Princeton Lavatories**

**...ANOTHER "Reason Why" TO BOOST ELJER SALES**

This has been proved: "Customers buy quality merchandise when they understand the 'reasons why' it is better." Tell your prospects that Eljer fittings, equipped with aerators, add oxygen to water . . . make water taste better . . . save soap . . . prevent splashing.

Point out that these new Eljer lavatory fittings have spouts redesigned to receive an aerator as a part of them . . . not as an accessory or "add on". All Eljer aerator spouts meet all codes.

Now, every Eljer lavatory is available with an aerator fitting . . . and older lavatories can be modernized with the new Eljer aerator fittings E-9350-R and E-9320-R.

Wearing parts of Eljer brass fittings are renewable. Years from now repair units will still fit valves and faucets made today. For customer satisfaction and greater profits, sell Eljer Quality.



**CONDENSED TRADE CATALOG AVAILABLE**

To know more about the complete line of Eljer Products, ask your Distributor for Eljer's Condensed Trade Catalog or write Eljer Co., Box 192, Ford City, Pa.







# ASSOCIATIONS

## *Their Plans and Activities*



### New WSB Wage Formula "Ruined all Incentive among Workmen:" NAHB

#### Controls Also Rapped at Spring Directors Meeting

The recently established WSB wage pattern not only is costing the industry a pretty penny but has ruined all incentive among workmen to do a good job, the National Association of Home Builders charged at its spring directors' meeting in Washington.

Under the WSB formula, said Alan E. Brockbank, NAHB president, any builder who pays more than union scale is violating the law. "This means that you can pay a man scale only, not a penny more, even if you've been doing it for years."

It is only right, Brockbank agreed, that a builder shouldn't be allowed to change his scale in order to pirate labor for his job. At the same time, he continued, the builder who has made it a practice right along to pay his key men above scale should not be penalized, and neither should the men.

Rather than saving anybody anything, this regulation will prove most costly, Brockbank charged. It has already led to damaging strikes in the San Francisco Bay and Southern Michigan areas, he pointed out, because the most efficient workmen re-

fuse to take any cut from their accustomed wages and the builders are helpless to do anything about it.

#### Controls Cut into Sales

The NAHB leader told a press conference at the conclusion of the four-day meeting, before revision of Regulation X was announced, that the builders have urged Congress to revoke controls on financing, prices, wages, materials and rents. He said many thousands of families are constantly inspecting new homes all over the country, but few are buying.

"The little fellows (small builders) are getting awfully leery," he warned. "When they have three houses unsold, they stop because they can't afford to go on. Collectively, they haven't stopped yet, but they are getting very close to the mark."

Active builders in all price ranges down to \$3,000 are having a hard time getting a down payment, according to Brockbank, who said: "I can't make a plea strong enough to help the people in really low-cost brackets—even a few cents in the down payment makes a difference."

Government housing officials addressing the 400 directors, board presidents and executive officers at

*(Continued on page 36)*

### "X" Revision Called Very Disappointing By Lumber Dealers

The revision of Credit Regulation X recently announced by the Federal government is extremely disappointing and will have little or no helpful effect on the housing market. This is the view of the National Retail Lumber Dealers Association as expressed by executive vice president H. R. Northrup.

"The reduction in downpayments is so slight, except for the lowest priced homes, that it will afford no important relief to families seeking larger homes or to builders who have such homes standing vacant for lack of buyers with sufficient downpayments," Northrup said.

"There is no sound reason for maintaining such tight control over housing credit when restrictions have been completely removed on appliances, automobiles, and other goods. It is difficult to escape the conclusion that government officials are using superfluous emergency powers for the purpose of programming housing in such a way as to fit their own social aims.

"A recent nationwide survey conducted by members of NRLDA's Executive Committee showed that in many parts of the country large numbers of homes priced at \$15,000 and up are completed but unsold. Prospective buyers are eager for the homes but can't raise the excessive downpayments required in the name of a credit emergency which seems to exist only in the field of housing.

"Inasmuch as Federal agencies refuse to take the necessary administrative action, our only alternative is to place the facts before Congress and urge that their authority to maintain controls over housing credit be removed entirely."

### Two LP-Gas Groups Announce Merger

The Liquefied Petroleum Gas Association has accepted the proposal of the National Butane-Propane Association that the two groups be consolidated. Charles Grau, NBPA president, has announced.

The consolidation is effective immediately and all NBPA members will become members of LPGA if they wish.

Grau, of Rhinelander, Wis., said the action was taken in the interest of building a stronger trade association to better serve the LP-gas industry.



**HOUSING LEADERS** at the spring meeting of the National Association of Home Builders in Washington May 25-28. Left to right are Alan E. Brockbank, NAHB president; Senator Wallace F. Bennett of Utah; Administrator Raymond M. Foley, Housing and Home Finance Agency, and Frank W. Cortright, NAHB executive vice president.



## Dealer's Viewpoint

H. R. NORTHUP, Executive Vice President,  
National Retail Lumber Dealers Association

### From National Home Week: Extra Business for Dealers

Each year more and more retail lumber and building materials dealers are taking an active part in the observance of NATIONAL HOME WEEK. The reason is obvious: more and more dealers are providing a home building service each year for their customers.

Whether a dealer performs the function of a general contractor and has houses for sale or merely helps his customer make all necessary arrangements for getting a new home built, he has a vital stake in promoting home ownership because a bill of materials for a new house is a highly desirable type of sale.

NATIONAL HOME WEEK has two principal objectives—helping sell houses already built or under construction, and getting more families actively interested in acquiring a new home. Lumber dealers are interested in both, but there also is a third way to cash in on the annual nationwide promotion. That is by taking advantage of the opportunity to impress future home owners with the wisdom of insisting on quality materials and workmanship.

Eye-appeal, gadgets, and time-saving household equipment all are important in the sale of homes, but the basic quality of the structure is an even greater selling point which too often is glossed over on the assumption that customers take it for granted and are mainly interested in "extras" and unusual features.

Yet structural soundness, low maintenance expense, and good finish are qualities that any prospective home owner is bound to appreciate if they are emphasized skillfully.

Inasmuch as a goodly percentage of the individuals who visit and inspect new homes during NATIONAL HOME WEEK are not actually in the market, or won't be for some time to come, the lumber dealer has a splendid opportunity to direct public attention to the quality of the roofs, recreation rooms, window screens and doors, and other details of new houses being opened to the public in such a way as to stimulate a good volume of modernization work among lookers who own older homes in which they will continue to live.

In addition to newspaper advertising, a few attractive cardboard posters, with an explanatory sales message hand-lettered, will serve the purpose if placed in the living room or in parts of the house to which they specifically refer.

Other posters might read: "BE SURE TO SEE the recreation room of this quality home. Finishing that fine room added only \$— to the monthly payment. We are proud to have supplied the ceiling and floor tile, the paneling, and the door trim. (Name, address, and telephone number of the dealer.)"

Whether or not the exhibit house has a garage, there can be another poster reading: "A COMPLETE GARAGE for ONLY \$— A MONTH. That's all it will cost, including materials, labor, and a swing-up door. (Same signature as above.)"

NATIONAL HOME WEEK can stimulate a good deal of extra business for the dealer who is looking for additional volume in the residential market.

## 300 Attend Kick-Off of South Bend Member Drive

Seven members of the Chicago Metropolitan Home Builders Association took part in a big membership meeting staged in South Bend, Ind., June 10 by the South Bend-Mishawaka Home Builders Association. Total attendance was around 300.

From Chicago were A. O. Aldrich, regional vice president of the National Association of Home Builders and past Chicago president; Martin C. Huggett, executive vice president; Bryn A. Griffiths, executive secretary; Edward G. Gavin, editor of *American Builder*, a director; A. J. Del Bianco, a director; George K.

Newman and Kenneth Schuham, representing the Northern Illinois Home Builders Association was Major General Richard Smykal, Gale C. Corley and John Phronner of the Home Builders Association of Northern Indiana were also on hand.

## Steel Boiler Volume Told

The volume of business in the steel boiler industry in 1952 (up to April 27) amounted to 93 per cent of shipments for the similar period in 1950, and 62 percent of the shipments for the like period in 1951, it was reported at the recent annual meeting of the Steel Boiler Institute in Hershey, Pa.

## Flash! Lumbermen Rule 10 Per Cent of Texas Empire

Nearly 10 per cent of the people in Texas live in towns "governed" by members of the Lumbermen's Association of Texas.

This interesting insight into the civic-mindedness of southwest dealers was given by Gene Ebersole, association vice president, in releasing an up-to-date list of association members now serving as mayors of their cities. So far, Ebersole has uncovered 19, and thinks there are still some he hasn't heard of.

Population of these "dealer-governed" Texas cities amounts to nearly 750,000; the state's population is 7½ million. That's where the 10 per cent comes in. Moreover, in San Antonio (406,811), both the mayor and the mayor pro-tem are association members. The city's population was counted only once, though. San Antonio's mayor is Sam Bell Steves, its mayor pro-tem, Mike Cassidy.

Many other Texas lumbermen, Ebersole said, are doing civic duty as city councilmen, presidents of chambers of commerce, and in other posts.

Another interesting twist to Texas dealer civic-mindedness—a single firm lists three mayors on its roster. It is the Calcasten Lumber Co. and its officials are W. S. Drake, president of the company and mayor of Austin; Charles Young, mayor of Kyle; and Thomas Starnes, mayor of Thrall.

Here are the other dealer-mayors and their cities:

Marvin C. Alson, Sweetwater; Cecil Cothburn, Pecos; Alvin M. Clark, Rottan; W. B. Elliot, Thorndale; John Gillette, Alpine; Ike Hallman, Menard; Gene Klein, Amarillo; Phil McGehee, Robstown; Herbert Pike, Weslaco; Herbert Stokely, Brownsville; Herbert Turner, Childress; Lamar West, Levelland; J. Wolfshol, Beeville; and J. T. Newman, Cuero.

## Installed in Philadelphia



AT OFFICER INSTALLATION ceremonies of Home Builders Association of Philadelphia and Suburbs, Paul E. Kelley (left), newly-elected Philadelphia president, talks over home building conditions with Alan E. Brockbank (center) and E. M. Spiegel, president and vice president of the National Association of Home Builders.

it's Quality that sells

BRIGGS  
*Beautyware*  
PLUMBING FIXTURES

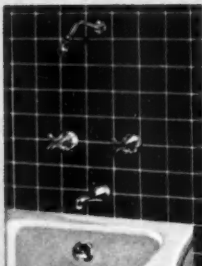


**AND BRIGGS FIXTURES OF FORMED STEEL . . . . OR VITREOUS CHINA  
PUT EXTRA VALUE IN ANY HOME!**

Yes, it's quality—striking modern beauty combined with proved durability—that sells Briggs Beautyware! Home owners know that they can be proud to have visitors see these luxury-styled plumbing fixtures in their bathrooms. Briggs Beautyware *looks* expensive—recently redesigned and restyled, its smart, new lines and smooth, flowing contours give it an unmistakable mark of quality. Your customers are finding out that the stain-proof, acid-resistant luster of Briggs Beautyware just won't wear off! Dependable Briggs Beautyware fixtures retain that "just like new" look through the years. That's why they're first choice among discriminating home owners everywhere. Cash in on the established sales appeal of Briggs Beautyware!



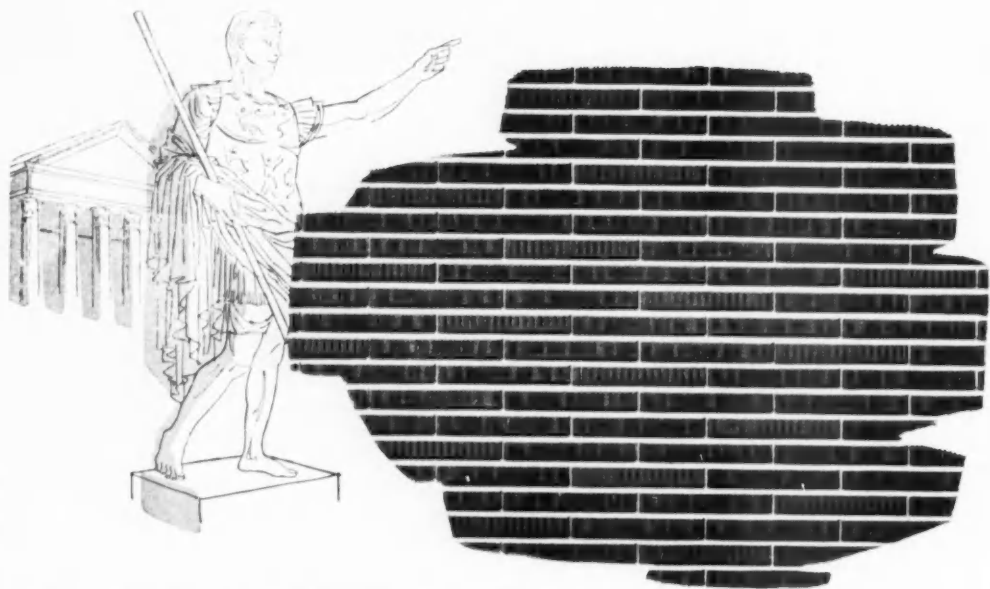
Briggs Beautyware vitreous china lavatories are built to the same exacting specifications that have been traditional with Briggs fixtures from the very start. Briggs is proud that any modifications in its products have always been made with the object of *improving* them. This basic Briggs policy is unchanged today.



The high quality of Briggs Beautyware chromium plated brass fittings has long been well known throughout the plumbing ware industry. Like every other feature of nationally advertised Briggs Beautyware, these fittings are today maintained at the same high level of workmanship which has always distinguished them.

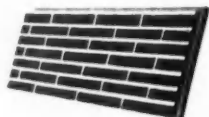


Closets, too, are the finest that Briggs has ever manufactured. Engineered for speedy, efficient installation, these sturdy fixtures have proved themselves trouble-free in thousands of American homes.



## ROMAN BRICK

*... the latest fashion in insulating siding*



...ANOTHER FLINTKOTE FIRST!

Here is a *brand new* and *different* siding that puts you in a unique spot—for sales and profits.

### FLINTKOTE ROMAN BRICK!

It reaches back into history for design inspiration... back to ancient Rome, where it was considered the aristocrat of brick design.

In recent years many leading builders and architects have specified this slim handsome brick for homes—ranch type or modern—smart shopping centers and commercial buildings.

And now Flintkote has made ROMAN BRICK the *modern* aristocrat of siding... and insulating siding that gives old homes a new lease on life!

Get your order in today for this fashionable new Flintkote insulating siding!



### OLD HOME WEEK!

Every old home in your community is a set-up for Flintkote's new Roman Brick Insulating Siding.

This new material quickly transforms any drab, fuel-wasting house into a modern-looking, money-saving home to be proud of.

Make it *Old Home Week* in YOUR company... with Flintkote Roman Brick Insulating Siding.

You'll find it will turn into *New Profit Week*, too!

THE FLINTKOTE COMPANY, *Building Materials Division*,  
30 Rockefeller Plaza, New York 20, N. Y.

## FLINTKOTE



*... the extra years of service cost no more!*

AMERICAN BUILDER

## Texans "Indoctrinate" German



**VIEWS OF U.S. PRIVATE INDUSTRY** on the "Socialism vs. Free Enterprise" issue were heard by Siegfried Streuert (center), an exchange student from Kiel, Germany, as a guest at recent joint meeting of the Amarillo Real Estate Board and the Texas Panhandle Home Builders Association in Amarillo. Streuert, who has been attending school in Amarillo, is pictured with builder association president Jack Seale (left) and Hugo Loewenstern, past president of the Texas Real Estate Association. Featured at the meeting was a panel discussion on public housing, rent control, slum clearance and other controversial topics.

## Small Town Project First In NAHB Land Planning

A project in Farmington, N.M., a town of 6,000, is winner of the National Association of Home Builders' first 1952 Merit Award in land planning.

The award, for high standards of land planning, design and development, went to San Juan Park, a 53-acre subdivision developed by Allen Stamm & Associates of Santa Fe, N.M. Land planners were Harmon & O'Donnell, Denver, John Weaver Gordon II, Santa Fe, was the architect.

Announcement of award was made by NAHB's land planning committee, of which Albert Baleh, Seattle, and L. E. Fite, San Antonio, are co-chairmen.

## Special Features Spark Cincinnati Home Show

A "very successful" home show has been reported by the Home Builders Association of Greater Cincinnati.

Among the features of the recent event, held at the new Cincinnati Gardens, were a stage show, a bird house building contest for Boy Scouts and a "Miss Homememaker" contest for high school senior girls in which the winner got a \$500 college scholarship.

The association show committee was headed by Wilford H. Miller, chairman, and Martin L. Holman, co-chairman. Earle DeLaittre was managing director.

## Cortright's Column

FRANK W. CORTRIGHT, Executive Vice President, National Association of Home Builders of the United States



## New Definition of a Liberal

There is a note of encouragement in today's Washington news—something that transcends the daily headlines about steel, controls and confusion. There is confusion, but I detect a new note of true liberalism.

True liberalism affects all of us. It is of vast difference from the so-called "progressive liberalism" which took over the nation from 1944 to 1950, when slowly it began to fade.

Edward J. Meeman, editor of the Memphis Press-Scimitar, one of the Nation's great newspapers, summed up the situation recently when he said that our country's old liberal movement is dead. It is dead, he added, because it tolerated Marxist communism and related ideas which brought on the country's present crisis.

With the blessing of progressive liberals, Communism was allowed to grow into the great power that now threatens us. By liberals, I mean those men and women who wish to abolish poverty, who wish to enjoy freedom and the good things of life which have been limited to the few.

The goal was all right. The method of proposed attainment was all wrong. Editor Meeman points out that the mistake these liberals made was in building a powerful government and a powerful labor movement in an effort to accomplish these purposes.

As those of you who have studied the question of public housing know, the effect was to make the individual dependent on a powerful government and labor movement—and, of course, these forces were too big for the liberals to control effectively.

Now, what about my news concerning true liberalism? The goal of a true liberal is to make the individual less dependent on resources controlled by others, and to make it possible for him to enlarge his own resources, which he controls. False liberalism tears down the institution of private property; true liberalism extends private property.

In recent legislative actions the progressive liberal has lost ground to the true liberal. I look forward to the day when true liberalism will seek to make everybody a property owner. Workers would be encouraged to buy stocks in the industries in which they work, and in other industries.

Editor Meeman has a good thought: "Only when the majority of people are substantial property owners will the private property system be safe."

Capitalism, in my opinion, cannot survive unless we can eliminate the continued strikes which always threaten our economy. And these strikes will be eliminated only when the interests of capital and labor become identical. And they become identical when they have a common interest in eliminating waste, increasing production and profits.

The way to get a new liberal movement, Editor Meeman suggests, is to go back to the crossroads, where the progressive liberals lost their way. Liberals have been on the wrong road for a long time. If they return to the crossroads, there they will find the right road.

It leads not to the expansion and aggrandizement of government, its sources and powers, but the expansion of the individual, his resources and powers.

The task of new liberalism is to see that the workingman becomes the owner of private property, and lots of it. Then the private property system will be safe, and the liberties that are safe only under a private property system.

## Southern Plywood Makers Seek to Curb Imports

Steps to "initiate industry-wide support in combating the ever-increasing importation of hardwood plywood" were taken by the Southern Plywood Manufacturers Association at its recent meeting at St. Simons Island, Ga.

The group also voted to register strong protest with the Interstate

Commerce Commission against the recent freight rate increase and to take steps to help prevent further increases.

Named president and vice president respectively were V. L. Tous-saint of Hattiesburg, Miss., and Tom John, Maxton, N.C. C. W. Dietterich of Atlanta was reelected managing director.

Sixty-five members and guests were on hand for the meeting, the association's 12th annual.

## WSB Wage Formula

(Continued from page 33)

the meeting were united in the opinion that Regulation X should be continued in some modified form "because the danger of inflation still exists." Summing up, Housing and Home Finance Administrator Raymond M. Foley said "If a million homes can be safely produced, we'll try to adjust controls to produce them in a well-rounded proportion. We'll go back and come out with the very best answers we can as, we think you'll agree, we have always tried to do."

### Exhibit Space Enlarged

Looking ahead to the 1953 convention and exhibition, Paul S. Van Auken, NAHB convention director, reported that the Conrad Hilton Hotel in Chicago was enlarging its exhibition hall to provide 60 extra booth spaces. He said this would enable the builders to have more exhibit space under one roof than heretofore in the Conrad Hilton and Congress Hotels combined. The additional space is made possible by moving the Hilton's large coffee shop from the basement level to the main floor.

### New NAHB Home Under Study

Former NAHB President Edward R. Carr described several studies under consideration for the association's new headquarters, and the building committee he heads was given a vote of confidence to use its best judgment in selecting a final plan. Proposals ranged from utilization of the concrete in an existing building on the site for construction of a three- and four-story structure, up to an entirely new building eight stories high, the maximum height permitted by zoning regulations. The plot, approximately 63x130 feet, is at 1623-25 L Street, between 16th and 17th Streets and midway between the Statler and Mayflower Hotels.

The directors decided to hold their 1953 fall meeting at New Orleans. Buffalo had put in a bid, while Long Island urged consideration of New York for the 1954 fall session.

James W. Pearson, president of the Executive Officers Council, announced that the Council would hold its summer conference August 24-26 in Lookout Mountain Hotel, atop the famous mountain of that name overlooking Chattanooga, Tenn.

### Five New Chapters Bring NAHB Total to 203

Five new chapters were granted charters at the Washington meeting, increasing the number of local associations affiliated with the national organization to 203.

Latest additions include the Springfield Home Builders Association, Springfield, Ill., Gail M. Wanless, president; Santa Fe Home Builders Association, Santa Fe, N. M., William A. Stanton, president; Lower

## Compare Notes on Ohio Home Building



**BOARD OF DIRECTORS** of Ohio Home Builders Association poses at Shawnee Country Club, Lima, during recent business meeting. Host for the session was the Northwestern Ohio Contractors and Builders Association.

### Heads N. California Dealers



**NEW PRESIDENT** of the Lumber Merchants Association of Northern California, Ira E. Horton (right) of San Francisco, is congratulated by retiring president J. H. Kirk, Santa Maria, at group's recent 12th annual convention at the Palace Hotel in San Francisco. Russ Stevens of Healdsburg was reelected vice president and Everett King, Bakersfield, was named treasurer.

Guadalupe River Home Builders Association, Victoria, Texas, W. G. Maroney, president; Home Builders Association of La Crosse, La Crosse, Wis., Osborne Nolop, president, and Centex Home Builders Association, Killeen, Texas, Jack Cloud president.

Several changes in the national directorship were also announced. Named to represent state associations were John Shaffer, Florida; Harold Albert, Michigan; Lewis Epstein, New Jersey; Joseph Robers, Ohio; N. D. Woods, Oklahoma, and E. J. Burke, Texas.

New directors from local associations include Gail M. Wanless of the newly organized Springfield, Ill., group; Harris K. Evans of the Milwaukee Builders Association and Quincy Lee of the San Antonio Home Builders Association; Carl Springer of the Lorain County (Ohio) Home Builders Association, Roland Bremer of the San Antonio Home Builders Association and Aubrey W. Love of the Home Builders Association of W. Virginia.

### Builder Group Active in Grand Rapids' Decision to Speed Sewer Improvements

When the city commission of Grand Rapids, Mich., recently decided to build secondary sewage treatment facilities as ordered by a lower court, without appealing the order to the state supreme court, it made a move which had been actively supported by the Grand Rapids Home Builders Association.

The Allied Building Council of Grand Rapids, of which the home builder group is a member, employed an attorney to help in expediting the commission's favorable decision.

Without the sewage disposal addition, builders would be unable to connect to many of the existing sewers. Neither would they be authorized to build houses outside the city without installing septic tanks, which are prohibited in some of the adjoining townships.

Builder Association officials said that lack of additional facilities was generally holding up home building, having prompted a state health department ban on sewer extensions pending assurance that the city could handle its sewage adequately.

### For Good Public Relations



**ONE OF TOP AWARDS** in National Retail Lumber Dealers Association's nation-wide public relations contest is accepted for Edward Hines Lumber Co., Chicago, by advertising manager Phil Creden (right). Congratulations are offered by Clyde Fulton, NRLDA president.

## CLAY PIPE-ESSENTIAL \* ECONOMICAL \* EVERLASTING



Occupants of these duplex homes in the Marston Subdivision at West Point, Miss., will have the finest of sewerage facilities. Thousands of feet of Vitrified Clay Pipe are installed in the new sanitary sewerage system.

### DEFENSE HOUSING AT WEST POINT, MISSISSIPPI,

## *Serviced* BY VITRIFIED CLAY PIPE SEWERAGE SYSTEM

At West Point, defense activity at nearby Columbus Air Force Base and industrial expansion has made necessary new homes for defense workers. And wherever new dwellings are being constructed, you'll find Vitrified Clay Pipe on the job.

Clay Pipe is the *only* chemically-inert sewerage and drainage material. It's immune to acid attack, rust, decay, and all other forms of chemical decomposition. Its

performance has been proved—decade after decade—where performance really counts . . . *in the ground. It never wears out!*

**NATIONAL CLAY PIPE MANUFACTURERS, INC.**  
311 High Long Bldg., 5 E. Long St., Columbus 15, Ohio  
703 Ninth & Hill Bldg., Los Angeles 15, Calif.  
100 N. LaSalle St., Rm. 2100, Chicago 2, Ill.  
206 Connally Bldg., Atlanta 3, Ga.



C-812-2

# HOW TO WRAP UP A ROOFING PROSPECT!



—and clinch the sale with these facts about

TEXACO'S TIME-TESTED, TOP PERFORMING

## TEX-LOK

### Asphalt Shingles

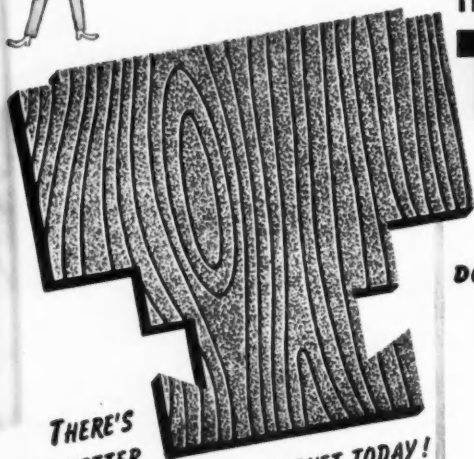
**HEAVY DUTY • FIRE-RESISTANT**

**DOUBLE COVERAGE • TIME-TESTED DESIGN**

**INTERLOCKING • WIND-TIGHT**

**LONG-LIFE • LOW-COST**

**GOOD-LOOKING**



**THERE'S  
NO BETTER  
SHINGLE VALUE ON THE MARKET TODAY!**

Sell TEX-LOK... for new construction and re-roofing; for farm and commercial buildings, homes, schools, churches. This interlocking type shingle has been tested in every weather — and has weathered every test! Put all these facts before your prospects. When you sell TEX-LOK you sell top protection and top performance... make more satisfied customers.



TEX-LOK shingles are available in the areas served from roofing plants located at Lockport, Illinois; Fort Neches, Texas; and Port Wentworth, Georgia.

◆ **In the Northeast, it's TEX-LATCH**

Tex-Latch is similar to Tex-Lok except in method of locking tabs. Tex-Latch shingles are available from the Edge Moor, Delaware roofing plant.

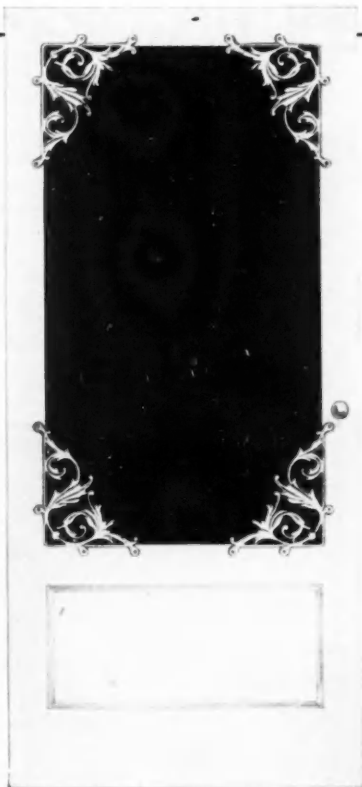


MEMBER OF THE  
ASPHALT ROOFING INDUSTRY BUREAU  
AMERICAN BUILDER



LEIGH DOOR

# Scrolls



## Add so much charm to your home entrances for so little!

No Leigh building product has "caught on" more rapidly than Leigh Door Scrolls. These beautiful screen or storm door fittings, cast in rust-proof aluminum from hand carved wood models are rich in depth and detail. Finished in textured white or natural lustre aluminum. Can be fitted to any door in minutes. And they are also practical because they provide added bracing. Packed 1 set per carton complete with installation screws. Truly real entranceway beautifiers for your homes... added touches that win instant attention! Order by sets giving design and finish.

## 2 Exquisite Designs

"ENCHANTMENT" (left) A beautiful full depth swirling leaf pattern. To be used in each corner of door. 11" x 9". Packed 4 per set.

"MORNING GLORY" (right) "All the freshness of Morning Glories blooming 'round your door!' To be used in diagonally opposite corners of door. 20" x 14". Packed 2 per set.



\*Send for complete new 4-color Catalog 52-L of Leigh interior and exterior metal building supplies.



**LEIGH BUILDING PRODUCTS, DIVISION**

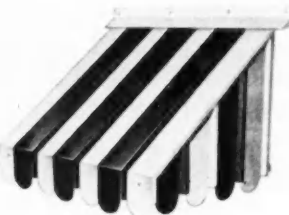
LEIGH AVE.,

AIR CONTROL PRODUCTS, INC.

COOPERSVILLE, MICHIGAN

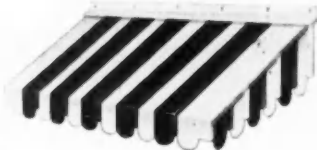
*Aristocrat*

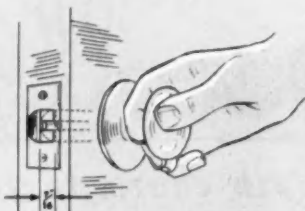
## AWNINGS AND CANOPIES



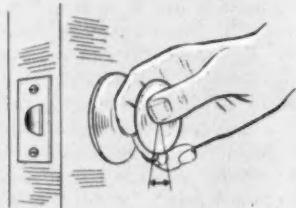
- ALL METAL • LOW PRICED
- PREPACKAGED KNOCKED-DOWN
- QUICKLY INSTALLED
- WEATHER DEFYING

This beautiful new Leigh "Aristocrat" line requires no special installers. Put up by anyone in minutes. Only 6 standard stock sizes required. Will not rattle. Zinc coated, bond-erized steel finished with zinc chromate primer and baked enamel. White with blue, green or tile red stripes. Special sizes available.





**FULL 7/16" BOLT THROW**



**SHORT TRAVEL RATIO**

**ANOTHER SPECIAL FEATURE  
BUILT INTO**

# **NATIONAL LOCK** *set*

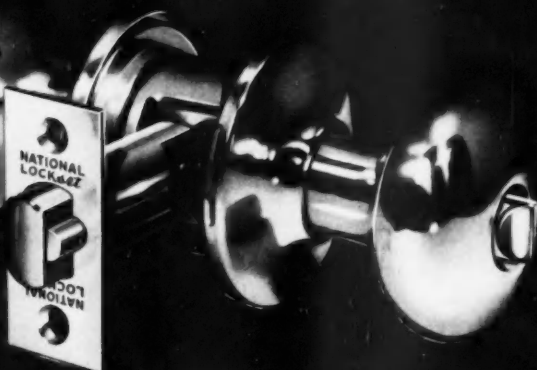
Patent Applied

Solid brass bolt "throws" a full 7/16" every time. Always a positive strike plate engagement. Bolt has dead latch feature that keeps latch engaged with strike plate... prevents unauthorized entry with knife or screwdriver. Extra security!

Engineered relationship between knob and locking mechanism reduces degree of "travel"—only 29° movement required. This important feature adds extra years to lockset life. It is another example of the plus value built into National Lockset.

## **AMERICA'S OUTSTANDING LOCKSET VALUE**

**SOLD  
ONLY  
THROUGH  
JOBBER**



It's the "difference" that makes NATIONAL LOCKset top money-value... an abundance of extra, exclusive features that add up to time saving installation and home owner enthusiasm. It's the "difference" that will sell you once you've heard the inside story. Write today for illustrated catalog. It contains full color reproductions and complete details.



**DISTINCTIVE HARDWARE...ALL FROM 1 SOURCE**

# **NATIONAL LOCK COMPANY**

**ROCKFORD, ILLINOIS • MERCHANT SALES DIVISION**

YOUR JOBBER'S  
 "ALL FROM 1 SOURCE" SUPPLY...  
**NATIONAL LOCK COMPANY**



...AND WHAT IT MEANS TO YOU!

- GUARANTEED consistent quality year after year.
- DEPENDABLE supply whenever needed.
- WIDE SELECTION always.
- ACCEPTED by the public as a result of constant, aggressive national advertising.
- EASY TO WORK WITH — sturdily and simply constructed for fast installation.

**SOLD ONLY THROUGH JOBBERS**

DISTINCTIVE HARDWARE...ALL FROM 1 SOURCE  
**NATIONAL LOCK COMPANY**  
 ROCKFORD, ILLINOIS • MERCHANT SALES DIVISION



**NATIONAL LOCKSET**  
 "Superlative Lockset Line for Discriminating People" — America's outstanding Lockset value. Complete selection of finishes and split finishes. Cold rolled steel mechanism.

**NATIONAL TUTCH LATCH**

Opens kitchen cabinet doors automatically by a gentle touch of finger, wrist or elbow. Positive latching. For use on wood cabinets.



**BUILDERS BUTTS**

Wide selection to fit every job application. Regular and half surface, available with ball tips, button tips, and loose pins. Light weight, regular weight.



**CABINET HARDWARE**

Beautifully styled forged brass hardware. Smart die-cast handles, distinctive concave knobs, wide choice of finishes. Envelope packaged.



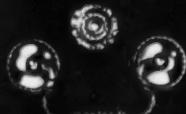
**BALL BEARING CASTERS**

Engineered for trouble-free service. Double or single race, ball-bearing construction. Stem and plate type, chair or furniture casters, light duty casters and furniture glides.



**PERIOD FURNITURE TRIM**

Authentic. Skillfully reproduced. Richly finished in French Gilt and Antique English. Knobs and pulls applied to old or new furniture.



**SCREWS AND BOLTS**

Every type, size and finish. Flathead, round head, slotted and Phillips recessed head screws. Also everything you need in stove and carriage bolts.

**SHelf HARDWARE**

An extensive line of butts, hinges and hasps... unlimited selection to meet every need... packaged in rugged, easily-handled cartons.



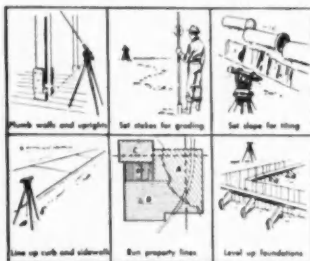
# White Universal Level-Transit...



**the most versatile instrument you can own!**

**Y**ES, the White "Universal" Level-Transit is the most practical, complete instrument on the market. Now available in a new improved model — the No. 3000 — with internal focusing, coated optics, guarded vertical arc. In fact, every feature to assure you lifetime durability and accuracy. And the price is *only* \$185\*, complete with tripod. See your dealer, or write **DAVID WHITE COMPANY, 311 W. COURT STREET, Milwaukee 12, Wisconsin.**

**Indispensable for all these jobs and many more**



We offer the most expert **REPAIR SERVICE** on all makes, all types of instruments.

\*Price subject to change without notice.

7143

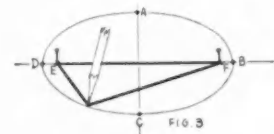
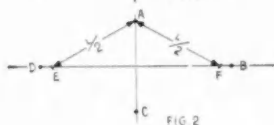
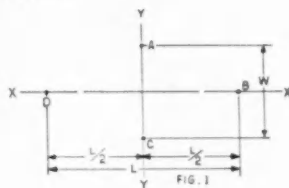
42

# LETTERS

## Laying Out An Oval

Sir: Regarding your answer to H.F.R. in the March issue for a method of laying out an oval of any size, you did not completely answer the question. You explained a method of laying out an ellipse of very specific proportions. The ellipse you showed would always have a width of 86.6 per cent of the length. Here is the correct method for laying out an ellipse of any width  $W$  and length  $L$ :

1. Lay out two center lines  $x-x$  and  $y-y$  and mark the four points  $A$ ,  $B$ ,  $C$ , and  $D$  according to the desired width  $W$  and length  $L$ . (see Fig. 1.)



2. Locate points  $E$  and  $F$  on the longer  $x-x$  of the two axis. These two points are located by measuring from point  $A$  (or  $C$ ) a distance  $L/2$  to the center line  $x-x$  as shown in Fig. 2.

3. Drive a pin or small nail at three points  $A$ ,  $E$ , and  $F$ . Then place a loop of thread, string, or fine wire around the three pins, making the loop free from any slack. Run a pencil around as shown after removing the pin at  $A$ , thus describing a true ellipse. A thread or string is fine for a small ellipse but for a larger one such as an arch or a porch, the string will give too much. A thin wire is better.

John B. Threlfall,  
Madison, Wis.

## Presentation Of Facts

Sir: I have just finished reading the May issue of the *American Builder*, and wish to compliment you most

enthusiastically on the splendid work you are doing. Naturally, I have gone over the story concerning our company, starting on page 90, and can only say that I cannot imagine how you could have improved upon your presentation of the facts as they actually exist on the job.

After this clear, concise example of reporting, you can rest assured that I will read your magazine with even more interest and full confidence that you are sparing no efforts to present a true picture.

J. J. Carey,  
Hutchinson & Carey Inc.,  
Denver, Colo.

## Better Than School

Sir: Yours is a splendid publication. While I originally subscribed to it because of my enrollment in a correspondence course in building construction as a source of supplementary information, I soon found I was obtaining more instruction from the *American Builder* than from the course. I have long since discontinued the correspondence course but it would be quite unthinkable for me to do without the *American Builder*.

Joseph E. Dumlér,  
Baltimore, Md.

## Paint Articles Interest Many Readers

Sir: I am very much interested in the series of articles on paint that are being published in the *American Builder* at the present time. This interest has been increased recently by the fact that the University administration has requested that I give a series of 30 one-hour lectures on paint technology during the coming summer school session. The lectures are to be of a non-technical nature and are for the purpose of giving high school teachers a general knowledge of the history, the raw materials, manufacture and uses of paint and related products.

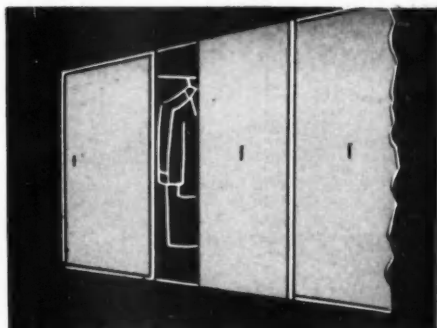
The information given in the articles printed thus far in the *American Builder* is of the nature which I am proposing to lecture on this summer. I would like to inquire whether it would be possible to obtain reprints of the articles as they are published. Is it too bad that the publication of the series will not be complete prior to the start of summer school.

Andrew J. Snyder, Professor,  
Paint Technology, U. of Alabama,  
University, Ala.

(Continued on page 44)

AMERICAN BUILDER

# You've been waiting for novoply\*



## for Sliding Doors and Partitions...and Cabinet Doors!

### *Here's why:*

**NOVOPLY**...the completely new and different wood paneling...solves a problem that could never be solved adequately before: *the sliding door and sliding partition problem.*

Novoply solves this problem because:

*it is the flattest paneling ever produced  
...virtually warp-free!*

It is light in weight...spectacularly beautiful.

And perhaps the most amazing thing about Novoply is this: with *all* its advantages, it is surprisingly **LOW-PRICED!**

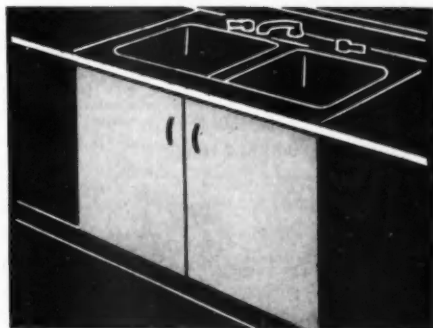
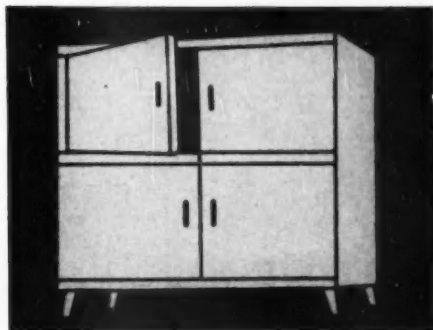
You can have Novoply — and *like* it — any way you want it...natural, stained, painted, veneered.

It is easily worked by ordinary woodworking tools. Can be sawed, screwed, planed.

So investigate Novoply...not *only* for sliding doors and partitions...but also for wall paneling, furniture, really distinctive built-ins.

Maybe you can think of *other* ways to take advantage of Novoply, too.

Send the coupon today for a sample and descriptive booklet.



\*U. S. Reg. Patented; Other patents pending



Made by **UNITED STATES  
PLYWOOD CORPORATION**  
Manufacturers and Distributors of  
**Weldwood® Plywood, Weldwood® Doors  
and Other Wood Specialties**  
Largest Plywood Organization in the World



**UNITED STATES PLYWOOD CORPORATION**  
55 West 44th Street, New York 36, N. Y.

AP-452

Please send a sample of NOVOPLY and descriptive booklet.

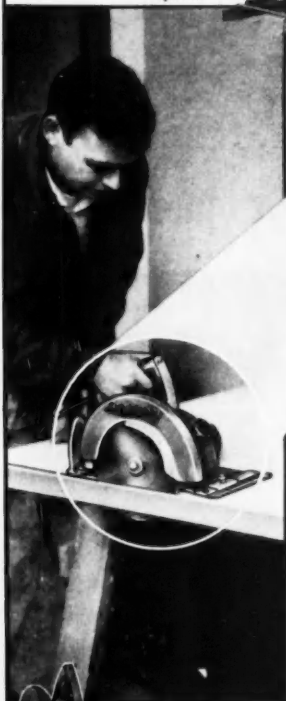
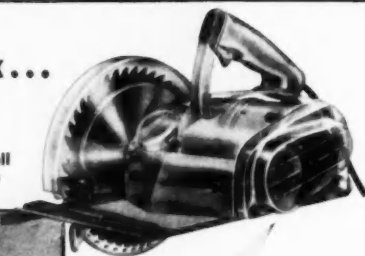
Name .....

Address .....

City..... Zone..... State.....

## Take a Close Look...

2 11/16" Cut  
8 1/2" Blade  
6000 RPM Full  
Load Blade  
Speed



Depth of Cut  
Adjustable from  
3/4" to 2-11/16"

Angle Cuts  
— from 90° to 45°  
for bevel cuts



# NEW! Dual V-Belt Drive Cuts Time & Costs **SYNTRON** Portable **ELECTRIC SAW**

• "Cushion-action" of the Dual V-Belt Drive adds life to motor and blades. No gears, no grease leakage to spoil clean wood.

• Full load 6000 RPM blade speed provides fast cutting up to its 2-11/16" depth of cut capacity.

• Made of steel and aluminum stampings for hard work, severe service, it weighs 19 1/2 lbs. — just the right weight for easy handling, accurate cutting.

• Full ball bearing exceptionally cool-running motor develops up to 1 1/2 H. P. With proper abrasive discs it will cut metal, stone, concrete, tile, brick, terrazo etc.

Underwriters Laboratory  
Approved

**\$89.50**

Metal Case \$8.00 Adtl.

**T**his new Dual V-Belt Drive eliminates gears and gear boxes. It assures vibrationless, velvet-smooth operation with surplus power for faster, cleaner cutting.

Instant setting provides for fast, uniform cutting and scoring of thin materials. Make bevel cross cuts and rip cuts with ease and accuracy.

The Syntron Portable Electric Saw with Dual V-Belt Drive is the saw that will cut your job time and costs.

Write Now for FREE Catalog Folder

**SYNTRON COMPANY**

618 Lexington Avenue

Homer City, Penna.

Penna.

## Letters...

(Continued from page 42)

### Paint...

Sir: I am very much interested in your fine series of articles on paint currently running in your magazine. If it is possible, I should like to obtain three reprints of the complete series of articles for office and class room use.

Dale E. Kirk, Assistant Professor,  
Agricultural Engineering Dept.,  
Oregon State College,  
Corvallis, Ore.

Sir: The series of articles appearing in *American Builder* on "What Paint Is" is of great interest to us, and we would like to obtain the complete series of eight articles for reference. We would prefer not mutilating each month's magazine in order to separate out each article. Would it be possible to obtain reprints of these articles?

Lee A. Wolterding,  
Kimberly-Clark Corp.,  
Neenah, Wis.

Sir: Could you tell us if the series of articles on the "Fundamentals of Paint in the Building Business" which are appearing in your magazine will be published in book form?

Roberta J. Brodie,  
National Research Council,  
Ottawa, Canada

Sir: We want to compliment you on the quality and thoroughness of the paint articles appearing in *American Builder*. It has been my pleasure to be associated with the paint business from the trade sales viewpoint for about 30 years and I have often wished for the time to sit down and properly prepare articles that would be of service to men who have been in the business from one to ten years, but have never seemed to find the time.

In these articles the editor has gone into a great deal of research to be able to convey this information as thoroughly and yet so simply for a person to understand. We are going to assemble these articles in booklet form and are desirous of assembling four sets.

W. H. Goodwin, Manager,  
Paint and General Hardware Dept.,  
Pinellas Lumber Co.,  
St. Petersburg, Fla.

▶ At present there are no reprints of the paint articles available. If a sufficient volume of

(Continued on page 46)

*Distinctive  
Shadow-lines*

...with

**SHAKERTOWN  
SIDEWALLS**



● **makes selling easier for GUNNISON Homes!**

Here's the sidewall that puts "sex appeal" in home exteriors! Colorful, rich and attractive, Shakertown Sidewalls combine the advantages of distinguished beauty with the economy of double-coursed cedar shingles.

There's no secret about the phenomenal demand for factory-stained Shakertowns. They mean lower construction cost, even lower cost

per year of service — with better insulation, less upkeep and added property value. They're architecturally right, too.

Whether you're building one home or one thousand, if it's good profit you want, you'll be ahead with Shakertown Sidewalls. It pays to stock and sell them!



Get the facts! Find out why shake homes, in project after project, have sold far ahead of any other homes built of standard materials. Write today for prices and architect-selected color samples. West Coast Plant at Chehalis, Wash.

The **PERMA**  
**PRODUCTS** Company



5455 BROADWAY AVE. CLEVELAND 27, OHIO



## R-W Silver Streak VANISHING DOOR HARDWARE

Today's smaller homes mean that space-economy is a greater necessity than ever before. Every home-builder and every home owner is a prospect for space-saving Richards-Wilcox SILVER STREAK Vanishing Door Hardware.

SILVER STREAK Hangers and Aluminum Track offer maximum compactness and convenience. There's more room in every room, more chance to utilize every inch of available space for living purposes.

SILVER STREAK is perfect for thin-wall installation and noiseless operation. It offers greater efficiency, ease of operation and economy in all types of homes. For complete detailed information on all the exclusive features of SILVER STREAK hangers and hardware, write for illustrated leaflet showing complete architectural sketches of installation methods.

**GREATER EFFICIENCY!**  
**GREATER ECONOMY!**  
**BETTER OPERATION!**



Notice how sliding doors permit full utilization of every inch of space in this limited hall area. There's no conflict between doors.

**Richards-Wilcox Mfg. Co.**

CHANGES FOR ANY BOOK THAT LIES!

AUKORA ILLINOIS U.S.A. Branches in all principal cities.

Richards-Wilcox Mfg. Co. is a leader in the production of sliding doors & equipment for homes, hotels, hospitals, schools, stores, & restaurants. We have the finest machinery & equipment.

1880



1932

Reg. U. S. Pat. Off.  
OVER 72 YEARS

## Letters...

(Continued from page 44)

requests for reprints are forwarded to *American Builder*, they will be made available.—The Editor

### Cooperative Housing Plan Interests Canadian

Sir: We have noted with interest the article on page 194 of the May 1952 issue outlining the Kavanagh Manor Cooperative which was formed under Section 213, Title II of the National Housing Act. This plan would seem to have a lot of merit and as president of the National House Builders Association Inc. of Canada I should like to have complete information on this section of the Act so that consideration can be given to a recommendation to our own National Housing Act authorities.

W. H. Grisenthwaite,  
Hamilton, Ontario,  
Canada

### More on 2-Ply Wallboard Application

Sir: We are interested in your article on pages 54 and 56 of the May issue relative to 2-ply wallboard application. It happens we have a job of this description coming up very soon. Our customer plans to use two sheets of  $\frac{3}{8}$ -inch gypsum board. What we particularly wish to know is how much cement is required for a square foot or 100 square feet of surface?

B. C. Patrick, Manager,  
Hawkeye Lumber Co.,  
Osceola, Iowa

Other readers have asked this same question. Unfortunately space limitations forced us to omit the figures on adhesive coverage in this article. The Gypsum Association, which is our source for information on this particular system of application, recommends "that no less than 45 pounds and no more than 60 pounds of laminating adhesive be used per thousand square feet of board. The adhesive, of course, is placed on the backside of the face layer and troweled evenly with a notched trowel.

"With respect to the brands of material available for lamination, we suggest that the adhesive recommended by the particular wallboard manufacturer whose products are being used be consulted for recommendations. It is generally advisable to use that manufacturer's cement whose wallboard is being erected. Generally, you will find little variation in the formulation of the cement."

AMERICAN BUILDER



# How to Apply Coverings and Finishes on Concrete Subfloors

Nothing you build into your houses, industrial and commercial structures contributes more to their fire-safety, structural stability, low maintenance cost and **low annual cost** than concrete subfloors. They check fires by preventing the upward spread of flames. They brace a building securely, add great structural

strength and rigidity to it, stay firm and level and will not sag, warp, rot or squeak.

There are several types of concrete subfloors; any can be finished with the covering of the owner's choice. Recommended procedure for installing some of the most popular coverings is described below.



## CARPETING

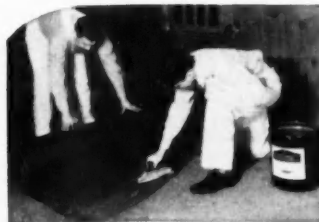
The subfloors are given a smooth troweled finish. Carpeting usually is laid over pads, which lengthen the life of the covering and



make walking more luxurious. Ordinarily carpeting is tacked to wooden strips either embedded in the concrete or nailed to wooden plugs set around the edge of the



concrete floor. Photos above illustrate the latter procedure: (1) drill holes to take the plugs, (2) tap hardwood plugs into the holes, (3) Nail continuous wooden strips to the plugs.



## CEMENTED COVERINGS

You need a subfloor with smooth troweled finish or fine broomed texture for linoleum, composition tile such as asphalt, cork, plas-



tic or rubber, or parquet wood. Follow manufacturer's directions in using special mastics to cement these materials directly to clean, dry concrete. The three photos above show



(1) cementing linoleum to subfloor, (2) applying asphalt tile to subfloor on a special mastic spread, (3) cementing factory-prepared wooden flooring blocks to concrete subfloor.



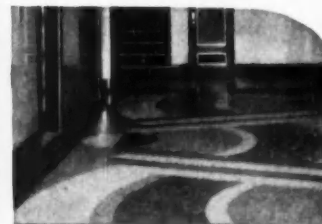
## HARDWOOD

Nail over waterproofed paper to wooden sleepers (not over 16 in. apart) embedded in concrete or anchored with metal clips.



## DECORATIVE CONCRETE

Surface can be stained, painted, waxed or oiled. Special effects also can be obtained by scoring concrete in any desired pattern.



## TERRAZZO

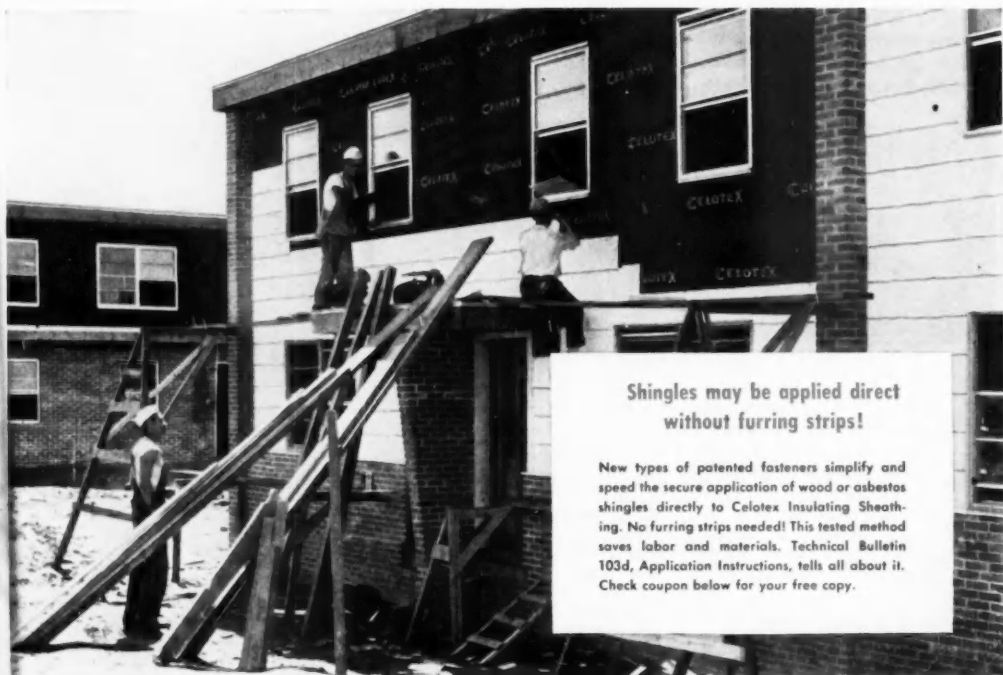
This treatment offers distinctive colors and patterns but is an art and should be applied only by an experienced terrazzo contractor.

## PORTLAND CEMENT ASSOCIATION

33 WEST GRAND AVENUE, CHICAGO 10, ILLINOIS

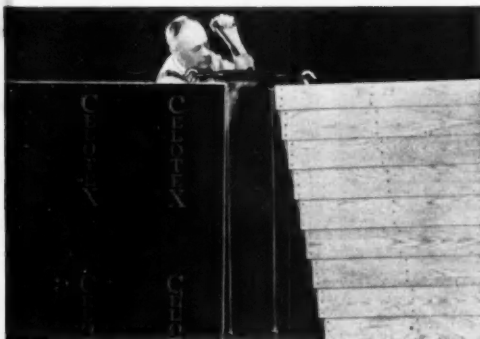
A national organization to improve and extend the uses of portland cement and concrete through scientific research and engineering field work.

# Get big bonus values



Shingles may be applied direct  
without furring strips!

New types of patented fasteners simplify and speed the secure application of wood or asbestos shingles directly to Celotex Insulating Sheathing. No furring strips needed! This tested method saves labor and materials. Technical Bulletin 103d, Application Instructions, tells all about it. Check coupon below for your free copy.



**Superior bracing strength proved by test.** As the turnbuckle was tightened, note how the panel of Celotex Insulating Sheathing remained plumb — while the panel of ordinary sheathing was distorted. Dramatic proof of Celotex Insulating Sheathing's greater bracing strength!



**It's double-waterproofed** — inside, by integral treatment that coats every fibre; outside, by heavy asphalt coating. Has nine times the moisture resistance required by Federal Specifications. Yet it also has over twice the vapor permeability required by Government agencies!

# ...yet pay no more!

## Celotex Insulating Sheathing gives you many extra advantages...yet costs no more than ordinary sheathing, applied!

Why use ordinary sheathing, when you can make your homes *far more salable* at no extra cost by using Celotex Insulating Sheathing? That's right! Applied, Celotex Insulating Sheathing costs no more and USUALLY LESS than ordinary sheathing. Yet it gives you all these big *extra* values...

- 1 Insulates and Weatherproofs** as it builds. All at *one* cost. No building paper needed. Saves labor, materials.
- 2 No Corner Bracing Needed** to meet FHA requirements, with 4 ft. wide,  $\frac{25}{32}$ " thick Celotex Insulating Sheathing. Has about 30% greater bracing strength than ordinary sheathing.
- 3 Goes Up 30% Faster.** Easier to cut and fit.

Up to 15% less waste. Siding or shingles can easily, quickly be applied *direct*.

- 4 Double-Waterproofed.** Stack it in the open, moisture won't hurt it. Won't warp or buckle. Lets you resume work quicker after rain, cutting costly delays.
- 5 It Is the Only Sheathing** made of tougher, stronger, long Louisiana cane fibres — and protected by the patented Ferox® Process from dry rot and termite attack.

So do as scores of the country's most successful builders have done. Switch to *extra-value* Celotex Insulating Sheathing. Save time, labor and money as you build more comfortable, more durable homes that are easier to sell! Mail coupon below for free booklet giving complete information.

### Celotex National Advertising Puts the Spotlight on YOU!

"See your builder!" Today, as in years past, that's what Celotex is telling prospective home owners — in big, colorful, hard-selling ads in THE SATURDAY EVENING POST, BETTER HOMES & GARDENS, AMERICAN HOME, SMALL HOMES GUIDE.

These impressive, full-page Celotex ads are de-

signed to build business for *you*. Tie in with them by emphasizing to every prospect that your homes are built with *genuine* Celotex Products. This makes your selling job far easier. For over a quarter century of national advertising has created unsurpassed *public acceptance* for the name Celotex!

Build Better... Build with Genuine

# CELOTEX

REG. U. S. PAT. OFF.

Double-Waterproofed INSULATING SHEATHING

The Celotex Corporation, 120 S. LaSalle Street, Chicago 3, Illinois

#### MAIL TODAY!

The Celotex Corporation, Dept. AB-82  
120 S. LaSalle St., Chicago 3, Ill.

- Please send me free the Celotex booklet, "How You Can Build Better Homes at Lower Cost."  
 Also send me Technical Bulletin 103d, Application Instructions — showing how to apply shingles direct to Celotex Insulating Sheathing.

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Address \_\_\_\_\_

City \_\_\_\_\_

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State \_\_\_\_\_



HERE'S WHAT  
BUILDERS SAY ABOUT

## SPOT SASH CORD

For years, builders and architects have used and specified Spot Sash Cord for hanging windows because they have come to know it as "the most durable sash cord on the market."



- TOUGH  
SOLID  
BRAIDED  
COTTON
- WEAR  
RESISTANT
- PLIABLE  
FOR EASY  
INSTALLATION

Look for the colored spots... your guarantee of quality. In new installations and replacements, use and recommend Spot Sash Cord.



**Samson**  
CORDAGE WORKS  
Boston 10, Massachusetts

## ON and OFF the RECORD

**VIRGIL PLACE**—When the South Bend-Mishawaka home builders chapter slipped to a membership of 16, someone asked Virgil Place why he didn't take over the job of reviving the organization. "I think they expected me to duck," said Virgil, "but I surprised them and said that I'd do it."

**HOW TO DO IT**—It's easy if you are a showman, an organizer and a driver. Place is all of those. He put together a meeting of nearly 300 in South Bend, imported a corps of four speakers from Chicago, had the mayor of South Bend present, and provided a membership solicitor for every 10 visitors. Gain in membership was about 1,000 per cent. State NAHB officials were also present to sell the idea of a state organization. South Bend-Mishawaka is back in the fold very strongly, and it's another first for Place.

**LAWNS**—Speaking of Virgil Place always brings up the subject of his son, the ingenious and irrepressible Andy. Andy's houses are all sold with lawns planted. Used to plant them by hand. But one day, Virgil, who came from a farm, and began his career as a county farm advisor asked why lawns couldn't be planted just as grain is planted on a farm. Andy's answer was to purchase a Ford tractor and a Brillion seeder. Now a full lawn on a large lot is planted in 30 to 35 minutes by one man driving the equipment. It's a great saving.

**SPRINKLING**—As soon as the lawns are planted high school boys spray them, and in about four days a tinge of green appears. Telling this much more or less jumps the gun, because complete details of this and other Place operations will appear in an early issue.

**SALES**—They are reported slow in most cities. There are exceptions. One is Jim Moreland's development on the edge of Chicago. He's building one-floor, modern designs on 100-foot lots for \$16,500. Has 22 under way at this writing, and has sold about 30. He says, "They'll buy if you've got what they want."

**NHW**—It means National Home Week. Elsewhere in this issue are complete details of the 1952 *American Builder* NATIONAL HOME WEEK contests—for NAHB chapters and for retail lumber dealers. Start your plans now, and write for contest entry blanks.

**INGENUITY**—After 25 years in this business and visits through hundreds of manufacturing plants, it's still a thrill to see a manufacturing process. Latest thrill, the Overhead Door Corporation's plant in Hartford City, Ind. The machines contrived by management and intelligent shop labor are amazing. Overhead Door takes second place to none when it comes to developing original machinery to cut costs and speed production.

**PARTS**—Another amazing thing about this company is the fact that the only finished parts it purchases are motors, nails, screws, bolts, cable and chain. All of the track, rollers, pulleys and other connectors are made from raw material right in the plant. It is another demonstration of the unlimited ability of American industry to invent and to improve, and to keep on doing both.

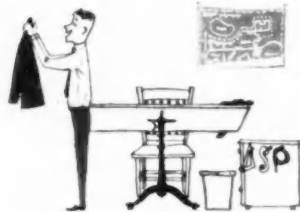
**NEW SLUMS**—Now that many postwar low-cost housing projects have been standing for a few years, some of them are beginning to disintegrate. Reason has nothing to do with the quality of construction. It has everything to do with the indifference of owners, probably their ignorance of how to live in houses. Many of these houses are beginning to look like slum dwellings—inside and out—which proves what we have maintained all along—that slums do not produce degenerate families, but that degenerate families produce slums.

**THE PROBLEM**—It's how to educate people in the art of living in houses. Maybe the building industry will have to do the educating. It's a certainty that when the public housers and the do-gooders catch up with these decaying houses recently built they'll blame the builders, but not the people who are abusing the houses.

**POSSIBILITIES**—One possible preventive is to collect a sum from each buyer to hold in reserve for use in case the owner neglects the lawn, defaces the exterior, fails to paint when paint is needed, or otherwise refuses or neglects to maintain. It doesn't sound like an easy answer, but it's possible.

**COMMUNITY COUNCILS**—An organization of property owners in a development might be able to set a pace which would spur all to keep  
(Continued on page 52)

# How to design a new kind of house



**1.** Start with the Carrier Weathermaker Air Conditioner. It heats and cools. It uses ducts similar to a forced warm air system. It will fit in any house—new or old. But it makes possible a new kind of house.



**2.** Forget the usual restrictions and problems of ventilation and temperature control. You are working on a Carrier Weathermaker Home. And it's completely air conditioned.



**3.** Shape your floor plan in an economical rectangle. You don't need wings or jogs to get cross-ventilation.



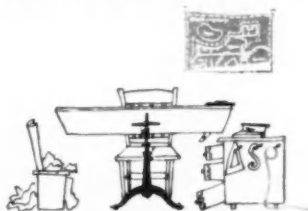
**4.** Group your windows for a feeling of space. Place them high on the wall for better lighting or easier furniture arrangement. Make them big for a good view. Leave them off where the view is poor or you want privacy.



**5.** Eliminate screens, movable sash and removable storm windows. Specify most glass double-glazed, set in simple frames.



**6.** Plan the interior for convenience without restriction. Put walls, windows and doors where they function best. This is a Weathermaker Home... not a wind tunnel.



**7.** Use interior bathrooms. You'll save valuable perimeter space and a window probably nobody would be able to look out of anyway.



**8.** Set the Carrier Weathermaker Air Conditioner anywhere that suits your plan—closet, utility room, basement, attic, even the garage. The Weathermaker fits in a space only 5'3" x 4'5".



**9.** Banish from your mind and the Weathermaker Home all the old-fashioned halfway measures to halfway comfort: fans, attic fans, louvers next to big windows and porches.



**10.** Trim your plans to take advantage of the climate. Proper exposures, well-planned overhangs and well-placed shade trees will make the house easier to cool, easier to heat.



**11.** Wind up with some real savings. And a house that's cleaner, quieter, more private, more comfortable and more fun to live in. If you'd like to hear more, our Weathermaker Home booklet is free for the writing.



**12. CARRIER CORPORATION**  
 314 S. Geddes Street, Syracuse, New York  
 Send me "How to Have a Weathermaker Home"  
 Name \_\_\_\_\_  
 Address \_\_\_\_\_

Gentlemen:

In 1948 I had my home built at the address below and after living there about six months my cellar started to leak from several places along the seam and walls. At first I didn't pay much attention but the following Spring after a rain, it leaked worse. I called the Research Laboratory of Rutgers University in New Brunswick and was informed that in order to make the cellar 100% dry proof, I would have to have the outside dug out and have the footing and walls retarred.

Needless to say, it was going to be a big job and an expensive one too, because several contractors wanted from \$350.00 to \$450.00 to do the job. The upstart was I couldn't afford it, so in August 1950 I was transferred to Korea and when I returned last year (1951) my wife told me the cellar was worse, anywhere from 40 to 60 buckets of water coming in during and after a rain—in fact, if it looked like rain, it would start coming in, almost. Then there was always the dampness and musty smell after or during the dry-up period.

Several months ago my wife heard from a party about your KAY-TITE and not being sure, I visited this party and he showed me his results—a dry cellar, although his was not leaking—only dampness. So what did I have to lose by getting several cans, which I did. I put two coats of KAY-TITE from the base to about 1½ feet up the wall. I also discovered I have several large holes and without a word of lie, after reading the directions carefully, then applying KAY-TITE, I have a dry cellar. Not a drop of water or dampness. As you no doubt know, we have had quite a lot of heavy rain these past several weeks. Now I intend to do the whole walls up to the ceiling.

The reason I am writing you, Gentlemen, about KAY-TITE is I want to say I'm grateful and pleased beyond words. You not only gave me a nice dry cellar but you also save me a lot of money and time. I wish you could send someone over and just see the good results of KAY-TITE, and my cellar was really bad. Try and send someone before I finish the rest of cellar.

I've had quite a lot of people over and they all agree. At present I'm stationed in Philadelphia and a few persons tell me they can't buy it here and last week I bought four cans for a friend of mine who lives in this area, so he could dry his cellar.

In closing, many, many thanks because for the first time my children and we can really enjoy our cellar now—because KAY-TITE makes it dry and cozy.

Respectfully yours,  
(signed) H. J. KUPPER

To: KAY-TITE  
West Orange  
New Jersey

From: Msgr. Hubert J. Kupper,  
U.S.M.C.  
148 Second Street  
Dunellen, New Jersey

ADVERTISEMENT

## On and Off the Record

(Continued from page 50)

their properties up. This has worked well. Garden clubs often exert great influence on the character of a development or community. In any event, because of indolence or ignorance, new slums are in the making, and it's the builders who will get the blame.

**THEY DON'T**—Can't you hear it now? They don't build them the way they used to. That's the reason they're falling apart. The rascally builders just threw them together after the war, and it's their fault that the houses don't stand up. That is what the do-gooders will be crying in another year, and they will make it stick unless somebody proves that it's people and not the houses that are at fault.

**DEFENSE**—Nobody will defend the builders except the builders. It might be a good idea now to begin to institute studies in the various NAHB chapters for the purpose of gathering data for defense that will prove the house to be sound.

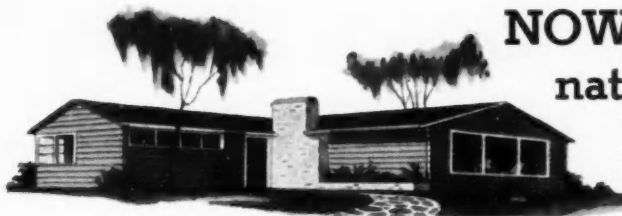
**CARPORTS**—Why a carport? Is it a desirable architectural feature? Is it an economy in car storage?

**ARCHITECTURAL FEATURE?**—Hardly. There is nothing attractive or tidy about an exposed automobile nesting at the side of a house under a roof, and only partly screened at best by an arbor or some lattice work. It's even less desirable if there is a closed end that serves as a backdrop for an accumulation of exposed garden tools, bicycles and just plain junk.

**ECONOMY?**—Has anyone ever proved conclusively just what, if anything, is saved by a carport? Most of them have a footing and a cement floor or strips. All of them are roofed. How much more does it cost to provide siding and a door? And what protection does a carport offer? In the snowy north, very little. In the dusty, sunny west and southwest, not much more. The same for the warm, sunny, and often rainy south. Does anybody really know?

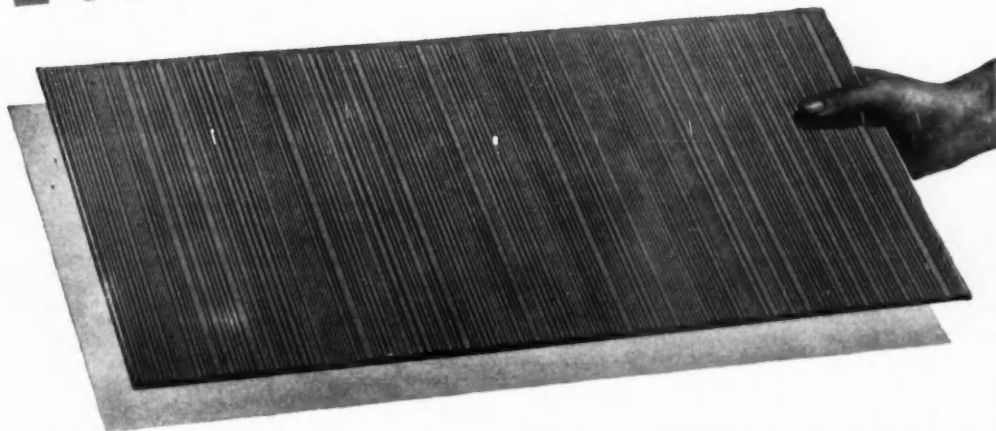
**STARTS**—Again we brag just a little. Last November, as in the preceding four years we stood alone in our prediction of starts for this year. Our figure was not less than 900,000, and quite probably a million or more. Housing starts for the first five months of this year are 455,600. Barring an unexpected calamity, our prediction will be borne out again.

AMERICAN BUILDER



**NOW! Cash in on the  
nationwide boom in  
Exterior Color**

**NEW** profit-builder from Asbestone



- ✓ **New deep-grain texture!**
- ✓ **New color harmony!**
- ✓ **Same lifetime durability!**
- ✓ **Same low price!**

CHROMA-TEX SIDING SHINGLES have a deep, natural-looking texture. Color is two-toned—dark in the valleys, light on the ridges—for a pleasing *new* kind of decorating effect that lends itself perfectly to modern color-planning ideas for exteriors. Like all Asbestone products, *Chroma-Tex* Siding Shingles are rock-like in their ruggedness—fireproof, weatherproof, rot-proof, termiteproof. Made of asbestos-cement, they need no painting, no preservative treatment, no maintenance of any kind.

Put more color, more style, more **SELL** into every home you build—at no increase in cost.

Give home buyers the rich, textured effect of the costliest sidings on the market—for the same price as regular asbestos shingles.

Use any of 5 appealing CHROMA-TEX colors to style exteriors with true "decorator harmony."

# ASBESTONE Chroma-Tex SIDING SHINGLES

COLORS: Twilight Gray • Poplar Green • Pheasant Brown  
Dusty Coral • Mellow Ivory

ASBESTONE CORPORATION  
5380 Tchoupitoulas St., New Orleans 15, La.

Please send me samples and full information on NEW CHROMA-TEX Siding Shingles.

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FIRM NAME \_\_\_\_\_  
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**ASBESTONE—Rugged as the rock it's made from**

Roofing & Siding Shingles

Wallboard

Corrugated Roofing & Siding

AUGUST 1952

53



# TECHNICAL GUIDE for Builders and Craftsmen

## How to Install Gutters And Conductor Pipes

**T**HE LIFE of a building is lengthened if the rain water is carried off the roof and discharged in some desired place, such as sewer connections or street curbs. When rain water is allowed to drip from the eaves it splashes up to discolor walls and damage siding. A frame house without guttering or downspouts requires painting more often than one having this protection. Lack of guttering on a masonry house will cause defective mortar joints.

The foundations of both types of houses suffer from the effects of moisture which is absorbed by the soil under the eaves and in direct contact with these walls, unless there are drains to carry this water away. The easiest way to control rain water is to use gutters and conductor pipes.

The two general types of gutters are half round and style "K" box. These may be made from galvanized copper alloy steel, 16 ounce copper, 1X 40 pound long terne or other metals.

Guttering should be erected in the following manner: (1) For reasonably short lengths it should slope in one direction only, from one end of the eave to the other. (2) For long lengths it can be hung either at or near its middle point and be allowed to slope in opposite direc-

tions to the gable ends. (3) The gutter may slope from both ends toward the middle where a conductor outlet can be installed.

An end piece, usually 12 inches long, is a piece of gutter with a drop installed in the center to which a conductor pipe is fastened. This accessory provides a connection to allow water to flow from gutter into conductor pipe.

The half-round gutter, used when roof edge extends beyond side of building and overhang is left open, is available in two styles; the lap joint half-round gutter and the slip joint half-round gutter. Lap joint requires soldering at all joints. Slip joint on the other hand requires no soldering since each unit is joined to the other by means of a slip joint connector.

To determine whether a right or left hand slip joint gutter is to be used, face the building where the gutter is to be placed. If the gutter slopes with the high end on the left and with the slip joint on the low end to the right, then a right hand gutter is required. If in the opposite direction, a left hand gutter is required.

Style "K" gutter is used to conduct roof drainage to

(Continued on page 56)



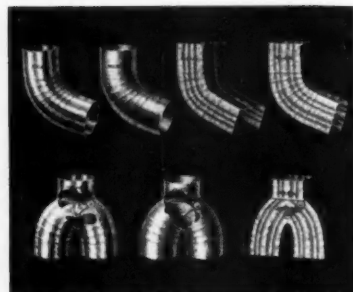
Half-round gutter mitres, inside and outside lap joints



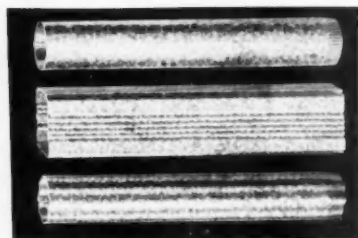
Half-round slip joint gutter and half-round lap joint gutter



Half-round gutter cap



Corrugated round and plain conductor pipe elbows. Square conductor pipe elbows, style A and B. Corrugated round and plain cutoffs



Corrugated and round conductor pipes. Corrugated square conductor pipe



Style "K" slip joint



Style "K" end piece with outlet



# More Destructive than Termites!



**CONDENSATION WILL MAKE PAINT PEEL, PLASTER CRUMBLE, WOOD ROT, AND MASONRY AND MORTAR DETERIORATE.**

Ordinary insulation in walls lets water vapor flow through, condense, accumulate and cause damage. Vapor is a gas. It flows through walls from high vapor density areas to low. Cold air can retain less vapor in suspension, and creates a low density area. Vapor pierces plaster, wood, brick, stone, asphalt, building paper, ordinary insulations. Wherever it touches a substance colder than its dew-point, it condenses.

Inside walls, within ordinary insulation, onto and within siding or sheathing, onto inner wall surfaces, vapor flows and condenses if a vapor barrier of zero permeability is not provided. Upon condensing, it stimulates fungi and insects which greedily break down wood and cause timber rot. It makes paint peel, plaster crumble, iron rust.

Impervious to vapor, multiple accordion aluminum is also non-condensation-forming. The slight mass of the aluminum sheet on the warm side

(1/5 oz. per sq. ft.) approximates the adjacent air's temperature (by conduction) so quickly that it can extract very little heat from it. Therefore the air can retain its vapor content in suspension, without otherwise resulting condensation.

Each aluminum sheet throws back 97% radiation on the warm side, emits but 3% on the cold. On the cold side, each aluminum sheet is slightly warmer than adjacent air, and heats it. Therefore the capacity of the air to retain vapor in suspension is slightly increased, and no dewpoint is ever reached. Nowhere on nor within multiple accordion aluminum does condensation formation occur.

The aluminum and fiber sheets block inner and outer convection. In addition, the air spaces practically eliminate conduction.

Multiple accordion aluminum is commercially available as Infra Insulation, Types 6, 4, and 4 Jr. For a complete discussion of the subject, ask us to send at our expense, Schwartz's "Simplified Physics of Vapor and Thermal Insulation," and the Government booklet, "Insulation and Weather-Proofing" (Div. Farm Bldgs. & Rural Housing).

#### INFRA WALL HEAT FLOW THERMAL FACTORS

Type 6	C. 0.73, R 13.69 = 5 1/8" dry Rockwool
Type 4	C. 1.07, R 9.34 = 3 3/4" dry Rockwool
Type 4 Jr.	C. 1.23, R 8.13 = 3 1/2" dry Rockwool (Type 4 Jr. in 1" Space)

**INFRA INSULATION, INC.**  
525 Broadway, New York, N. Y.  
WOrth 4-2241

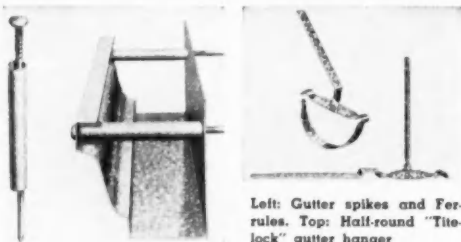
Infra Insulation, Inc., 525 Bway., N. Y. C. Dept. B-8  
 Please send free literature on how to avoid damage by condensation.  
 Send price lists     Send free sample  
 Name \_\_\_\_\_  
 Address \_\_\_\_\_



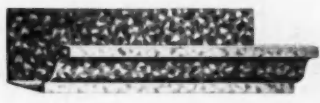
## TECHNICAL GUIDE for Builders and Craftsmen

## How to Install Gutters and Conductor Pipes

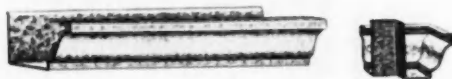
(Continued from page 54)



Left: Gutter spikes and Ferrules. Top: Half-round "Tite-lock" gutter hanger



Style "K" highback box gutter



Style "K" box gutter. left. Right. "K" gutter mitre outside

conductor pipe. It is used when roof edge is flush with face of wall, or when roof is an extended overhang, boxed or closed in and finished with a fascia board. The gutter can be erected as follows: (1) gutter slopes in one direction from one end of eave to the other. (2) It can be hung high at, or near its middle point and be allowed to slope in opposite directions to the gable ends. (3) The gutter may slope from both ends toward the middle and at the lowest point an outlet should be provided. The gutter is held in position by hangers. Pitch of gutter should be  $\frac{1}{8}$ -inch to the foot to assure proper flow of water.

Style "K" box gutter is supplied in two styles, regular and high back. The high back gutter is used when a roof flange is desired. On applications of this kind the additional material on the back of the gutter is bent at an approximate 45-degree angle to form the roof flange. This flange is then slipped under the roofing on replacement work, or it is installed in place before the roofing is applied on new construction.

To install half-round or style "K" gutters, there are several types of hangers from which to choose. These vary from the simple wire hanger to the later-developed strap hanger or shank and circle hanger. Wire hangers, cheaper and lighter than strap hangers, are common with small gutters, but must be placed closer together than strap hangers. Shank and circle hangers, commonly used in the Eastern area, allow rain gutters to be removed easily for repairs without changing the shank. Strap hangers do not allow removal of gutters without removing the hangers.

Half round gutters may be installed with any one of these three methods of hanging, while style "K" gutters require either square bead hangers or gutter spikes and ferrules. Square bead hangers are attached to the outer edge of the box gutter and then nailed securely to the roof. Box gutters with high back styling will use square

head hangers as a rule. Hangers should be spaced about 2½ feet apart; extra ones may be used where needed.

The conductor pipe (sometimes called leader or downspout) is the trade term applied to the unit that is used to convey water or drainage from roof to ground level.

Conductor pipe is made in three styles: round corrugated, plain round, and square corrugated. The style of conductor used with any type of gutter is largely a matter of preference or choice. In northern areas the round corrugated pipe is preferred as it allows for contraction and expansion. The plain pipe is most generally used in the south, due mainly to the climatic conditions.

To lengthen the life of conductor pipe, paint the inside with tinner's red oxide paint. Outside surface should also be painted. To paint the inside, it is necessary to pour paint in one slightly raised end and slowly turn the pipe as the paint flows toward the lower end.

Do not expect a conductor pipe of moderate size to drain an extra large roof area. Experience proves that one square inch of pipe will drain 125 square feet of roof area or 150 square feet of fairly flat roof area. As most roofs have good slopes the following rules will usually serve as a satisfactory guide:

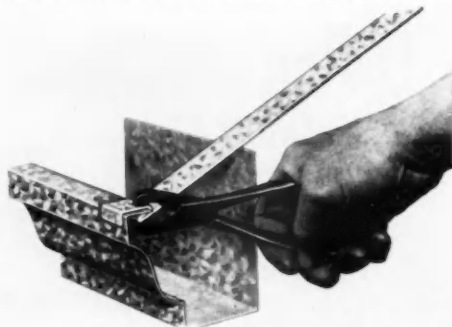
Provide one conductor pipe, three inches in diameter, for every 900 to 1,000 square feet of roof area. Example: For one side of roof slope 65 x 27 feet, multiply the length by the width, 65 feet by 27 feet. This equals 1,755 square feet of roof area. 1,755 is about double 900, which means that two conductor pipes, three inches in diameter, are required on each side of the building.

Conductor pipes should be located on the outside corners, at juncture of the hip and eave, rather than the inside corners, where, because of the juncture of valley and eave, the flow of water is concentrated. If possible, the conductor should never be placed at the northeast corners of the building in the colder climates because of the danger of freezing.

Rain carrying equipment must be free to expand and contract with changes in temperatures. This can be done by allowing one length of gutter to lap the next in the direction in which the water is flowing.

To prolong the life of rain carrying equipment, obstructions such as leaves, rubbish and bird nests should be removed regularly. Wear is not occasioned by fast running water but rather from acids contained in rotting leaves, fine ash and dirt found in stagnant water. The life of gutters may be extended by painting them occasionally.

Illustrations & data courtesy Inland Steel Products Company, Milwaukee, Wis.



Square bead hanger being applied



Insist on the  
 Real McCoy!  
 Dua-Laps\* are  
 the genuine  
 red cedar  
 shingles with

the hard BAKED-ON finish.

Architecturally  
 correct, Dua-Laps  
 are ideal for modern  
 and traditional  
 homes.



\*Reg. U.S. Trade Mark

SPECIFY



Now ALL Dua-Lap\* colors are finished with the infra-red baked-on process for a more durable finish.

ON YOUR NEXT JOB

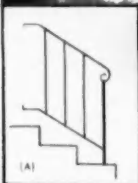
The **American** Stained Shingle Co.

General Offices: Spruce and Dennison Ave., Columbus 8, Ohio

**Coffman's**  
Stock Size

## Ornamental Iron RAIL SECTIONS

Your Best Buy From  
Every Angle—  
**COST, LABOR**  
and **QUALITY!**



(A)



(B)

Mass produced for low cost. Easy, fast to install . . . build masonry to fit. Solid bar handrail, 1/2" square pickets, strongly welded one-piece construction. Sections bolt-together with intermediate solid newel posts 1" sq. Coffman's Stock Size Sections are *definitely* your best buy from every angle . . . at Lumber and Building Supply dealers everywhere.

(A) Stock Step Railing (For 7" risers and 12" heads) available in 1, 2, 3, 4, 5 & 6 step lengths. Illustrated is 2 step No. 205-25.

(B) Stock Length Railings available in 1' 2", 1' 8", 2' 2", 2' 8", 3' 2", 3' 8", 4' 2" & 5' 2" lengths. Illustrated is length No. 205-1a

Write for information on Clamp On Ornaments

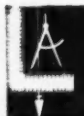
**COMMON SENSE CALLS FOR COFFMAN**  
**FREE:** Write for catalog and Coffman Rail-O-Graph—shows how No. 205 Step Rails fit any size step.

America's Largest Manufacturer  
of Ornamental Iron

The **R. J. Coffman Co. Inc.**

Dept. A-3, ORLANDO, FLORIDA

58



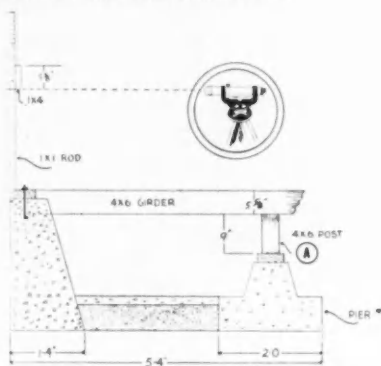
## TECHNICAL GUIDE for Builders and Craftsmen

### How to Make a Wallboard Lifter



Submitted by J. G. Caldwell, San Mateo, Calif.

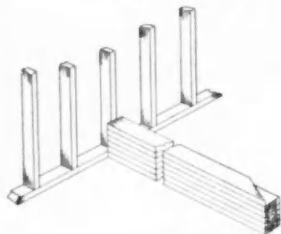
### How to Set Level for Posts



To get length of Post (A) at pier No. 1 set up level. Then cut 1x4 piece to depth of girder which is 5 5/8 inches. Nail 1x4 to 1x1 inch rod so H.L. is at bottom of 1x4. Tack rule to rod as shown and move rod over to pier No. 1 and note length of post A which should read 9 inches through instrument. Now the length of all other posts on job may be taken and read directly through level. —J. G. Caldwell, San Mateo, Calif.

### How to Make Bevel Cuts on Joists

For making a bevel cut on ceiling joists to match the rafters, stack the joists on top of each other and butt them all against the stud wall. The power saw will cut through the first board and will also mark the next board below. —A. L. Bunker, Baldwin Park, Calif.



AMERICAN BUILDER

# WOMEN ESPECIALLY, LOOK FOR OAK IN LOW-COST HOMES



Homes that carry a "low-cost" price tag can and should have the basic benefits of oak flooring. These *wanted* benefits are durability, economy and "healthfulness." No other flooring provides these features along with natural beauty that is found only in oak.



New methods of laying oak flooring over concrete slabs have enabled builders of low-cost homes to include the flooring that 85% of all prospective homeowners want in their next home.\* Laying oak on screeds set in mastic has been approved by FHA.



Women are more apt to give their approval to buy when they see oak. They know oak requires a minimum of upkeep to maintain that "just-installed" look. Ease of maintenance and the natural insulating qualities of oak make it the "healthiest" floor on the market.

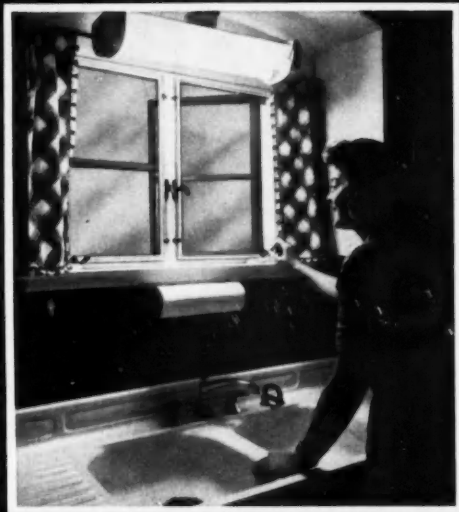


*Nothing helps sell a house faster  
than a good Oak floor*

\*SEND TO NATIONAL OAK FLOORING MANUFACTURERS' ASSOCIATION, STERICK BLDG., MEMPHIS 3, TENNESSEE FOR FREE INSTRUCTIONS FOR LAYING OAK OVER CONCRETE

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*The Name Guarantees*



## HOPE'S STEEL KITCHEN WINDOWS

*Add powerful "Selling" to the  
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Without reaching, bending or straining, the housewife adjusts her HOPE'S STEEL KITCHEN WINDOW with finger tip control for just the ventilation she wants. There's no sticking or binding and when closed they are weathertight permanently.

Your customers want the life-time convenience of Hope's Windows. They are cleaned, and screens and storm-sash interchanged, safely and easily from the inside. They admit more light per opening and add good looks to any home.

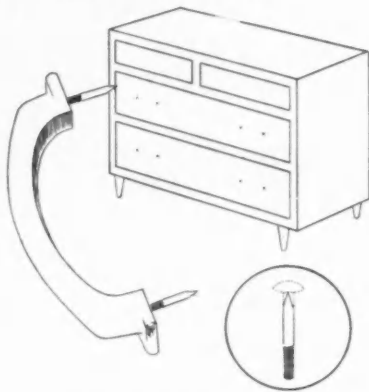
Cost? No more than first-rate wood windows. Write for a descriptive, illustrated folder on Hope's Residence Casements.

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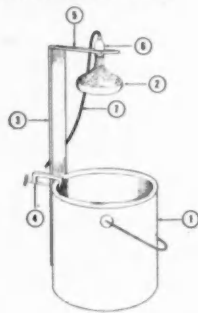
## How would you do it? *Ideas for the man on the job*

### How to Mark Cabinet Doors



For marking cabinet doors and drawers for the reception of hardware, take two of the bolts from hardware, cut off the head and file to a sharp point. Screw the remainder of the bolt into the hardware and mark. The spacing will be perfect.—A. L. Bunker, Baldwin Park, Calif.

### How to Warm Cement Glue



Cement glues used in laying linoleum, acoustical tile, and any other such surfaces, need continual warming in cool weather for the best results, especially where large projects are being worked. The most satisfactory way of doing this is with a heat lamp.

The heat lamp (2) is mounted above the cement pail (1) at a height so the contents can readily be removed. A horizontal stick (5) holds the lamp socket (6). The socket may either be tied to the stick or mounted in a hole drilled in the stick. Horizontal stick (5) is nailed or screwed at a right angle to vertical stick (3). The lower end of vertical stick (3) is clamped tightly to the outside of the cement pail (1) with C clamp (4). Thus the stick and lamp setup can easily be moved from one pail to another by simply removing the C clamp. A long extension cord makes it easy to move this setup around.—Warren Howe, Longview, Wash.



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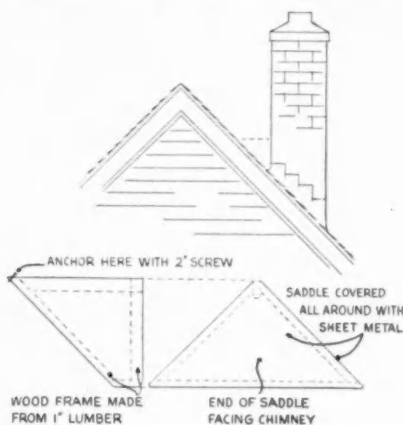
**SAVE MONEY!** Duralls do more, cost less, last longer than ordinary, old-fashioned screens. Write for our Catalog AIA-35-P-1.



NEW YORK WIRE CLOTH COMPANY, New Canaan, Conn.

## How would you do it? Ideas for the man on the job

### New Way of Building Chimney Saddle

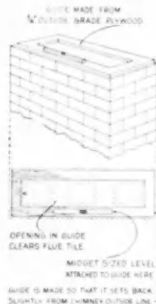


Some chimneys are built without a saddle at the upper side of roof. As a result, snow and ice will remain packed in this area for a long time. This is not good for the roof.

This situation can be corrected by using the method described here and shown in sketch above, which does not require the roof to be disturbed in any way. The frame for the saddle may be made of one-inch-thick material and built on the roof to the size required. It is then covered all around with sheet metal which is nailed on the frame.

The saddle is anchored to the roof with a long screw at the top which permits easy removal if painting or other repairs need to be done.—Arthur N. Nelson, Kansas City.

### Plywood Guide Simplifies Chimney Job

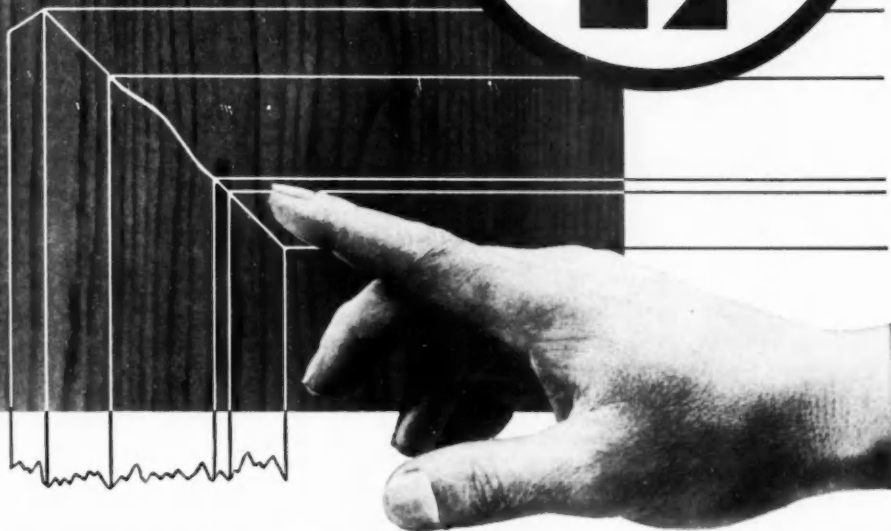


When building a large sized chimney it is easier to keep a check on each course of brick laid by using the type of guide shown in sketch made from  $\frac{3}{4}$ -inch thick exterior grade plywood.

The guide is made to clear the flue tile in the center and also the guide lines at the outside of chimney. A small level is attached to one long side by means of screws on the underside. Keep the guide painted for easy removal of mortar.—Arthur N. Nelson, Kansas City, Mo.



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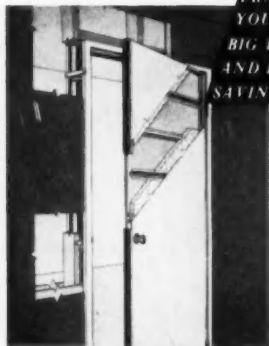
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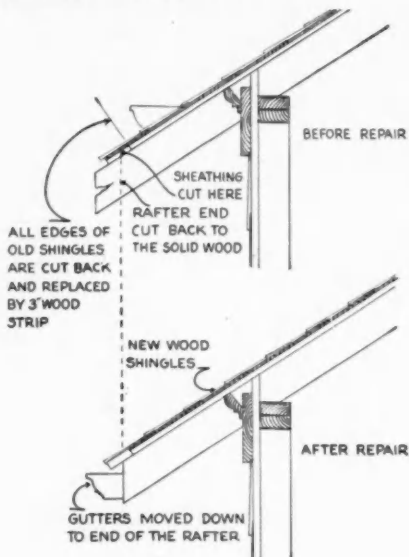
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## How would you do it? Ideas for the man on the job

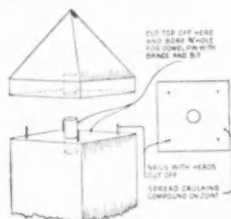
### Repairing Old Rafter Ends



On many of the older style houses, the rafter ends which often extended beyond the edge of the roof shingles developed checks or rot due to exposure to weather. An excellent time to correct or repair this condition is when a new roof is to be applied.

To get at the rafter ends and cut them back, first cut shingles back about three inches and also part of sheathing, as shown. At the same time, if gutters are in place on top of roof they should be removed and new gutters placed on the end of rafters. Freshly cut rafter ends should be given two coats of paint.—Arthur N. Nelson, Kansas City, Mo.

### Repairing Rotted Post Top



Cut off the top of the rotted post. Bore a hole in the center of both old and new members and insert a 3/4-inch dowel set with waterproof cement. Near the corners of joint insert four nails with heads cut off to keep top locked in position. Spread caulking compound over the surface of joint to insure a perfect fit.—Arthur N. Nelson, Kansas City, Mo.



# Let's Face the Facts about CONCRETE MASONRY

**This Modern Building Material  
Adds Beauty and Permanence  
to ANY Type of Structure!**

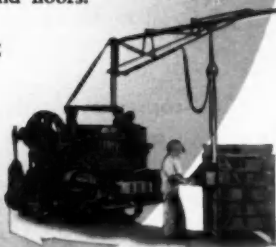
You can build concrete masonry structures in beautiful architectural designs with the assurance they will last a lifetime. Both exterior walls and interior partitions are made in many pleasing patterns by varying the styles and sizes of block. The initial cost is low and the upkeep is nil.

Concrete masonry structures are ARMORED against age, climate, fire, termites, rodents, tornadoes, hurricanes and floods. Interior walls are built with lightweight block composed of cellular aggregate which provides proper acoustics and reduces noise transmission through walls. Lightweight block are also used as a back-up material for exterior walls providing insulation against heat and cold. Wall dryness provides good health and sanitary conditions. Restful quiet is assured by sound conditioning between rooms and floors.

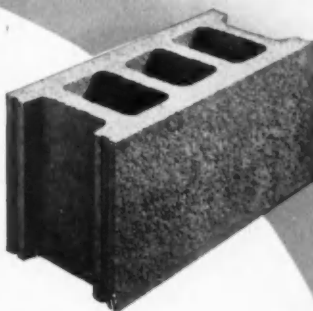
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CHURCHES find concrete masonry construction both practical and economical.



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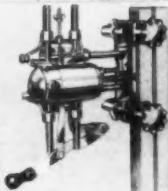
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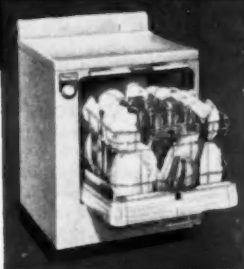
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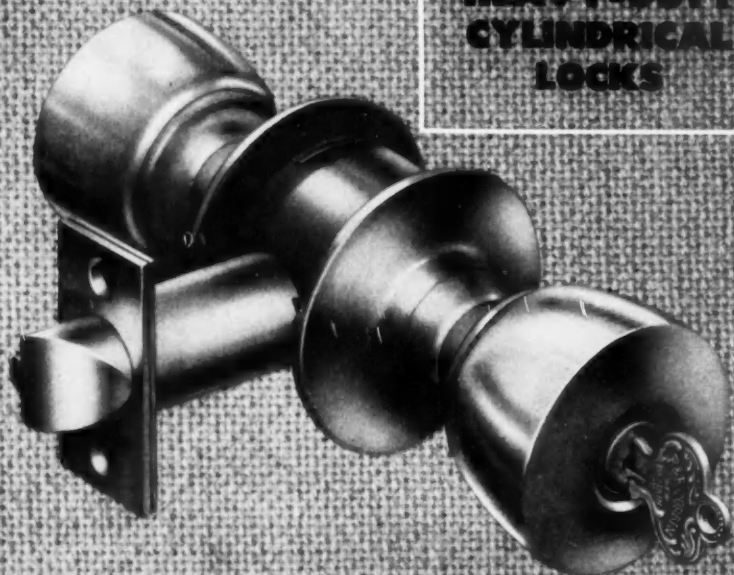
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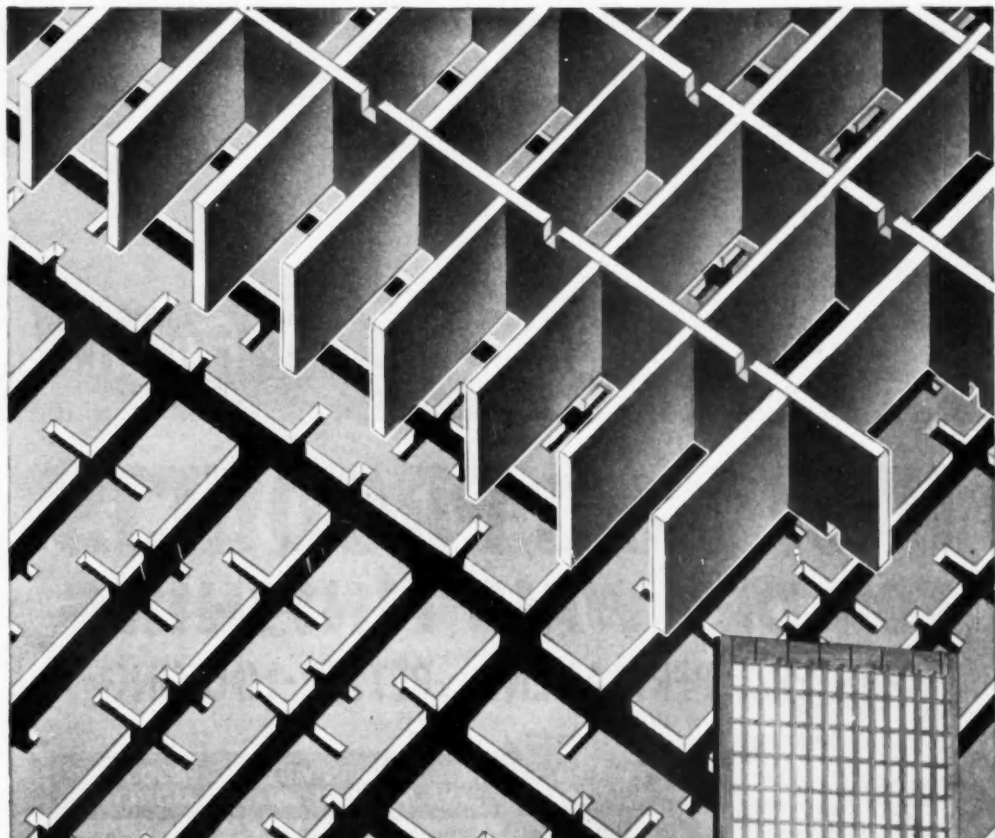
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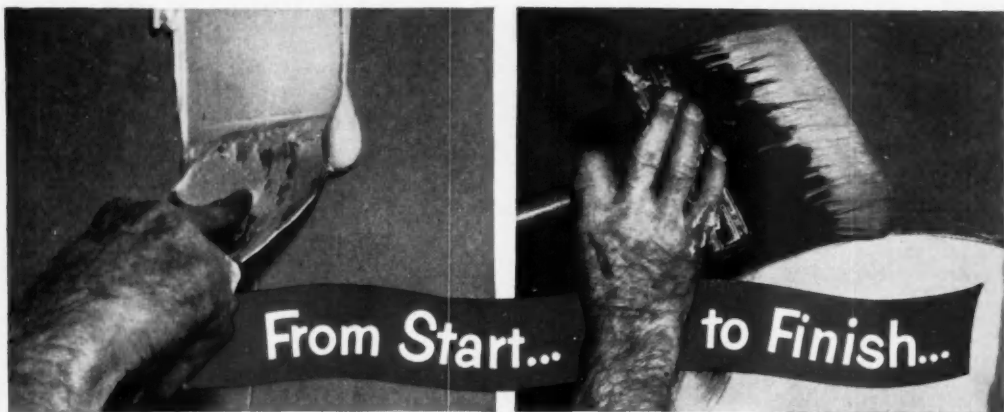
Just as architecture is a precise science, so the interlocked, cross-braced, ventilated construction of the Paine Rezo core is precision engineered to withstand the stresses and strains produced by the constant change of temperature and humidity. No other hollow core flush door can match this great structural strength that provides the year-in, year-out STABILITY that means trouble-free service to the home owner — and YOU.

This unflinching performance, that goes back to 1936, has made Paine Rezo the choice of architects and contractors more than five million times. It has also made the company behind it the world's largest mills devoted exclusively to the production of hollow core flush doors . . . for this superior door is premium in everything but price. See SWEET'S FILE, or write today for an illustrated, factual bulletin.

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 **READY HUNG**  
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The door is hung in the frame on 2 butts. Lock, trim, stop — everything is already installed.

All you have to do to close the rough opening is to slip the two parts of the Hasko Ready Hung Unit into place and nail them to the wall.

The operation is so simple that a hammer, nails and a level are the only tools you need.

Through the reduction in door hanging time, up to \$50.00 can be saved on the installation of every ten Hasko Ready Hung Units.



Slip first half into opening.



Check plumb, shim, and nail first half to wall.



Slide other half into opposite side and nail to wall.

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# "Ask The Experts"

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Are you doing some particular job—big or little—in a way that you think might be improved?

Then "ASK THE EXPERTS"—a group of industry authorities—experts in their fields. They'll give you the answer.

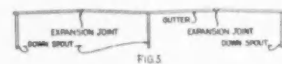
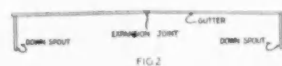
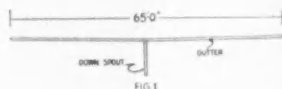
Address your questions to: "Ask The Experts," *American Builder*, 79 West Monroe St., Chicago 3, Ill.

As many questions and answers as space permits will be published monthly in *American Builder*, under the head—"Ask The Experts."

## Gutter Leaks

*I have a building which is over 65 feet long with a gutter of the same length. The flange of the gutter is secured under the first row of shingles. The joints are soldered and are continually pulling apart with the change in temperature, consequently a leak develops at these points. Can you suggest a remedy?*

S. D. M., Nicholasville, Ky.



To properly analyze your problem it will be necessary to know the location of the downspouts in relation to the gutter. This is important because they determine the position of the expansion joint.

If there is a downspout at each end of the 65-foot-long gutter, then the center of the 65-foot length is the high point with each downspout serving  $32\frac{1}{2}$  feet of roof area. An expansion joint should be placed at the high point of the gutter. In the event that a downspout is placed in the center of the 65 foot long run, then the center of the run would be the low point of the gutter and consequently it would be impossible to place an expansion joint anywhere in the entire length. If this length of gutter is served by three downspouts,

one at each end and one in the center, then there would be two high spots in the length of the gutter. Consequently an expansion joint could be placed at each of the two high spots.

Judging from the fact that the joints are soldered and are continually pulling apart with the changes in temperature, it is safe to assume that the entire length of gutter is served by one downspout placed in the center of the 65 foot run, and that there are no expansion joints in the length of the gutter. This means that the joints would pull apart, as you have outlined in your letter.

The solution to this problem would be to provide more than one downspout to have a high spot in the length of gutter in which to place an expansion joint. The expansion joint should have a lap of at least one or one and one half inches and must not be soldered. Then place a metal cap over the expansion joint, not soldered. This method provides an opportunity for movement in the gutter without breaking joints.

## What to Do About Crack Between Bathub and Wall

*Can you tell me what product to use to seal the crack which has appeared between the top of the bathtub and the base of the wall facing over the tub?*

*This crack allows water from the showerhead to seep through the crack and to cause dampness behind the tub. These cracks are common occurrences but I do not know what is used as a crack filler which is exposed to periodic wetting. Have you any suggestions?*

J. R. McK., Washington, D.C.

Plastic or caulking material can

be used in a case of this kind. However, it is difficult to get an even, neat line between the end of the tile and the base of the tub. In preference to the caulking method, we suggest that you contact one of the larger linoleum stores in your city and obtain a tub cove sealer. This is made of plastic or rubber. It is a neat cove arrangement that fits into the crack with a feather edge at contact of tile and tub. There is enough play in the cove to take care of the slight increase in the height of the crack opening.

## Squeaky Floors

*We have a customer who has a squeaky floor in his house. The subfloor which is shiplap, is laid straight across the joints with Masonite underlayment. Linoleum is placed over the Masonite. In a part of the house which is carpeted, there is no squeak.*

B. H., Clinton, Iowa

Squeaky floors are often caused by improper nailing of the subflooring. They might also be caused by an excessive joist span. It is almost impossible to provide a remedy for this condition without nailing directly through the finish flooring, which in this case, is linoleum. It might be possible to drive a finish nail through the linoleum into the subflooring and countersink the head of nail. Then fill the top of the nail hole with a colored composition that will harden and conform to the color of the linoleum. Otherwise it will be necessary to remove the linoleum entirely, re-nail the subflooring and apply a new linoleum floor.

## Dampproofing Walls

*While I am familiar with normal house construction, a friend has presented me with a special problem. He wishes to build a printing shop and office in a northern Alberta (Canada) town, and has asked me to contract it.*

*The building will be 33 x 105 feet long, full concrete basement with concrete blocks above first floor level. My friend wished to have two suites in the basement plus storerooms. On the main floor will be shops and offices. Expense must be kept to a minimum.*

*As the suites may be removed after a year, he stresses economy. Would you consider it practicable to dampproof the walls and floors of the suites and finish directly on the concrete?*

*It is proposed to plaster directly on the concrete blocks in the shop section.*

*In the office area he wishes the walls to be finished with plywood. I am recommending furring strips fastened with power-driven studs.*

*Would you think that the heat loss would be materially diminished by filling the cavities of the concrete block walls with Rockwool? I hope that you will be able to help me on these points.*

*H. E. B., Moose Jaw, Sask., Canada*

I believe it will be necessary to take all possible precautions against moisture infiltration in the exterior walls of a building located in an area as far north as this one will be. Under no circumstance would it be feasible to plaster directly on the inside of the masonry walls. It would be economy in the long run to furr the inside of all exterior walls before applying lath or plaster, regardless of what portion of the building it may be. In addition to the furring strips, it would be well to apply a moisture barrier on the furring strips before the application of the lath and plaster. This should be done in the office area where plywood is to be used for the finish wall surface.<sup>1</sup>

Frankly not very much is accomplished in the way of reducing heat loss in a concrete block by filling the cavities with insulation material. The air cells in the blocks form an insulating area. The greatest heat loss in a wall of this type occurs in the joints where the mortar bed conducts the cold directly from the outside to the inside face of the wall.

### Computing by the Square Foot Method

*I appreciate the information that you gave me in a previous letter in regard to square foot costs, but I would like to know if these figures include basements, concrete block foundations, or concrete blocks. Will you please give me this additional information?*

*A. K. F., Somerset, Ky.*

Square foot costs are usually applied to the one-story ranch type house that is placed on a concrete slab with perimeter walls extending below the assumed frost line in the particular area in which you are contemplating building. It is also assumed that when calculating by the square foot method, that the roof pitch will not exceed 5-12. If a basement is contemplated and a steeper roof is used, then the cubic foot method should be employed. Comparable cubic foot costs should run approximately 75 cents per cubic foot.

### Single and Double Siding? What is the Difference?

*Can you please tell me the structural difference between a frame house with single siding, and a frame house with double siding? Does wood sheathing and clapboards constitute single or double siding? Thank you for your trouble.*

*R. E. F., Winthrop, Mass.*

I have never heard the term "double siding" used in connection with the frame wall of a house. As a rule, siding is the exterior surface application which is applied to the sheathing on the exterior walls. This siding can consist of a number of different materials such as beveled wood siding, shingle siding, asbestos board siding, plywood siding, vertical boards that serve as siding, and many other types. All of these are applied directly to a nominal one-inch thickness of sheathing which is applied to the studs. This would be considered a normal type of frame wall construction.

In the case of a residential garage building or similar structures the exterior siding is usually applied directly to the studs without any sheathing. In some areas this might be construed to be a single siding job, whereas the application of the sheathing and siding could then be referred to as a double siding installation.

### Framing a Garage

*I am about to construct a three-car frame garage with a flat roof, the roof to be used as a sun deck. This deck will be of one-inch pine boards with an overlay of 1/8 inch hardboard. This is to be covered with a prepared duck and painted. The building will be 20 x 32 feet. I want a double garage and a single garage without a post. What size wood beam will I need for this span? The live load will be 30 pounds and the dead load 25 pounds. Joist will be 2 x 10's—16 inches o.c. with two lines of bridging. Thanks.*

*J. T., Dallas, Texas*

The beam in question should be not less than 6 x 18 inches and should be placed under the roof rafters in the center of the 20-foot width running parallel with the 32-foot length. A 6 x 6 inch wood post should be placed under the beam at the exterior wall line and also between the double and single garage. A 6 x 12 inch wood beam would be required

across the 20-foot garage door opening to support the roof rafters and the load above.

### Squeaky Stairs

*A house built about 25 years ago has stairs from the first to the second floor which squeak badly. All attempts to locate and stop the squeaks have failed. The attached sketch shows the general construction. The stringers are spaced about 39 inches apart. The underside of the stairs are sealed by plaster in the stairwell leading to the basement.*

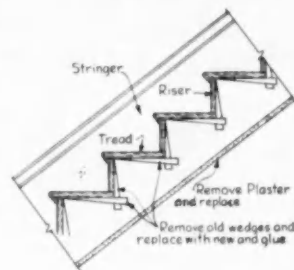
*The following things have been tried:*

*Molding removed, no affect.  
Oak risers wedged to sideboard  
... no affect.*

*Oil-soaked felt wedged between back of tread and bottom of riser  
... no affect.*

*What do you recommend? Your answer will be appreciated.*

*E. L. B., Niagara Falls, N.Y.*



From your description of the stair, and judging from the various efforts that have been applied, it would appear that release from this condition cannot be obtained by working from the top-side of the stair, but rather it will be necessary to remove the plaster and begin to work from the underside.

You mention that the stringers are spaced 39 inches apart. This is three inches greater than the maximum span that is recommended. It would help the stair a great deal if an additional stringer were placed in the center of the span. This will eliminate any possibility of sagging taking place in the stair treads.

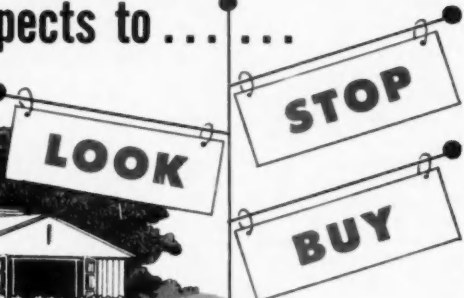
The wedges that you refer to should not be placed from the top-side of stair, but should be installed from the underside between the tread and riser and the stringer. The plaster on the soffit that has to be removed can be replaced with 1/2 inch plaster-board. If these recommendations are followed the squeaking of the stairs should be eliminated.



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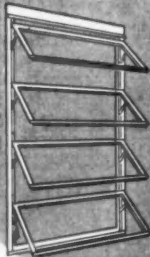
For detailed information, write any "Quality-Approved" Manufacturer, see Sweet's Builder's File (Section 4c/ALU) or write to Dept. AB-8.



DOUBLE-HUNG



CASEMENT



AWNING

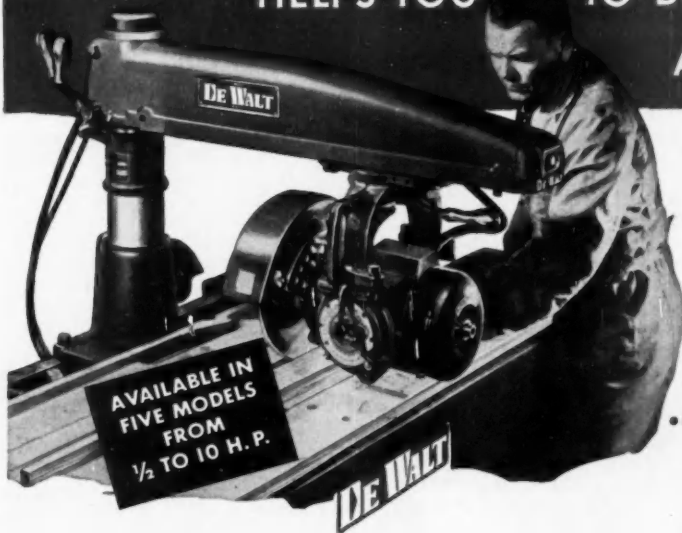


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*Aluminum Window Manufacturers Association*

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- Please send me full details on the De Walt Radial Power Saw Line.  
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ADDRESS \_\_\_\_\_

CITY \_\_\_\_\_ STATE \_\_\_\_\_

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*How Crane ideas on bathroom design  
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It's no secret that bathrooms help sell a house.

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AMERICAN BUILDER

# PRIZEWINNERS WIN CUSTOMERS...



## ← Wins Parents' Magazine "Merit Award"

Note how Higgins Bonded Hardwood Block Flooring underscores a look of quality which helped win a *Parents' Magazine* Merit Award for this home by Hollin Hills, Inc., in Alexandria, Va. The mellow oak surface blends perfectly with contemporary or period design.



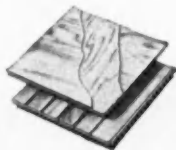
## Wins Practical Builder "Oscar" ▶

Typical interior of Gently Woods homes in New Orleans, which won builder Crawford a *Practical Builder* "Oscar." Many of the 1,065 homes have Higgins Bonded Hardwood Block Flooring—the choice of customers who wanted a quiet, comfortable floor, easy to keep looking beautiful, year after year.

## ... CUSTOMERS PRIZE HIGGINS BONDED HARDWOOD BLOCK FLOORING

More and more merchant builders are finding that the rich, distinctive good looks and practical advantages of *Higgins Floors* help sell homes. The specifications show why:

- 3-ply cross-grain construction—comes with final finish
- Selected oak face—beauty that adds distinction
- Pressure bonded with marine-type glue—water-repellent, climate-proof
- Toxic impregnated—rot-proof, termite-proof
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Higgins, Inc., Dept. A-8 New Orleans, La.

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▲ The complete "package" in every Landon Village kitchen includes electric dishwasher, food waste disposer, big electric refrigerator, steel cabinets, and built-in ventilating fan. And the range—of course, it's **ELECTRIC!**

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There are lots of things I look for in a new house. I want beauty and smart room arrangement. I want a house that's easy to clean. But I have three meals a day to prepare, and I know I can do that better, with less work, if I have an *Electric Range!*

"We're an old-time building firm," says **MR. L. E. BREUNINGER, Jr.**, builder, of Landon Village, Maryland—"but we've discovered a lot of new 'wrinkles' in home building. One of them is to include an *Electric Range* in every kitchen, regardless of the type of house or its size. Not all home buyers look for the same construction features—but they all want the advantages of cooking with an electric range. They've learned it's both economical and easy. They like the idea of a clean, cool kitchen, too. An *Electric Range* will help to sell any house, anywhere."

*EQUIP*  
*YOUR HOUSES WITH*  
**ELECTRIC RANGES**





*a sixty-mile wind outside*

**BUT NO AIR INFILTRATION WHATEVER!**

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Aluminum windows  
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**This steady match-flame** is one visible proof of the weather-tightness of ADLAKE Aluminum Windows . . . weather-tightness which lasts for the life of the building!

**ADLAKE's exclusive combination** of woven-pile weather stripping and patented serrated guides guarantees a sure and lasting seal against wind, rain and cold. Tests prove that ADLAKE's weather seal prevents air infiltration with winds as high as 120 miles per hour—and this weather seal, as well as ADLAKE's finger-tip control, lasts through more than one million operations! Every ADLAKE Window not only meets

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**ONLY ADLAKE ALUMINUM WINDOWS GIVE YOU ALL THESE "PLUS" FEATURES:**

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hardwood plywood?**



● That hardwoods in any form have always been the "blue chips" of paneling.

● That Georgia-Pacific Hardwood Plywood—genuine hardwood paneling—can be used at prices comparable to any other types of decorative paneling.

● That in addition to beauty and economy, you get a finished wall with no wallboard needed . . . a wall guaranteed for the life of the house. Its beauty increases with age. It is practically maintenance-free. The first cost is the last.

● That hardwood plywood, used as exterior sheathing, roof-decking and sub-flooring, is comparable in cost to any competitive materials . . . but, you get the added strength and ruggedness of hardwoods.

*G-P Crownply* in Red Gum, Sap Gum, Poplar, Tupelo, Magnolia, Oak, Mahogany, etc., for decorative use. *G-P Crown-board* (intermediate grade) and *G-P Plysheet* (general utility grade) are used for cut-ups and shop work . . . *G-P Plysheet* for sheathing. *G-P Container Grade* is used in boxes and crates.

These hardwood plywoods, manufactured at Georgia-Pacific's large, new Savannah plant in the heart of the Southern Hardwood area, are checked for quality at every stage of production. Every panel is bonded with phenolic resin adhesives on hot plate presses for lasting strength . . . and specially processed for greater stability. Mass production has made available lower cost stock sizes that facilitate ordering, handling and storage. For information, write Georgia-Pacific Plywood Company, 617-8F Southern Finance Building, Augusta, Ga.



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Your Biggest  
Sales Promotion



September 14-21

# American Builder Announces Its 1952 National Home Week Contest

**For NAHB Chapters  
For Retail Lumber Dealers**

Winners in each group will be honored by *American Builder* for outstanding organization and conduct of National Home Week Programs in cities and towns of all sizes

THE fifth annual National Home Week, September 14 to 21 this year, will outstrip its predecessors in every way. Originally proposed by *American Builder's* Editor, Ed Gavin, National Home Week was endorsed and sponsored immediately by the National Association of Home Builders in 1948. In that year about 50 of the Association's local chapters conducted National Home Week programs. So great was the public response that more chapters joined the 1949 celebration, and National Home Week became an institution.

Last year, retail lumber dealers in smaller cities and towns instituted dozens of local National Home Week programs with such salutary results that hundreds more will participate this year. National Home Week is an official program of the National Retail Lumber Dealers Association and the National Association of Real Estate Boards. In the smaller cities and towns where no local organization of home building factors exists, retail lumber dealers, with yards and retail stores as focal points, are spearheading coordinated programs including local home builders and realtors.

#### REASONS FOR THE CONTESTS

In sponsoring the contests jointly with the National Association of Home Builders and the National Retail Lumber Dealers Association, *American Builder's* editors seek to offer incentives for:

1. Participation this year by hundreds of additional cities and towns of all sizes, including the smallest villages.

2. Encouraging local retailers, builders and realtors to obtain greater active cooperation from churches, women's clubs, parent-teacher organizations, veterans' societies, service clubs, schools and youth organizations.

*American Builder's* editors believe that the home building industry has a unique and unparalleled opportunity to serve the nation's social interests as well as its economic interests. That opportunity lies in displaying the advantages of home ownership, and the comforts afforded by modern materials and appliances.

It was to encourage these displays, and to do them dramatically in one single week in every section of the country that National Home Week was instituted.

**TWO CONTESTS - Mail Your Entry Blank Today! ▶**

## CONTEST A

### For local affiliated chapters of National Association of Home Builders

THE National Association of Home Builders has divided its approximately 200 local chapters into four groups, based on size of membership. Group 1 includes those chapters with more than 250 members as of January 1, 1952. Group 2 includes chapters with 100 to 249 members; Group 3, 50 to 100 members; and Group 4, less than 50 members.

There will be two awards for the winner in each of the four groups. One of these awards will be given to the chapter in the name of the executive secretary and the president. The other award will be given to the chairman of the chapter's National Home Week committee. Thus, there will be a total of eight awards, two for the winning chapter in each group.

The awards will be made first at the annual convention and exposition of the National Association of Home Builders in Chicago next January. Each of the four winning chapters will be asked to arrange a special community-wide meeting later. At that meeting the awards will be made locally. It is suggested that to these local meetings, the chapter invite civic leaders, newspaper representatives, heads of non-industry cooperating groups, and others.

The awards will be scrolls appropriately framed and ready for mounting on a wall at home or in an office.

#### HOW TO ENTER

Just write to **NHW CONTEST EDITOR, AMERICAN BUILDER, 79 WEST MONROE ST., CHICAGO 3, ILLINOIS**, and ask for an entry blank. There is, of course, no charge or obligation of any kind. ALL NAHB chapters are eligible. The entry blank is simple, will require less than two minutes to fill out. Its purpose is to provide *American Builder*, National Association of Home Builders, and the board of judges with an idea of approximately the number of entries to be expected.

*All entries must be postmarked not later than October 15.*

Awards will be made on the basis of the presentation. Most important points for consideration will be: (a) scope of community participation; (b) quality of promotional and publicity material; (c) general over-all design and appearance of the houses displayed; (d) type of news-

paper advertising; (e) actual results obtained—sales made, prospects developed, number of visitors compared to total population; (f) unusual display angles; (g) equipment and furnishings of houses; (h) success of local essay and other contests; (i) completeness of entry.

Entries should include names of non-industry organizations participating; names of newspapers cooperating with samples of issues in which National Home Week editorial or advertising material appears; copies of radio scripts; copies, if possible, of sermons used by the clergy on National Home Week Sunday; photos of directional and on-the-job signs; samples of handout literature, mailing pieces or premiums offered; samples, copies, photographs or descriptions of anything pertinent or interesting.

## CONTEST B

### For individual retail lumber dealers in cities where there are no chapters of the National Association of Home Builders

THIS is for individual retail lumber dealers. It is open to all recognized retail lumber and building material dealers. To give every dealer a chance to win an award regardless of the size of the community in which his yard is located, entries will be classified in four groups according to the size of the city or town. Group 1 will include dealers in towns of 35,000 population and up. Group 2, towns with populations between 10,000 and 35,000; Group 3, towns with populations between 2,500 and 10,000; Group 4, towns with populations less than 2,500.

In the case of an individually-owned lumber yard, the award will go to the owner or the manager. Since, in most cases, winning such an award will require the cooperation of one or more of the dealer's builder customers, or a realtor, or the head of some civic body, the winning dealer in each class may designate a cooperator to whom he thinks a companion award should be made. In the case of a branch yard of a line yard company, the award will go to the yard manager. Another award will go to the headquarters office of the line yard company. And, the winning yard manager may designate a local cooperator to whom he believes a third award should be made. As in the case of the individually-owned yard, the winning line yard manager probably will designate a local builder, local realtor, or possibly local civic leader.

The awards will be made at the 1952 annual convention

### ENTRY BLANK - CONTEST A

I wish to enter ..... Chapter in the  
**American Builder—National Association of Home Builders' National  
Home Week Contest. It is understood that you will send me a complete  
copy of the rules governing the contest within a few days.**

Name of Secretary .....

Name of President .....

Name of National Home Week Committee Chairman .....

Association Address .....

**Contest  
A  
Entry  
Blank**



of the state or regional retail dealer association to which the dealer belongs. It is suggested here, as in the case of Contest A, that following the convention, the dealer hold a local meeting in his town at which the award will be made again. This is not mandatory, and is not a condition to accepting the award for winning.

The awards will be scrolls appropriately framed for hanging on the wall of the winner's home or office.

#### HOW TO ENTER

Just write to **NHW CONTEST EDITOR, AMERICAN BUILDER, 79 W. MONROE ST., CHICAGO 3, ILL.**, and ask for an entry blank. There is, of course, no charge or obligation of any kind, and you do not have to be a subscriber to *American Builder*. All dealers are eligible. The entry blank is simple, will require less than two minutes to fill out. Its purpose is to provide *American Builder*, National Retail Lumber Dealers Association, the state or regional association and the board of judges with an approximate idea of the number of entries to be expected.

*All entries must be postmarked not later than October 15.*

#### BASIS FOR AWARDS

Awards will be made on the basis of the presentation. Be sure to include photographs and plans of the houses demonstrated. In case no house was demonstrated and the entire program was held in the retail lumber yard, obtain photographs of the yard as it was prepared for the Week. Consideration in judging will be given to (a) scope of community participation—non-industry organizations cooperating; (b) quality of promotional and publicity material; (c) general over-all design and appearances of houses displayed, or manner in which lumber yard was dressed up for the Week; (d) type of newspaper advertising; (e) actual results obtained—sales made, prospects developed, number of visitors compared to population; (f) unusual display angles; (g) equipment and furnishings of houses, if houses are used; (h) success of local essay and other contests; (i) completeness of entry.

Be sure to include with entries: names of organizations cooperating; names of newspapers cooperating and samples of issues with National Home Week editorial or advertising material; copies of radio scripts used; samples of all other material used, such as sermons in churches; photos of directional and on-the-job signs; samples of handout literature, mailing pieces and premiums offered. Be sure not to overlook anything pertinent to the success of your National Home Week Program.

# Contest B Entry Blank



## 1951 CONTEST WINNERS NAHB CHAPTERS THAT WON AWARDS

- First Prize—Group No. I**  
Minneapolis Home Builders Association
- First Prize—Group No. II**  
Home Builders Association of Des Moines
- First Prize—Group No. III**  
Wichita Association of Home Builders
- First Prize—Group No. IV**  
Grand Rapids Home Builders Association
- Unclassified Award**  
Long Island Home Builders Institute, Inc.
- HONORABLE MENTION**

- Group I**  
Home Builders Assn. of Metropolitan Washington  
Milwaukee Builders Association  
Chicago Metropolitan Home Builders Association

- Group II**  
Marion County Residential Builders, Inc. (Indianapolis)  
Homes Builders Institute (Los Angeles)  
Home Builders Association of Spokane  
Home Builders Association of Hartford County, Inc. (Hartford, Conn.)

- Group III**  
Tacoma Master Builders Association  
Texas Panhandle Home Builders Association (Amarillo)  
Home Builders Association of Greater New Haven

### LUMBER DEALER AWARD WINNERS

- First Prize—Group No. I**  
Coman Lumber Co., Durham, N.C.
- First Prize—Group No. II**  
H. H. Troup Lumber Co., Kankakee, Ill.
- First Prize—Group No. III**  
El Monte Lumber and Fuel Co., Elma, Wash.
- First Prize—Group No. IV**  
New Athens Lumber Co., New Athens, Ill.

### ENTRY BLANK - CONTEST B

I wish to enter the ..... in the *American*  
(company name)

*Builder*—National Retail Lumber Dealer Association's National Home Week Contest. It is understood that you will send me a complete copy of the rules governing the contest within a few days.

Name of Proprietor .....

Name of Manager (if line yard branch) .....

Address of Headquarter's Office (if line yard branch) .....

Name of Chief Officer (if line yard branch) .....

Address of your yard .....



Two plane flat roof, entryway, and porch, highlight the exterior

## Front Cover House Features Comfort and Convenience for Two



**LOCATION:**

*Ottawa, Illinois*

**ARCHITECT:**

*Louis H. Gerding*

**BUILDER:**

*Charles H. Eichelkraut and Son*



Open canopy, recessed door with look-through mirror, corrugated glass panel lend distinction to entrance. Note garage door at left



Porch louvers break view from adjacent busy street. Porch floor is a scored concrete slab. Continuous vent is under soffit

**T**HIS contemporary, designed for two persons, features a free standing storage wall, a space saving kitchen heating unit, porch louvers, for privacy, and a sheltered entrance.

The free standing storage wall here has glass between the cabinet top and the ceiling. The  $\frac{1}{4}$ -inch plate glass is held in place by  $\frac{1}{2}$ x1-inch stops fastened to a plaster ground. The 18-inch wide storage unit includes book shelves, storage cabinets, and space for card tables.

The full cabinet kitchen did not have a free wall for the installation of hot water baseboard heating. This problem was solved by using a special custom designed convector housing unit located behind the stove which

sets in an island. The unit is covered by a metal grill formed to the shape of the stove back. The flat topped frame is used to heat dishes prior to serving.

The screened porch, fronting on one of the town's busiest residential streets, was lowered for privacy. The louvers were made from 2x10's set in a 45-degree mortised top and bottom

plate. The faces of the louvers are cut to 45 degrees.

Translucent glass at left side of the doorway lights the interior foyer. A look-through mirror permits only one-way sight—from the interior—as a safety feature. The entrance was further enhanced by extensions of the garage roof joists in an open frame pattern.



Kitchen range backs up to grill work housing heating convector. Housewife can warm dishes on the frame work before serving



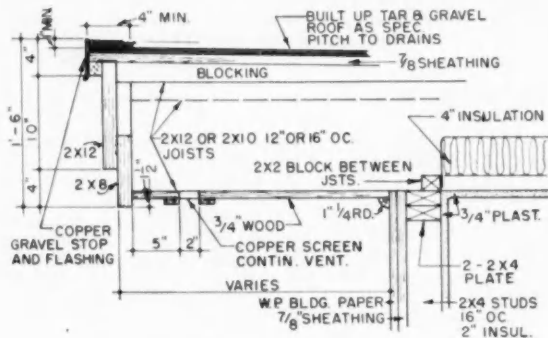
Living room side of free standing storage wall utilizes glass overhead as a tie-in to the ceiling



Den side of storage wall contains bookshelves, linen closet and general storage space

**BRAND NAME PRODUCTS USED**

- |   |  |
|---|--|
| Barber-Colman garage door                             | Minneapolis-Honeywell heating controls |
| Cabots redwood stain                                  | National Fireproofing clay tile        |
| Crane hot water heater, furnace and plumbing fixtures | Sargent hardware                       |
| Formica kitchen counter surface                       | St. Charles kitchen cabinets           |
| Kentile asphalt tile                                  | Libbey-Owens-Ford Thermopane           |
|   | United States Gypsum lath              |

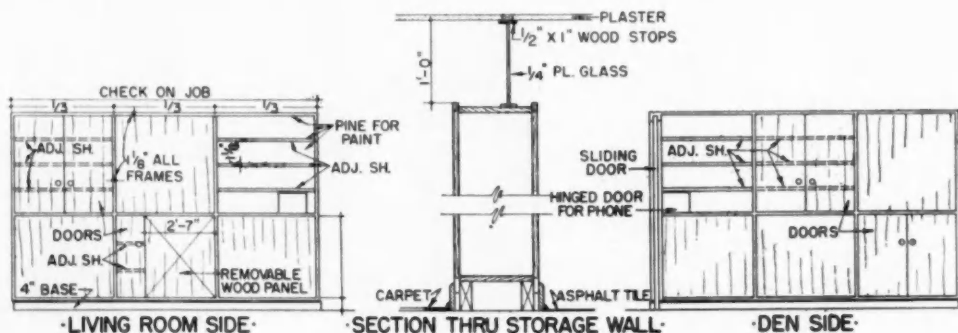


**CORNICE DETAIL**

Cornice detail shows fascia construction, drip cap, and the continuous vent



Entrance to den side of storage wall forms frame for sliding door, includes card table storage space



·LIVING ROOM SIDE·

·SECTION THRU STORAGE WALL·

·DEN SIDE·

Detail of storage wall





Winchester-Hood apartments in process of construction

## Mutual Ownership Apartments

### *How they were financed by a Chicago group*

#### The first of two articles

**O**UTSTANDING in Chicago apartment construction since 1945 is the achievement of a mutual-development, mutual-ownership activity that has already resulted in 11 projects containing 2,292 dwelling units in various stages of progress, and valued at around 20 million dollars. The activity is significant because it is based upon well-defined principles of sound financing, construction, and good family and community environment.

The Community Development Trust, created and headed by Henry K. Holsman, Chicago architect, is the instrument of ownership whereby thousands of families have acquired housing security and good living. Holsman, Holsman, Klekamp and Taylor, Chicago architectural organization, devote their capabilities almost entirely to designing and constructing the mutually-owned projects.

Mutual ownership begins with mutual desire for good living security. Each prospective owner agrees to

place funds equal to the proportionate equity cost of the project in a trust and authorizes the trustees to acquire the property and construct the buildings. He also applies for an apartment lease, and at the same time he agrees to join with others and to solicit others to join in the acquisition, development, and ownership of the specified real estate.

Lease applications are carefully screened to obtain responsible and congenial tenancy. Accepted applicants then subscribe to the trust agreement and deposit their money in the trust, receiving from the trustees a negotiable certificate of shares showing the value of interest in the trust estate as provided in the trust agreement. This certificate is personal property and may be pledged or sold without restriction. However, possession of ownership does not, as in the case of more widely known co-operative ownership plans, entitle the holder to tenancy in any particular apartment, or in any apartment at all. Leases for apartments are negotiated

with owners in accordance with highest leasing standards, and this insures continuance of desirable tenancy and also enables tenants to change living quarters if space more suited to changing family needs is available.

Changing apartments does not affect the participant's certificate of ownership, and apartments may also be sublet for a maximum of two years at any price without affecting ownership. Trustees, in fact, have power to terminate a lease for cause—such as failure to meet monthly payments—but cannot force sale of ownership certificates. However, at the end of two years of non-occupancy, the trustees are empowered to call in a certificate of ownership interest at book value for resale to a prospective tenant-owner. This provision guards against any possibility of a project falling into the hands of "absentee-ownership" through the years.

Monthly payments by tenant-owners take the place of rents, and are based upon the owner's share of operating and service costs, insurance,

## TYPICAL BREAKDOWN OF DEVELOPMENT COST

Number of Mutual Owners	840
Approximate Cost of Development	\$6,000,000.
Mortgage	3,900,000.
Equity (owned by all 840)	2,100,000.
Individual Share	2,500.

### HOW MEMBERSHIP MAY BE ACQUIRED:

- \$2,500. in cash.
- Down payment of \$ 750.  
Promissory note of 750. due when construction begins.  
Promissory note of 1,000. payable in monthly installments of \$25.00, with interest at 5%
- Down payment of 750.  
Promissory note of 1,750. payable in monthly payments of \$25.00, with interest at 5%

### WHEN THE SHAREHOLDER MOVES INTO THE COMPLETED PROJECT:

- He pays no rent, properly speaking; he is, in this respect, his own landlord.
- Instead, he makes monthly payments of approximately \$50.00, which include operating costs, maintenance costs and mortgage payments.
- The breakdown of the monthly payments is:
 

\$50.00	}	\$29.00	Insurance
			Taxes
			Management fees
			Fuel, Light & Gas
			Janitor Service & Supplies
			Property maintenance
			Repairs
		7.00	Replacement reserves
		14.00	Average on interest
			Average Equity Earnings
\$50.00		TOTAL	

### INCREASING VALUE OF THE INDIVIDUAL SHARE:

Original Investment	\$2,500.
Increased Equity in 10 Years	1,000.
Increased Equity in 20 Years	4,000.
Book Value of Shares in 10 Years—\$2,500. + \$1,000.	3,500.
Book Value of Shares in 20 Years—\$2,500. + \$4,000.	6,500.

### VALUE OF SHARES IN EMERGENCIES—AS EXPLAINED TO MUTUAL OWNERS:

!!! DISASTER HITS THE HOME !!!

- ★ LOSS OF JOB ★
- ★ SICKNESS ★
- ★ DEATH ★

**KEEP YOUR OWNERSHIP**  
Use it as a security for a loan

**KEEP YOUR OWNERSHIP**  
Live out part of your equity

**KEEP YOUR OWNERSHIP**  
Sub-lease; keep difference between monthly payment and rent obtained from Lessor

**SELL YOUR OWNERSHIP**  
To an individual or to the Trust

**BEQUEATH YOUR OWNERSHIP**  
by will, or let it pass to your heirs in case of death

maintenance, taxes, interest on mortgage and amortization. Experience has shown that these monthly payments on properties developed under the Community Development Trust have run about 60 per cent less than for private homes of comparable quality on comparable sites, and substantially below market value of the space rented.

There are seven managing trustees, for whom Henry K. Holsman is executive secretary. The Trust Company of Chicago serves as corporate trustee. A separate trust is set up for each project, and a management committee of tenant-owners is appointed for each project, subject to jurisdiction of the managing trustees over all policy matters. It is the policy of the Trust to include mutual-owners on the board of managing trustees at such time as the project has progressed to the point of more or less routine operation.

The first six developments under the Community Development Trust were completed between 1923 and



Typical top floor apartment in the Winchester-Hood

1929. In the following disastrous depression years, these projects rode safely through the storms that tossed billions of dollars worth of apartment buildings into bankruptcy and receiverships. In the 20 years or more since the developments were completed, only nine shareholders in all of the projects failed to keep up their payments and surrendered their shares. In only one of these cases was forcible eviction necessary. Furthermore, a postwar market analysis revealed that the market value of three of those first projects was greater then, after more than two decades of use, than the original cost of the projects, and that the market value of the other three was only slightly below the original cost. The largest of the pre-depression projects is now clear of debt and tenant-owners now occupy apartments for the cost of maintenance and operation only.

A tested and sound financing plan

is just one phase of the complete development program. Cost-saving construction operations are vitally important to the success of the program, too. Mutual owners secure the savings of "wholesale" construction which results in economical building costs. Comparison of construction costs reveals many examples where building costs for high-grade apartments are well below costs on public housing projects built on a mass scale with public funds.

The architects for the Community Development Trust projects work on a fee basis directly in the interests of the owner-occupants. The mortgagee is thus assured that the project will be acceptable to the owners when it is completed.

When plans for the Winchester-

Hood project in Chicago were drawn by the Holsman organization in 1946, fixed rentals for the four and one-half to six-room apartments were set by the FHA at \$80.50 to \$97.50 per month. Construction costs were on the upgrade at the time, but the apartments were so economically built that the tenant owners were soon paying \$30 less per apartment than the ceiling that was set by the FHA when

they engaged in the mutual-development project.

The total cost per apartment of this first Winchester-Hood division, including land, fees, and construction was approximately \$8,550. Each owner paid down \$2,850, one-third of the total cost of his equity. A million-dollar mortgage completed the initial financing. Approximately \$20 a month of each tenant's monthly payment is paid on the principal, and the mortgage will have been paid off after 25 years of mutual ownership activity. Tenants pay over-all monthly costs, including mortgage retirement, of only \$50.50 to \$67.50 for desirable apartments. After the twenty-fifth year of operation, the tenants will pay only enough to cover actual operating and maintenance costs.

**The cost-saving construction methods used by the Community Development Trust in building its apartment projects will be discussed in detail in the second of these two articles.**

CONSTRUCTION COSTS				
	WINCHESTER & HOOD	WIN-HOOD EXT. "A"	WIN-HOOD EXT. "B"	WIN-HOOD EXT. "C"
	164 Units 806 Rooms 8—4 Story Bldgs. 3—5 Story Bldgs.	116 Units 592 Rooms 4—4 Story Bldgs. 3—5 Story Bldgs.	72 Units 360 Rooms 2—4 Story Bldgs. 2—5 Story Bldgs.	244 Units 1224 Rooms 5—4 Story Bldgs. 7—5 Story Bldgs.
Construction Period	1946-1948	1948-1950	1949-1951	1951-1953
General Trades	\$927,267.	\$728,509.	\$490,271.	\$1,522,804.
Mechanic Trades	\$280,310.	\$201,230.	\$119,861.	\$494,344.
Site Impvt. & Landscape	\$10,187.	\$20,267.	\$17,089.	\$54,656.
Total	\$1,217,764.	\$950,006.	\$627,221.	\$2,071,804.
Average Cost of Const.—per UNIT	\$7,425.	\$8,198.	\$8,711.	\$8,490.
per ROOM	\$1,512.	\$1,607.	\$1,742	\$1,691.
per SQ. FT.	\$7.34.	\$7.84	\$9.06	\$8.55
per CU. FT.	\$ .764	\$ .815	\$ .880	\$ .829
Land Cost—per UNIT	\$372.	\$701.	\$701.	\$922.
Rooms/Apt. (average)	4.9	5.1	5.0	5.02
4 1/2 Room Walk-up	56 Units @ 932.sf.	24 Units @ 943.sf.	16 Units @ 874.sf.	48 Units @ 878.sf.
5 1/2 Room Walk-up	48 Units @ 1064.sf.	32 Units @ 1078.sf.	16 Units @ 1025.sf.	56 Units @ 1020.sf.
4 1/2 Room Elevator	40 Units @ 1013.sf.	20 Units @ 1009.sf.	20 Units @ 918.sf.	70 Units @ 918.sf. 30 @ 918.sf. 40 @ 960.sf.
5 1/2 Room Elevator	20 Units @ 1099.sf.	40 Units @ 1095.sf.	20 Units @ 1022.sf.	70 Units @ 1022.sf. 30 @ 1022.sf. 40 @ 1171.sf.
Area/Apt. (average)	1011.sf.	1045.sf.	961.sf.	994.sf.
Area/Room (average)	206.sf.	205.sf.	192.sf.	198.sf.
Cubage/Apt. (average)	9,722.cf.	10,047.cf.	9,897.cf.	10,237.cf.
Cubage/Room (average)	1,978.cf.	1,968.cf.	1,979.cf.	2,041.cf.

Construction cost chart for the Winchester-Hood



## Builder's Office That Can Be Converted Into A Residence

**R**EVERSING the common practice of utilizing a house for office space, this structure was designed for later conversion to residential use.

Hugh Bremerman, Indianapolis architect-builder, designed the structure with three separate areas. Conversion could change the drafting area into a kitchen-dining room, or a kitchen and bedroom. The center, general office area, could be a large modern living room with change, while a little remodeling could adapt the private offices to use as bedrooms.

The structure adequately meets the office needs of the builder. The exterior wall of the drafting room has large areas of glass block for even light. There is space for three drafting tables in the 13 by 18 foot room. The general office area is 15 by 15 feet and is separated from the waiting alcove by a large counter.

The builder's private office is 13 by 15 feet and includes a large conference table as well as the builder's desk. Storage space in this office houses sample materials used in selling. The other private office can be used for another executive of the company, or it may be rented to a realtor. Its entrance is such that clients need not go through the general office to reach it.

◀ Glass block walls give even illumination to the drafting room. Later conversion into kitchen-dining area or kitchen and bedroom is planned for this area

Counter separates waiting room alcove from the general office area. Space can be easily connected into a living room

Builder's private office has desk and conference table. Cabinets store his various selling tools. Later this office could be transformed into the master bedroom

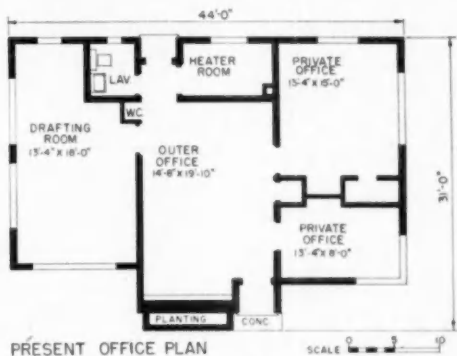
Waiting room will be a part of the living room when structure is remodeled



Brick ledge between every two courses of insulated concrete block gives shadow line which emphasizes horizontal lines of the building

**BRAND NAME PRODUCTS USED**

- American-Standard plumbing fixtures
- Armstrong cork tile
- Chrysler furnace and air conditioning unit
- Johns-Manville shingles and insulation
- Libbey-Owens-Ford glass block and double glazed window
- Minneapolis-Maneywell heating controls
- Supermatic hot water heater
- Schlage hardware



PRESENT OFFICE PLAN

SCALE 0 5 10

Office plan includes two private offices, general office, waiting alcove, and drafting room



FUTURE HOME No. 1 — 3 BED ROOM

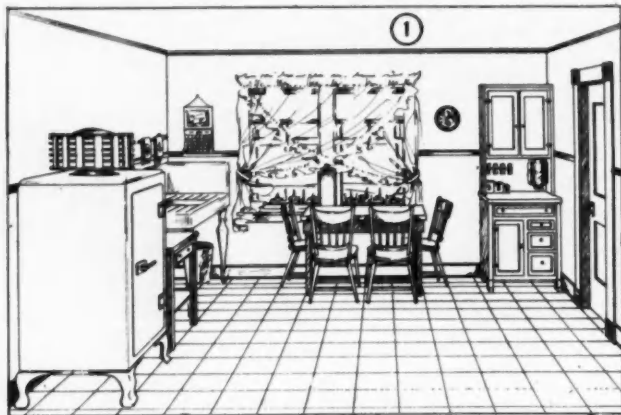
Three bedroom model has a smaller kitchen and bedroom in the drafting area. Other areas remain the same as in the two-bedroom plan



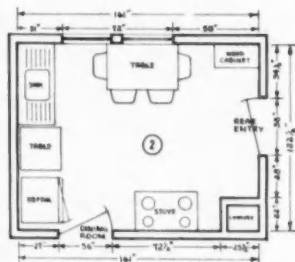
FUTURE HOME No. 2 — 2 BED ROOM

Proposed two bedroom remodeling plan changes drafting room into kitchen-dining area. The private offices change to bedrooms. General office area will be the living room

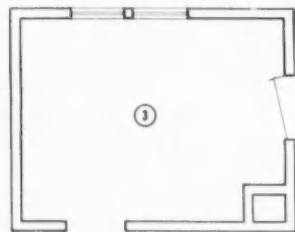
# KITCHEN Remodeling



Kitchen furnishings and arrangement before remodeling



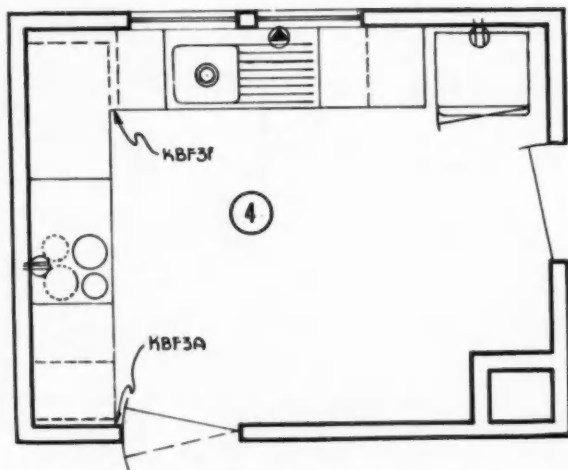
Layout of units before remodeling



Floor plan with all equipment removed

To modernize the "problem" kitchen, the builder must first arrange the three major work centers. For greatest convenience, he must then provide adequate storage space for food and cooking utensils that will be needed at each center.

In the example that is illustrated, the only structural change permitted by the customer was in raising window levels, when it was necessary.



Position of three basic work centers and base cabinets

None of the walls or doors could be moved. In addition, the customer wanted to install a new 8-cubic-foot refrigerator with door hinged on the right, a dishwasher sink with garbage disposal unit, an automatic electric range, and an eating area for at least four people.

With all present equipment removed, (Fig. 3.) the three basic work centers for "storage," and "mix," and "cook," were easily arranged into an efficient, L-shaped kitchen plan.

Following standardized planning rules, the new refrigerator was placed at the right end of the window wall so it will open to counter work space. The position of new appliances is shown on Fig. 4. The dishwasher sink is placed next in line under the window to form the food preparation and clean-up center. Because the dishwasher sink backsplash was 40 to 43 inches high, the window level was raised to that height. To complete the recommended 1-2-3 arrangement, the new range was placed on the left return wall where it is convenient to both kitchen and dining room.

By using the space between the chimney and rear door for a large utility storage cabinet, the wall to the left of the chimney, shown in Fig. 5, is used for the new eating area.

A system developed by Hotpoint

# Problem Solved . . . . .

Inc., utilizes miniature appliances and cabinets that can be set in place on a scale model floor plan and re-arranged until a satisfactory work pattern is established.

Beginning with the empty kitchen, Fig. 3, parallel guide lines are lightly drawn 13 and 25 inches out from the walls along which equipment for the three work centers are placed—Fig. 6. These lines represent depth (front to back) of standard wall and base cabinets.

Each time the assembly of base cabinets and appliances turns a corner, 28 inches should be measured out from each wall to close off sufficient space for corner storage—Fig. 7. With this allowance, cabinet drawers will not interfere with oven doors, if the range happens to adjoin this section of the return wall.

When considering the base equipment used along the window wall, Fig. 5, there are three fixed dimensions—the 28-inch corner space, the 48-inch dishwasher sink, and 36 inches allowed for the refrigerator. By subtracting the total of 112 inches from the over-all dimension of 161 inches, the space available for cabinets is determined—in this case 49 inches.

By using a 15-inch base cabinet next to the 28-inch corner space, the dishwasher sink is then centered under the windows—Fig. 7. Moving to

the right in Fig. 5 the next 48 inches contains the dishwasher sink with garbage disposal unit. At this point there are 34 inches remaining for base cabinets between dishwasher sink and refrigerator space at the extreme right. Since most standard cabinets are 15 and 18 inches wide, it was correct to use one of each in this space.

Equipment along the left return wall of this L-shaped kitchen includes the range and ample storage space for cooking utensils and serving dishes. The 39-inch range and the 28-inch corner space are the only two fixed dimensions on this wall. Again deducting these dimensions from the over-all total space available (67 from 122½) the amount of cabinet space is determined as shown in Figs. 5 and 9. A standard 46-inch base cabinet or 18 inches more than the required 28-inch corner space is provided to the right of range with two 18-inch cabinets placed at the left—Fig. 9.

According to Hotpoint research studies, the greatest convenience and best room balance is possible when the range is placed next in the food "assembly line" on the left return wall—Fig. 5. A 1½-inch-scribe filler is used to complete the return wall assembly—Fig. 9. The cabinet next to the range should be the drawer type and the cabinet next to the end

wall a combination drawer and door type.

Hotpoint research studies indicate that the proper amount of cabinet storage space for the average family of four should conform to the following schedule:

### Liberal Kitchen

Wall cabinets. . . . 7 feet 9 inches  
Base cabinets. . . 13 feet 6 inches

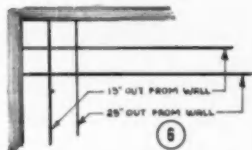
### Medium Kitchen

Wall cabinets. . . . 6 feet 3 inches  
Base cabinets. . . 11 feet 0 inches

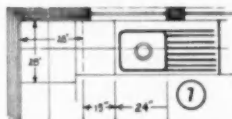
### Minimum Kitchen

Wall cabinets. . . . 5 feet 3 inches  
Base cabinets. . . . 8 feet 6 inches

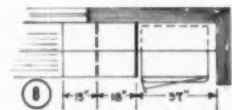
In locating the three major appli-



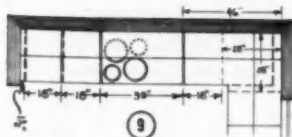
Parallel guide lines aid in laying out base and wall cabinets



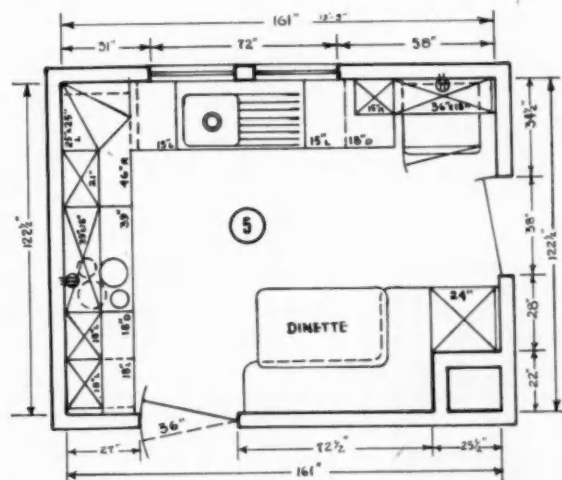
28-inch dimension shown here, in both directions, is another basic factor along with appliances to determine the placement of base cabinets



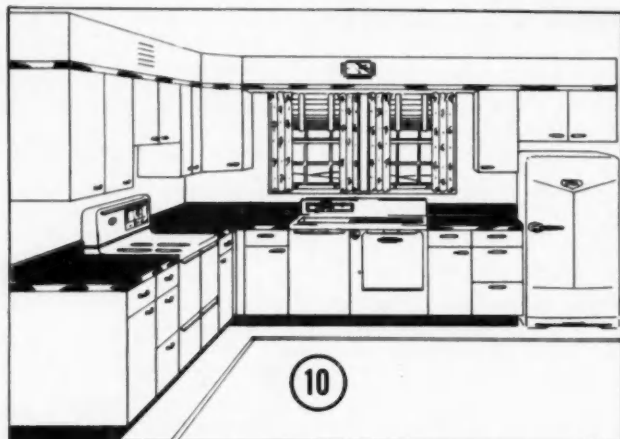
Cabinets adjoining refrigerator are shown separate in plan. The counter above is continuous



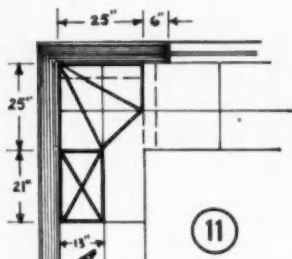
Detail of left return wall with base and wall cabinets adjoining range



Complete arrangement of appliances, base and upper cabinets, and eating area



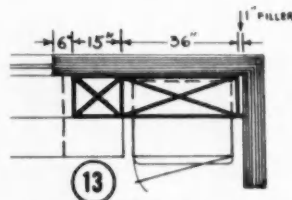
Sketch of window and left return wall in remodeled kitchen



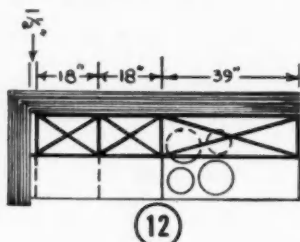
Wall cabinets at window and left return walls

ances in this remodeled kitchen, the distance between refrigerator and sink should be 4 to 7 feet; between sink and range, 4 to 6 feet; between range and refrigerator, 4 to 9 feet. Although these distances can vary to fit smaller or larger kitchens, the work triangle between the three appliances should not exceed 22 feet.

With all base equipment in place on the layout, it is easy to compute and indicate the wall cabinets that will be required around each appliance to complete this "problem" kitchen—Fig. 5. A 39x18-inch cabinet is indicated over the range, although it is a matter of customer preference. Hotpoint recommends



Wall cabinet plan adjoining refrigerator



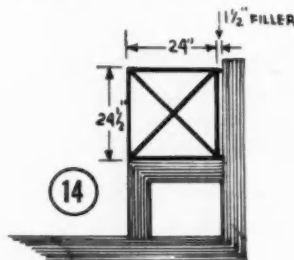
Wall cabinet plan adjacent to range

that the short, 18-inch cabinets, be used or none at all over fuel type ranges.

The utility storage cabinet which fits into the corner formed by the chimney and the outside wall, Fig. 14, holds brooms, mops and cleaning supplies. The only remaining section is the new eating area that appears in Fig. 5.

By comparing the floor plans of the original, Fig. 2, and the remodeled kitchen, Fig. 5, the time and work-saving advantages that scientific kitchen planning can give the

Data and drawings Courtesy Hotpoint, Inc.



Detail of utility cabinet

home owner are obvious.

In the original kitchen: (1) The sink was in a dark corner; (2) the refrigerator opened away from the counter work surface; (3) work space alongside of stove missing and counter space adjoining sink was inadequate; (4) cabinet space insufficient; (5) no storage for brooms, mops, etc.; (6) the eating was crowded; (7) kitchen traffic interfered with the "work triangle" pattern; (8) valuable floor space wasted; (9) equipment layout inefficient; and (10) over-all kitchen appearance unattractive.

After remodeling, using scientifically-tested planning principles, the following points of improvements are noted:

(1) The dishwasher sink is correctly located under a window between the other two work centers.

(2) The refrigerator is placed at the beginning of the food assembly line, and the door, hinged on the right, opens to counter surface.

(3) Work surface is provided on both sides of the range.

(4) There is ample storage space for dishes and kitchen utensils needed at each work center.

(5) Counter work surface is continuous from center to center.

(6) Ample utility storage space is provided.

(7) The enlarged and attractive eating area is located outside the work area.

(8) Kitchen traffic does not interfere with the "work triangle."

(9) No floor space is wasted.

(10) Maximum efficiency with a minimum of effort is possible in meal preparation because the natural work sequence can now move from refrigerator to sink to range without interruption.

The standardized planning principles used in remodeling this "problem" kitchen, represent the basic fundamentals that research has shown to be of most value to home owner and builder. Each can serve as a key to unlock the detailed problems that are encountered in each step of building, planning or remodeling a kitchen.

Although the "how to plan" tips, illustrated in this series are necessarily brief, each has been proven in actual usage, and represents over 20 years research and experiment by Hotpoint, Inc. The "do's" and "don'ts" apply to every type of kitchen and are designed to give every builder a complete standardized guide to planning and selling the profitable "package" kitchen. By using these guides, the final kitchen will be attractive and efficient—a real time and work saver.



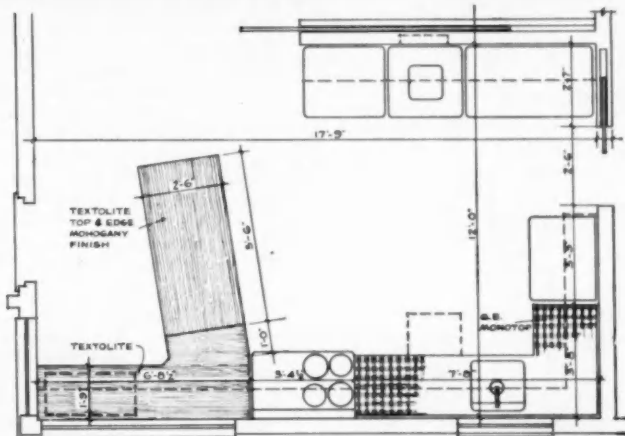
# IDEA of the Month—



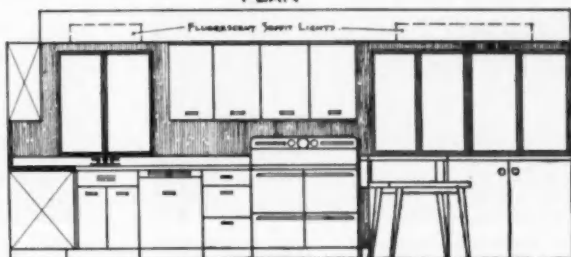
## A Table and Storage Cabinet Combination

**T**HIS table and cabinet ensemble was created by Victor Civkin, A.I.A., architect for the General Electric Co. The cabinet is designed to store an automatic ironer at one end and serving trays, bridge tables and similar items at the other. The table, which is set at an angle to provide a wide lane to the kitchen, is detachable. It has dining space for five people and is finished in General Electric's mahogany pattern Textolite.

The unit is featured in a Civkin-designed house being built in all sections of the country as part of a nation-wide G.E. promotion program. The position of the unit in relation to other equipment in kitchen is illustrated in drawings at right.



PLAN



ELEVATION



***If it's a corner lot—  
here's a good plan***

**LOCATION**

*San Marino, California*

**ARCHITECT**

*Dwight K. Anderson*

**BUILDER**

*Fred A. Stewart*

**P**LACING the front entrance at an angle provides easier access to all parts of the interior of this house, built on a corner lot. Another advantage is the view of both streets from the door. The low lines of the house are accented by the continuous roof over the breezeway and garage. Distinct character is given the house through the use of 3x6 false rafter ends spaced 24 inches on center, and painted white.

Exterior walls are frame and stucco. The 12-inch siding is redwood, hand-sawed with a wavy edge. Siding was painted light brown, and windows and shutters are white.

The 8x8 posts which define the front entrance are repeated in the garage entrance and breezeway. Similar treatment is used on the fireplace wall inside. Cost of the house is \$42,500.

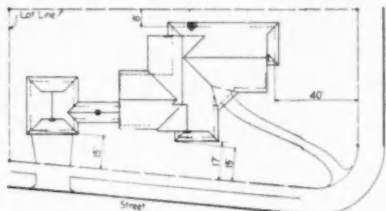
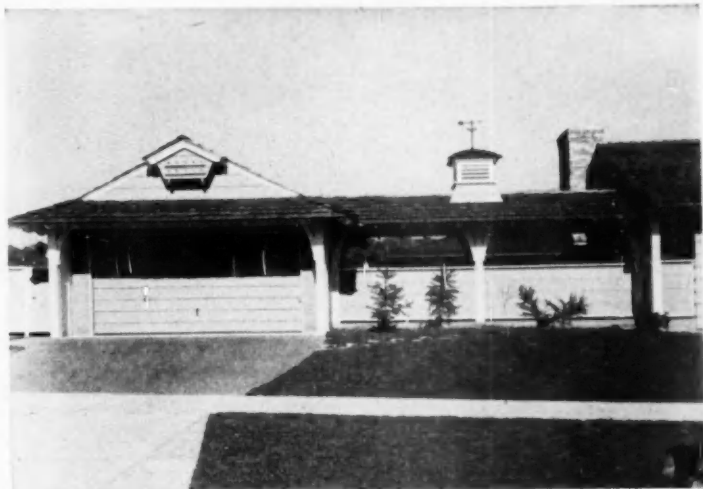


**ROOF** overhangs the concrete about 10 feet, gives protection from sun and rain yet permits plenty of light for interior. Fencing the passage from house to garage gives privacy from the street

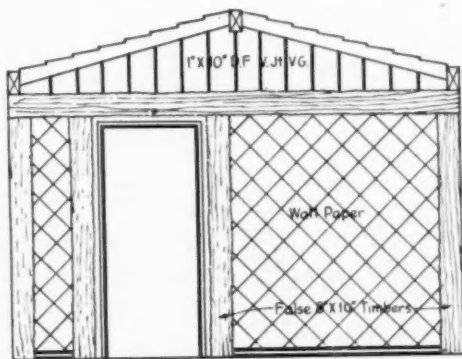
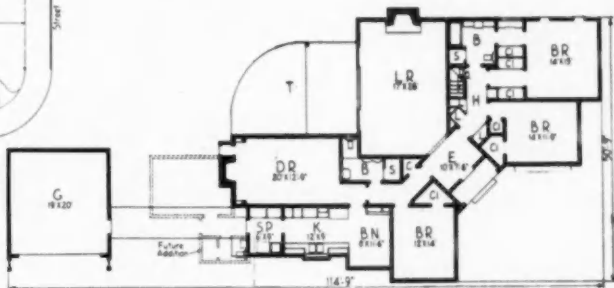


**GARDEN** wall of den-dining room has Arcadia sliding glass doors with sliding screens outside. Ceiling is 1 x 16 boards lapped with 2 x 6 rafter exposed on 4-foot centers

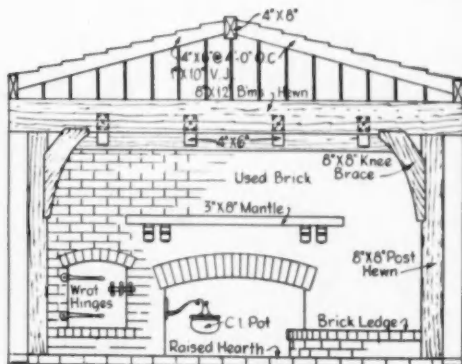
**GARAGE** and breezeway make an impressive unit. The covered passage is 26 feet long and 6 feet wide. Asphalt-paved service yard is out of sight of the house and garden, around garage and garden, around garage at left



**FUTURE** expansion possibilities are a feature of this design. The floor plan indicates where and how a maid's room could be added (back of den room). Note also that a doorway is framed in the wall of the bedroom off the front entry. This makes possible future conversion to a dining room, if desired



WEST WALL - DINING ROOM



EAST WALL - DINING ROOM

East and west ends of combination den-dining room

# AMERICAN BUILDER BLUEPRINT HOUSE

**Here is a  
good design for  
35-foot city lot**

**ARCHITECT:**

*A. J. Del Bianco, Chicago, Ill.*

**BUILDER:**

*Valenti Builders, Inc., Chicago, Ill.*



**T**his Blueprint House, which is the model for a project in Chicago, is a refreshing departure from the monotonous elevations so often found in a development on narrow city lots.

Due to the width of the lots, which were a minimum of 35 feet, all design changes had to be confined to the street side of the house. This posed a difficult problem for the architect. The effective results shown on the model house are reflected in all the other units in this project.

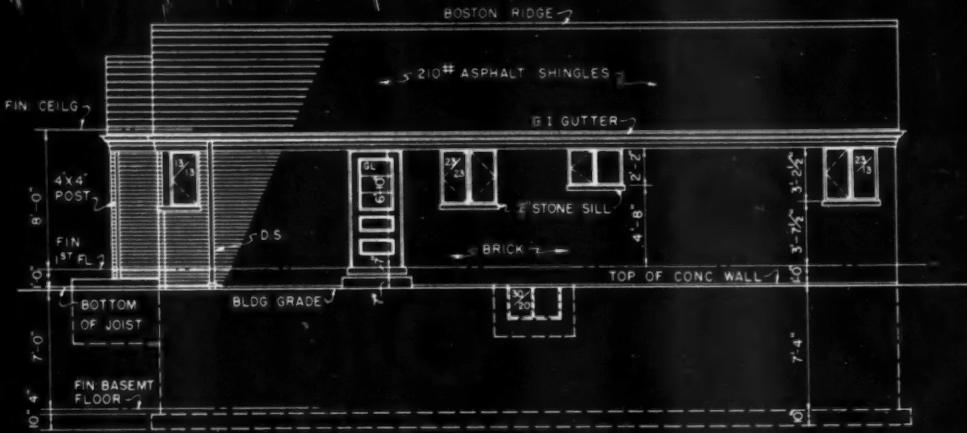
A number of unusual interior innovations are features of the house. Outstanding is the open arrangement of

stair to basement with a low wall and wood uprights on one side, and a flower box on the other. Basement stair is located about midway in the kitchen in direct line with the outside door. This makes the kitchen and dining room virtually one large room.

A folding door separates one of the bedrooms from the living room. The owner has a choice of using this space as a bedroom, study, den or as an extended unit.

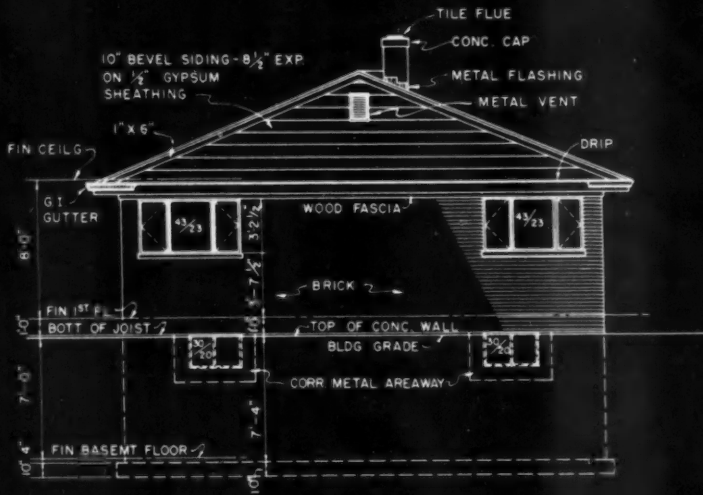
This house, which contains 1,160 square feet of floor area plus a full basement is placed on a 35x125 foot lot and is currently selling for \$21,500.

For complete one-quarter inch scale working plans of this house write American Builder Home Plan Service, 30 Church St., New York 7, N. Y.



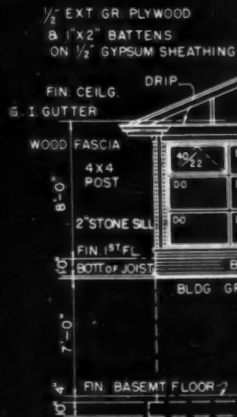
RIGHT SIDE ELEVATION

SCALE:  $\frac{1}{8}'' = 1'-0''$



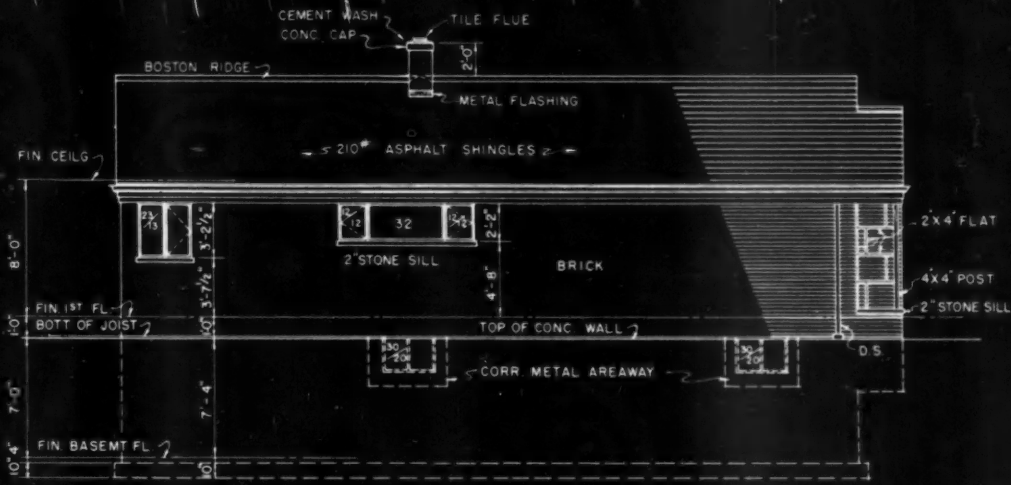
REAR ELEVATION

SCALE:  $\frac{1}{8}'' = 1'-0''$

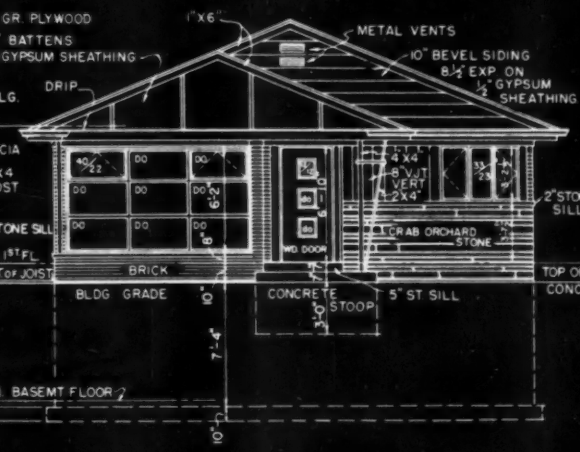


FRONT

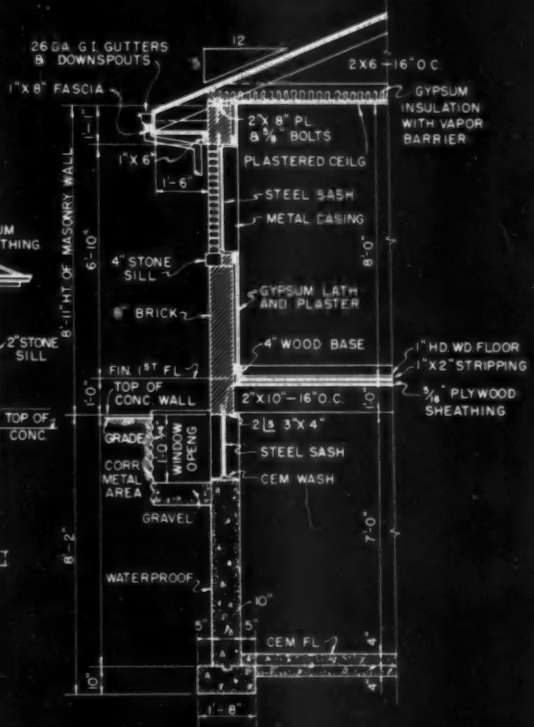
SCALE:  $\frac{1}{8}'' = 1'-0''$



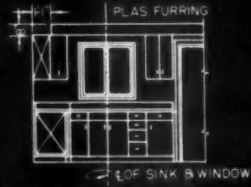
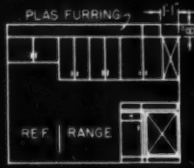
LEFT SIDE ELEVATION  
SCALE  $\frac{1}{8}'' = 1'-0''$



FRONT ELEVATION  
SCALE  $\frac{1}{8}'' = 1'-0''$

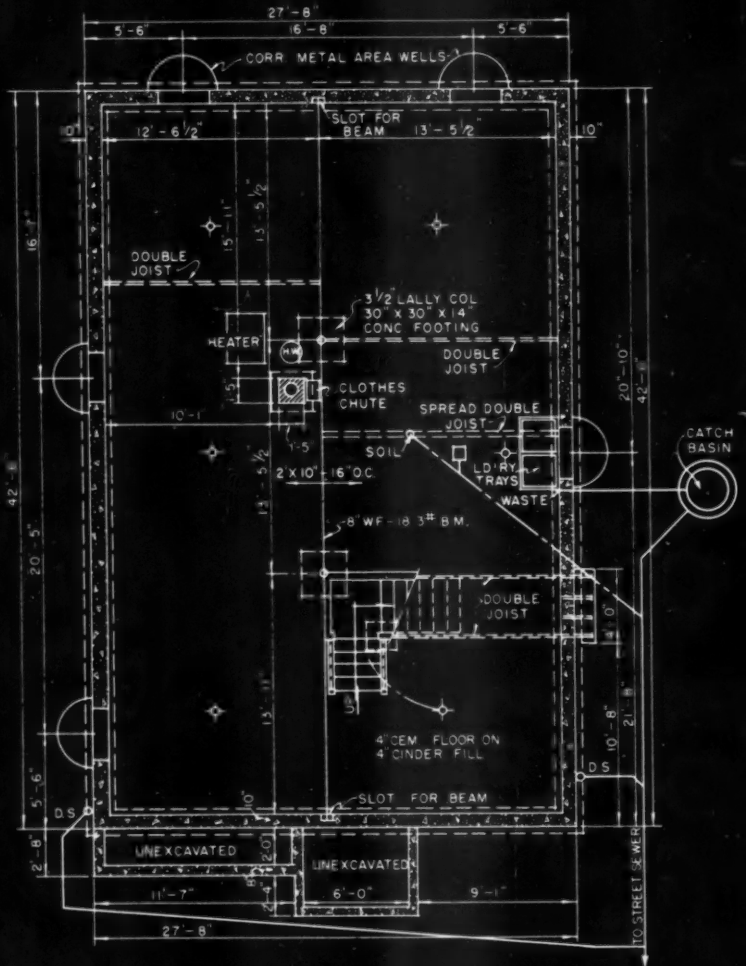


TYPICAL WALL SECTION  
SCALE  $\frac{1}{4}'' = 1'-0''$



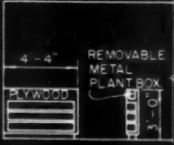
**KITCHEN CAB'T DETAILS**

SCALE  $\frac{1}{8}'' = 1'-0''$

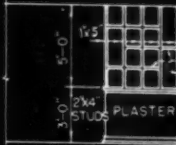


**BASEMENT FLOOR PLAN**

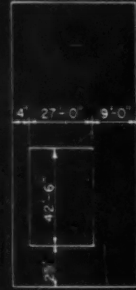
SCALE  $\frac{1}{8}'' = 1'-0''$



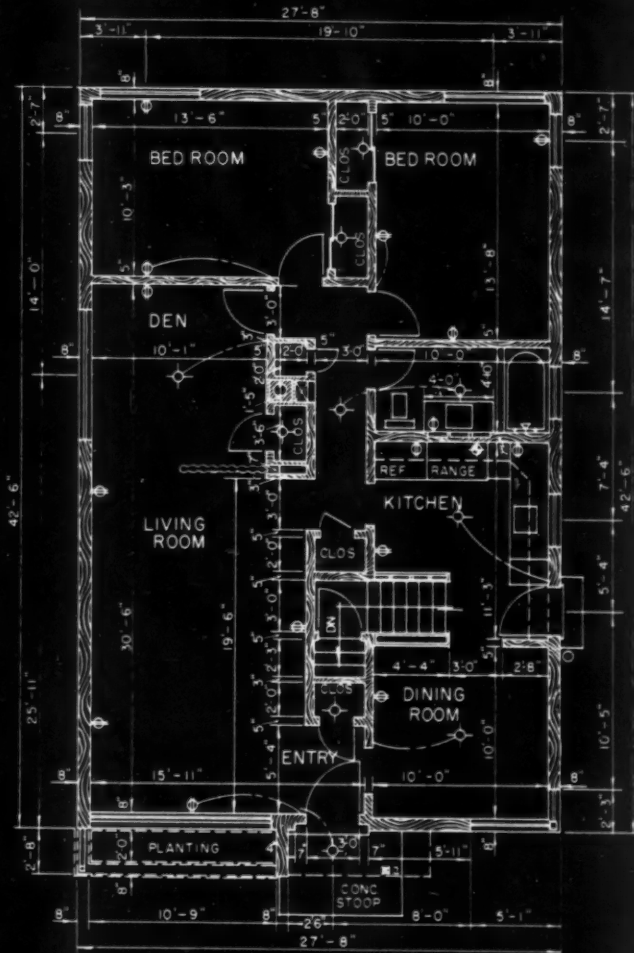
DET. PLANT BOX  
SCALE:  $\frac{1}{8}'' = 1'-0''$



LOW WALL DET.  
SCALE:  $\frac{1}{8}'' = 1'-0''$



PLOT PLAN



FIRST FLOOR PLAN  
SCALE:  $\frac{1}{8}'' = 1'-0''$

DESIGN NO. 182

AMERICAN BUILDER BLUEPRINT SERIES

Designed By

A. J. Del Bianco,

Architect

5501 W. Irving Park Rd.

Chicago, Ill.

Simmons Boardman Pub. Corp., 79 W. Monroe St., Chicago, Ill.



# Quantity List of Materials

## For American Builder Blueprint House No. AB 182

A. J. Del Bianco, Architect

### General Information

House — Type .....	Masonry
Area .....	1,160 sq. ft.
Cube .....	22,040 cu. ft.
Height taken for cube was 19 feet	
Porch — Stoop Area .....	35 sq. ft.

### Excavating

Trench for foundation .....	30 lin. ft.
Chimney and column footings .....	3-20 cu. ft.
Excavation for basement .....	344 yds.

### Cement Work

Foundations .....	1,020 cu. ft.
Concrete work .....	1,090 sq. ft.
Thickness .....	4 in. conc.
.....	4 in. cinders
Anchor Bolts .....	34 — ½ x 8
Waterproofing .....	1,000 sq. ft.
Miscellaneous (conc. stoop) .....	35 sq. ft.

### Masonry

Type .....	Brick — Stone
Walls .....	1,050 sq. ft.
.....	8 in. brick wall
.....	45 in. stone
Window sills .....	2 in. stone
Chimney .....	Brick
Flue lining (vitrified tile) .....	22 — 0" — 8"
Cap .....	Cement

### Iron Work

Structural (in basement) .....	732 lbs.
Lally columns .....	2 — 3½"
Steel lintels .....	for basement — 10 — 3"x4" — 3'4"
.....	10 — 3"x4" — 3'6"
.....	2 — 3"x4" — 6'6"
.....	2 — 4"x6" — 8'0"
.....	2 — 4"x6" — 6'6"
Miscellaneous .....	5 steel araways

### Millwork

Windows — Type .....	Casements
Windows glazed, including casings .....	2 — 18"x24"
.....	1 — 52"x24"
.....	2 — 36"x36"
.....	2 — 72"x36"
.....	1 — 36"x24"
.....	1 — 36"x36"
.....	1 — 18"x36"
.....	1 — 54"x36"
.....	1 picture window 9 ft. ea. 40"x22"
.....	5 basement windows 2 ft. ea. 15"x20"
Exterior Doors .....	1 — 3'0"x6'8"
.....	1 — 2'8"x6'8"
Exterior Millwork .....	Wide casing entrance fascias
.....	Lattice (by carpenter) 2"x4"
.....	Metal louvers .....
.....	Flower Boxes .....
.....	Interior Doors including jambs and trim .....
.....	1 — 1'6"x6'8"
.....	7 — 2'0"x6'8"
.....	1 — 2'4"x6'8"
.....	4 — 2'6"x6'8"
Special Interior Doors .....	4 of 2' doors are sliding
.....	1 — 10' folding door

Special Interior Millwork .....	1 Set Kitchen Cases
.....	1 Open Shelf Unit
.....	1 Planting Box

### Carpentry

Posts .....	4 — 4x4x8'
Foundation Plates .....	140 lin. ft. 2"x8"
Joists .....	64 pcs. 2"x10"x14'
Bridging .....	160 lin. ft. 1"x3"
Studding and Plates .....	135 — 2"x4" — 8"
.....	16 — 2"x4" — 12'
.....	10 — 2"x4" — 10'
Ceiling Joist .....	66 pcs. 2"x6" — 14'
.....	3 — 2"x6" — 12'
Roof Rafters .....	68 pcs. 2"x6" — 16'
.....	6 pcs. 2"x6" — 12'
Framing Lintels .....	2 — 2"x10" — 12'
Subfloor .....	1,080 sq. ft. 5/16" plywood sheathing
Roof Sheathing .....	1,775 b.f.
Side Wall Sheathing .....	240 sq. ft. ½" gypsum sheathing
Side Wall Materials .....	60 sq. ft. ½" Ext. Gr. Plywood
.....	125 sq. ft. 10" Bevel Siding
Furring .....	1,200 lin. ft. 1x2
Carpenter Stairs .....	10 pcs. — 1 ¾" stepping stock 3'0" long
.....	2 — 2"x12" — 16'
.....	12 pcs. — 1"x8" — 3'
Flooring .....	820 sq. ft. area to cover
.....	160 sq. ft. area to cover
Exterior Material .....	
Soffits .....	280 sq. ft. plywood soffit
Eaves .....	160 lin. ft. 1"x8"
.....	4 pcs. 1"x6" — 16'
.....	64 lin. ft. 1x2
.....	1 pc. 1"x6" — 12'
.....	140 lin. ft. 1"x6"
.....	20 sq. ft. V-jointed paneling
.....	16 lin. ft. 1"x2" batten strips
Insulation .....	1,100 sq. ft.
.....	insulation with vapor barrier

### Rain Conduction

Gutters .....	114 lin. ft., 26 gauge
Downspouts .....	20 lin. ft.
Flashing .....	Chimney Flashing
Miscellaneous .....	8' Clothes chute lining
.....	Planting box lining

### Roofing

Type: Composition Shingles .....	Area: 1400 sq. ft.
----------------------------------	--------------------

### Interior Walls

Area to be covered .....	475 yards of lath and plaster
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● This quantity list will be subject to variation depending on the common practices in various sections and municipalities of the country, the techniques of individual builders, the types of materials available locally and cost factors. The list published here is a suggested one, complete enough so that it can be used in arriving at a reasonably accurate estimate of the quantities and cost of materials that will be required to complete the structure. It was prepared by experts at the Edward Hines Lumber Co., Chicago.



ASSOCIATED home builders of Sacramento built this 2,500 square foot house for National Home Week. Admission charge was fifty cents. After the demonstration, the house was put on the market for \$59,500

## **Sacramento Association Creates Desire for Luxury Living**



**National Home Week demonstration house was co-operative effort of association members**

**T**HE Associated Home Builders of Sacramento, Inc. chose to wrap up their NATIONAL HOME WEEK observance in one package, a luxury styled home. Their decision rested on the fact that the State Fair date coincided with that of NATIONAL HOME WEEK and would compete for attendance.

The \$59,500 house comprises 2,500 square feet not including the maid's room. The house, built on a 175 x 190 foot lot, was open to public inspection for 90 days. Approximately 1,000 people toured the demonstration house each week end. Week days attracted between 200 and 300 visitors. Money derived from admission fees was donated to local charities.

The General Electric "New World" kitchen was a popular feature in the house. Here in a central location are the principal kitchen and laundry appliances. An ice cream soda bar is an added feature.

The living-dining-room is divided into its two functional parts by a cabinet planter. The same basic paneling is used throughout the large area to give a feeling of unity.

Other features include remote controlled wiring, air conditioning and heating equipment, and automatically-controlled garage doors.



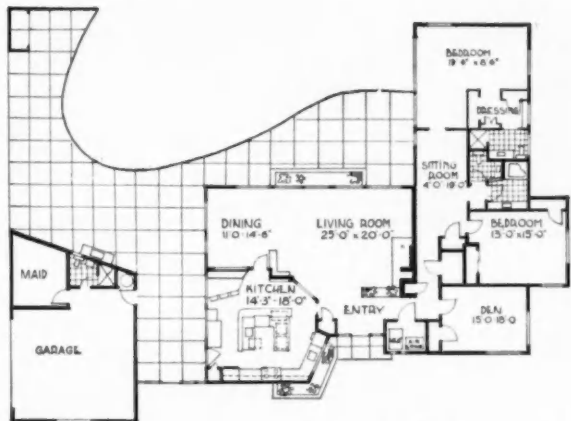
MAJOR fenestration was placed at the rear of the house overlooking the patio. Outdoor living facilities include an outdoor sink and fireplace



"NEW WORLD" kitchen is by General Electric. Ice cream bar is an innovation



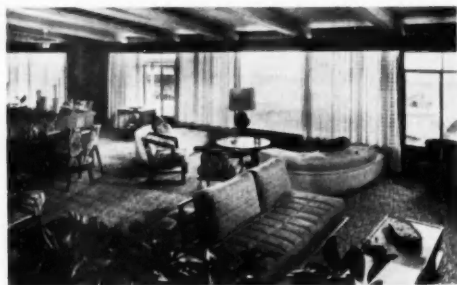
BATHROOM WALL, floor, and counter top are of hand decorated tile



DOMINANT factor of the plan is the kitchen and the large living-dining area



PASS-THROUGH between kitchen and dining area adds to the convenience of serving in the dining room. Planter separates living and dining areas



LIVING ROOM overlooks rear lawn. Dining area is in back of the planter box that appears in the foreground. Right, fireplace wall of roman brick dominates living room. Beamed timbers and wood paneled ceiling and side walls add to ranch style motif



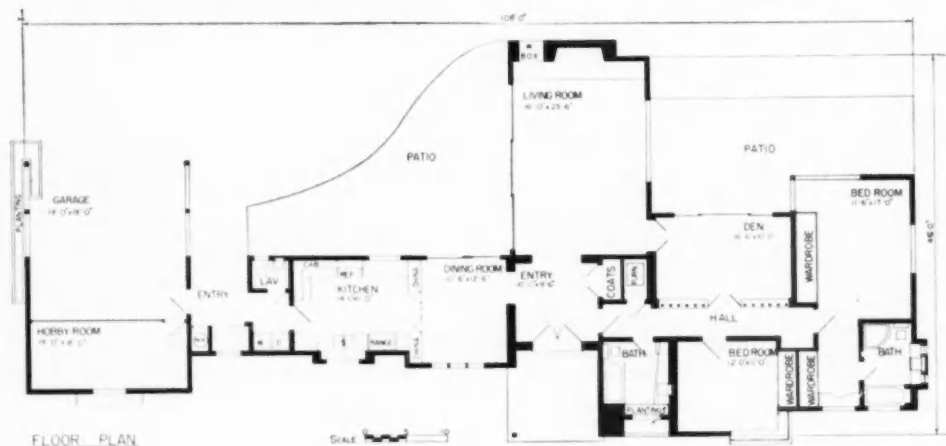
# This Custom-Built House Was Designed with Lifetime Family Needs in Mind

**AMERICAN  
BUILDER**  
*Selected Homes*



Long and low, over 100 feet in width, the house is frame and stucco. About one-half of the exterior walls are redwood, one by 12-inch board and batt siding. Jumbo cedar shakes were chosen for the roof. Slumpstone concrete blocks were used to wainscot the front of the house, and large concrete slabs for paving the patio

LOCATION: *Pasadena, California*  
ARCHITECT: *James C. Young*  
BUILDER: *Sentinel Construction Company*



**T**HE 2,000 square feet of this unusual house are arranged in three major zones of living: (1) the bedroom wing, separate from the rest of the house; (2) general activities area—living room, dining room and main patio; (3) garage-hobby room space. The lanai, or den, has been carefully located. Its proximity to the master bedroom and the enclosed play yard makes possible its use as a nursery during the family's early years. Later, with its bed which disappears into a wall, it can become a child's room, guest room, or den. The location of the second bath also has been very carefully considered. It not only serves the bedroom wing but doubles also as a powder room.

The house is heated with a gas-fired Lennox winter air conditioner which provides warm air in the winter and fan-cooled air in the summer. Its location, dead-center in the house, contributes to top efficiency. Two new Minneapolis-Honeywell heat control and distribution devices are used. One is an electronic chronotherm, which combines temperature control with a clock capable of turning off heat at night and turning it on in the morning. The other is a diffusion register, which solves the problem of balancing the heat in each room.

Called "The Southlander," this house was the bright particular star of the 1951 National Home Week in Los Angeles. It was then moved to a site in Busch Gardens, an exclusive subdivision which is being created by the Sentinel Construction Company. This development features homes in the \$27,000-\$45,000 range.



Master bedroom endeavors not to look like a bedroom. Twin beds are placed in opposite corners

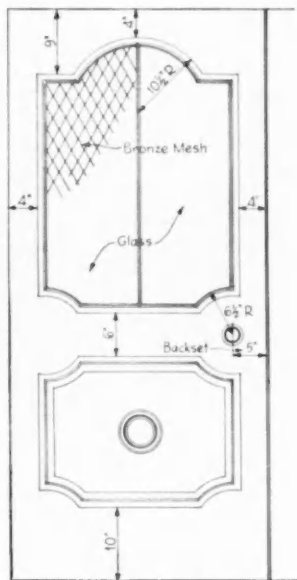
Looking from the master bedroom down the hall which serves the bedroom zone. Hallway ceiling is coved along one side to house indirect lighting. Wiring system throughout the house is the touch plate low voltage type



Entry has a cork floor, plywood paneling in wormy chestnut. Double doors swing open into living room beyond. The raised fireplace provides seat for television viewers



Plantation-type front doors have a grille made from a standard hardware cloth in flattened expanded metal. The glazed sash behind this grille opens for ventilation. Front door lock works not with a key but by special card slipped into a slot having an electric eye. An intercommunication system, which serves the whole house, makes possible talking through the door without opening it



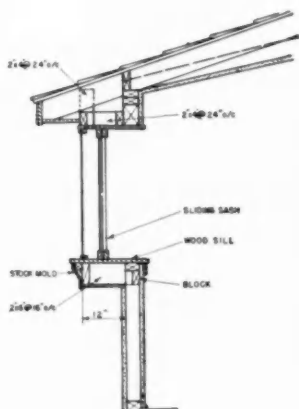
Lanal, or den, can be opened to the hallway by drawing back the short curtains which cover a metal grille above the bookcases. The couch is actually a disappearing bed which comes out of its recess in the wall by touching a button. The bed slides on a track



Bath for the master bedroom. The cabinets of the Pullman lavatory slant inward. A radiant glassheat panel is used. Enclosed tub is at right. The counter-top planter is an extension of planter just outside the louvre-type window. Floor is of light green tile and the same color is used on lavatory top. There is an exhaust fan in the ceiling



Shutters are in the design of this house. They are used not only at certain inside windows, but accordion-type doors with shutters 8 inches wide separate kitchen from dining room, and also enclose wardrobes in the master bedroom



Diagonal mullioned box window in bedroom No. 2 makes a point of unusual interest on the exterior, provides an attractive window seat within







# Car Housing at its best—



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## with the finest garage doors in its history

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● **TAPER-TITE TRACK.** Vertical tracks taper away from the jambs at a pitch of  $\frac{1}{4}$ " per door section. In "down" position, door is snug-tight against the weather, providing positive protection.

● **SEAL-A-MATIC HINGES.** Ro-Way design, Ro-Way made. Graduated to guide the closing door tightly against jambs and to hold it there snugly. On opening, hinges instantly free the door to provide smooth, easy, almost frictionless operation.

This is car housing at its best—with Ro-Way overhead type doors. Specify Ro-Way.

**ROWE MANUFACTURING CO., 710 Holton St., Galesburg, Ill.**

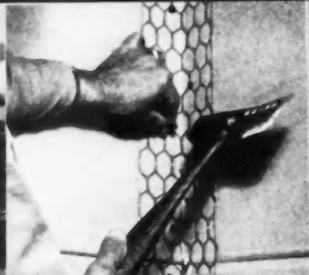


*there's a Ro-Way for every Doorway!*

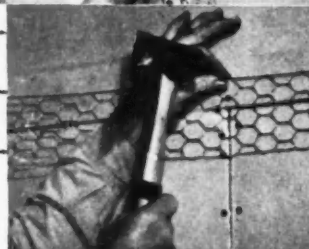
Nationwide sales and installation service. See your classified telephone directory for nearest Ro-Way distributor.



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CEILING CORNERS AND JOINTS  
WHEREVER PLASTER IS APPLIED...



# Keymesh - NARROW



**NEW...ECONOMICAL SOLUTION TO AN OLD PROBLEM!**

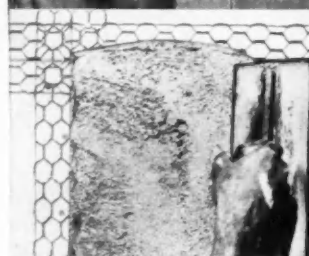
*Pre-formed for Corners...lies flat, too...* while Keymesh-NARROW is purposely supplied pre-formed for corners, it still lies flat in the roll and when applied on flat surfaces. It forms easily for corners by merely flexing the cut piece... holds its shape or can be re-shaped if desired. Its narrow width and low cost permit a fast, economical reinforcing job on any location where interior plaster is used... and helps prevent future crack troubles!

**SAFE HANDLING... IMPROVES BOND  
AND REINFORCEMENT**

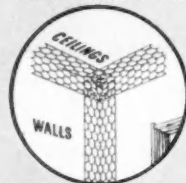
Keymesh-NARROW will not injure the hands, because the smooth selvage edges eliminate this hazard. It's galvanized against rust, too. And, the open mesh permits the brown coat to flow through and around the mesh giving a generous bond of plaster to rock lath, insulation lath, etc., imbedding the steel wires... thus making a strong, reinforced section where needed... with an even base for the second coat... and a firm, smooth finish!

**SIZED RIGHT... FOR EVERY PLASTER  
REINFORCING JOB**

Keymesh-NARROW is manufactured in 150 foot rolls in several widths. For corners and joints it is made in 4", 5" and 6" widths, 1" mesh, 18 gauge... 4 1/2" and 6" widths, 17 gauge. For joints, also in 6" by 1" mesh, 20 gauge. For reinforcing above large windows and openings, 12" with 1" mesh, 20 gauge is recommended. Keymesh is also available in 3 and 4 foot widths for easy over-all lathing reinforcement practice.



**NARROW WIDTH  
CORNER AND JOINT**



**REINFORCEMENT**

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*Etling*

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Window

The in-swinging Etling Window is unmatched in beauty, style and convenience. Distinctive design and in-swinging sash make the Etling Window a sure-fire "extra" that sells homes on sight. What's more, it's easier and quicker to install.



*"Clean-Easy"*

## PICTURE WINDOWS

The Etling Picture Window features stationary center section, flanked by in-swinging sash. Entire outside glass area can be reached easily from inside.

## *Cuts* BUILDING COSTS

The Etling Window is a complete packaged unit. That means big savings in time and labor for the builder. No planing, fitting or priming. Simply place in opening, square and nail. Factory primed and tested to reduce painting costs, assure trouble-free operation for life.

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## THE DOUBLE-HUNG WINDOW THAT SWINGS IN FOR EASY CLEANING

The Etling Window combines the best features of double-hung and casement units. Just press a tab and both sash swing in for easy cleaning. A unique continuous hinge permits sash to slide up and down, open or closed. Single, twin or triple units available.



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WINDOW

\* TM Prop. Weather-Seal, Inc.

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CORPORATION

Architect: A. J. Del Bianco, Chicago



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Three bedrooms, brick and redwood facing, birch wardrobes, carport, 100-ft. lot—and *Thermopane* in every window, fixed and ventilating. What an attractive package for home buyers!

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Builder Moreland reports: "We opened this model house Sunday, May 18, and had over 3,000 people here. We've sold fifteen houses in the first two weeks and they want to buy my model. People are looking for a quality house and we give them one at a fair price. *Thermopane* really helps sell the house and I'm enthused over the results."

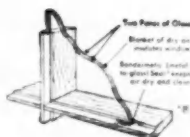
### Mail the Coupon for Facts and Detail Sheets!

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38, Nicholas Building, Toledo 3, Ohio

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Name ..... (Please Print) .....

Address .....

City..... Zone..... State.....

# Rhode Island Houses Sell Like Hot Cakes with G-E Remote-Control Wiring



"It's hard to hold down my enthusiasm for G-E remote-control wiring," says Rhode Island builder Romeo S. Picerne of Kelly & Picerne, Inc. "The first 16 houses of our Pilgrim Park project, in Warwick, R. I., were sold immediately after only one advertisement in which G-E remote control was a feature. Buyers of our \$13,000 to \$20,000 homes were fascinated with the master selector switch. The system held their interest throughout their entire tour of the house. Because of this amazing interest, we're putting G-E remote control into all houses at Pilgrim Park.

"Incidentally, the cost of G-E remote control is only slightly more than conventional wiring. Maybe \$35 to \$50 depending on how elaborate an installation you make," said Mr. Picerne. "I don't know where else you can find a sales feature that will compare with this at anything like this low cost. We're sure our decision to use G-E remote control has been one of the best we've ever made."



"Remote-control wiring went in quickly on the Pilgrim Park project," said Domenic Faraone of Thomas Electric, Cranston, R. I. "After the first few hours my men really made good time."



T. J. Guidera (left)  
Builder-Sales Agent



J. T. Parker  
Electrical Contractor



Lawrence Menefee  
Architect

## Maryland houses, too, sell quickly with remote-control wiring

"G-E remote control is the extra sales feature we wanted to make quick sales for our Towsonvale project at a time when down payments were high," said T. J. Guidera, Jr., V. P. Loch Ridge Construction Co., Inc., Towson, Md. "Remote control brought greater interest and more questions on opening day than any other feature."

J. T. Parker of the J. T. Parker Electric Company had this to say about the \$13,500 to \$15,000 homes in the Towsonvale project. "G-E remote control is the coming wiring for all homes, large or small.

Costs on this job were \$50 per house above conventional wiring. I personally like remote control well enough to install it in a house I am building for myself," concludes Mr. Parker.

"From an architect's viewpoint, G-E remote control enables me to give my clients any switching control combination that they want at a reasonable cost," said Lawrence Menefee, architect for the Towsonvale homes. "The 24-volt low voltage of remote control is also a safety feature that has good sales appeal."

### Get these important selling aids

- 1. CONTRACTOR'S MANUAL** — Thirty-six-page manual gives you all the facts—layout, wiring diagrams, and important installation hints. Let this booklet bring you up to date on G-E remote control.
- 2. CONSUMER BOOKLET** — To explain the advantages of G-E remote-control wiring to your prospects, General Electric offers an informative, 8-page booklet. Write for a copy of the Remote-Control Consumer booklet, and ask for information on obtaining it in quantity.
- 3. LOCAL ADVERTISING MATERIAL** — A complete package of advertising material has been prepared for use with your remote-control program. Ask for this important selling aid.

For any of these aids, see your G-E Construction Materials distributor or write Section D45-82, Construction Materials Division, General Electric Company, Bridgeport 2, Connecticut.

### ADDS CONVENIENCE AND SAFETY

G-E remote control is a modern wiring system, using low-voltage switching, that permits you to have as many ON-OFF controls of any light or outlet as you wish—including master switches each of which will turn ON or OFF nine lights or outlets from one location. It adds convenience and safety . . . is economical for residential or commercial buildings.

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**EVERY WINDOW GUARANTEED** — Miami Window Corporation stands behind every unit.

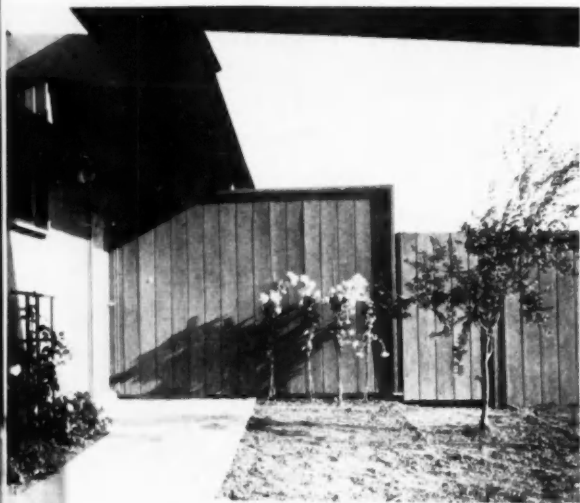
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## This Middle Income Contemporary Is An Award Winner

### LOCATION:

*San Francisco Peninsula*

### ARCHITECTS:

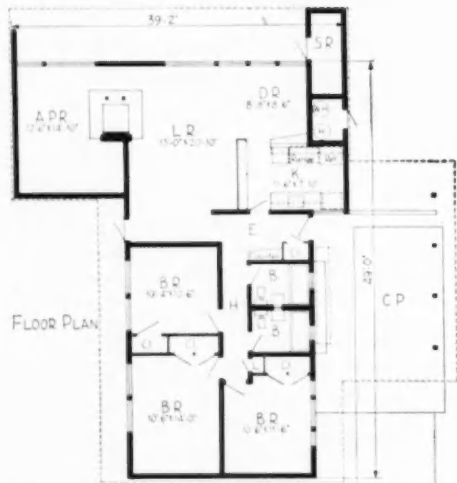
*Anshen and Allen, San Francisco  
Jones and Emmons, Los Angeles*

### BUILDER and DEVELOPER:

*Eichler Homes, Palo Alto*



HOUSE in an Eichler subdivision featuring 3-bedroom, 2-bathroom designs ranging in price from \$15,200 to \$15,950. Exteriors are select redwood, tongue and groove. "Hidden" position of main entrance at rear of carport is sometimes criticized, but in some designs is overcome by landscaping and fence



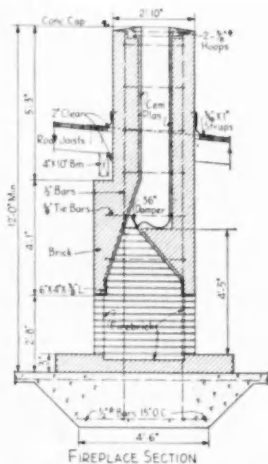
NOTE the privacy of internal circulation. Also unusual is the all-purpose room, which is an extension of the living room, with the novel feature of sharing the fireplace

**A** JOSEPH L. EICHLER house has certain earmarks: skillful use of plank and beam roof construction; floor plans that permit complete privacy of internal circulation; glass walls opening onto outdoor living; paved terraces, service courts, and fences to ensure privacy (all included in the price of the house); deep roof overhangs for sun protection; radiant heat; two baths, ample storage facilities, and well-designed and equipped kitchens; plywood wall paneling in every room (redwood or Philippine mahogany). Eichler prices include street work and all other improvements in and paid for; choice of color on interior walls, floor covering, counter tops, kitchen cabinets, interior trim and bathroom tile.

From 1943 to 1945, Eichler rented a house that had been designed by Frank Lloyd Wright. He became so sold on the kind of life which contemporary house design makes possible that he decided to go into house building himself. His objective was to hire top-flight architects to design contemporary houses for sales in planned communities for middle-class incomes.

After the war, Eichler formed the Eichler Homes company and built conventional houses for experience. Two years ago he turned to subdivisions of houses designed in the contemporary manner. He has produced some 500 outstanding houses in Palo Alto, Menlo Park and other locations on the San Francisco peninsula, at prices ranging

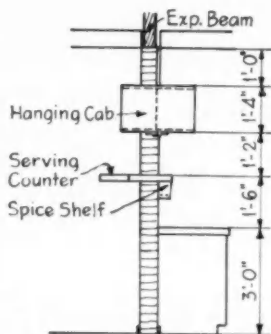
*(Continued on page 122)*



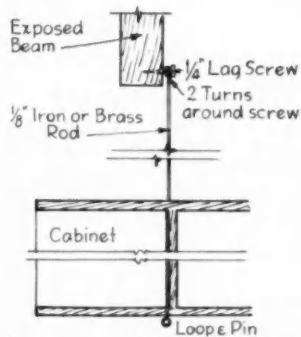
**FIREPLACE SECTION.** Living room to left, all-purpose room to right



**LIVING ROOM,** dining space, with kitchen beyond, seen from all-purpose room



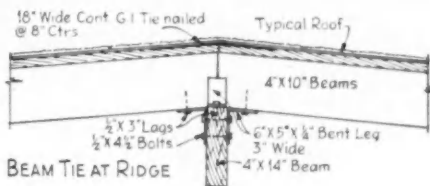
**END ELEVATION OF HANGING CABINET**  
KITCHEN & DINING R'MS.



**DETAIL OF MET. HANGER**

**DETAIL,** end elevation, of hanging cabinet between kitchen and dining space

**BEAM TIE at ridge.** The plank and beam roof construction not only offers architectural possibilities but is economical, since there are fewer pieces of lumber for the carpenter to handle, and the usual ceiling under the roof is eliminated entirely



**PORTION of kitchen,** showing dining space and patio beyond. Kitchens have unusual number of cabinets, in wood, with Formica tops on work counters; ventilating fan



HOUSE from an Eichler subdivision featuring designs with 4 bedrooms, 2 bathrooms, at prices from \$21,400 to \$24,000. This model utilizes the fourth bedroom space as a dressing room for master bedroom. Terrace serves this bedroom and living room

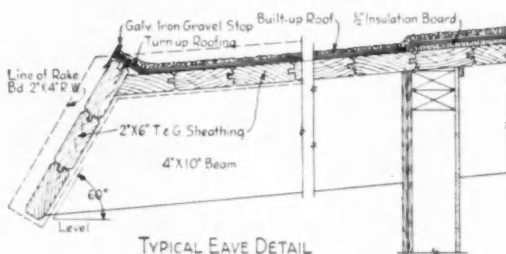


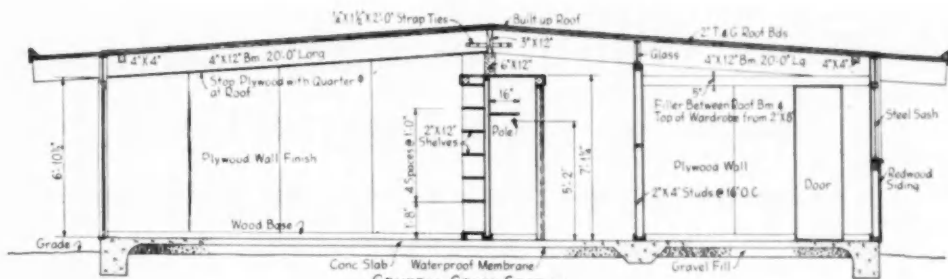
**BUILT on a concrete slab, reinforced, with waterproof membrane mesh over rock fill. Heating system is gas-fired hot water radiant heat with General Motors drawn steel tubing covered with protective coating in the slab**

(Continued from page 120)

ing from \$15,000 to \$29,000. These houses won for him the Award for the Best Development in 1951, given each year by the Housing Research Foundation of the Southwest Research Institute.

The one general flaw which the Housing Foundation found in the Eichler work was the site planning, which often tends to use lot sizes that are smaller than ideal for the size of the houses. Of this Eichler is well aware, comments on one of the Palo Alto projects: "We agree that the





GENERAL CROSS SECTION  
GENERAL cross section of construction system

**STREET VIEW.** Siding is select redwood, tongue and groove, over 15-lb. felt, with two coats of stain. Outside trim has three coats of paint. Roof is of 3-ply built-up tar and gravel, over redwood sheathing

lot sizes are too small. However, when this land was purchased it had lot sizes of about 6,000 square feet. These have been increased by us to about 8,000 square feet, making a land and improvement cost of about \$4,000 per lot. Considering the various economic factors involved, adding another \$1,000 or \$2,000 to the cost of each property by increasing lot sizes even more than we have done, might impair the financial success of the project."



#### MATERIALS AND APPLIANCES USED IN EICHLER HOMES

Thermador range and oven units, Thermador Electric Mfg. Co.

Hotpoint dishwasher and garbage disposer, Hotpoint, Inc.

Radiant heat boiler, A. O. Smith Co.

Bathroom fixtures, Briggs Mfg. Co. and American Radiator & Standard Sanitary Corp.

Cabinet Wax Stain, Samuel Cabot Co.

Insulating material in roof—Conac, Pioneer Flint Kate

Roof material, Kaiser Dolomite

Glass, Mississippi Plate Glass Co.

Farmica, Farmica Insulation Co.

Stainless steel sink in kitchen, Ziegler-Harris & Co.

Cork tile and asphalt tile, Armstrong Cork Co.

Steel windows, Soule Steel Co.



**LIVING ROOM** from dining end. Partitions are dry wall in mahogany plywood, 1/4-inch thick, with butt joint treatment. Floors in bathrooms and bedrooms are asphalt tile, with cork tile for the rest. Counter in foreground is the snack bar which helps break the opening between kitchen and dining area.

# How MODULAR Principles Work in Wall Intersections

## Chapter 8 — Exterior Walls and Interior Partitions

by Griffith S. Clark

**B**EFORE attempting any application of the 4-inch control in the field, its relationship to wall thicknesses must be understood thoroughly. The 4-inch dimension of a 2x4 is actually  $3\frac{5}{8}$  inches or  $\frac{3}{8}$  inch less. Therefore, when a 2x4 is centered in the 4-inch control, this difference of  $\frac{3}{8}$  inch divided in half leaves  $\frac{3}{16}$  inch to be accounted for on each side of the 2x4 member. This is accomplished with subassemblies. When 2x2 or 2x3 dimension lumber is used, the same principles of the 4-inch medium apply to the 2-inch or 3-inch control.

All plates are cut in actual lengths of 4-inch multiples except those which terminate the right angle wall direction. Such plates are cut  $\frac{3}{16}$  inch short so that the ends will be in the same vertical plane as the exterior stud

face. Since all interior plates are in exact 4-inch increments, they will not intersect the stud face by  $\frac{3}{16}$  inch. Where these intersections occur, subassemblies are made with two studs and varying width fillers, the widths depending on the use required. For typical examples as to how intersections are formed, see figures 2, 3, 4 and 5.

### Types of Subassemblies

There are three general classifications of subassemblies:

1. Corner subassemblies.
2. Three-way subassemblies.
3. Four-way subassemblies.

Filler pieces extend beyond the stud face. If  $1\frac{5}{8}$ x $3\frac{5}{8}$ -inch dimension stock (actual size of the nominal 2x4) is used, filler pieces will extend  $\frac{3}{8}$  inch beyond the stud face. For prefabricated wall panels, the end stud of the abutting section will vary  $\frac{1}{8}$  inch within the vertical plane. This will allow the sections to be erected without creep. If the fillers extend  $\frac{3}{16}$  inch, sections will creep in their joining and rooms will be out of square.

*\* The author has been associated for the last 18 years with F. Vaux Wilson, Jr., vice president of the Hamasote Co., who is recognized as a pioneer exponent of modular principles. Mr. Clark has virtually "lived with" modular development during this time, his lessons being learned the hard way on projects in the United States, Canada, Mexico and Argentina.*

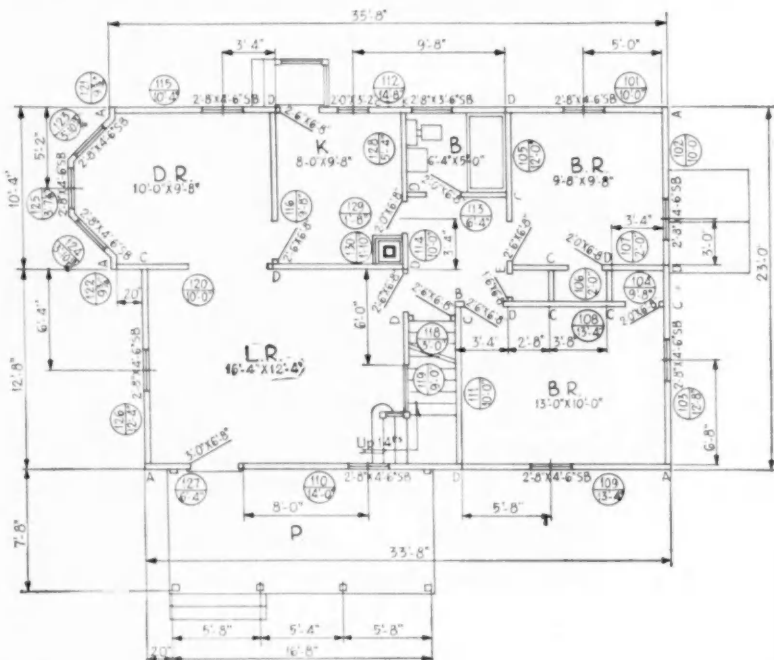


FIGURE 1. First floor plan of the house which will be used as the model in future installations explaining how modular control benefits the builder

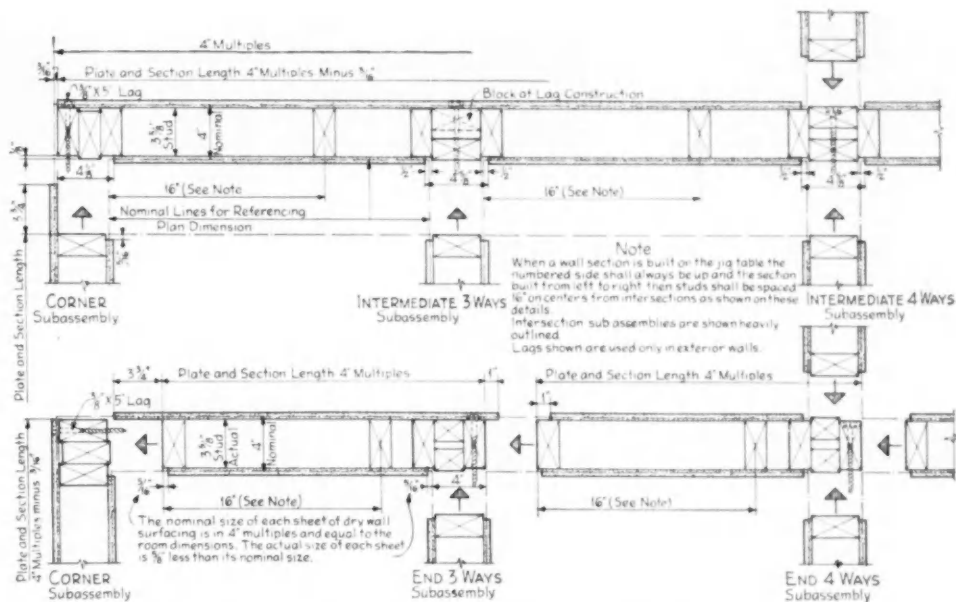


FIGURE 2. Some 4-inch standard wall intersections used where there are no adjoining doors or windows

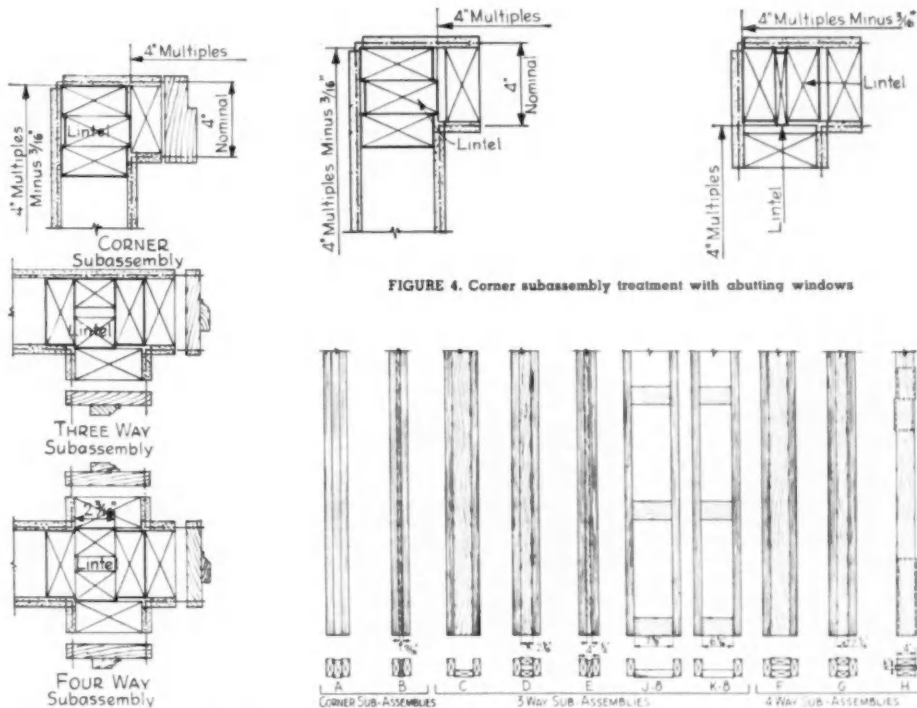


FIGURE 3. Where doors adjoin

FIGURE 5. Various standard wall intersection subassemblies

Placement of subassemblies is regulated by the modular lines. When properly located, they provide wood-to-wood nailing and backing for plaster lath or dry wall material. Furring or blocking is eliminated, thus representing a big saving over conventional work (see figures 2 and 5).

Wall surfacing material need not be considered when dimensioning the floor plan. Only the nominal lines are used for designing and planning. Therefore, in the original design, indicate all walls and partitions by drawing two lines 4 inches apart.

## PLANNING DETAILS

### Spacing Walls, Partitions

All walls and partitions should be spaced at exact multiples of four inches. Thus, center to center distances of walls and partitions are also in 4-inch multiples. Sometimes it will be necessary to use partitions with a nominal stud wall thickness of two inches. This type of wall should be located so that either one of its nominal surfaces coincides with a potential nominal surface of a 4-inch partition.

### Stairs, Chimneys, Fireplaces

The first thing to lay out on any plan is the stairs, then the chimneys and fireplaces. This is highly important in order to be able to locate partitions around them properly. The minimum width of principal stairs should be three feet. When desirable, this width can be increased by 4-inch increments. For secondary stairs, leading to an attic or basement, the minimum width should not go below 2 feet 8 inches.

The nominal dimension of chimneys shall be in 4-inch multiples and the nominal exterior surface shall be located two inches from the nominal wall surface. This permits standardization of chimney details with reference to floor framing, walls and partitions, and at the same time meets code requirements.

### Location of Openings

After all walls and partitions are drawn, locate but do not dimension the center line of doors, windows, fireplaces and other openings required in the structural wall frames. If the house is to be built conventionally, sectionalizing will not be necessary except as an asset in scheduling and precutting. Center lines for all openings will start from the left hand end of the building when facing it; similarly from all four sides.

### Sectionalizing

If the plan is being prepared for prefabrication, maximum sizes of the

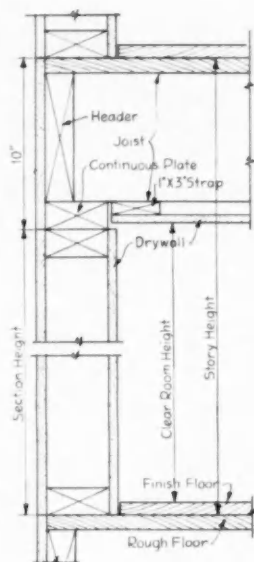


FIGURE 6. Story height in conventional construction

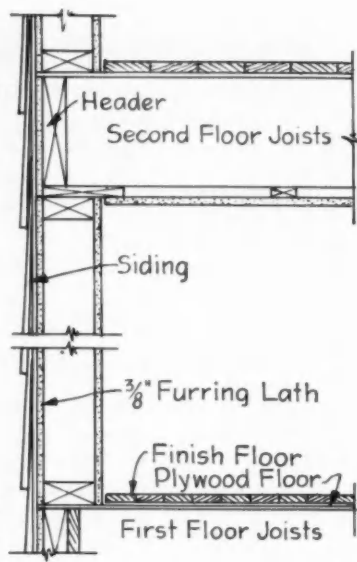


FIGURE 7. Story height in prefabricated construction, where a 1x8-inch plate can be used as part of the ceiling section

surfacing material will greatly influence the size of sections. Section heights should be 8 feet 1 1/4 inches whenever possible. This allows for a 1/2-inch setback at the sill plate and a 3/4-inch setback at the top plate of the section with an 8-foot sheet and a 7-foot 10-inch stud. This also gives an actual 8-foot ceiling height.

Section lengths will be in 4-inch multiples and marked with an identifying symbol, such as that described in the July article of this series. This is a circular mark bisected by a center line. The section number is designated above this line, while nominal length is indicated below. These symbols are placed on the viewed side of each section of the plan. From this position all dimensional references start at the left end of each section (see figure 1).

Sections should be numbered in sequence so that erection of the house can proceed without interruption at the farthest corner from the drive. This avoids rehandling and moving sections, and also provides a system of scheduling materials. Basement sections are numbered 1, 2, etc.; first story sections marked 101, 102, etc., while second story sections are in the 200 series.

### Room Sizes

After the plan has been sectionalized, numbered and dimensioned, the next step is to give each room its

nominal dimension. The dimension parallel to the front of the house should be listed first. In precutting interior finish material, this procedure becomes most important.

### Opening Sizes

Size and type of all openings should be indicated with center line dimensions.

## VERTICAL DESIGN

Elevations should contain all essential vertical dimensions and information which may affect the control points, such as grade assigned, story heights, section heights, floor thicknesses, floor levels, basement heights, window head locations, door head locations and roof pitches.

In the platform or western system of framing, most universally used today, the wall and partition sections are set up on top of the subfloor. Therefore, the subfloor top is used as the horizontal reference plan for all vertical dimensions.

### Story Heights

Story heights will vary according to the type of continuous plate used. Conventional construction with a 2x4 continuous plate will have an 8-foot 11 1/8-inch story height if the 7-foot 10-inch stud length is maintained and 2x8 floor joists are used on the second floor (see figure 6). Because of



span requirements, it is often wise to consider 2x8 and 3x8 joists, with varying center lines, rather than 2x10 joists notched for recess placement.

If a prefabricated construction is used, a 1x6 plate, which is part of the ceiling construction, may be substituted for the 2x4 continuous plate, which would give an 8-foot 10 1/4-inch story height (see figure 7).

These story heights should be decreased in 4-inch increments. Maintaining this procedure simplifies the off-site fabrication of stairs and also standardizes stud lengths so that they can be mass-produced or purchased. It simplifies the work required for quantity survey in estimating. Finally, it allows uniform drop-offs for re-use.

### Section Heights

The section height of 8 feet 1 1/4 inches has been maintained to utilize stock size items to the best advantage. The 8-foot-wide covering media and 7-foot 10-inch studs produce least waste of items used in largest quantities.

However, a 7-foot 1 1/4-inch section height should be considered in secondary construction. This will give a 12 per cent reduction in materials and heat loss through walls. It will eliminate dry wall surface joints above windows and interior doors on walls greater than 14 feet in length. It also eliminates the use of head



FIGURE 8. Framing detail of a typical rough opening for windows. Dotted lines outline different pieces of pre-cut dry wall sheathing

AUGUST 1952

Widths			Heights			
Glass Opening Width	4" of Wood over Glass Opening Sash Width	Glass Opening Length Lintel and Sill Header	Glass Opening Height	Sash Height	Jamb Length	Sill Coping
12"	1'-4"	1'-10"	24"	2'-6"	2'-10"	3'-9 1/2"
14"	1'-6"	2'-0"	28"	2'-10"	3'-2"	3'-5 1/2"
16"	1'-8"	2'-2"	32"	3'-2"	3'-6"	3'-1 1/2"
18"	1'-10"	2'-4"	36"	3'-6"	3'-10"	2'-9 1/2"
20"	2'-0"	2'-6"	40"	4'-2"	4'-2"	2'-5 1/2"
22"	2'-2"	2'-8"	44"	4'-2"	4'-6"	2'-1 1/2"
24"	2'-4"	2'-10"	48"	4'-6"	4'-10"	1'-9 1/2"
26"	2'-6"	3'-0"	52"	4'-10"	5'-2"	1'-5 1/2"
28"	2'-8"	3'-2"	56"	5'-2"	5'-6"	1'-1 1/2"

FIGURE 9

cripples over all lintels. Stud lengths are 6 feet 10 inches and two can be cut from a 14-foot stock piece.

### CONSTRUCTION

Once preparation of the plan has been completed as previously outlined, the scheduling of material to the job can be considered.

Plate lengths are taken off and cut in pairs from the most economical sizes. Studs are cut from either 8- or 16-foot lengths, depending on which can be purchased at best advantage. Lintel and sill headers are cut 6 inches longer than the width of the sash opening and the lintels are assembled with each number on edge, spaced 3/8 inch. Window jamb studs are cut in pairs. Sill cripples are cut in quantity for the various openings.

### Rough Openings

Assemble all rough openings on a jig made for each size window. This is most economically done by nailing 1x2 combs on a sheet of 4x8-foot plywood, which becomes a movable template for the rough opening jig table. The rough opening should be complete with sill header, sill cripples, jamb studs, head cripples and one through stud.

When windows are next to an intersecting partition, one side of the "D" subassembly becomes the through stud. Offset the end head and sill cripples so that the center line of those cripples is one inch outside of the inside face of the jamb stud (see figure 8). This will permit standard size sheathing and interior finish material to be used, starting at either side of the opening, one inch within the inside face of the jamb stud. Filler pieces of sheathing and interior finish will be lintel length less two inches. The outside filler should be flush with the sill header in height; the inside, one inch above it. (For

a schedule of some common window openings, see figure 9).

### Floor Plan Information

Figure 1 presents the first floor plan of the house especially selected to be "built" in this study of modular control. Its design presents more problems for discussion than those to be found in the average modest-size dwelling.

Information on this plan is sufficient for scheduling, precutting and erecting the home. Whether it is sectionally built or not makes no difference.

Section 101 has two plates 10 feet long, one "D" subassembly in the right end, one 2.8x4.6 rough opening and four studs. Inside covering material will be cut from one piece 9 feet 7 3/8 inches long. Outside sheathing will be made of four pieces which, when applied, will set back one inch over the "D" subassembly and extend 3 3/4 inches beyond the left end.

Section 102 has two plates 9 feet 11 1/2 inches in length, an "A" subassembly in the right end, a 2.8x4.6 window rough opening and four studs. The interior covering material will be 9 feet 7 3/8 inches with the window cut out and the outside sheathing will be in four pieces. The left end will extend one inch over the "D" subassembly and the right end will be flush.

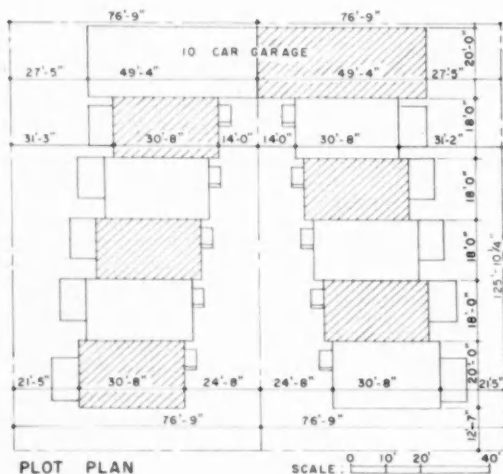
### NEXT MONTH'S ARTICLE

will treat with the operation of the wall jig for on or off-site construction. It will explain the particular plan in figure 1 and its relationship to the jig table.

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## Here Is a Setback Arrangement



**S**TAGGERED building lines give every unit in these buildings an unobstructed view of both street and rear garden areas. Containing from 1,900 to 2,200 square feet including basement, each apartment has one and a half or two bathrooms, a rear porch, private garage, and fenced yard. Units are grouped 10 to a court, or varied as shown on plot plan, and the garages are built across the back of the site. Exterior is a combination of tinted brick and combined Lannon and Crab Orchard stone. The roof overhang extends 4½ feet beyond the building. Heating is radiant hot water or oil-fired hot water with cast-iron convectors. Concrete floors and 8-inch walls make the units virtually soundproof.

Meyer Lipson, Chicago, president of Elandee Building Corporation, is the builder. In the past two years he has built three groups of six-room town houses on this type, designed by Carl J. Kastrop. Lipson's first project comprised 10 units, which sold in 1950 at \$16,500 and \$17,500. The second group was twice as large, offered 20 units, with five units facing the street. These sold at \$18,500. The third project, completed this spring, included 42 units selling at from \$19,700 to \$23,500.



## ***That Gives Every Apartment a View***



# How One Dealer Maintains Distribution Channels

**A**T A TIME when many retail dealers are gravely concerned with the problem of maintaining normal distribution channels, it is significant that the Pacific Lumber Co., Denver, Colorado, serves a roofing contractor so satisfactorily that all of the contractor's more than \$200,000 worth of roofing and siding purchases annually are channeled through this dealer's yard.

The roofer, Leland Lowry, works exclusively on new building, does no re-roofing or re-siding. Last year he purchased \$211,000 worth of roofing and siding materials at the yard.

Asked why he did this large volume of business with a retail lumber dealer instead of attempting to buy direct, Lowry stated that it is cheaper and more dependable to use the purchasing and storage facilities of the dealer than to provide those services for himself. Elaborating a little on this statement, he claimed that in periods of uncertain supply, the purchasing "know-how" of E. M. MacNeil, head of the Pacific Lumber Company yard assured him of an adequate supply of materials of all kinds.

The satisfactory relationship be-

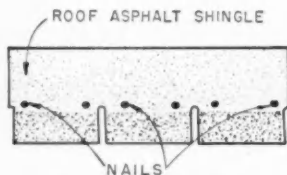
tween this roofer and dealer provides another convincing proof that an alert dealer can always provide purchasing, warehousing and delivery services with economies to the builder that more than justify the existence of the dealer as a source of supply to contractors.

Lowry, who contracts roofing and siding for a large group of Denver's leading operative builders, has developed unlimited combinations of color and materials that provide a pleasing variety in housing developments.

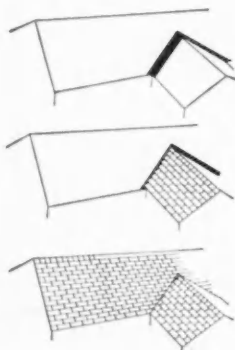
## Retailer's service is aid to roofing contractor



Applying cedar shakes. Lowry's roofers are expert with all types of roofing



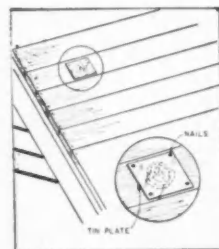
Manufacturer's specifications are adhered to with six nails to each strip



Double coverage is used in the valleys. A regular 18-inch valley roll is laid first. Second, shingles are laid across the valley. Third, shingles are carried to the center of the valley. A chalk line is struck to cut the valley line



Pitch has a lot to do with the effectiveness of roofing. For asphalt shingles the pitch should not be less than 4 in 12



All large knotholes should be covered with tin. The operation will assure tight roofs that will withstand hail and foot traffic



One man roofing a 1000 square foot house in one day. Price for an asbestos siding, asphalt roofing job on a 720 square foot house is \$355



Office and warehouse adjacent to lumber yard is leased by roofing contractor



Applying two-tone asbestos siding. First three courses are in one color, remainder in second. Roof matches or contrasts with siding

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John R. Worthman, Fort Wayne, Indiana, president  
John R. Worthman, Inc., director, National  
Association of Home Builders.

Labor time cut in half; no matching loss  
or waste; greater insulation and bracing  
strength; deep, modern shadow-lines . . .  
that's why John R. Worthman, leading  
Fort Wayne builder switched to Insulite  
Shingle-Backer over Bildrite Sheathing!

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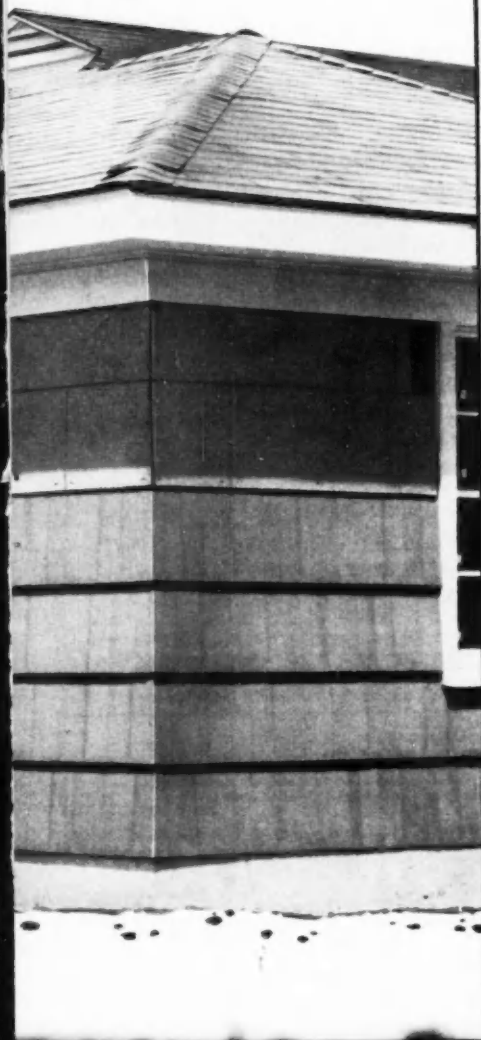
INSULITE AND BILDRITE ARE REG. T. M. U. S. PAT. OFF.



INSULITE DIVISION

Minnesota and Ontario Paper Company Minneapolis 2, Minnesota

# Insulite's system!"



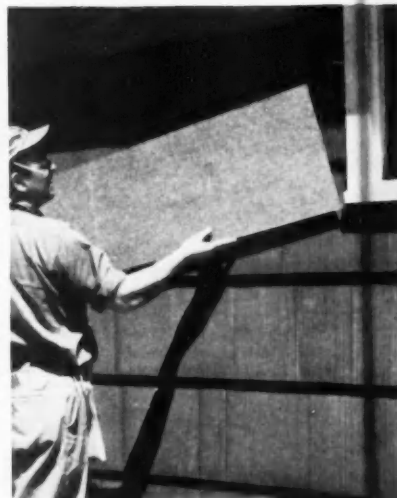
## 1. First, apply Bildrite Sheathing

Goes up faster, easier.  
Cuts application time up to  
50 per cent. Four-foot  
sheets have twice the bracing  
strength of horizontally-  
applied wood sheathing thus  
save corner-bracing.  
Waterproofed throughout  
... eliminates need  
for building paper. No  
matching loss or waste.



## 2. Then, apply Insulite Shingle-Backer

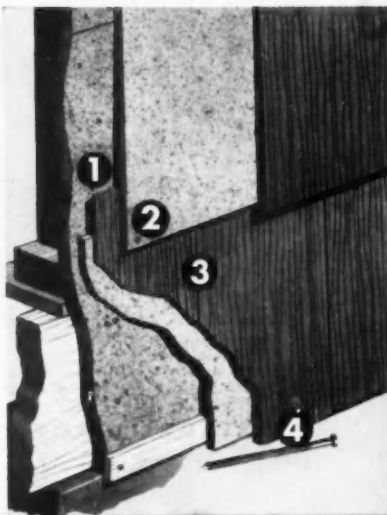
Speeds completions.  
Handy four-foot panel  
applies far faster, and easier  
than old-fashioned wood  
undercourse shingles ...  
cuts application time in  
half. Produces deep, even  
shadow-line. Eliminates  
waste. Waterproofed  
throughout. Comes in  
easy-to-handle packages.



## 3. Build a tighter, stronger shingle sidewall

Developed by Insulite, this  
new sidewall system gives  
you a strong, tight exterior  
wall with extra insulation  
value. (1) Bildrite Sheathing  
(2) Shingle-Backer  
(3) Outercourse Shingles  
(4) Grooved Nail.

Has tremendous holding  
power! Test wall exposed  
to 250 M.P.H. air blasts  
at University of Minnesota  
came through intact! Not  
a shingle was loosened!



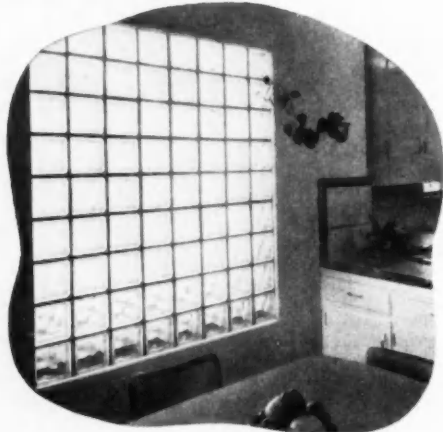
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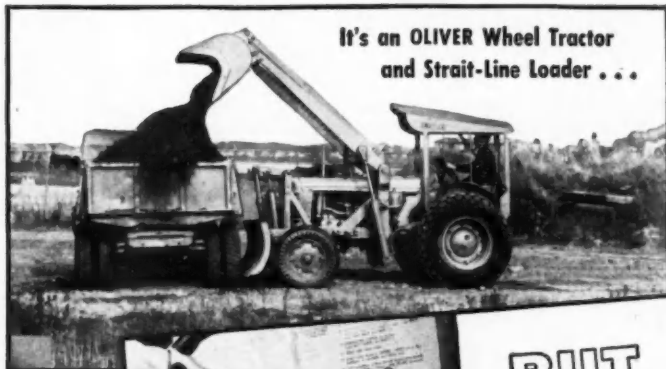


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# "Quick Change Artist"

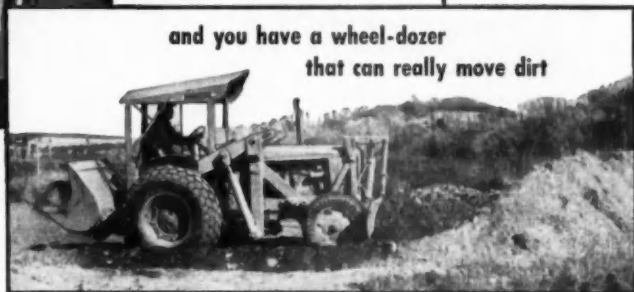
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It's an OLIVER Wheel Tractor and Strait-Line Loader . . .



**BUT,**  
push this  
little lever . . .



and you have a wheel-dozer  
that can really move dirt

Now, it's an Oliver Wheel Tractor and *Strait-Line* Loader. But, push a little lever and presto . . . it's the most amazing bulldozer or angledozer you've ever seen.

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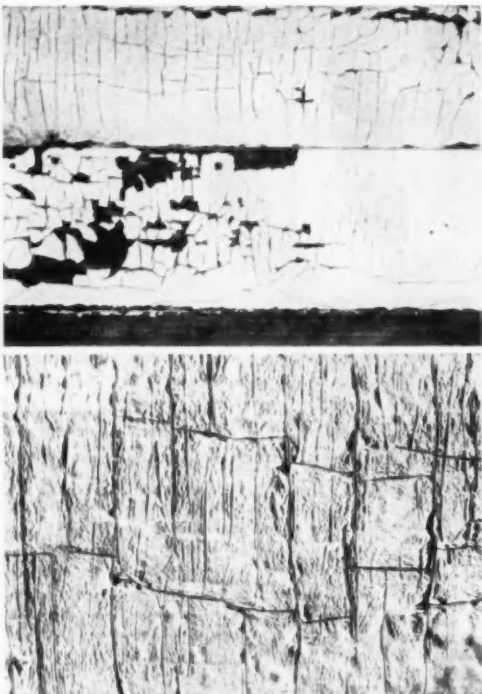
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Marshfield, Wisconsin

# CONTROLLING PAINT FAILURE

*Types and causes of abnormal failure in exterior paint performance. Understanding the problem correctly provides the clue to its solution.*



**ALLIGATORING AND SCALING** paint resulting from excessively great coating thicknesses, and from dissimilarity in the paints used in repaintings over the years. The paint coating was 0.020 inch thick (about 0.005 inch is the most desirable thickness) and was made up of successive layers of white, tan, gray, brown, and white paints. The close-up view (bottom) shows how the more recent layers tended to shrink and become ruffled after the cracks had formed, thereby widening the cracks.



Photographs by U. S. Forest Service, Forest Products Laboratory

## WHEN PAINT FAILS ABNORMALLY . . .

*Examples selected by F. L. Roane, chemist,  
Forest Products Laboratory*

**TOO THICK A COATING** results in this condition of cross-grain cracking, curling and scaling. The general lesson learned by the Forest Products Laboratory after 15 years of fence testing of various types of paints exposed at Madison, Wisconsin, is that there is a very widespread tendency at the present time to repaint houses altogether too often and with too much paint at a time. After about 12 to 15 years of too much paint, complete removal of the old paint is necessary.

**BLISTERING** caused by cold-weather condensation of water vapor trapped behind the siding. Peeling occurs when a loose edge of the coating can be grasped and pulled off well beyond the edge of the blister. Usually, paint remains in a peeling condition only as long as the wood and the coating remain damp. This house was built in Wisconsin in 1947, was repainted in the fall of 1949 because the first paint job had failed badly, and was photographed in April 1950. When seen again in June, 1951 the paint was peeling badly. The sidewalls of the house have blanket insulation without an adequate vapor barrier. These blisters generally become filled with water soon after they form, and when they dry out, collapse leaving the paint wrinkled. Peeling follows.

**A**NY EXTERIOR paint coating gradually breaks down under the forces of weathering. Paint has a normal pattern of disintegration. For a description of this pattern, the reader is referred to the article, "What Paint Is," which appeared in the *American Builder* of March, 1952 as chapter two in this series on paint in the building business. The present article, which is chapter six in the series, will take a look at types of abnormal paint failure and the reasons underlying them.

The usual stages of paint deterioration are, of course, hastened and exaggerated by various causes such as unusual exposure conditions, inferior paint, or faulty construction in the house itself. But certain abnormal paint conditions do arise, apart from the usual pattern. Most common among these abnormal conditions in the coating itself are alligating, blistering and peeling, discoloration, excessive chalking or washing, lifting, and intercoat sealing. Alligating, blistering and peeling are described in the photographs which are reproduced here. A word or two about the others:

**Discoloration.** Too much water behind redwood or red cedar often causes reddish-brown to black discoloration of the paint from the water-soluble substances in those woods. It is evidence of structural faults in the building, or the use of unseasoned lumber. Sometimes a yellow to brown discoloration appears in streaks over a few boards, or more uniformly over the heartwood of white pine, sugar pine, or Ponderosa pine. In new construction this may mean that the painting was done when the wood was unduly moist, perhaps before the plaster had dried out thoroughly. This can occur both on outside and inside work. The affected boards can be replaced if the condition is serious enough.

"Bluestain" is a blue to black discoloration of paint that penetrates into the sapwood beneath the coating, and is caused by the growth of certain fungi in damp sapwood. It is a sign that the wood becomes damp for substantial periods of time. Repainting will permanently hide the bluestain, if the wood can be kept dry. If it is desired to restore a natural varnish finish, the stained wood must be replaced.

Not to be confused with mildew is a discoloration abnormality which occurs when the paint job is fairly new. This is excessive dirt collection. Using a finish coat which contains too much linseed oil or oil of inferior quality contributes to it. It is also aggravated when painting is done just before the winter season.



**TOO MUCH MOISTURE INSIDE THE HOUSE** was responsible for this failure of peeling. The black line divides the kitchen on the left from the dining room on the right. Excess moisture vapor in the kitchen can be removed by installing a suction-type fan in the kitchen window or wall.



**WHEN POOR PAINT BEGINS TO FAIL**, the failures tend to be worst on areas that receive most water during storms. On the house at left, the worst scaling is on the siding which is next to an entrance roof on which snow evidently piled up and melted during the winter. On the house at right, the lower courses of the siding show most paint scaling, except where the roof over the entrance furnishes protection. (However, the fascia board of the porch roof has badly scaling paint in accordance with its lack of protection.) Paint on this house did badly on galvanized iron down-pouts because they had not received a good metal primer before the house paint was applied.



**DRY BLISTERING**, or "temperature" blistering, is caused by pressure of air in the wood expanding when the surface is warmed by sunshine or other source of heat before the coating of new paint has hardened throughout its thickness. This surface is on a house built in 1938 and painted white. In July, 1951 the owner started to change the color to gray by repainting with one coat of paint. He painted the east side (rear of the house) on Satur-



day afternoon between 2 and 6 p.m. The next morning at 7 a.m. he found the paint blistered as shown above. The blisters are hollow and contain no water. The siding and woodwork were thoroughly dry when the blisters formed and when the photograph was taken a few days later. Testing on houses afflicted with temperature blistering has shown that the moisture content of the boards was from only 8 to 12 per cent.

## CONSTRUCTION POINTS THAT AFFECT THE PAINT JOB



**USE AN ELECTRICAL MOISTURE METER** on a new paint job which shows signs of blistering and/or peeling. If the water content of the wooden siding is 20 percent or more, the cause of the paint trouble is probably too much moisture in the board. Where is this moisture coming from? Check the relative humidity inside the house with a simple meter. Here is a guide to safe inside humidities for various outside temperatures: inside not over 20 per cent if outside temperature is below zero; inside not over 30 per cent for 0-20 degrees outside; not over 40 per cent inside for 20 degrees and over outside.

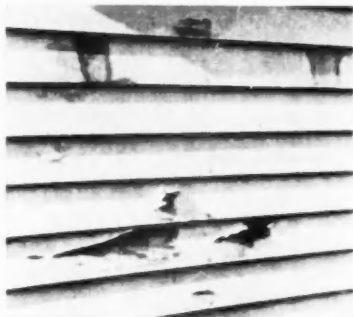
National Paint, Varnish and Lacquer Association

*Excessive chalking* is really a result of unusual exposure conditions. In good house paints, chalking is carefully controlled by the chemistry of the paint, but when used in atmospheres contaminated by sulfur dioxide fumes or other acid gases from industrial operations, the paint may chalk excessively. In doing so it may wash off freely with the rain onto contiguous surfaces. Dark-painted trims, stucco, cement and brick under woodwork painted white will be marred by this washing of the rapidly disintegrating paint. Another form of washing caused by excessive sulfur dioxide fumes is a yellow to brown discoloration in patches, or a brown substance that sometimes collects along the under edge of bevel siding or trim boards, where rain drops off during storms. Often it seems like resin exuded from the wood but unlike resin is easily dissolved in water.

*Lifting.* The condition is described by the Forest Products Laboratory as a softening, loosening, or wrinkling of an old coating by strong solvents in a new paint. Like alligatoring, it is the result of incompatible paints combined in repainting.

**CONTACT WITH THE GROUND** will cause paint on siding to peel. In this case, water has been soaked up along the nail line on the studding. Farther up the wall, the stained areas between studding show where condensed water has been able to drain out. Preventing the wooden studs and siding from touching the ground would have avoided this damage to the paint.

National Paint, Varnish and Lacquer Association



**RAIN DRAINING BEHIND WINDOW-FRAMES** gets into the end-grain of the siding and causes the paint to blister and crack. This can be prevented by installing window-frames that are close fitting and well caulked, and by sealing ends of siding with paint before nailing. The absence of metal flashing above windows is a cardinal sin and will account for much of the moisture source.

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**WINTER CONDENSATION PROBLEMS** occur in those parts of the country where the average temperature for January is 35 degrees F. or lower. A house built in that area should have a vapor barrier installed near the warm side of the building element at time of construction.

Forest Products Laboratory



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**BEFORE AND AFTER WALL VENTILATION** was provided. After a louver had been installed in the attic, the paint job weathered without blistering and peeling. The "after" photograph was taken one year after the louver had been put in.

## A CHECK LIST OF POINTS TO PROTECT PAINT

### BASEMENTLESS HOUSES

Use a heavy asphalt building paper beneath the floorboards to block the rise of vapor from the ground. Cover the ground with a layer of crushed rock, cinders or gravel, and provide grading which will direct surface water away from the building. Use rat-proof flooring, and at least 4 ventilating openings, one near each corner of the building. Insulate pipes.

### FLASHINGS

Never omit or skip on flashings. They may be needed for roof valleys, edges of roofs, junction of roofs with chimneys and dormers, headers over windows and doors, water tables, and junctions of siding with shingles, stucco or masonry. The need should be judged in the light of winter conditions. For instance, ice dams at the edges of the roof may back up melting snow well past flashings applied simply as protection against summer rain.

### FOUNDATIONS

Waterproof underground walls by putting a thick outside coating of asphalt all around. Paint the foundation wall above ground on the outside with a masonry paint based on a polystyrene emulsion vehicle. For already built houses with a basement wall moisture problem, application of a cement-water paint system may be the solution; or painting with a polystyrene emulsion paint applied directly to the masonry and not over old paint of any type.

### GREEN LUMBER

Be sure you're not using it.

### GROUND CONTACT

Wooden studs and siding must not be brought into contact with the ground.

### HUMIDIFIERS

Don't use them for at least 2 years in a new house with plastered walls. The plastered walls will release tons of moisture during the first few months.

### JOINTS IN FREE-STANDING WOODWORK

Columns, posts, and railings whenever possible should be given the protection of roofs. If possible, such members should be made of the heartwood of naturally durable wood. Sapwood at such joints will take up water rapidly and is susceptible to decay. Dip all end-grain ends of pieces used in these joints in water-repellent preservative after they have been cut and fitted, and before fastening in place.

### NAILS

Use aluminum or heavily galvanized nails to prevent discoloration of paint from rusting.

### ROOF

A substantial overhang is very effective in preventing streaking of paint and making the coating last longer.

### SIDING

Horizontal joints should overlap generously. Apply paint generously at these points.

Vertical joints in horizontal siding should be made only over studs, and should be well staggered in the successive courses.

Sealing the ends of the siding boards with paint will make a better job. Corners must be carefully fitted and covered with corner pieces or corner boards. Fit window and door cases with great care to keep out as much water as possible at the junctions with siding. Poorly joined window heads and siding butts are a menace to paint.

Trim is best laid overlapping and overhanging the siding below it.

Vertical siding must have battens to cover the long vertical joints.

Remember that flush siding is very susceptible to penetration to rain.

Building paper behind the siding should be water resistant but not too vapor resistant.

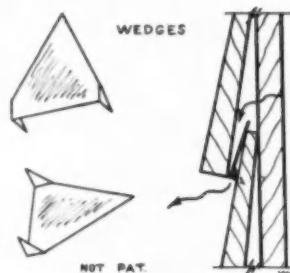
### VENTILATION

Stagnant air spaces behind exterior walls will often cause condensation of water vapor, and paint failures. Be sure to provide adequate ventilation for attics, closed-off spaces under roofs, hollow columns, crawl spaces under porches and basementless buildings. Ventilation for crawl spaces should contain openings not larger than 1/4 inch; for attics and lofts, not more than 1/2 inch.

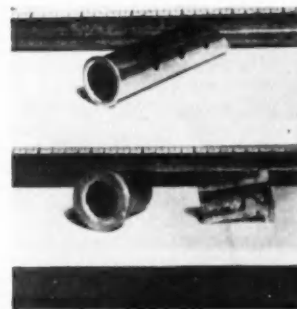
### VAPOR BARRIER

Vapor barriers should be installed at the time of construction in all new houses built north of the 35 degree January isotherm line, as shown on the map on page 140.

## WALL VENTILATING DEVICES

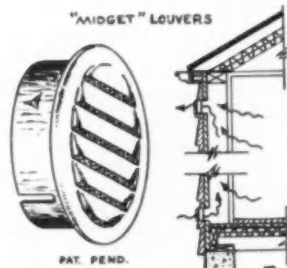


**WEDGES** can be made of non-staining aluminum alloy or stainless steel, using only tin snips and a vise. They can be about 1 1/4 inches on a side and are driven upwards halfway between studding, until flush with the lower edge of the upper board. This results in a clearance of about 1/4-inch between two overlapping boards. This slight clearance permits moisture vapor to escape outwards.



**SMALL TUBES** with screen over one end and holes along the side can be made to extend into stud spaces through holes bored through both the siding and sheathing. These provide ventilation within the wall when installed at top and bottom of the siding. The lower exhibit shows another form of venting tube.

National Paint, Varnish and Lacquer Assn.



**MIDGET LOUVERS** range from one inch to four inches in diameter and can be installed very simply where wall ventilation is needed.

## CONSTRUCTION DETAILS ON VAPOR BARRIERS

*Intercoat scaling.* Normally, paint disintegrates by crumbling, flaking, or scaling right down to the bare wood. But if dissimilar paints have been used in various repainting, the disintegration may take the form of scaling at that layer where there is the greatest difference between successive paints. Intercoat scaling usually means that the last repainting is falling short of normal performance.

### Water is the No. 1 Enemy— The Problem of Condensation

For a new paint job, moisture sometimes continues to be the No. 1 enemy. The National Paint, Varnish and Lacquer Association estimates that it is the final cause of 90 per cent of abnormal paint failures. In the city of Cleveland alone, in 1951, it was estimated that home owners lost \$1 million because of paint peeling caused by moisture trapped in their homes. How does moisture attack the outside paint job?

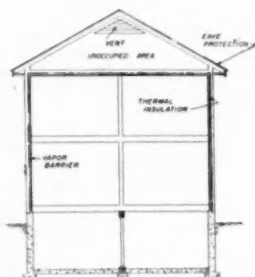
Excessive moisture gets into the wall interspaces in two ways: (1) through structural defects which admit storm water, fog, dew; (2) through cold-weather condensation of water vapor arising from sources within the house, such as cooking, bathing, laundering, breathing. Water vapor is in all air, and when warm-air water vapor comes in contact with a cold surface it condenses to form frost or water depending on the temperature of the surface. When this condensation occurs excessively on or within the walls and ceilings of a house, the paint job is in real danger. The vapor passes through the warm inner wall surfaces, flowing toward the cold outside air which has low vapor pressure, is absorbed in the thermal insulation so much used today, finally condenses on the underside of the cold siding and is absorbed into the wood. When the sun strikes the surface of the wood, it tends to draw out this moisture faster than such vapor can pass through the paint film. If the moisture content of the board is over 20 per cent, a vapor pressure is set up which literally pushes the paint off the wood surface. Thus a paint job on a new house afflicted with excessive condensation of water vapor will blister and peel.

To prevent condensation in the wall structure or ceiling, the water vapor must be stopped before it is cooled below the condensation temperature. In the rather loosely built houses in which most of us grew up, this problem did not exist. The water vapor passed harmlessly through the uninsulated walls. The condensation problem emerged as part of the modern system of tight construction, whose objective has been to solve the

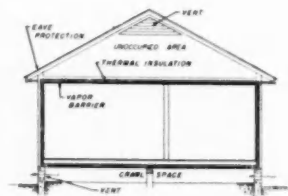
### Condensation Zones and Vapor Barrier Requirements



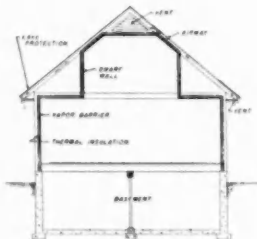
**ZONE I** roughly includes areas with design temperatures of  $-20$  degrees F. and colder; Zone II, 0 degrees to  $-10$  degrees F.; Zone III includes areas warmer than 0 degrees F.



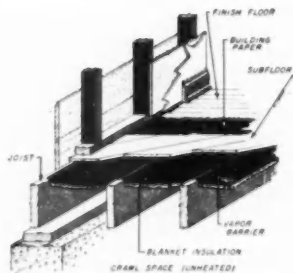
**TWO-STORY HOUSE WITH BASEMENT.** Use vapor barrier for ceilings and walls in Zone I, and for walls in Zone II. Ventilation as indicated for all three zones. Thermal insulation around the heated living quarters above the basement in Zones I and II. Eave protection is recommended for Zones I and II.



**BASEMENTLESS HOUSE, ONE STORY.** Vapor barriers should be provided for ceilings, walls, and floors in Zone I; for walls and floors in Zone II; for floors in Zone III. Ventilation should be provided in the side walls of the crawl space for all three zones. Thermal insulation should be used in all walls, ceilings and floors in Zones I and II. Eave protection (one course of roll roofing) is recommended for Zones I and II where wood or composition shingles are used.



**ONE-AND-ONE-HALF-STORY HOUSE WITH BASEMENT.** Zones I and II require vapor barriers for walls and ceilings; ceilings in Zone III, if insulated. Ventilation as indicated for all three zones. Thermal insulation to form an envelope around the heated living quarters should be provided for Zones I and II. Eave protection is recommended for Zones I and II.



**FLOOR DETAIL FOR BASEMENTLESS HOUSE.** Condensation control for this type of construction requires the blanket insulation to have a vapor barrier to prevent excessive water vapor in a damp crawl space from reaching the finish floor. It will also prevent water vapor from entering the blanket itself from the warm side. The paper between the subfloor and finish floor may be a vapor barrier or any building paper of suitable quality.

All figures from "Condensation Control in Dwelling Construction," Housing and Home Finance Agency, Washington, D.C.

AMERICAN BUILDER

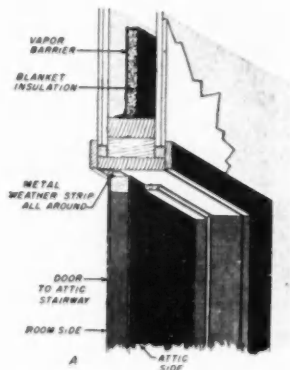


heating problem. Tight walls, caulking, weather stripping, storm sash, and insulation are a great improvement but they are hard on paint unless supplemented by a system of moisture control. (This has been recognized by the manufacturers of some types of insulation. Paper-covered blanket insulation, for instance, is usually furnished with vapor barrier attached.)

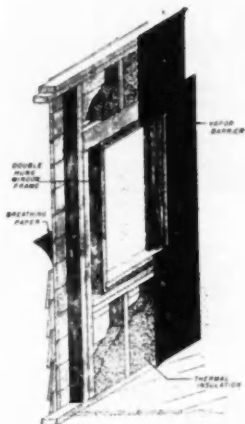
Such a system consists of the correct use of a barrier which will keep the warm vapor out of the walls, plus proper ventilating devices to enable the building to breathe. The vapor barrier is a membrane applied to the warm side of exterior walls or ceilings. Details on its application are given in the drawings reproduced here. To be effective, the barrier must be continuous and unbroken. Don't forget space under attic stairs, openings around ceiling light fixtures, cracks around attic doors, openings from stud space of interior partitions to the attic; also any wall openings which connect the attic space with the basement. All joints must be lapped and securely fastened on studs, joists, or bracing.

The main types of barriers are "duplex" papers, consisting of a continuous sheet of asphalt between kraft paper; asphalt-impregnated and coated papers having a glossy or bright finish; aluminum foil mounted on one or two sides of a paper support, or attached to a plaster base or wallboard. Aluminum paint, oil paint, or rubber-base paint can also be used as a vapor barrier if applied in sufficient coatings to make a smooth, glossy finish; the use

(Continued on page 144)

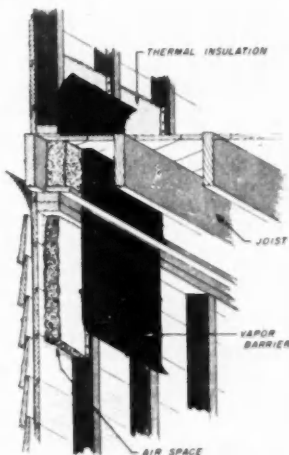


**OPENING INTO UNHEATED ATTIC SPACE.** Weather-stripping and thermal insulation can be used advantageously to keep water vapor from escaping into unheated attic or storage spaces through doors.



**BARrier AND INSULATION ADJACENT TO A DOUBLE-HUNG WINDOW.**

Great thoroughness should be used in applying vapor barriers around windows to control condensation. They should effectively cover the frame and the openings at the sides, top, and bottom of the frame. All openings except those needed for sash weights should be packed with insulation and covered with vapor barriers.



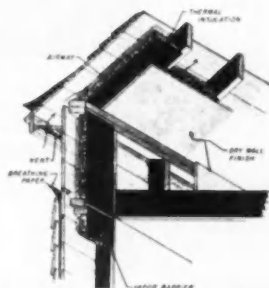
**SIDE WALL, SECOND FLOOR LEVEL.**

Condensation control is by a vapor barrier applied over the face of the studs and along the wall at the joist level. The thermal insulation is of the batt type without an effective vapor barrier.

**OUTSIDE BASEMENT WALL, PLASTER FINISH.**

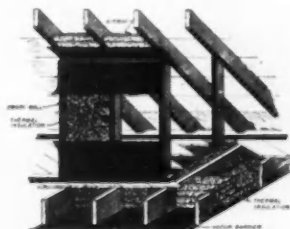
Condensation control is provided through the use of a vapor barrier below the finish floor as well as a barrier running parallel to the furring strips. This prevents as far as possible water vapor entering the space between the concrete floor and the finish floor. A membrane waterproofing is recommended over the concrete subfloor.

Next month—  
**THE WORLD OF COLOR**



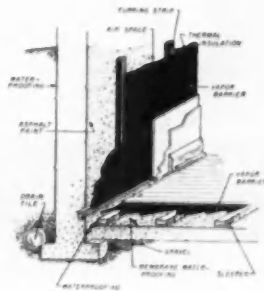
**JUNCTION OF ATTIC FLOOR, SIDE WALL, AND ROOF.**

A good vapor barrier covers the blanket-type insulation shown both in the side wall and between the rafters of the attic roof. Some form of dry wall finish is recommended along walls and the lower part of the roof to prevent damage to the vapor barrier.



**JUNCTION OF A DWARF WALL WITH ATTIC FLOOR, AND ROOF.**

Condensation control in this instance is provided by the vapor barrier on the floor. It covers the entire ceiling. Otherwise a barrier should be installed between the joists below the dwarf wall and extending back to the out-side wall. It is important to provide an airway over the insulation in the sloping part of the ceiling. Insulation shown is of the batt type without vapor barrier.



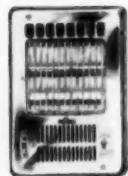


## HOW TO PICK THE RIGHT HEETAIRE

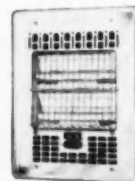
for every room  
You Build or Modernize



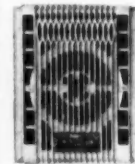
Series 200 HEETAIRE  
1000 to 2000 watts



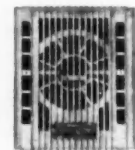
Series 230 HEETAIRE  
1250 to 3000 watts



Series 240 HEETAIRE  
1000 to 1500 watts



Series 210 HEETAIRE  
3000 to 5000 watts



Series 250 HEETAIRE  
1500 to 3000 watts

The **FOUR FACTORS** to be considered in choosing specific HEETAIREs for specific jobs are:

1. Size of Room
2. Exposure of Room
3. Use of Room
4. Climate

These four factors—size, exposure, use and climate—are the keys for selecting the specific HEETAIREs and temperatures necessary to heat any room.

In general, wattages per cubic foot determine the size of HEETAIRE recommended—but these wattages vary according to heat loss in the room (wall, window and door exposures) and according to the outside temperatures (e.g., more wattages per cubic foot are necessary in New York State than in Tennessee). In addition, the use of room to be heated determines the temperature desired and the type of HEETAIRE recommended—radiant (infra-red) heat, or heated air. Radiant heat is recommended for rooms where the primary objects to be heated are people (Series 200, 230, 240); heated air is recommended where general temperature levels are to be maintained (Series 210, 250).

Series 210 and 250 HEETAIREs are recommended for both supplementary and general heating.

**FREE!** Write for the copyrighted "A Guide to Quick Heating".



Tested and listed under reexamination service by Underwriters' Laboratories, Inc. Thermostatic or Manual Control . . . Radiant Heat, Heated Air and Fan-Forced Radiant Heat . . . Wall Inserts and Wall Attachables.

**MARKEL • LA SALLE**  
ELECTRIC PRODUCTS, INC. PRODUCTS, INC.

151 SENECA ST., BUFFALO 3, N. Y.



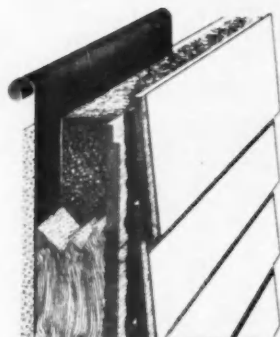
**WITH BARRIER AND WITHOUT.** The dry, clean, light-colored area at left protected against water vapor condensation by an impregnated Kraft paper type of vapor barrier. The dark, mildewed area at the right was left unprotected and is beginning to rot.

of paint as a barrier, however, is mostly in connection with existing buildings.

A good vapor barrier should permit not more than one grain of water vapor to pass through an area one foot square in one hour when the vapor pressure difference is calculated on the basis of one inch of mercury when tested by a dry method.

In contrast to the vapor barrier, the sheathing paper or sheathing used on the cold side of the wall should readily transmit water vapor and not confine it. It should be capable of passing five or more grains of water vapor per square foot, per hour, per inch of mercury when tested by a dry method.

National Paint, Varnish and Lacquer photos



**A VAPOR BARRIER** is any material that retards water vapor from passing through the stud space into the outer wall. Coatings of aluminum paint, asphalt and varnish vehicle paint will do it in some cases, but usually an asphalt or other type of impregnated paper is tacked to the studding before the plaster is applied. Vapor barriers should be installed during the construction, without gaps. The difference between sheathing paper and vapor barrier paper or foil is that the former should permit water vapor to escape outwards.

# ARKANSAS SOFT PINE

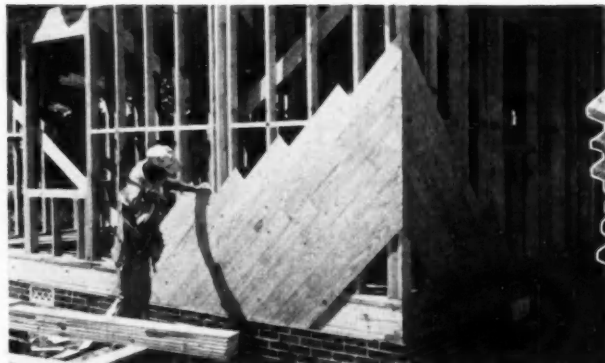
## Center and End-Matched Sheathing



GIVES YOU THESE  
BONUS VALUES

1. Tensile strength for rigid framework.
2. Goes on  $\frac{1}{3}$  faster than plain end.
3. Insulation at no extra cost.

Goes on fast. End joints eliminate trimming at stud centers.



Look for the trade-mark at your lumber dealer's.

1. Wood sheathing matched at side and ends forms an integrated, continuous "skin" covering the studding. Applied diagonally, held firmly in place by the nail-holding power and tensile strength of wood, this sheathing gives stiffness and rigidity to framework, not even approached by synthetic pressed composition sheathing.
2. Saves  $\frac{1}{3}$  actual time in application, because end-matching disregards stud centers; eliminates end-trimming except at corners and openings; joins up fast.
3. Arkansas Soft Pine sheathing is kiln-dried to correct moisture content. Such thorough seasoning converts it into a non-conductor of heat and cold. On an outside wall, material of 25' 32" standard thickness keeps out as much heat as 5" of common brick, 9" of face brick, 12" of stone or 13 $\frac{1}{2}$ " of concrete.

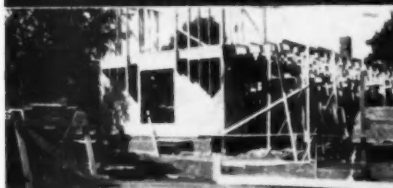
Arkansas Soft Pine center and end-matched sheathing is delivered in 4' to 8' bundles. Center-matched stock, plain end, is available in standard long lengths.

Sold by retail lumber dealers and planing mills east of the Rockies. For data, illustrated grades and how to specify, send for this complete Handbook for Builders.

ARKANSAS  
*Soft Pine*  
BUREAU

852 Boyle Building

LITTLE ROCK, ARKANSAS



Gives extra reinforcement at frame corners for maximum stiffness.



Facilitates use of short lengths in narrow spaces.



Architect Vernon A. Moore says:

**"We picked Truscon Steel Building Products for the extremely modern requirements of the Norfolk Airport Building."**



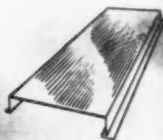
Modern projects such as the new Norfolk (Va.) Airport Building illustrate the architectural distinction and the operating efficiency possible with Truscon Steel Building Products. From one single source, Architect Vernon A. Moore was able to specify and secure delivery on Truscon Series 46 Double-Hung Steel Windows, Truscon Architectural Projected Steel Windows, Truscon Intermediate Steel Windows, Truscon Donovan Steel Windows, Truscon "O-T" Steel Joists, and Truscon Steeldeck Roofing. Doyle and Russell, Contractors, erected this magnificent new structure.

See "SWET'S" for complete details and specifications on all Truscon Steel Building Products, or write for illustrated literature.



**TRUSCON STEEL COMPANY**  
1050 Albert St., Youngstown 1, Ohio  
Subsidiary of Republic Steel Corporation

**TRUSCON** a name you can build on



**New**— a line of colored shingles that will appeal  
to both builders and owners!

looks like split wood...  
lasts like stone!

## "Century" NU-GRAIN

asbestos-cement siding...



"Century" No. 58 NU-  
GRAIN Asbestos-Cement  
Siding Shingles, NU-GRAIN  
Gray. Other colors: NU-  
GRAIN Green and NU-  
GRAIN Brown. 37 shingles  
per square, 1½" head lap.

**Why builders will like them for re-siding and new construction—**

Here at last is a lifetime colored shingle that has all the authentic charm of the old-fashioned split wood shingle, right down to the honest details of coarse and fine score marks... strong and clear texture markings... and even a pronounced straight butt shadow line. It's easily applied, economical to use, and lasts like a rock.

**Why owners will like them for beautifying and protecting the home—**

The "Century" NU-GRAIN Asbestos Shingle comes in a choice of three smart colors that won't fade—NU-GRAIN BROWN, NU-GRAIN GREEN, and NU-GRAIN GRAY—produced with slate granules permanently imbedded into the surface under hydraulic pressure. This Shingle protects forever against fire, water, rot, rodents, and termites... adding permanently to the value of an old or a new home.

**Why both home builders and owners want them—K&M is**

telling a convincing story about "Century" NU-GRAIN Asbestos-Cement Siding in sparkling advertisements in *Better Homes and Gardens*. This full color story shows the home owner or planner how to get new beauty, economy, and permanent protection... and the wise builder can easily see in it more and easier profitable sales, on one home or a thousand. Get on the band-wagon—call your

K&M Distributor for details... or write us direct.



America's first maker of Asbestos-Cement Shingles

**KEASBEY & MATTISON**  
COMPANY • AMBLER • PENNSYLVANIA



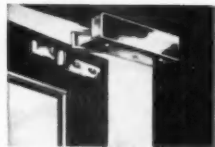
## HEAVY-DUTY REVERSIBLE CASEMENT OPERATOR 4700



Operator 4700, for wood casements, is unique in several respects. It is *not* handed, and may be used interchangeably on right- and left-hand windows. Its worm and gear construction, with a one-piece gear of solid bronze, will withstand a lifetime of twists and turns. The handle—8 inches long—is removable.

Operator 4700 functions without disturbing the screen and is a handsome bronze lacquer finished interior fixture. Its heavy brass channel guide, anchored at *three* points, will not bend or bind.

Operator 4700 is a cinch to install too. 7 screws—that's all!



**AUTOMATIC CLOSER 4649**

Pulls top of outswinging wood sash snugly against the frame. It prevents warping, assures all-around tight contact. Easily installed—4 screws; no mortising required. \*



**EXTENSION HINGE 2529**

By means of flange type leaf it provides a firm corner support of the sash. By providing a 3" sash clearance, it assures maximum ventilation and permits cleaning of the outside casement from inside the room.

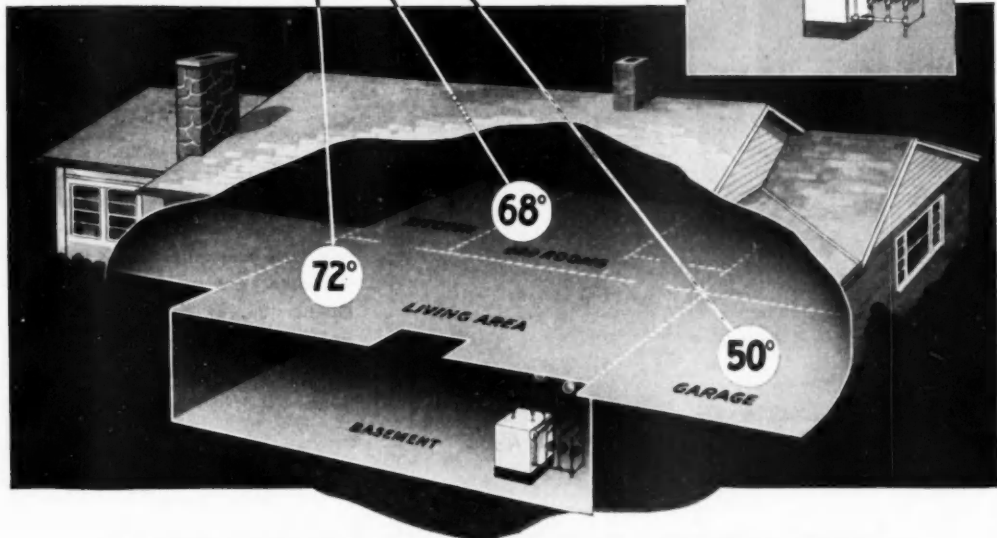
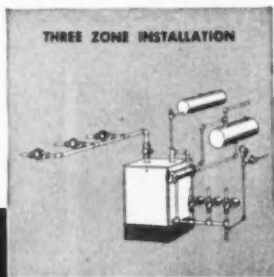
H. S.  & Co., Inc.

3348 NORTH 10TH STREET • PHILADELPHIA 40, PA.

GETTY OPERATORS ARE USED ON MORE CASEMENT WINDOWS THAN ALL OTHER OPERATORS COMBINED.

FORCED CIRCULATING  
**THRUSH Hot Water Heat...**

**MAKES ZONING EASY  
 AND INEXPENSIVE**



**CONTROLLED COMFORT**  
 IN ALL ZONES WITH THRUSH SYSTEM



**CONTROLLED COMFORT** is a "must" in today's modern home. Easy, inexpensive zoning with Thrush Flow Control System of Hot Water Heat is the answer. You can provide perfect zoning with radiant coils, radiant baseboards, radiators or convectors. As many zones as required can all be supplied from one boiler and one firing device.

Only three simple units, a Circulator, a Flow Control Valve, and a Radiant Heat Control (with Relay Transformer), are needed for each additional zone to give dependable comfort control. Domestic hot water for kitchen, laundry and bath may also be provided with a Thrush Water Heater. For more information about the complete Thrush Flow Control System, see our catalog in Sweet's or write Department G-6

**H. A. THRUSH & COMPANY**  
 PERU • INDIANA



Slanted windows of showroom are 12 feet high, have 9 degree pitch

## Building Materials SUPERMARKET Boosts Cash Sales

By moving store and offices to a commanding State road site two miles away from the main yard, the J. H. Jackson Lumber Co. of Denville, N. J. has noted many new faces and a decided increase in cash sales

**T**HIS new headquarters "works" for management in much the same way as does a modern park-and-shop food store. Location, design and interior arrangement all play an important part in selling a wide variety of products.

Situated in a large open area at a sweeping bend in one of Jersey's principal dual highways, it dominates the view of the oncoming motorist up to half a mile away. The striking appearance of the glass front holds the eye until one is close enough to see

dozens of gleaming new appliances and building products. By then, the appetite of many a prospective customer is whetted sufficiently to lead him inside for a better look.

After parking in the spacious black-topped area adjoining the window walls and entering through the Herculee doors, he will find over a dozen "islands" and other displays claiming his attention. One of the chief attractions is a complete, all-electric kitchen, which the owners credit with selling many full units "because the house-

wife can visualize exactly how it will look in her own home."

But the merchandising is only beginning with the displays. Most of the rear wall of the store, which partitions off the back of the building, is a demonstrator of stock materials available in the lumber yard and the show is continued in rooms behind this partition. Exterior finishes on the wall vary for each office and include dark brown cedar shingles, wide white clapboards and oak-stained clapboards. Doors used are solid, Dutch and the



Material display is presented realistically to aid customers and salesmen



Quick supply center—section of the 110-foot shed in back which houses almost all materials on hand in lumber yard





Seeability inside and out is the outstanding feature of this dealer showroom. Roman brick pylon highlights 140-foot glass facade

solid core V-joint type with leaded glass windows. There are fixed, picture and double-hung windows.

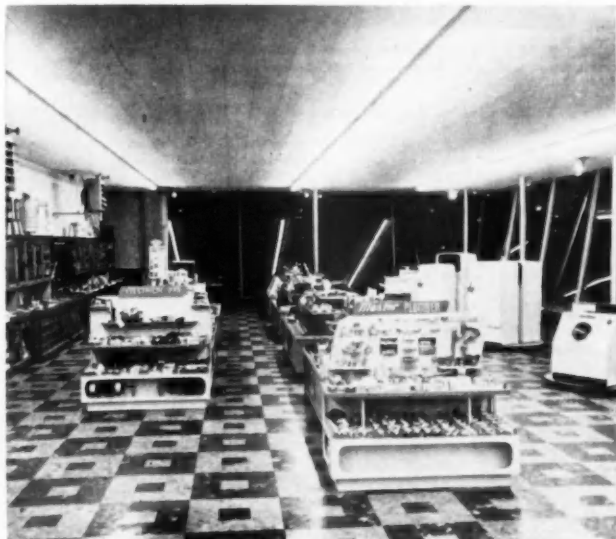
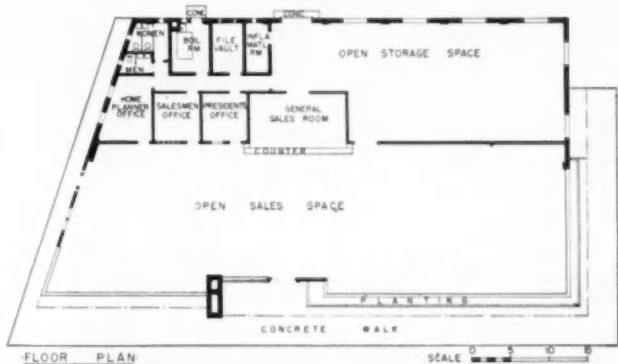
A home planners' office has walls of gypsum wallboard in knotty pine finish. The salesmen's room uses plywood paneling of knotty pine and birch. The president's office has knotty pine, Philippine mahogany and birch paneling.

In all this 140 x 70-foot building, there is but one counter, 30 feet long and centered along the rear partition. This is also of knotty pine, with a Micarta top. A break in this partition behind the counter opens onto the sales office, finished in knotty pine vertical boards and striated plywood panels. The remainder of the long interior partition is given over to cabinets displaying hardware, tools and paint. In back of this is a large storage room for the supplies in the display.

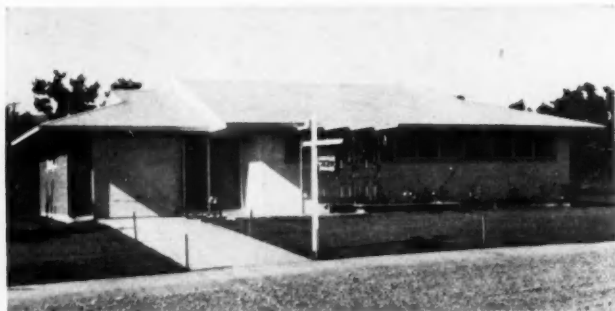
Behind the building is a 110 x 20-foot shed, to house part of nearly all materials on hand in the main lumber yard. A driveway open at either end separates the two buildings.

Three sons have succeeded their fathers to the power behind this enterprising lumber and hardware merchandising program, which began functioning at Rockaway in 1922 under the direction of Joseph H. Jackson and his brother-in-law, Silas Hiler. The firm's branch yard at Wharton, N.J., was managed by E. L. Danielson, who later became a vice president.

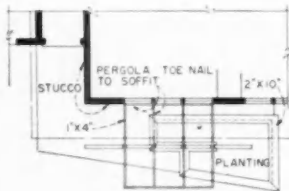
Floyd H. Jackson heads the present management, with Horace P. Hiler and Eskil L. Danielson as vice presidents. They have organized their new headquarters as a one-stop operation for builders or the man who wishes to build to order, with all detail arranged from planning to financing.



Long fluorescent tube lighting is plainly reflected in the windows. This area is about one-third of the new store's salesroom



"Trendmaker" homes combine stucco and frame in the conventional exterior. Roof overhang shelters entrance. Planter boxes and lattice trim point up the design



Interior of the living area features beamed ceilings. Overhead planter trough and storage wall with lighting cove add modern touches

Floor to ceiling windows overlook patio and louvered fence



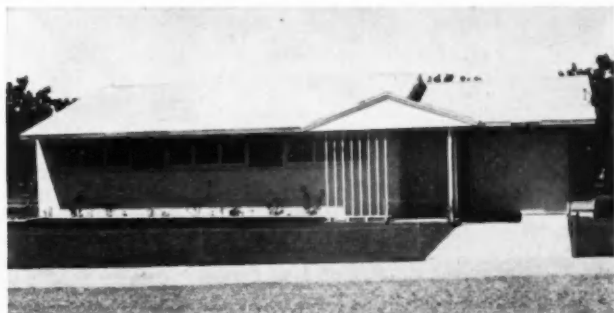
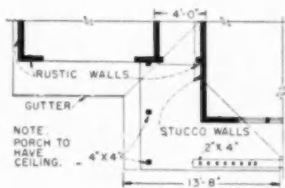
Fluted glass forms dinette-kitchen partition. Pass through from the kitchen to dinette facilitates serving meals

## Embellish Your

A VARIETY of simple, effective entrances can do a lot to invite the interest of home buying prospects. The novel and varied entrances used on the "Trendmaker" houses in the Rancho Village development of William Blackwell, San Francisco builder, are a good example.

For the most part the roof overhang carries beyond the recessed doorways to create the sheltered entrances. Lattice trim, gables, and siding are used to enhance their design. In one instance the novel use of a wagon wheel at the entry effectively adds a Western touch to the ranch-style house.

Designed by Wollander and Associates of Tacoma, Wash., the houses have a single floor plan with eight exterior elevations. Exteriors are frame and stucco. Major fenestra-



Gable shelters the entrance on this model

## Entrances to Increase Sales Appeal

tion is at the back of the house where the living room overlooks the patio. Here, floor to ceiling windows are used. The bedrooms, which face the street, have clerestory windows.

Features of the house are the open plan of the living-dining-kitchen areas and the abundance of closets. The master bedroom has twin wardrobes, with single units in each of the other bedrooms.

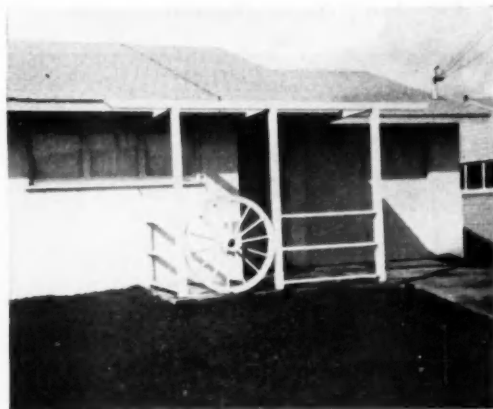
Most of the interior wood surfaces were finished by applying white paint, wiping, and then waxing. Other wood areas are stained.

### BRAND NAME PRODUCTS USED

Bendix washer	Kwikset locks
Billwell furnace	Mission water heater
Briggs plumbing fixtures	Monarch building paper
Calotyle plastic tile	Romex cable
Controlador garage hardware	Triangle conduit
Firtex insulated sheathing	United States Gypsum roofing and gypsum board
Formica sink top	

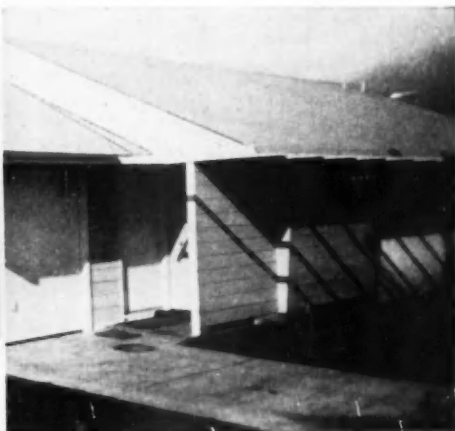


FLOOR PLAN



Wall extension and roof overhang is another variation in entrances

Western motif is added to the ranch design by the wagon wheel entrance





Contemporary styling on a floating foundation to resist soil movement. Roof has 3 to 12 pitch, is built up with crushed white dolomite. Ridge projects one foot beyond rake line at eaves

## Builds Air Conditioned Houses for the \$10,000 Market

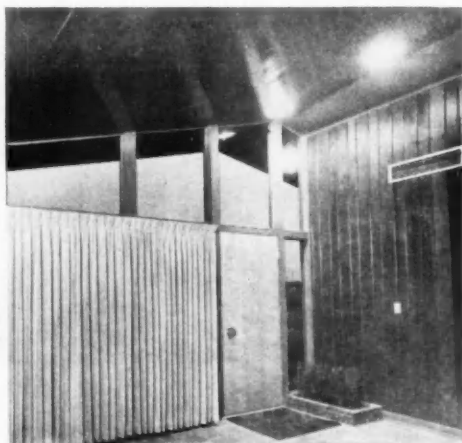
Not only summer-winter air conditioning, but storage-wall assemblies, stone-paved patios, and other touches add luxury to this design.

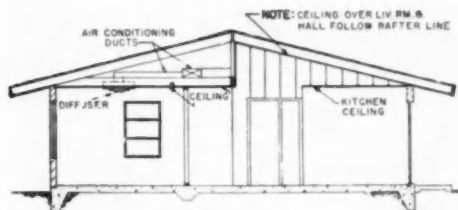
LOCATION: *Pampa, Texas*

BUILDER: *Hughes Development Co., Inc.*

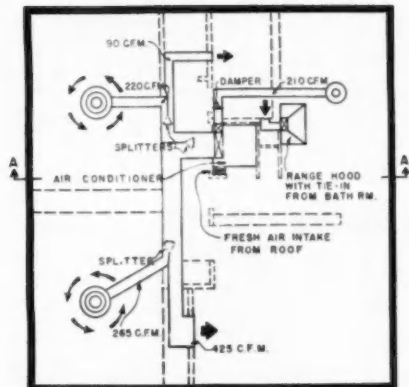


Plan has expandability in mind. A third bedroom can be added behind second bedroom. Door break for expansion is in end of storage closet. (Right) Low pitch of roof is used to create a sloping ceiling in living room and kitchen hall, giving a studio-like effect, with a sense of more space. Windows, except for glass wall of living room, are awning type that provide ventilation on days when the air cooling system isn't needed





SECTION AA



Air conditioning unit combines a 3-ton refrigerated summer cooling unit with a gas-fired 150,000 BTU winter heater, from Automatic Firing Corp., St. Louis. The same ducts carry both hot and cold air. There is provision for air exhaust from kitchen and from bathroom.

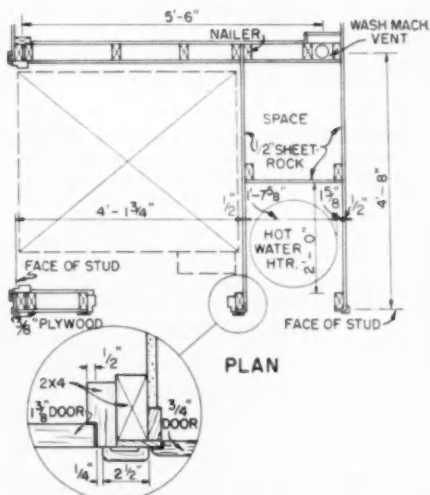


Kitchen includes a dishwasher sink, automatic washer, range and refrigerator. Fumes are carried off through the blower-operated hood of the range. Ceiling fixture is an air diffuser. Cabinets match the storage-wall partitions.

Bathroom medicine cabinet takes full advantage of the plumbing wall, has shelves 8 inches deep. For doors it has two sliding plate glass mirrors. This is a Hughes innovation.

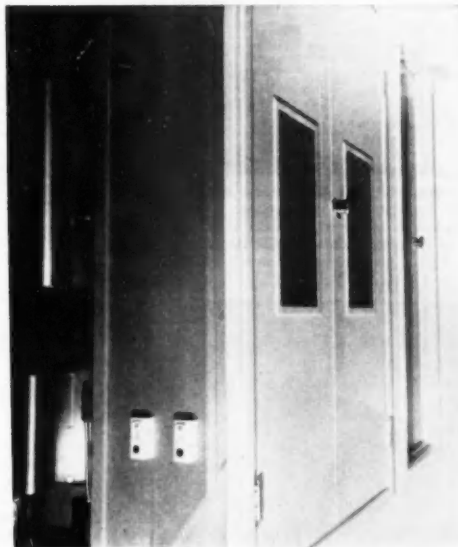


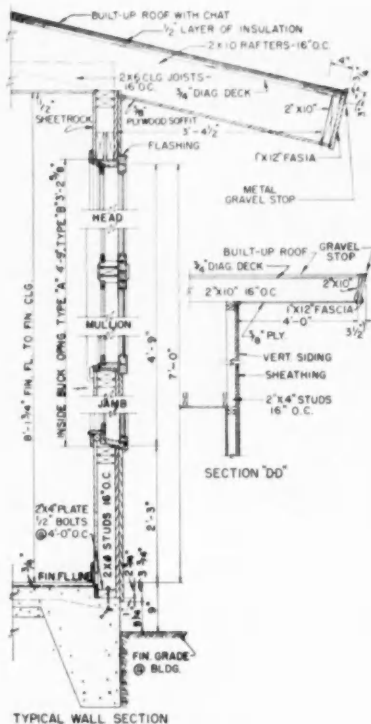
Year-round air conditioner occupies a central closet, takes up floor space of only about 40 by 48 in.



AIR CONDITIONER AND HOT WATER HEATER CLOSET

Detail of air conditioner and hot water heater installation

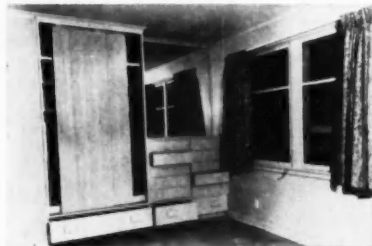




TYPICAL WALL SECTION

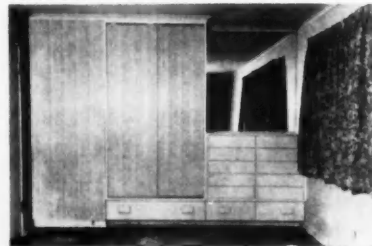
Typical wall section

**OPEN**

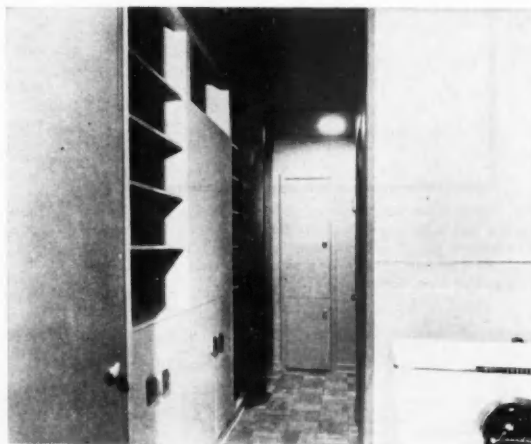


Storage wall in back bedroom has one wardrobe, one dressing table with mirror. These assemblies are bought completely finished and ready to install, from Fabricon, Inc., in Austin, Texas

**CLOSED**

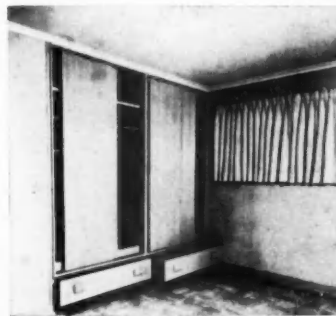


**FRONT**



**BACK**

Wall between living room and kitchen is a storage unit designed by Hughes to match the factory-built closet assemblies used in the bedrooms. Kitchen-side view of this wall also shows door to linen closet, opening off bedroom hall



Master bedroom has two wardrobe units. Striated plywood and rectangular wood pulls, made on the job, strike a modern note



# *Fitite* SHAKES ARE WIDER BY FAR

## The Wise builder knows that wider shakes cost less to apply

It's important to lumber dealers that the average width of the cedar shakes in a carton is a mighty essential factor to their Builder customers. When an applicator drives two nails in each shake\*, it just naturally takes fewer nails, fewer hammer strokes, *less time* . . . when he uses shakes that have a generous average width. He covers more wall area with less effort, saves labor time and money . . . gets a better-looking wall for the money. You get a better satisfied customer, more repeat sales when you stock Fitite Shakes.

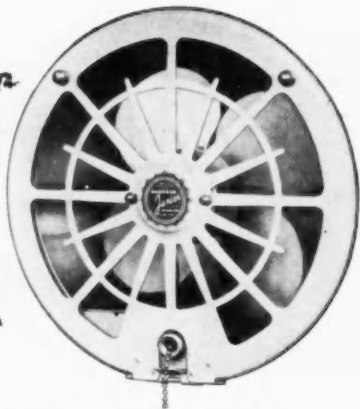
We take the time, the trouble, and spend the money to screen out the narrow, hard-to-use shingles *before they ever get to the Fitite Shake machines*. How do we use the narrow stock? Sure, we use it to supply you with colorful sample fans, so you get a double benefit from our policy of giving the builder the extra value of wider shakes. Sound sensible? You try 'em. Compare Fitites for width, for color, for customer satisfaction. You'll be glad you did.

**WHOLESALE ATTENTION:** If you are interested in the sale and distribution of our quality line of pre-stained shakes, write immediately to:

**COLONIAL CEDAR COMPANY, INC.**  
600 WEST NICKERSON STREET, SEATTLE 99, WASHINGTON



\*On Fitites wider than 8",  
space nails 4" apart.



To Sell Modern Living  
at its best ...  
**SPECIFY**

# EMERSON-ELECTRIC KITCHEN VENTILATORS

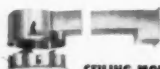
Clean, cool, odor-free air in the kitchen is no longer considered a luxury. Home buyers everywhere—demand comfortable, healthful, modern living.

That's why truly modern kitchens boast ventilators. And when you install Emerson-Electric Kitchen Ventilators in your homes, you add a low-cost but effective salesman to your staff. Emerson-Electric has been favorably known for the manufacture of dependable, efficient fans for over half a century. Yet, Emerson-Electric Kitchen Ventilators cost no more than ordinary fans—and are economically installed!

For full information, write *today* for Bulletin No. T92.

THE EMERSON ELECTRIC MFG. CO., St. Louis 21, Mo.

**WALL MODEL...** Telescoping adjustable sleeve fits walls 5½" to 13". Square outside frame, easy to brick or frame around. Special outer door seal gives weather protection. Induction motor, 10" blades move 470 c.f.m.



**CEILING MODEL...**

Adjustable sleeve joint fits standard 3½" x 10" duct. Outside grille has angle baffles for weather protection. Automatic shutter closes duct when fan is not operating. Dependable Emerson-Electric motor equipped with special thrust bearing.

**SPECIFY  
EMERSON-  
ELECTRIC  
ATTIC FANS**



Build cool, summer comfort right into your homes by installing Emerson-Electric Attic Fans! Here is another sales-clincher... available in four sizes from 24" to 48". Note: you'll save *half* on installation by installing during original construction.

**EMERSON**  
FANS • MOTORS



**ELECTRIC**  
APPLIANCES

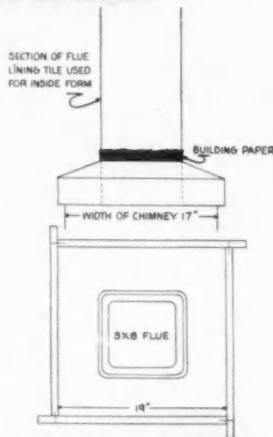
## No. D-93 Garden Wind Screen

The garden wind screen shown on opposite page is a most unusual accessory. It can be built as indicated to conform to a rather generous garden setting, or it can be decreased in size by reducing the number of panels that may be required.

A unit of this type should be placed in the garden to act as a wind breaker, and should be located to conform to the prevailing breezes.

The angular tilt to wall and roof supports avoids any closed-in feeling that otherwise might prevail with straight vertical and horizontal members. Posts are imbedded in concrete piers with plywood gusset plates at intersection of wall and roof members providing the necessary supports for wood members. Walls and roof are covered with corrugated aluminum or alsynite sheets, or a combination of both as indicated in photograph, depending on the owner's needs.

### Chimney Cap Made on the Ground



The concrete cap for a small 17-inch chimney can be made much easier on the ground by use of a form placed on any flat wood surface.

A section of flue lining tile is placed in the center and several layers of building paper are wrapped around the lower end, as shown. This provides an opening slightly larger than the tile and makes it easier to slip into place.

When placing on chimney, spread mortar on the top course of brick. Any opening between the cap and tile may be filled with mastic or caulking cement.—Arthur N. Nelson, Kansas City, Mo.



# AMERICAN BUILDER'S BETTER DETAIL PLATE

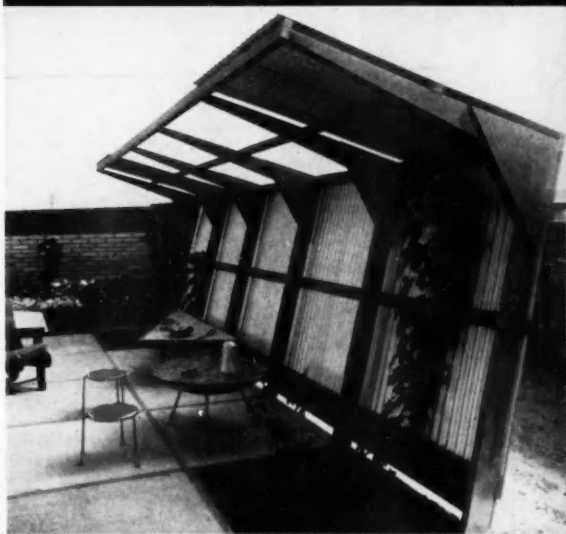
Detailed by K. Roderick O'Neal A.I.A. for American Builder

## NO. D-93 GARDEN WIND SCREEN . . .

CORRUGATED ALUMINUM  
OR ALSYNITE

2" X 4"

CUT FROM 2" X 6"



3/8" WELDTEX  
OR PLYWOOD  
GUSSET, EACH  
SIDE

2" X 4"

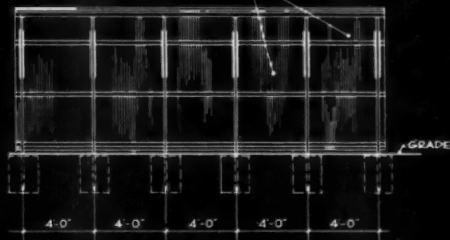
CORRUGATED ALUMN.  
OR ALSYNITE

2" X 6" 4'-0" O. C.  
8'-4" LONG

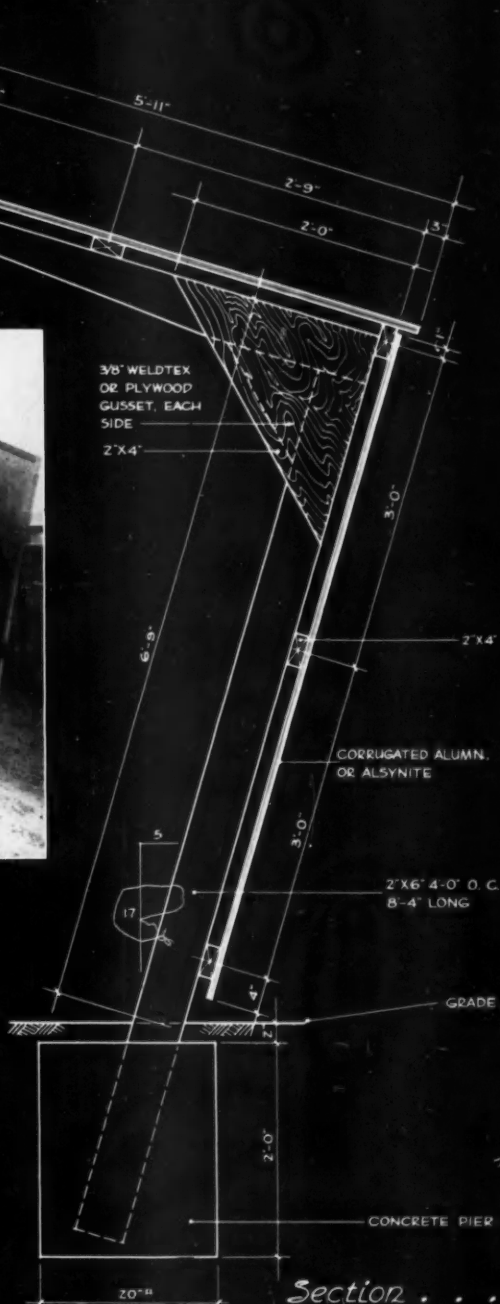
GRADE

CONCRETE PIER

CORRUGATED ALUMN. OR ALSYNITE



Elevation . . .



Section . . .

# GET THE FACTS on the Amazing *Fleettlite* Aluminum WINDOWS



*Beautifully Modern  
Reduces Building Time  
Comes Packaged in Carton*

**Offers NEW LIVING COMFORT  
EASY HOUSEKEEPING**

• Here's the revolutionary new window you've been hearing so much about... the window that builders are applauding... the window home owners are specifying—FLEETLITE Aluminum Windows. They come, packaged and ready for installation, these complete year-round units combine interior and exterior double hung windows in a four-channel extruded aluminum frame. Keep homes warmer in winter and cooler in summer.

When you build—plan for the future, insist on FLEETLITE Windows for the home owners comfort—for the added sales advantage—for protection of resale value. It costs no more to have the best.

FLEETLITE Windows are the most handsome, most practical windows in America. Get the... for yourself—today.

WRITE TODAY for complete literature on



MADE BY ...

FLEETLITE Windows

TERRITORIES OPEN  
FOR FULL TIME  
FACTORY REPRESENTATIVES

*Fleettlite*  
AMERICA'S *Smart* WINDOW

As advertised in *House Beautiful*, *House and Garden*, *Small Homes Guide*, *American Builder*, *Practical Builder* and *Magazine of Building*.

FLEET OF AMERICA, INC., 112 Pearl Street, Buffalo 2, New York

## No. G-33 Display Window

The problem here was to design a store window that could not only house an attractive display but would still permit an unobstructed view of the store interior. This required glass at both the front and back of the window above the show window floor line. The fact that the store was to be occupied by a children's apparel shop meant that the display window could not be open on the interior side.

Access to the window is through glass sliding doors. The sliding glass door frames match the store front sill moulding.

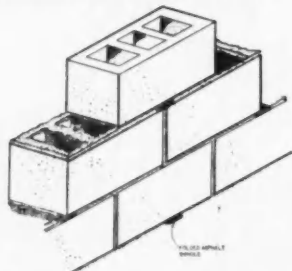
Building codes specified that the entire window must be of fireproof construction. The platform framing is made with steel angles bolted together. These rest on 6-inch concrete block bulkheads. The window floor is a reinforced concrete slab poured over a 1/4-inch cement asbestos board which is fitted between the flanges of the steel angle framing.

The valances are suspended from the ceiling on 1/4-inch channel hangers.

Lighting for the window consists of four tube fluorescent fixtures installed adjacent to each other for the entire length of the window. These fixtures are recessed above the ceiling, which is a metal egg-crate louvre.

The vestibule floor is terrazzo with red Verona marble chips, white portland cement and color pigment added. The bulkhead and valance facing is precast terrazzo with red Lavanto marble chips, white portland cement with dark color pigment added.

### Nailing Blocks In Wall



An easy way to install nailing blocks in a concrete block wall is to have the mason fold a piece of asphalt shingle (3x4 inches after it is folded) and place in the mortar joint wherever nailing is desirable.—Frank Breznik, Export, Pa.

AMERICAN BUILDER

# AMERICAN BUILDER'S STORE FRONT DETAILS

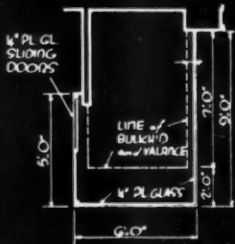
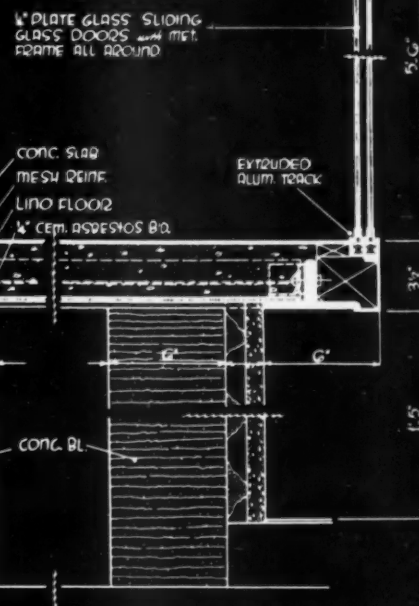
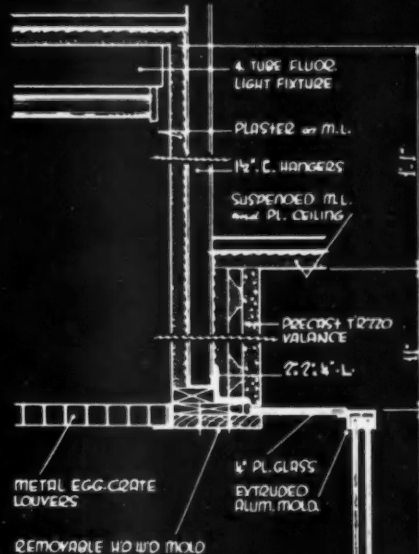
Designed and detailed by Louis J. Gluskin for American Builder

## No G-33 · DISPLAY WINDOW DETAILS

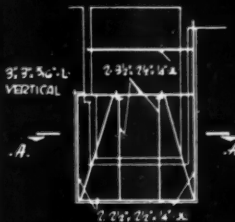


Lovel's

NYC



display window plan.



framing plan.

section AA.

# Practical Approach to EFFICIENT BUILDINGS



Here's a good case study of how to build a permanent structure...with large open floor areas...quickly...at minimum cost.

Glued laminated beams and purlins form the primary roof structure. Heavy tongue-and-groove decking was laid over the purlins, and mopped-on roof was then applied. Beams and purlins were delivered to the jobsite pre-cut and pre-fitted, speeding construction and lowering costs.

Formed entirely of kiln dried material, glued laminated members are

**Dimensionally stable — no shrinking, twisting or warping.**

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**TIMBER STRUCTURES, INC. OF CALIFORNIA** • Oakland, California  
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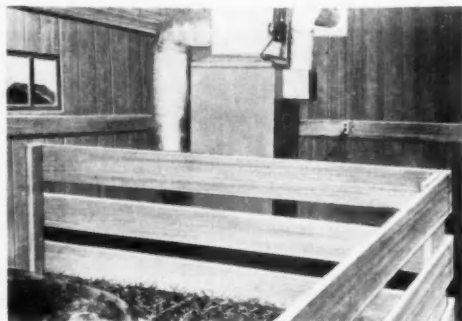
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Name \_\_\_\_\_  
 Company \_\_\_\_\_ Position \_\_\_\_\_  
 Address \_\_\_\_\_ Zone \_\_\_\_\_  
 City \_\_\_\_\_ State \_\_\_\_\_

162



Barn is heated by oil-fired forced-air furnace of same type used in home

## How to Heat Modern Pig Farrowing Buildings

The large number of young pigs lost because of freezing to death or being crushed under the weight of the sow while trying to keep warm is an important problem for farmers. Agricultural engineers for years have been trying to find a solution which does not involve prohibitive expense.

Heat is a necessity during the farrowing period, and many methods now used for providing heat are far from satisfactory. Seeking an answer to this heating problem, the Majestic Company, manufacturers of warm-air heating units, aided by the agricultural engineering departments of two large midwestern universities, has been working on a design for a farrowing barn heated by an oil-fired forced-air furnace—the same type used in air conditioning the home.

From the research conducted, the company has presented two designs for a heated farrowing barn (see illustrations). Although they are basically the same, there has been some difference of opinion as to how the heat should be distributed.

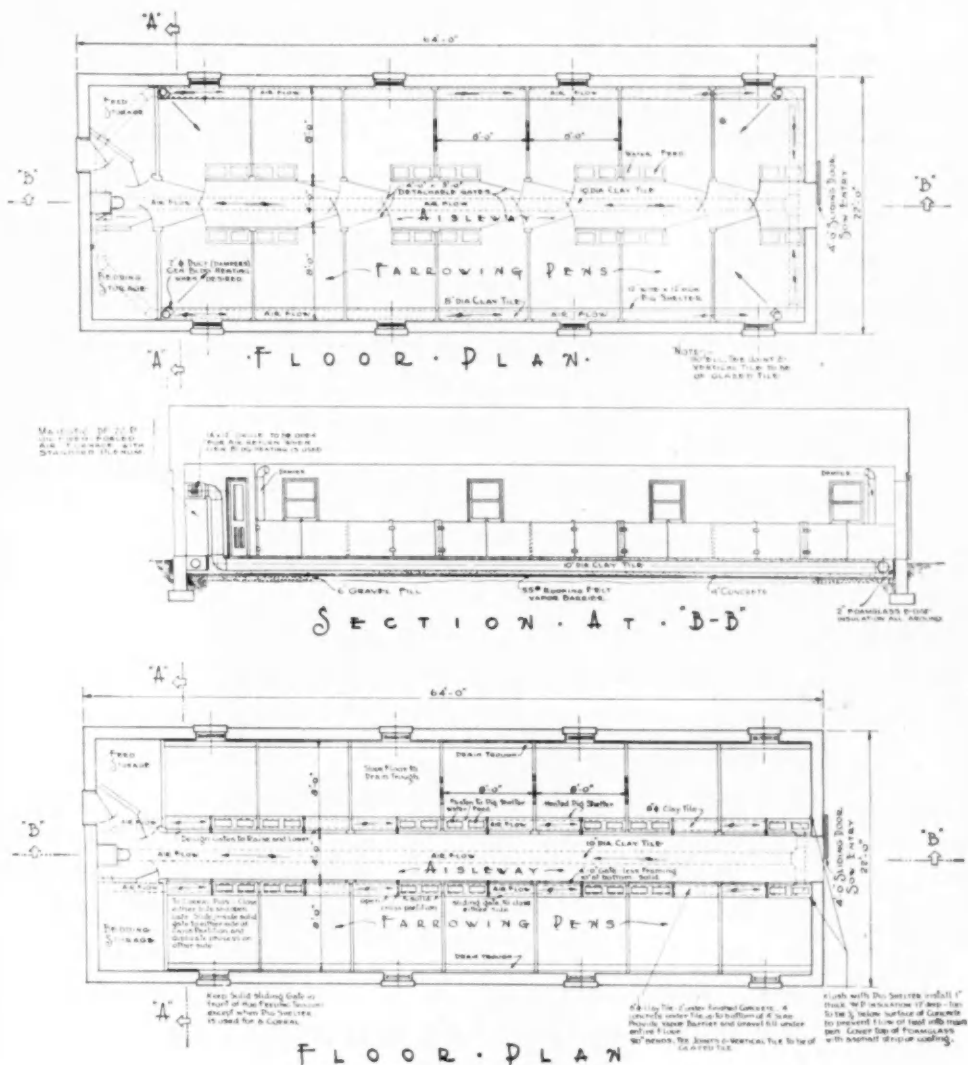
Both research groups agree that the heat should be distributed through ducts laid under the floor surface and then radiated through the floor; but the disagreement comes as to where the ducts should be. Therefore, two designs have been drawn: one with the ducts in the center section of the floor area, the other with the ducts running along outer walls in what is known as radiant perimeter heating.

The first view is taken with the idea that only the young



Farrowing pens are radiantly heated

AMERICAN BUILDER



pigs need the heat, so there is no reason for warming the entire barn. With the ducts in the center section, the young pigs can be penned near the heat, while the sows, requiring little if any heat, can be allowed to move to cooler parts of the building.

In the other opinion, it is maintained that ducts running around the outer walls of the building are better situated to produce a uniform temperature throughout, since in the case of a large hog raiser, there will be pigs of varying age in the same barn.

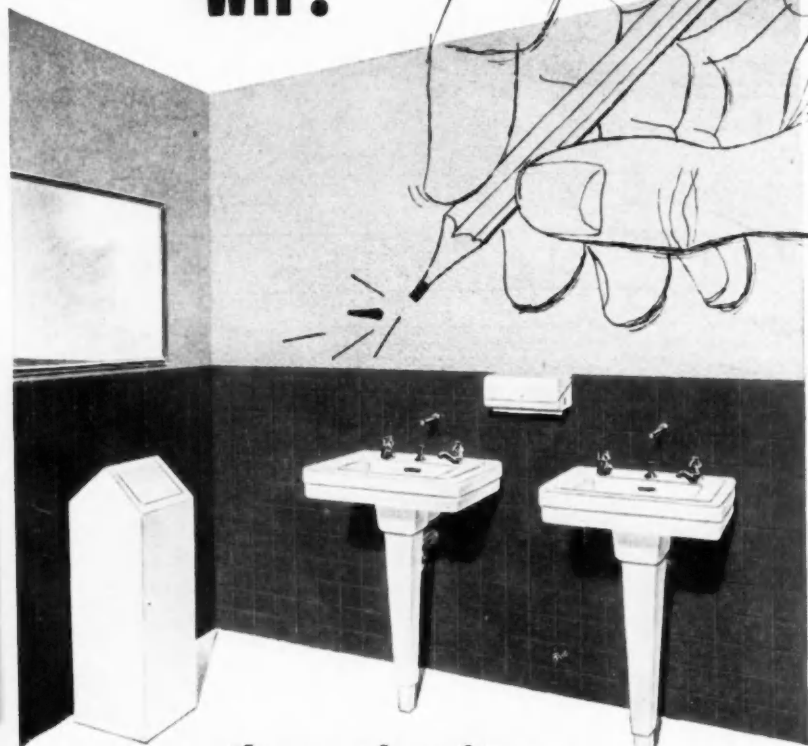
In either case, however, another purpose is served: the thermostatically-controlled heat, which can be maintained at any uniform temperature, makes possible reduction of heat to toughen the pigs for the time when they go out into the field.

This advantage, plus preventing many pigs from freez-

ing or being crushed, has made the heated farrowing barn a good investment for the hog raisers who have thus far tried it, the company said. These farmers have found they can average about nine and one-half pigs to the litter. The national average is a little over six. And since this year shows a good record in saving pigs, the furnace-heated method could be even more profitable in seasons when the saving average is not so high.

In some instances the weather is such that the young pigs are moved out of the farrowing barn in as short a time as one week, but it is usually two weeks or more. The company pointed out that since many hog raisers will run through 25 or 30 sows each spring and another 25 to 30 in the fall with a barn of this size, and others are starting "pig hatcheries" where production goes on 12 months of the year, exceptional savings are possible.

# no more washroom wit!



## **they can't write on MASONITE LEATHERWOOD!**

Stop the costly defacing of washroom walls—and make them more attractive, too. Specify tough, rigid Masonite Leatherwood above the dado. Its embossed surface, resembling Spanish-grain leather, discourages would-be humorists.

Leatherwood and Temptrile® offer a splendid base for almost any type of surface finish. Low in original cost, these all-wood panels go up fast, last indefinitely. Reduce maintenance, too. Presdwood® products are sold by building materials dealers everywhere. Write for complete information about all 23 types and thicknesses of these hardboards.

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# **MASONITE® CORPORATION**

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# NEW PRODUCTS

## Offered by Manufacturers



### GRADE GAUGE **ABB5201**

This tool, designed for easy setting and checking of grades, slopes, pitches, or angles, can be used by all tradesmen in the building industry. It consists of a bubble mounted on a movable arm which is laid out as a protractor up to 90 degrees. Slopes up to 6 inches per foot are also marked. Slight accurate slopes can be set up to the two-inch scale at the end of the movable arm. The finer adjustment enables setting of slopes to 1/16 of an inch. Gutters, roof pitches, side walk drainage slopes, water and drain pipe slopes, and septic tank soil pipe slopes can be determined with the tool. Pitchrite Grade Gauge Co., Dept. AB, Box 24, Arlington Heights, Ill.

### TWIST NAIL FOR ASBESTOS SIDING **ABB5217**

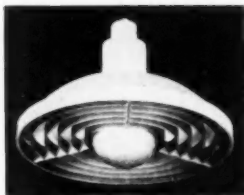
This nail has been designed for use with non-wood sheathing. Made of a special alloy, having needle point heads, the nail is driven in the usual manner. It protrudes about an inch on the inside. With the aid of a special tool, a helper or an apprentice can twist the nail to hold the siding. This nail is supplied and included in the cost of the siding. The method can only be used in new construction. The Ruberoid Co., Dept. AB, 500 Fifth Ave., New York 18, N.Y.



### GARBAGE DISPOSER **ABB5208**

A low cost garbage disposer unit named "The Polverizer," is a compact 12-inch unit that can be used in new or remodeled construction. It actually measures 10 inches from the top to the middle of the drain outlet. It fits any standard 3 1/2 or 4-inch sink drain. It is powered with a 1/4 H.P. electric motor. The user turns on the cold water, flips the switch, and feeds the waste. Cutting elements and housing are of high grade rust-proof steel. The unit is factory guaranteed for 12 months. Pioneer Polverizer Co., Dept. AB, 3131 San Fernando Rd., Los Angeles 65, Calif.

AUGUST 1952



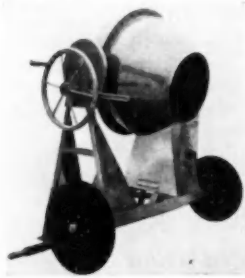
### PORTABLE SPOT ADAPTER **ABB5222**

Can be used in any operation receptacle and swiveling device. The 100 watt unit is 5 1/2 inches high and provides a complete shielding of the light source. It can be relamped without removing the cover. Silvray Lighting, Inc., Dept. AB, 100 W. Main St., Bound Brook, N. J.



### SPLINED INSULATING TILE **ABB5221**

The exposed spline joint on all four edges of the tile enables the material to be applied directly to open framing without the use of furring strips or other preparation. Panels may be side or end matched, erected horizontally or vertically. Sized in units of 16 inches, they fit standard construction. The 1/2-inch splines are furnished in natural fiberboard but variety can be achieved by using other and wider 1/4 inch thick materials. The Celotex Corp., Dept. AB, 120 S. LaSalle St., Chicago 3, Ill.



### CONCRETE MIXER **ABB5209**

A 3 1/2 cubic foot, end discharge mixer trade-named "Marspeed Econo-Master" features a ring gear integrally cast with the load balanced drum for better alignment and smoother operation. Drum drive shaft and yoke are mounted on roller bearings. Charging and discharging are made easier by a geared tilting mechanism and friction brake lever which locks the drum at any desired angle in its complete swing. Power and drive are provided by an air cooled gas engine and roller chain on machine cut, steel sprockets. Gilson Brothers Co., Dept. AB, 23 W. Gilson, Fredonia, Wis.



### SUMMER AIR CONDITIONER **ABB5202**

Converts any forced warm air heating system into an all-year conditioning system. The unit utilizes the duct work, blower, and filters of the present system and can be installed in either new or existing homes. It requires only two connections to the duct system, hook-up to the water supply, drain, and electrical connections. Built in 2, 3, and 5 H.P. models it has an angle iron frame with heavy gauge removable panels. A three-position switch permits cooling or ventilating. Built-in thermostat provides automatic control of room temperature. United States Air Conditioning Corp., Dept. AB, 3300 Como Ave. S.E., Minneapolis 14, Minn.

### PRIMER-SEALER **ABB5214**

A rubberized emulsion sealer thinned with a quart of water is recommended by the manufacturer to be used as a vapor barrier. If applied according to directions, the material should cover 500 square feet per gallon on smooth finish plaster and 125 square feet per gallon on porous board. After the sealer has been allowed to dry for 24 hours, a finish coat of Satin Luminall is then applied. Packaged in fives, gallons and quarts, the material can be tinted and also used under other types of paint products. Luminall Paints, Dept. AB, 3717 S. May St., Chicago 9, Ill.



### ROLLER DOORS **ABB5203**

The complete roller door package has all hardware installed. The unit has two revolving roller guides operating on a head track. The weight of the roller door is supported by two vulcanized rubber rollers on the finished floor. Installed in thirty minutes, the unit uses a flush hollow core Hasko door available in a wide variety of hardwoods. Two styles and a wide variety of widths are offered to fit normal passageways, closets, or room openings. Haskelite Manufacturing Co., Dept. AB, 701 Ann St., Grand Rapids 2, Mich.

New Products continued on page 166

an **ARBORITE** kitchen



"This is the house for me," they'll say when they see your kitchens and baths beautifully finished with ARBORITE, the all-plastic pre-finished counter top and wallboard material.

A SWISH OF A DAMP CLOTH keeps ARBORITE clean and sparkling. IT'S CIGARETTE-PROOF . . . NEVER NEEDS PAINTING . . . never discolors or stains . . . is unaffected by oils, grease, household acids or alkalis. ARBORITE'S FULL DOUBLE-THICK MELAMINE PLASTIC SURFACE gives years of extra wear . . . assures permanent beauty.

and **ARBORITE** gives you easy-on-the-job installation

Your own carpenters can install it with the tools they normally carry in their tool chests using rubber base adhesives and standard trim moldings. It's the one pre-finished counter top and wallboard material especially designed to eliminate installation problems common to conventional pre-finished surfacing materials.

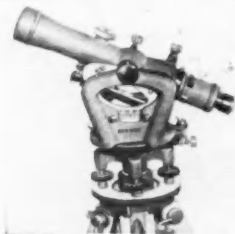
For complete information on Arborite's advantages to you, write for the 4 color Arborite folder ASL-5 today!

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SALES REPRESENTATIVE OF THE ARBORITE COMPANY, LIMITED • MONTREAL, CANADA

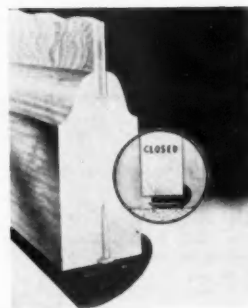
**NEW PRODUCTS**

(Continued from page 165)



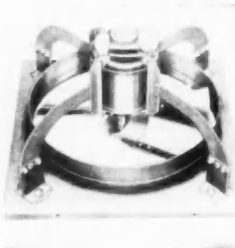
**ENGINEERING INSTRUMENTS ABB5204**

Moderately priced surveying instruments are available for builders and contractors. A convertible transit level, a heavy duty 12 inch dumpy level, a farm level, and a hand level have been added to this manufacturer's line. Though the new instruments have been simplified, the manufacturer claims they have rugged construction and are precise. C. L. Berger and Sons, Inc., Dept. AB, 37 Williams St., Boston 19, Mass.



**GARAGE DOOR WEATHERSEAL ABB5221**

Squee-Gee forms a tight weatherseal at the bottom of upward-acting garage doors, and tends to level uneven surfaces. It also minimizes danger of the door freezing to the concrete. The live rubber product can be installed on any old or new door. United Products Co., Dept. AB, 152 W. Wisconsin Ave., Milwaukee 3, Wis.



**EXHAUST FAN ABB5206**

A direct drive, vertical, propeller fan for exhaust uses has a totally enclosed motor and motor mount. The base plate and the fan blade are the only parts visible from the room. Blade sizes range from 14 to 36 inches. Delivery rates vary from 1,585 to 12,400 CFM. Herman Nelson Div., American Air Filter Co., Inc., Dept. AB, Moline, Ill.

New Products continued on page 168

AMERICAN BUILDER



Down goes the  
dead load—  
with  
Lite-Mix

Lite-Mix is a ready-mixed fibered gypsum plaster containing expanded Perlite—one of the very lightest aggregates. It needs no sand—requires only water at the job site. Lite-Mix is easier to spread—with less droppings—because it's made with Certain-teed Plastisized\* Plaster.

Besides offering a 50 per cent lighter plaster base coat, Lite-Mix provides greater insulation and higher fire resistance than ordinary sanded plasters. It's a cinch to handle, applies easily and quickly.

For lightweight walls and ceilings, Lite-Mix is *your* plaster!

\*Registered trade name of Certain-teed Products Corporation



50% LIGHTER ON THE WALL!  
LIGHTER ON THE JOURNEYMAN'S ARM!  
AND LIGHTER ON THE CONTRACTOR'S  
POCKETBOOK!



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EXPORT DEPARTMENT: 100 East 42nd Street, New York 17, N.Y.

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ACOUSTICAL TILE INSULATION FIBERBOARD

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**SONOAI RDUCT**

PAT. APP. FOR  
LAMINATED  
FIBRE DUCT

for

**PERIMETER  
HEATING LINES**



Above—Left to right, Builder Robt. Dvorak of Cleveland; James Martin, Warm Air Assn.

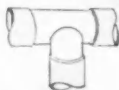
Again SONOAI RDUCT is selected by a builder who recognizes its advantages! SONOAI RDUCT was designed specifically for use in radial, loop or lateral perimeter systems, when encased in concrete, and offers large savings in time, money and labor over clay or metal pipe. 2" to 24" I. D.; up to 24' long. Saws easier than wood!

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Method  
at  
**LOWER**  
**COST!**



SONOAI RDUCT FITS ALL STANDARD METAL BENDS, ELBOWS, T'S & REGISTERS



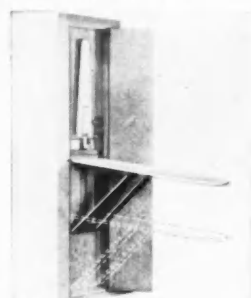
**NEW PRODUCTS**

(Continued from page 166)



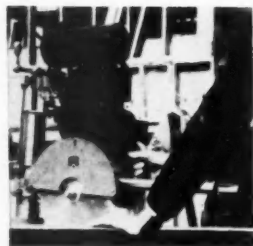
**INDUSTRIAL TOILET SEATS ABB5207**

Two popular industrial and commercial toilet seats are now available with self-sustaining hinges at no increase in price. The new friction-type hinge keeps the seat at any desired angle. The hinge does not put a strain on the bowl because it does not depend upon the tightness of the seat to the bowl. Both models are open front, extended back, coverless types. No. 5 is for regular bowls and No. 10 for elongated bowls. Swedish Crucible Steel Co., Dept. AB, 8561 Butler Ave., Detroit 11, Mich.



**ADJUSTABLE IRONING BOARD ABB5210**

While this ironing board is either in the open or closed position, it can be raised or lowered in any of 18 notches. After the positioning, it is automatically locked. A regular and sleeve ironing board are contained in the 6-foot 8-inch high, 4-inch deep, and 14-inch wide cabinet. Rieter Company, Dept. AB, Cedarburg, Wis.



**GASOLINE POWERED RADIAL ARM SAW ABB5211**

A radial arm saw powered by a gasoline engine has been developed for use in areas not served with electric power. Capable of mitering, beveling, or compound mitering, the tool takes a 10-inch blade and cuts 3/8 inches deep with 15 inch travel. It also takes a 13/16 inch dado head. R. W. Hendrick Co., Dept. AB, 11 Selman St., Marblehead, Mass.

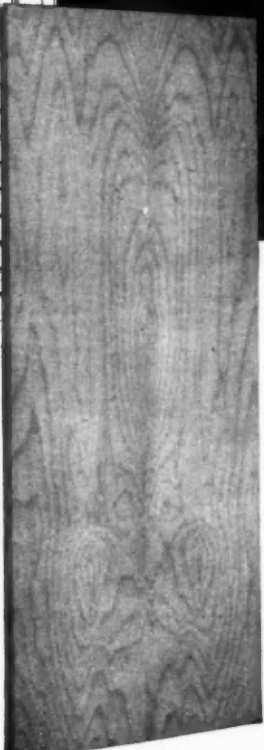
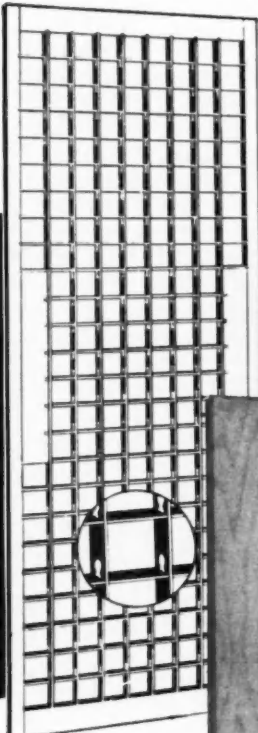
New Products continued on page 170

AMERICAN BUILDER

# here is the flush door **CORE**

with more than  
**4,000,000 SUCCESS STORIES**

*it's what's inside* that determines how well a flush door will keep its shape—and its fit. More than 4,000,000 installations, over 33 years, have proved that the Curtis New Londoner hollow-core flush door assures lasting satisfaction. Here are the "core questions" which the Curtis New Londoner answers so successfully



The faces of Curtis New Londoner flush doors are native woods especially selected for their attractive figures. Grain patterns come book-matched and in other pleasing variations. Curtis Plyneer flush doors have the same superior inner construction but faces are not matched for color or pattern. Also available—Curtis American solid core flush doors for exterior and institutional use.

- ? **Is it all wood?** The Curtis New Londoner core is made of carefully selected, properly seasoned wood. No inferior or substitute materials are used.
- ? **Is the grid properly meshed?** The mesh formed by the interlocked pine strips provides great strength—with light weight—and a perfectly flat, sturdy base for the door faces.
- ? **Is the grid locked in place?** The Curtis New Londoner door has no "floating" parts. The precision milled grid is locked into the door to form one completely joined unit.
- ? **Are stile and rail areas generous?** There's no skimping in the stiles and rails of the Curtis New Londoner door. Ample widths assure superior sturdiness.
- ? **Is structural strain eliminated?** The special method of assembling the various parts of a Curtis New Londoner door eliminates all interior structural strain—doors fit perfectly and are easier to open and close. The entire door is sealed against moisture.
- ? **Is construction balanced?** In the Curtis New Londoner door, moisture content is balanced and carefully controlled in manufacture—3-ply panels forming each face of the door mean balanced sturdiness. This construction provides full protection against sticking and warping in all climates.

**CURTIS**  
**NEW LONDONER**  
HOLLOW-CORE  
FLUSH DOORS

Curtis Companies Service Bureau  
AB-8, Curtis Building  
Clinton, Iowa

I want to know more about Curtis New Londoner hollow-core flush doors; also Curtis American solid core flush doors.

Name.....

Address.....

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

# KNOX

HOMES AND DUPLEXES USE . . .

## Dura-seal

Over 1300 homes and duplexes in the Knox Development, Augusta, Georgia, and North Augusta, South Carolina, are being equipped with Dura-seal Combination Metal Weatherstrip and Sash Balance.

Knox Corporation, as well as many other builders and architects throughout the country, use Dura-seal because it provides important sales features . . . the *best* weather protection and the *easiest* window operation. Dura-seal's complete weatherstripping saves 20% to 40% in fuel and eliminates drafts and dirt. Its four spring balances in each window (enclosed in metal housings), assure true balance and finger-tip control. And because Dura-seal is cut to the pitch of the sill—it provides a more attractive and efficient window. Consider these advantages for *your* homes!

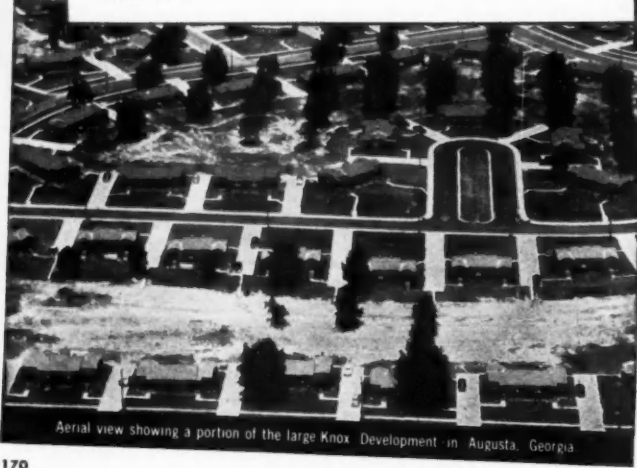
For complete information . . . see our folder in Sweet's File!

ZEGERS Incorporated, 8090 South Chicago Avenue, Chicago 17, Illinois



Dura-seal's one piece jamb member has a concave back surface, providing a desirable flexibility which maintains a constant air seal and smooth window operation even when the sash expands or contracts due to changeable atmospheric conditions.

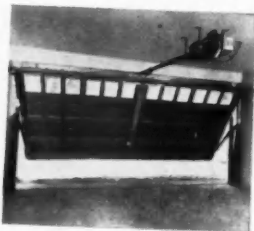
**ZEGERS**  
*Dura-seal*  
**Combination**  
**Metal Weatherstrip**  
**Sash Balance**



Aerial view showing a portion of the large Knox Development in Augusta, Georgia.

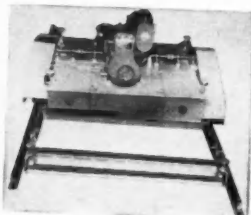
## NEW PRODUCTS

(Continued from page 168)



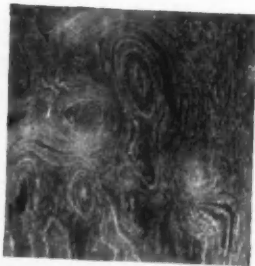
### **GARAGE DOOR CONTROL** AB85212

A remote controlled garage door operator with the starter located on the car dash is on the market. It operates on 110 volts A.C. current. The unit requires a 3- to 7-inch headroom and will operate single or double width doors. In case of power failure, a flip of the lever disengages the electronic controls and the door can be operated manually. Garage and lawn lights may be synchronized with the door control. Sterling Electronic Door Control Corp., Dept. AB, Sterling, Ill.



### **SIDEWALK PAVER** AB85213

A mechanical sidewalk paving machine capable of laying 60-inch wide sidewalks, up to 10 feet per minute, requires as few as two men. Sidewalk surface is completely finished without usual hand labor. The machine can use transit mix. Flange wheels ride on wood rails provided with the machine. Rails fit any standard steel form. Screens and trowels are available for standard curb-gutter, highway dividing curbs, highway strip widening, and the new type sidewalks and curbs. Daimar Industries Inc., Dept. AB, Room 503, Hanselman Bldg., Kalamazoo 1, Mich.



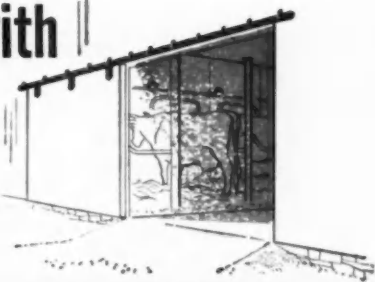
### **WOOD VENEER WALLPAPER** AB85215

Microwood is a wallpaper of actual wood veneer. A genuine wooden film is fused to a paper base. It comes in birch and beech stained to different colors and is priced the same as better quality wallpapers. It is available in rolls 27 inches wide, and 47 feet long. It can be cleaned with furniture polish. Hoenig Plywood Corp., Dept. AB, 270 Madison Ave., New York 16, N.Y.

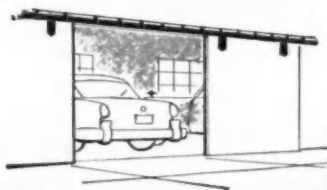
New Products continued on page 172  
**AMERICAN BUILDER**

add owner satisfaction with

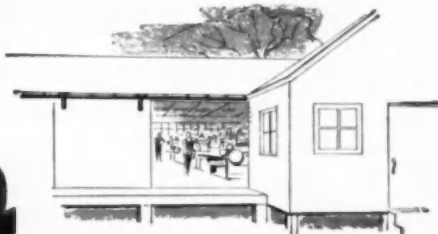
# STANLEY Hangers and Track



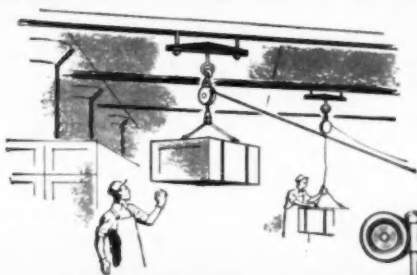
ON BARNs ...



GARAGES ...



MACHINE SHEDS ...



WAREHOUSES ...



PLANTS

Today there are as many uses for Stanley Hangers and Track as there are *types* of heavy doors. Commercial garages, machinery sheds, warehouses, industrial plants—all offer opportunities to add owner convenience and satisfaction, and build your reputation, with Stanley Sliding Door Hardware.

The frictionless hangers (ball bearing swivels, roller bearing or ball bearing wheels) coast quietly and easily under fingertip operation. The track sections are uniformly straight, and Stanley "Hold-Fast" Track Clamps bind the sections tightly into a single length of track, as required. Box track is weather-protected and dirt-shielded.

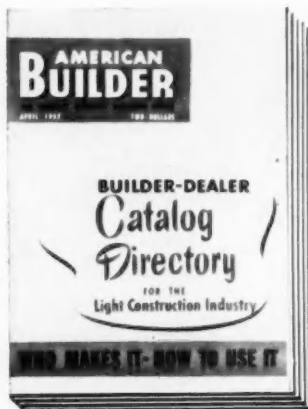
Are you specifying Stanley Door Hardware for all these commercial and industrial applications? It's easily installed (three sizes of hangers and track meet the requirements of any sliding door up to 1000 lbs.) and once it's up, it will never let you down. Get full details. Write today.

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# STANLEY

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## Save Valuable Time



Here's how to use  
your Catalog-Directory

**FIRST**—Leaf through the book from cover to cover and get the general layout in mind. This will enable you to use it sufficiently later on. The 5 Directory Sections are printed on colored stock for easy identification. If you are looking for the answer to a specific building problem, consult the index for the particular Product Reference Section you want. These sections tell you who makes it and how to use it.

### 1. Building Products and Equipment Manufacturers

An alphabetical list of products and equipment listed under appropriate titles. No cross references to delay or confuse you.

### 2. Brand Names

If you know the brand name but not the maker, you can find the name of the manufacturer here.

### 3. Names and Addresses of Manufacturers

This section completes your Buying Guide by listing the principal manufacturers in alphabetical order.

### 4. Industry and Allied Professional Trade Assns.

A valuable addition that saves you a lot of time when you want the name and address, and principal officers of local or national associations.

### 5. List of Participating Communities in 1951 National Home Week

An alphabetical list by states of communities that have taken part and cashed in on the promotional value of National Home Week. Look and see if your community is listed.



If you have a special building problem—write us. Our editors have the knowledge and experience to be of real help to you. Don't hesitate to write. No obligation, of course.

## AMERICAN BUILDER

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CHICAGO 3, ILL.

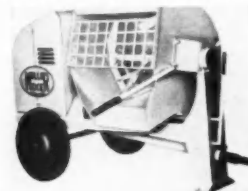
## NEW PRODUCTS

(Continued from page 170)



GARBAGE CONTAINER AB85216

The swing-away garbage container is a unit that fastens to the inside of the kitchen cabinet door. When the cabinet door is opened the unit swings out and the cover pops up automatically. When the door is closed, the cover closes tightly. A simple trip mechanism which operates the cover prevents it from striking the front of the cabinet. The complete unit is built of heavy gauge metal with the outer container painted white. Leigh Building Products Div., Air Control Products, Inc., Dept. AB, Coopersville, Mich.



PLASTER AND MORTAR MIXER AB85219

A six-cubic foot capacity plaster and mortar mixer has an everlasting shaft seal which replaces the conventional stuffing boxes and packing. According to the manufacturer the seal reduces friction loss and alleviates wear on the paddle shaft. The company guarantees the seal against replacement for the life of the mixer. Mueller Machinery Co., Inc., Dept. AB, 248 Whitman Ave., Metuchen, N.J.



UNBREAKABLE FOLDING RULE AB85218

An enameled 6-foot zig-zag folding rule, made of special hardened and tempered alloy steel, will retain its normal shape after being bent and twisted. The rule weighs 3 1/5 oz. It can be used to take inside measurements, to measure pipes, rounds, and pulleys. It can be used as a straight edge and also extends rigidly for out-of-reach measurements. The rule does not have to be folded after each use because it is unbreakable. Durall Tool Corp., Dept. AB, 117 Woodworth Drive, Yonkers, N.Y.

New Products continued on page 174

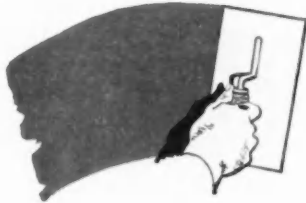
AMERICAN BUILDER

# Build in quality 2 easy ways

FOR A *double feature* THAT SELLS

## PLASTER with PERMALITE

Base coat plaster with lightweight Permalite aggregate adds built-in insulation . . . fireproofing . . . crack resistance . . . and saves up to 4 tons dead-weight in an average 5 room house. Its use means less settling and minimum maintenance, plus important fuel savings and added Winter and Summer comfort. It's the finest wall finish you can use. These important factors make a big impression on home buyers . . . make them want to buy!



## CONCRETE with PERMALITE

Concrete with Permalite aggregate gives up to 20 times more heat insulation than ordinary concrete. Use it for floor fill insulation. It screeds smooth in one operation, forms a hard surface free from flaking and provides adequate structural strength. It's a superior base for floor radiant heating system. Permalite adds much to building quality . . . little to building cost.



Permalite lightweight aggregates, rigidly controlled for uniform quality, are packed in 4 cu. ft. bags. They're convenient to store indoors, easy to handle, to mix. Meet all building code requirements. Get the full story on Permalite aggregates and how they're being used with outstanding success in houses of all sizes. Send in the coupon today.



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There's no waste with Van-Packer Packaged Masonry Chimney. Nothing can deteriorate—there's nothing else to buy. Costly man hours, space, breakage and trucking involved in handling brick chimney supplies are all avoided. Builders prefer this completely packaged chimney. Installation time is cut to a fraction . . . just three hours work or less by one man and the chimney is complete. Underwriters' Laboratories tested and approved Van-Packer All-Fuel Chimney is fire-safe with a chimney wall of insulating vermiculite concrete and fire-clay tile liner. The insulating value of the Van-Packer wall is equal to 24" of brick or 70" of ordinary concrete. F. H. A. accepted!



Nationally distributed through reliable building material jobbers and dealers. Van-Packer is available for immediate delivery. Many jobber territories still open. Write for free literature and details.

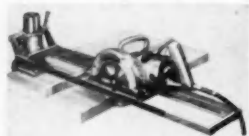
**Van-Packer**  
**CORPORATION**

Dept. 1208 • 209 S. LaSalle St., Chicago 4, Ill.

Also Manufactured and Distributed in Canada by  
C. A. McRobert and Son, Ltd., St. Laurent, Quebec

**NEW PRODUCTS**

(Continued from page 172)



**SAW GUIDE AB85220**

This new saw guide quickly converts an electric powered hand saw into a radial saw. The unit weighs 26 pounds and is easily attached to a small platform or two saw horses. With simple adjustments cross-cuts, bevel-cuts, miters, bevel-miters, rips, and bevel rips can be made. It is made for Skilsaw models 77, 825, 87, and other popular makes that have a base width of 4-13/16 to 5 1/4 inches. The saw guide has a radial range of 120 degrees, 60 to the right and left, and a bevel capacity of 45 degrees. Maximum cut-off capacity is 17 inches while the maximum ripping capacity is 28 inches. Skilsaw, Inc., Dept. AB, 5033 Elston Ave., Chicago 30, Ill.



**STEEL AND LEAD ANCHOR AB85223**

Steel supplements lead as an anchoring medium in this device which can be used wherever machine screws, stove bolts, or wood screws must be anchored in brick and masonry. The principal features are a threaded insert, lead sleeve, and a cup-shaped fluted steel anchor. When driven into place the lead mushrooms out and then the steel anchor collapses, forcing its sharp edges into the masonry and the threaded component. A tamping tool and a blow tube are available. Super Grip Anchor Bolt Co., Inc., Dept. AB, 1412 Packard Blvd., Philadelphia 2, Pa.



**DUAL WALL FURNACE AB85224**

A dual wall furnace with an output of 57,500 B.T.U. per hour is adaptable for low-cost houses with slab floors and low foundations. A continuous air circulation, high volume fan is coupled to a variable speed automatic control. With this combination, a large volume of warm air is moved to eliminate drafts, hot spots, and cold floors. Exterior panels are cool to the touch due to the large volume of air passing through the furnace. The unit can be installed in an 18-inch wall when used with a patented flue. Kresky Mfg. Co., Inc., Dept. AB, 2nd and H Streets, Petaluma, Calif.

New Products continued on page 176

AMERICAN BUILDER



# TO LIFT UP MATERIALS... LOOK UP THESE DISTRIBUTORS!

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## MULKEY COMMERCIAL PORTABLE BALANCED ELEVATORS

### MULKEY COMMERCIAL

Saves time lifting blocks, brick, roofing, lumber, dirt, sand, gravel, mar-tar, etc.

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Perfect for corrugated sheets, rigid insulation, plywood—any flat material that has to be moved to another level.

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Chertan, Inc.,  
1309 Bond Street

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Conner Equipment Corp.,  
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#### WASHINGTON, Tacoma

Rafaela Scaffolding Co.,  
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#### WEST VIRGINIA, Charleston

West Virginia Steel  
200 Brook Street

#### WISCONSIN, Milwaukee

Building Service Industrial Sales Co.,  
313 North 8th Street

#### CANADA, Toronto & Ontario

McMordern Bros., Inc.,  
15 Birch Ave.,  
Vanover, B. C.  
B. C. Tractor & Equipment,  
224 Industrial Avenue

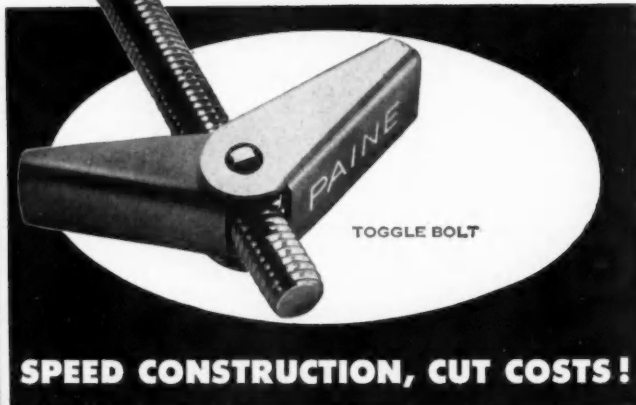
## SAM MULKEY COMPANY

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helps you



**SPEED CONSTRUCTION, CUT COSTS!**

We've made a huge investment that's for your benefit as well as ours. It's all tied up in our big new plant and facilities in Addison, Illinois, western suburb of Chicago. Your constantly increasing demand for the best in hanging and fastening devices allowed us to build this new Paine plant. You need no longer fear a shortage of easily installed, money-saving Paine products. Paine Spring Wing Toggle Bolts are a must when you are working with hollow walls and ceilings where you can't reach the other side. They provide a sure and certain fastening, reduce installation time and improve the quality of your work. Write to our new location for a complete Paine products catalog.

THE PAINE COMPANY, 7 Westgate Road, Addison, Illinois

the best craftsmen always take

**P A I N E'S**

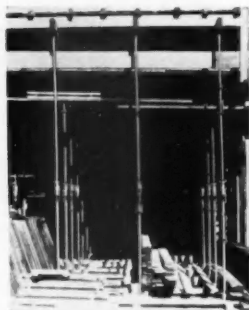
Spring Wing Toggle Bolts  
Expansion Anchors  
"Sudden Depth" Drills  
Wood Screw Anchors

Conduit Clamps  
Pipe Hooks and Straps  
Hanger Iron, perforated  
Expansion Shells

Star Drills  
Malleable Shields  
Special Hanging and  
Fastening Devices

## NEW PRODUCTS

(Continued from page 174)

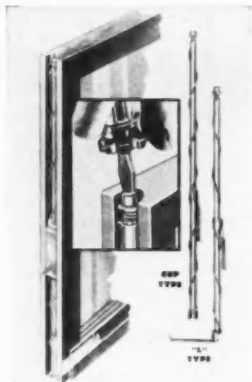


### TELESCOPING STEEL SHORE ABB5225

This self-contained, telescoping steel shore is handled by one man and permits micro-adjustments of five feet. Three sizes cover a range from six feet to 15½ feet above the mounting surface. Height ranges in the three sizes are 6-11 feet, 8-13 feet and 10½-15½ feet. Load capacities are as high as 9,900 pounds with an adequate safety factor. Safway Steel Products, Inc., Dept. AB, 6234 W. State St., Milwaukee 2, Wis.

### FOLDING RULE ABB5205

The Guardsman Rule reduces moisture damage that attacks the wood at the clamp seat, which, according to the manufacturer, is the cause of most folding rule failures. A point, developed by the company, is applied after rule is bored but before the clamp is attached. The point does not puddle in the clamp seat and friction tests show that the three coats have stood up for the equivalent of ten years' wear. Master Rule Manufacturing Co. Inc., Dept. AB, 40 Mulberry St., Middletown, N. Y.

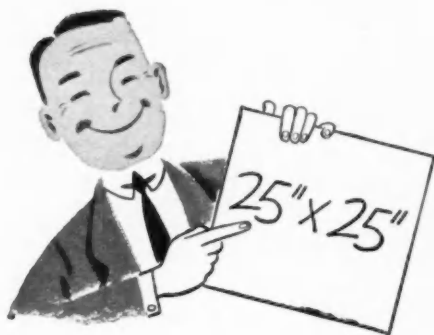


### SASH BALANCE ABB5226

This is a completely concealed sash balance that can be adjusted with an ordinary screw driver at any time during or after installation without removing screws or detaching the balance from the sash. The balances are manufactured to fit a wide variety of sash sizes and weights. The Turner and Seymour Manufacturing Co., Dept. AB, Lawton St., Torrington, Conn.

New Products continued on page 178

AMERICAN BUILDER



**OPC-75H**—Especially designed for utility room, alcove, closet and basement installation . . . wherever space is limited. 67½" high, takes only 25 x 25 in. floor space.

*Meet the new*

## Delco-Heat Oil-Fired Conditionairs!

**OPC-75LD** — Ideally suited for basement installation. Blower filter unit is enclosed in cabinet housing. 49" high, takes 25 x 42¼ in. floor space.



**OPC-75HR** — Popular counterflow model for homes without basements. Features a downward flow of air into ducts installed in concrete slab or below the floor. 72¼" high, takes only 25 x 25 in. floor space.

**Greater eye appeal! More compact!**  
**"Packaged" for easier handling**  
**and quicker installation!**

Here they are — newly styled for greater eye appeal, the Delco-Heat OPC-75 series Conditionairs. Completely automatic, oil-fired forced warm air furnaces . . . designed and engineered especially to meet the space-saving requirements of today's popular-sized home.

With an output rating of 75,000 Btu per hour, these units are "packaged" — for quicker, less expensive installation.

Streamlined jackets have new eye-appealing smartness that gives the entire heating "package" greater sales appeal. Built-in quality, General Motors' manufacturing experience and low competitive prices make these Delco-Heat OPC Conditionairs your best heating equipment value. See or phone your nearest Delco-Heat distributor, or write for complete information.

GENERAL MOTORS  
**DELCO-HEAT**

For complete specifications and details on the new OPC-75 Conditionairs, write Dept. AB, Delco Appliance Division, General Motors Corp., Rockster 1, N. Y.

**For a good deal**  
**DEAL WITH DELCO**

## NEW PRODUCTS

(Continued from page 176)



### COMBINATION TOOL SET ABB5227

The set consists of six auger bits and three chisels in a cherry wood case. The Acrobare auger bits are in  $\frac{1}{8}$ ,  $\frac{3}{16}$ ,  $\frac{1}{2}$ ,  $\frac{5}{8}$ ,  $\frac{3}{4}$ , and one inch sizes. The Witherby woodchuck chisels are in  $\frac{1}{2}$ ,  $\frac{3}{4}$ , and one inch sizes. The case when opened reveals each tool in its own individual recess. John H. Graham and Co., Dept. AB, 105 Duane St., New York 8, N.Y.



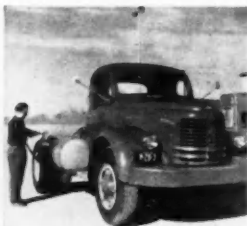
### BUILDER'S HARDWARE ABB5208

Five builder's hardware items are now being made in pressure-cast aluminum. The line includes door stop, sash fastener, coat and hat hook, bar sash lift, and a hand rail bracket. The manufacturing process gives the products a smooth finish, strong, durable, and rust-proof. Attractively styled and economically priced, the items can be supplied either in satin aluminum or burnished brass. The American Hardware Corp., Dept. AB, New Britain, Conn.



### MODULAR DOUBLE-HUNG WINDOW ABB5228

This modular weather stripped window features removable sash. Shipped knocked down it contains a spring screw assembly device which firmly anchors the friction pressure-type weather strip. A slight turn on the screw adjusts the metal strip to the requirements of the frame and sash. Stock sash, screens and storm windows are available. The frame can be adapted to walls of varying thicknesses. The unit is treated for water repellent qualities. The Malto Manufacturing Co., Dept. AB, Malto, Ohio.



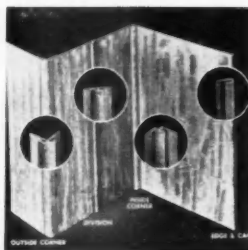
### LPG TRUCKS ABB5229

Production has been started by Reo on a series of liquid petroleum gas (LPG) trucks and engines. Advantage of the 142-H.P. engine is that it utilizes fuel which, countrywide, averages about five cents less per gallon than gasoline. The LPG series covers a wide weight range, from 20,000 pounds, gross weight, as a truck, to 40,000 pounds as a tractor. Wheel bases range from 130 to 203 inches. In addition, the LPG engine is being offered as a replacement power plant for all trucks regardless of make. Reo Motors Inc., Dept. AB, 1331 S. Washington St., Lansing 20, Mich.



### PLASTIC PANELING ABB5230

A plastic wall panel, moistureproof and with a high fire resistance, is made of hard surfaced material for use on both kitchen walls or counter tops. No adhesives or bracing are used in the installation. Edges are held by moldings and a surface stress built into the panels makes them hug the surface. Simple moldings hold the material against the wall or studding. Ordinary wood working tools can be used in the installation of the material. Panelyte Div., St. Regis Paper Co., Dept. AB, 230 Park Ave., New York 17, N.Y.



### MATCHING MOULDINGS ABB5231

Moldings of extruded aluminum with a plastic laminated surface are used to achieve a continuous wall pattern with no noticeable break between panels. This solid wall method eliminates the need for use of different moulding materials which interrupt the continuity of wood grained panels, states the manufacturer. The moldings are produced to fit the company's  $\frac{1}{4}$ -inch-thick Lamidall panels. Woodall Industries, Inc., Dept. AB, 3500 Oakton St., Skokie, Illinois.



### LIGHTWEIGHT SCAFFOLD ABB5232

A lightweight, walk-through scaffold end frame has been designed for the plastering and stucco trades. Testing results have shown the new end frame to be especially effective in cases where workmen must move freely under the scaffold area. All-steel and all-welded, the tubular end frames have a height of 6 feet 6 inches and are available in three and five foot widths. Floating coupling pins and speed locks are standard equipment. Wilson-Albrecht Co., Inc., Dept. AB, 3565 Wooddale Ave., Minneapolis 16, Minn.

### USE THIS COUPON FOR MORE INFORMATION ON NEW PRODUCTS IN THIS ISSUE

Save Time—Just Insert Key Numbers and Mail To:  
American Builder, 79 W. Monroe Street, Chicago 3, Illinois

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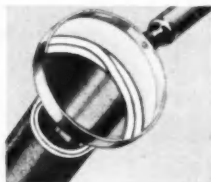
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When you address inquiries direct to manufacturers concerning a new product described here, please mention that you saw it described in American Builder



After effortless mounting by just two men, lightweight coils of Bundyweld Tubing are easily soft-soldered into leakproof union. Expanded ends speed joint making.

## A new competitive edge, a new sales feature in Bundyweld Ceiling Radiant Heating



### Key to Low Cost

Bundyweld is the only tubing double-walled from a single strip. It's steel, copper-coated inside and out. It gives finest radiant heating performance, with savings up to 50% on material costs and installation time.

Standard 20' or 24' lengths of Bundyweld are easily formed into coils in shop or on job site. Expanded ends (furnished when specified) are quickly soldered into leakproof union. Joined, lightweight coils are easily mounted onto ceiling, quickly plastered over.

Put your houses years ahead of competitive houses.

Give them the extra sales appeal of Bundyweld Ceiling Radiant Heating—today's fastest-growing, most practical heating method.

More and more prospective home buyers and home builders are inquiring about its lower operating costs, healthfully moderate air temperatures, absence of dirt-catching radiators and registers, streak-free walls and ceilings,

unlimited choice of flooring materials.

Proof? Bundy ads in *Better Homes & Gardens* and *American Home* bring coupons from thousands of people wanting the full story on Bundyweld Ceiling Radiant Heating *plus* names of architects and builders installing it.

Why not turn this growing demand to advantage in your own houses? Send the coupon today for more details on Bundyweld Ceiling Radiant Heating and Bundyweld Tubing.

Radiant Heating Division  
BUNDY TUBING COMPANY  
Detroit 14, Michigan

SEND TODAY!  
FREE!



Bundyweld  
Ceiling Radiant Heating

Radiant Heating Division, Dept. AB-852  
Bundy Tubing Company, Detroit 14, Michigan

- Send free 20-page non-technical brochure explaining Bundyweld Ceiling Radiant Heating.
- Send Bundy technical radiant heating pamphlet.

Name \_\_\_\_\_ Title \_\_\_\_\_

Company \_\_\_\_\_

Address \_\_\_\_\_

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

## FACTS FOR BUILDERS

ABOUT "CONSTRUCTION BY ADHESION"

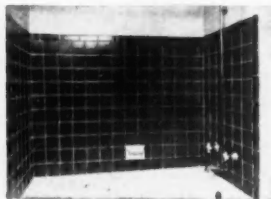


HERE ARE NEW METHODS WHICH  
MEAN SUBSTANTIAL SAVINGS IN LABOR AND  
MATERIALS FOR MODERN CONSTRUCTION

in both **NEW** building and **MODERNIZATION**

WRITE TODAY FOR RECOMMENDED SPECIFICATIONS ON

1. Setting Genuine Clay Tile. 2. Insulating Ducts. 3. Insulating walls and ceilings either by Direct Adhesion or in conjunction with Surface Anchors. 4. Installing floor runners; bonding furring strips.



1.

Today it is normal procedure to install clay tile in hotel bathrooms without losing a night's revenue. This illustration shows one of the 3-14 rooms in the White Plaza Hotel, Dallas, Texas, in which MIRACLE ADHESIVE was used to do the job from the time the guest left his room in the morning until he returned that afternoon.

2. Plaster applied over wire and cork which has been attached to aluminum ducts using MIRACLE ADHESIVE and MIRACLE SPINDLE ANCHORS at John Hancock Mutual Life Insurance Co. Building, Boston, Mass. ARCHITECT, Crown and Ferguson BUILDER, Turner Construction Co.



3.

FIBERGLAS Insulation Type PF-613, 2" thick — bonded to concrete ceiling using MIRACLE FIBROD ANCHORS at Radio City Studio 68, New York, N. Y. CONTRACTOR, William J. Scully, Inc., New York, N. Y.

4. WOOD RUNNERS installed on concrete floors with MIRACLE ADHESIVE and MIRACLE ANCHOR NAILS to support 2" solid partitions, Washington Circle Apartments, Washington, D.C. GENERAL CONTRACTOR, Charles N. Tompkins Company.



VISIT MIRACLE EXHIBIT AT ARCHITECTS SAMPLES CORP.  
101 PARK AVE., NEW YORK CITY

Distributed Coast to Coast—and in Canada

## Catalogs —

and Manufacturers Literature

261—**BOLT CUTTERS**—Reversible jaws in this bolt cutter are explained in a two page folder. When the first set of blades becomes dull they can be exchanged. The second page describes a hand-operated hydraulic cutter. The hydraulic unit is 21 inches long and weighs 12 pounds. It can cut 1/2-inch reinforcing rod and is capable of exerting up to 10 tons thrust. Manco Mfg. Co., Dept. AB, Bradley, Ill.



262—**AWNING WINDOWS**

—Information desired by architects and builders on these windows along with tips on how to obtain the utmost in window performance, are graphically illustrated in this booklet. The standard rules have been reduced to a ten point check list. The booklet, entitled "What Is Important In A Window," is available from Auto-Lok Wood Windows, Ludman Corp., Dept. AB, Box 4541, Miami, Fla.



263—**PORTABLE VISE**—

A four page folder explains the portability and the mustal tasks that can be performed by the multi-vise. The unit is all steel and weighs 28 pounds. It has a 360 degree vertical swivel, a horizontal swivel, or a double horizontal or vertical swivel. The unit can be removed from the bench plate and carried to another location or used as a clamp without the bench plate. Jaw capacity is 6 inches square or 5 3/4 inches round. American Implement Co., Dept. AB, 2523 Taylor St., Omaha, Nebr.



264—**LAMINATED WOOD MEMBERS**—

A 16-page catalog on glued laminated wood structural members has practical information for builders. Included are laminated arches, trusses, and beams for the construction of churches, gymnasiums, hangers, stores, warehouses, factory buildings, and one-story schools. Many details and charts on the uses of the products are included. Rilco Laminated Products, Inc., Dept. AB, First National Bank Building, St. Paul 1, Minn.



(Continued on page 182)

AMERICAN BUILDER



*"That's the insulation we want in our house!"*

**Wise the builder who provides it!**

For Fiberglas\* Building Insulation is a feature you can use to sell more homes . . . more profitably. A feature which will soon be even more valuable to you.

For—starting September 2—that genial, red-headed, CBS super salesman, Arthur Godfrey, is telling Mr. and Mrs. America about the comfort-making and fuel-saving advantages of Fiberglas Insulation via 186 radio stations . . . 29 TV stations . . . and big color ads in BETTER HOMES AND GARDENS.

Already the best known and most widely accepted insulation, still more prospects will soon be looking for it in the homes they buy. So

standardize upon Fiberglas for all your projects!

With this superior insulation, you get much more than just a selling feature. You save labor costs, too. For due to the long, compression-packed rolls, Fiberglas is easier to handle, faster to install, more economical to store. And the FHA-approved vapor barrier is self-contained.

So it pays both you and the buyer to provide the finest insulation available. Buy it from the dealers of these industry leaders:



ADAIRSON-COX CO.  
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THE ALINTEX COMPANY  
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**INSULITE**



INSULITE AND  
SHAW-WALKER CO.  
Minneapolis, Minn.



KEILEY ISLAND LUMBER & SASH CO.  
Cleveland, Ohio

Owens-Corning Fiberglas Corporation, Department 62-H, Toledo 1, Ohio.



OWENS-CORNING  
**FIBERGLAS**

\*Fiberglas is the trade-mark (Reg. U.S. Pat. Off.) of Owens-Corning Fiberglas Corporation for a variety of products made of or with fibers of glass.

Listen to "Arthur Godfrey Time" yourself. You'll enjoy it.

*is in your life..for good!*

## Catalogs (Continued from page 180)

**265—FLOOR MAINTENANCE**—This twelve page booklet is a practical guide on the care, cleaning, and refinishing of all types of floors. Information covers, asphalt, cork, concrete, linoleum, magnesite, marble, rubber, terrazzo, and wood floors. In each case the booklet tells what procedure does the best refinishing job. The booklet is especially helpful to those builders doing remodeling work. A. C. Horn Co., Inc., Subsidiary of Sun Chemical Corp., Dept. AB, Long Island City 1, N. Y.



**266—STEEL BUILDINGS**—This brochure describes prefabricated sectional type steel buildings. Designs are multiples of two feet, beginning at six feet and extending up to eighty feet; height of the panels varies from eight feet up to thirty feet. Size, quantity, and location of windows are optional. Many details are included in the booklet. Geo. L. Mesker Steel Corp., Dept. AB, 400 N.W. First St., Evansville, Ind.



**267—FORM FREE DECORATED CLAY WALL TILE**—"Unlimited Decorative Opportunities at Your Fingertips" is a colorful, eight-page folder describing a line of clay wall tile in 6x6-inch size. The booklet has full color illustrations of the patterns and the flexibility of design. Many black and white sketches illustrate the unusual decorative effects achieved with this wall surface material. The Mosaic Tile Co., Dept. AB, 1949 Pershing Ave., Zanesville, Ohio.



**268—MERCURY SWITCHES**—A 64-page catalog shows the Mercoid Company's full line of mercury switches. With each mercury device is a photograph, a complete description of its use, and charts on what size best fits the need. Wiring diagrams for thermostats and various conversion tables are included in the catalog. A complete list of control applications and products best suitable for different jobs is included. The Mercoid Corp., Dept. AB, 4201 Belmont Ave., Chicago 41, Ill.



### DON'T LET "RUST-MEASLES" RUIN THE HOMES YOU BUILD

NEVER-STAIN ALUMINUM NAILS will NOT rust or streak. They offer low-cost insurance against premature repainting or redecorating—thereby saving your clients from \$300 to \$500. Ordinary nails will cause unsightly rust stains and streaks to mar the beauty of the homes you build.

Protect the homes you design and build—specify and insist on  
**NEVER-STAIN ALUMINUM NAILS**

COST FOR THE AVERAGE HOME LESS THAN \$1.00

NEVER RUST, STREAK OR STAIN PAINTED SIDING—SAVE COSTLY PRE-MATURE REPAINTING

NO COUNTERSINKING OR PUTTYING A \$40 TO \$60 SAVING

POSITIVE PROTECTION FOR WOOD & INSULATED SIDING CEDAR & ASBESTOS SHINGLES

## NEVER-STAIN ALUMINUM NAILS

**NICHOLS WIRE & ALUMINUM CO.**  
Dept. AB 1, Davenport, Iowa  
YES! I'm interested in Never-Stain Aluminum Nails. Send me free samples. I am:

Please Check  Prospective Home Owner  Now Own My Home  
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Ever Get a NAIL by MAIL?

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Bradley Refinement  
Helps You*

SUPERIOR  
MANUFACTURE in  
CUT-TO-LENGTH  
INTERIOR TRIM,  
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FINISH, JAMBS



*Each Item of  
Soft Textured . . .*



## ARKANSAS SOFT PINE

Here's a mill refinement that contractors and builders are going for in a big way. It saves you time and labor costs, because the material is installed with a *minimum amount of cutting and fitting*. It supplies the finest quality, because it is Arkansas Soft Pine Satin-like Interior Trim, the woodwork that *stays put* and holds applied finishes *permanently*, free from raised grain or discoloration.

Related Bradley Arkansas Soft Pine products

are: wall paneling in Early American pattern; glued-up stair treads, risers and soft textured framing.

All Bradley products are readily available at your favorite lumber dealer's. He can also supply you with Bradley Oak flooring in our exclusive "Straight-line" strip,\* Unit Wood Blocks\* and Random Width Oak Plank, each unfinished or prefinished with our super-fine penetrating seal and heavy-bodied wax.

\* Also produced in  
Beech and Pecan

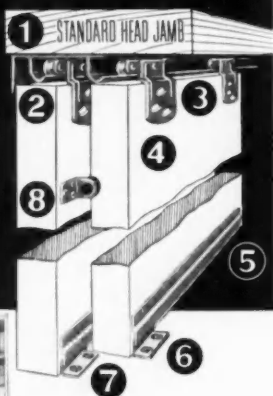
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WARREN, ARKANSAS

# Here's Why

**LEADING ARCHITECTS AND BUILDERS use and recommend**

**Sterling**  
600 SERIES  
**SLIDING DOOR HARDWARE**



**Saves Time! Saves Money!**

**Easy to Install and Adjust!**

- 1 **USE STANDARD DOOR FRAME.** No special header construction needed. No grooving!
- 2 **APRON CONCEALS HANGERS AND TRACK.** May be painted if desired. No extra trim necessary.
- 3 **ONLY ONE INCH HEADROOM REQUIRED.** No need for extra headroom for hardware.
- 4 **ADJUSTABLE HANGERS.** Slotted screw holes make it easy to plumb door with jamb.
- 5 **GUIDE STRIPS** eliminate troublesome grooving of doors. Not visible from the outside.
- 6 **DOOR GUIDES** can be installed after doors are hung. Slotted screw holes permit easy adjustment.
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- 8 **DOOR STOP** keeps flush pull on rear door always accessible. Fingers can't get pinched.

Write for Catalog on Sterling line of Sliding Door Hardware for wardrobes, pocket doors, side doors in home garages and other Sterling products.



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★ Visit our Display at... The Architects Samples Corp., New York City



**STERLING HARDWARE MANUFACTURING CO.**

2345 W. Nelson Street

Chicago 18, Illinois

## Catalogs

(Continued from page 182)

269—**HARDBOARDS**—A guide for the application and finishing of Masonite hardboards used in construction and remodeling. The book is well illustrated with many details on uses of the product. Masonite Corporation, Dept. AB, 111 W. Washington St., Chicago 2, Ill.



270—**SERIES SYSTEM RADIANT HEATING**—Substantial savings on piping costs can be realized when installing a series loop system of hot water heating. Diagrams and cost comparison charts are available in this two-page folder. Three forced hot water systems are compared cost-wise. Radiant Baseboard Panels, Inc., Dept. AB, New Britain, Conn.

271—**LOW-COST HOUSING**—A booklet has been prepared to show builders interested in low-cost housing a unit which can be built in Texas for \$3,000. The 600-square-foot home is presented with full working charts and step-by-step directions for its erection, subcontracting, financing, and merchandising. The kit is sold by the Lumbermen's Association of Texas, Dept. AB, Second National Bank Building, Houston 2, Texas.



272—**LOW-COST ROUTER**—The tool is explained in a two-page folder. It can be used by the building professional or the amateur craftsman. Uses for the tool are door and lock mortising, grooving for weather stripping, cutting of electric outlet holes, and shaper work. Also available is an attachment for straight line routing, and converting it to a shaper. The Dumore Co., Dept. AB, 1300 17th. St., Racine, Wis.

### SERVICE COUPON—CLIP and MAIL to CHICAGO

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August, 1952

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AMERICAN BUILDER

Picture your pride and profit when you build with  
**REYNOLDS** *Lifetime* **ALUMINUM**  
**BUILDING PRODUCTS**



For superior residential casement, fixed and picture windows, awning windows, double-hung windows...send for the complete Reynolds catalog.



Reynolds Lifetime Aluminum Gutters come in Ogee and Half-Round styles, smooth or stipple finish.



Reynolds Aluminum Reflective Insulation gives high efficiency without bulk. Perfect vapor barrier. In rolls of 250 square feet, 25", 33" and 36" wide.

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You gain in both with Reynolds Aluminum Windows . . . visibly superior in their satin finish, in their careful assembly of Reynolds own extruded shapes. Casement Windows with flash-welded corners for greater rigidity and weathertightness. Awning Windows with Auto-Lok hardware. Double-hung Windows, precision balanced.

You'll point with pride, too, at Reynolds Lifetime Aluminum Gutters and Downspouts . . . non-staining, non-rusting. And you'll note, on the profit side . . . lowest cost of any rustproof material . . . easy application without soldering.

Add the invisible but potent magic of Reflective Insulation and you will have used, wisely, the material in tune with our times...aluminum.

Write for literature. Mail the coupon. Reynolds Metals Company Building Products Division, Louisville 1, Kentucky.

IF YOU SEE THIS  
 YOU KNOW IT'S REAL  
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Military demands for aluminum limit supply of these products, but Reynolds is rapidly expanding aluminum capacity. Keep checking your supply source.

**Reynolds Metals Company  
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 2003 South Ninth St., Louisville 1, Ky.**

**Please send full information on**

- Windows  Gutters  
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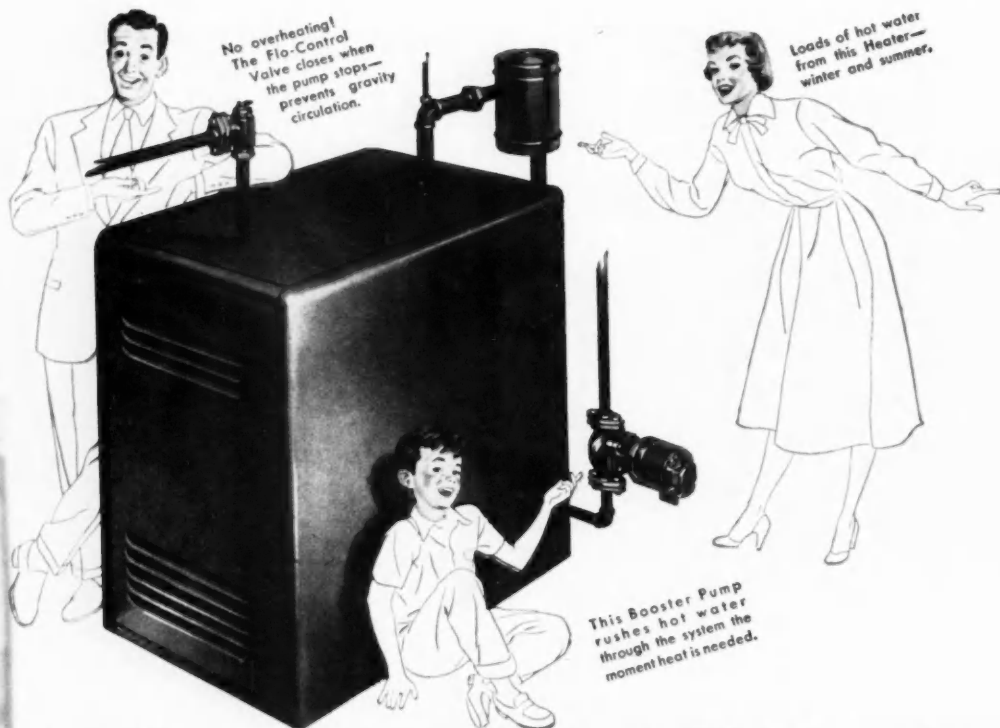
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# REYNOLDS ALUMINUM

"The Kate Smith Evening Hour" on Television, Wednesdays-Tallulah Boghead in "The Big Show" on Radio, Sundays-NBC NETWORKS

AUGUST 1952

183



No overheating!  
The Flo-Control  
Valve closes when  
the pump stops—  
prevents gravity  
circulation.

Loads of hot water  
from this Heater—  
winter and summer.

This Booster Pump  
rushes hot water  
through the system the  
moment heat is needed.

## The ABC's of B & G Hydro-Flo\* Heating

Your choice of these radiant heating units



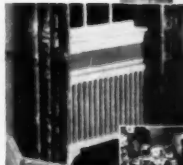
Convectors

Convectors are modern, remarkably inconspicuous heating units. When recessed, the front panel may be painted or papered.



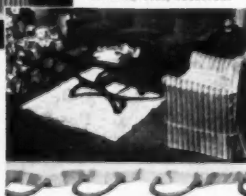
Radiators

Clever stylists and engineers have made amazing improvements in the radiator's appearance and efficiency. Modern radiators can be completely recessed.



Radiant Panels

With radiant panels, the system is completely concealed. Heated water circulates through pipe coils in floor or ceiling.



A simple explanation of why this forced hot water system provides so much comfort on so little fuel

The B & G *Hydro-Flo* System is really amazingly simple, considering the supreme comfort it gives. The three basic pieces of equipment can be installed on any hot water heating boiler.

First, the Booster Pump. When the thermostat calls for heat, the Booster rushes hot water through the system. Heat is supplied instantly . . . and smoothly modulated to meet every change in outdoor temperature!

That's why B & G *Hydro-Flo* Heating costs so little to operate. It matches fuel consumption to weather conditions.

Next, the Flo-Control Valve. It shuts off circulation when there is no call for heat. This prevents overheating—helps keep indoor temperatures uniform at all times.

And finally, the Water Heater—heated by the same boiler that heats the house, in summer as well as winter. It provides a virtually inexhaustible supply of really hot water—all you need for *dishwashing, showers, baths and automatic clothes washers!*



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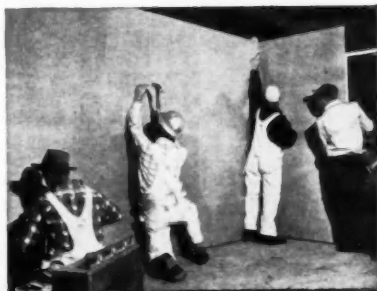
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\*Reg. U. S. Pat. Off.

IT'S GPX 60/60  
FOR "PIONEERS"  
OF THE NEW  
NORTHWEST



## 'FARM-IN-A-DAY' FEATURES LIVABILITY PLUS GPX UTILITY



Used for utility building walls, GPX plastic-faced plywood offers the qualities of protection, strength, and light maintenance to clean and repair surfaces.



GPX plastic-faced plywood and drawer fronts offer strength, moisture resistance and light maintenance to clean and repair surfaces. Built to stand the rough wear and tear of farm life.

Here's news of interest about GPX for every dealer, builder and contractor interested in faster completions and lower costs. To celebrate the completion of the Columbia Basin irrigation project a complete farm was built in a day on May 29th.

While the erection of a seven-room home and farm buildings in a day's time was done as a stunt, it represented careful planning by a Washington state committee of the A.I.A. They designed a home ideal for the pioneers of the "basin," combining livability and economy and built to stand the rugged extremes of weather.

GPX 60/60 General Use Grade was specified to line walls of the utility room, for cabinet doors, drawer fronts, etc. Post and beam construction, sheathed and paneled throughout with Fir plywood was used, with GPX plastic-faced plywood being used where extreme ruggedness and beauty was called for.

This application gives only an indication of the hundreds of possibilities where GPX can be used to provide better appearance, lower cost and minimum upkeep. See your dealer about GPX, or send for the GPX descriptive folder.



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smart designs . . .



quality construction . . .



## **BUILD SALES** . . . *for National Dealers!*

You will sell National Homes easier because Nationals lead in eye appeal and in value. A striking example is the new, three-bedroom Saratoga design house shown above. It will pay you to investigate the fine profit possibilities National Homes offers franchised dealers. Write today for information.



**LATEST CATALOG FREE**—Write on your business letterhead for your copy of this beautiful, 4-color cover catalog . . . Complete array of National's floor plans, exteriors, features. No obligation.

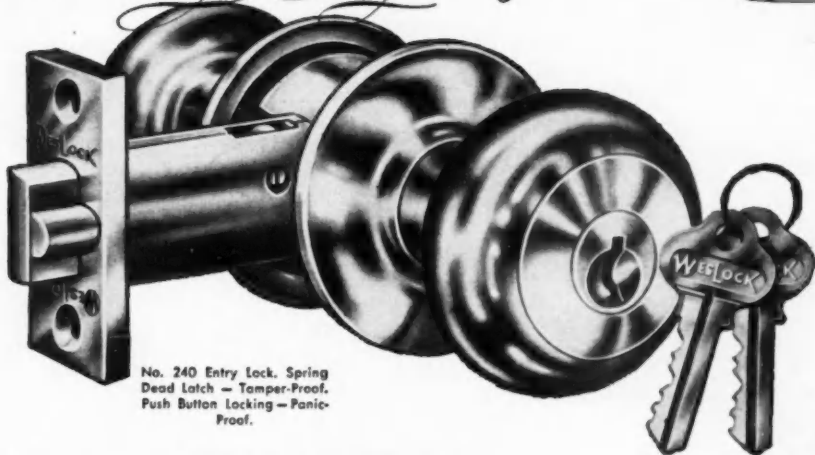
**NATION'S LARGEST PRODUCERS OF  
QUALITY HOMES AT THRIFT PRICES**

188



**AMERICAN BUILDER**

# Smartly Styled



No. 240 Entry Lock. Spring Dead Latch - Tamper-Proof. Push Button Locking - Panic-Proof.

## ...FOR EVERY DOOR IN THE HOUSE

ACCEPTANCE of WESLOCKS by architects, builders and lending institutions for use on many of the nation's largest building projects is evidence of the outstanding values the line offers. For example, all WESLOCKS

have an easy spring latch with a light spring for the bolt and heavy-tension knob return—a feature found only in the most expensive

locks. Also, WESLOCKS have key-in-knob construction, 5-pin

tumbler locking mechanism for maximum security, split spindle, independent knob operation, factory assembled

units, self-aligning feature and a wide choice of handles, ornamental escutcheons and finishes.

Best of all, WESLOCKS are priced to

meet the most modest budgets. Truly, they offer

you the best hardware value at any price.

Send today for catalog.



Another WESLOCK installation. Park Forest, Illinois. Contains a total of 3,010 apartments, 5,000 homes, a shopping center and light industrial area.

living units are WESLOCK equipped.

Architects: Loebel, Schlossman & Bennett  
Chicago, Ill.

Builder: American Community Builders, Inc.  
Chicago, Ill.

Hardware Contractor: Schuham Hardware  
Co., Chicago, Ill.

# WESTWOOD

MANUFACTURING CO.

P.O. Box 2261, Terminal Annex  
Los Angeles 54, California





ONLY **Ramset**  
**JOBMASTER**  
 OFFERS  
 NEW **10** STAR  
 VALUES

Latest RAMSET SYSTEM development adds new ease, speed, utility and economy for most fastening jobs in steel and concrete.

See the new RAMSET JOBMASTER in action. Compare the 10-star values with any other method or tool. Watch how the JOBMASTER seats a Tru-Set stud or drive pin instantly—better, stronger, straighter, with far less effort. Operates with one hand when necessary.

Be sure also that you use only Tru-Set Fasteners, guided straight to the work by the exclusive, elasticized Red-Tip Pilot. At their new, lower prices, Tru-Set Fasteners give you the biggest dollar-for-dollar value.

Ask your dealer or write us for factual proof of how RAMSET SYSTEM cuts fastening costs.

**Ramset Fasteners, Inc.**  
 12117 BEREA ROAD • CLEVELAND 11, OHIO

Product Patent No. 2470117. Other Patents Pending.



**★ 10 STAR VALUES**

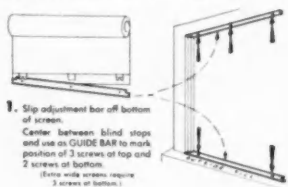
1. **One-Piece Tool**—opens fast for easy loading.
2. **Trigger Action**—one-hand operation if needed.
3. **Visual-Check Button**—instant check for operating position.
4. **Gas Diverter**—more consistent penetration—protection to work surface.
5. **Angle-Fire Control**—to assure perpendicular penetration.
6. **Manual Safety Control**—locks tool into inoperative position.
7. **Finger-Grip Handle**—firm holding with comfort.
8. **Neoprene Grip**—fitted to the hand.
9. **Barrel Extension**—in handle for quick use.
10. **Roto-Set Safety Shield**—for easy, accurate positioning.

**How to Install Tension Screens**

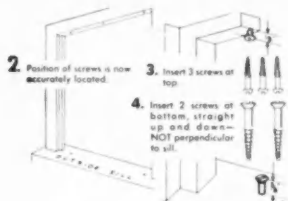
Aluminum tension screens have been showing an increased popularity with builders, particularly in the South and on the Pacific Coast. Advantages claimed by manufacturers for this type screen include lower installation cost, no painting required and admittance of more light.

A tension screen consists of a top and bottom bar of metal, with screen cloth in between. The top bar is usually held in place with three wood screws or sliding catches. The bottom bar incorporates an adjustment designed to keep the screen under sufficient tension to fit the special selvedge against the blind stop.

The screen swings out of the way for window washing when the bottom bar is released. The top bar is also easily detached so that the screen may be rolled up for convenient winter storage. Installation steps are shown in diagrams below.



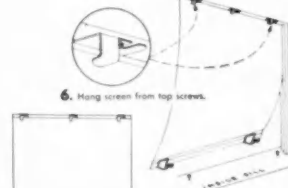
1. Slip adjustment bar off bottom of screen. Center between blind stops and use as GUIDE BAR to mark position of 3 screws at top and 2 screws of bottom. (Extra wide screens require 3 screws at bottom.)



2. Position of screen is now accurately located.

3. Insert 3 screws at top.

4. Insert 2 screws at bottom, straight up and down—NOT perpendicular to sill.



6. Hang screen from top screws.



5. Replace GUIDE BAR.

7. Slip bottom clips over screen.

9. Push GUIDE BAR down to meet sill.

8. Tighten bottom screws to adjust tension.



Courtesy the Rudiger-Lang Co.  
**AMERICAN BUILDER**



# Greatest Advertising Campaign IN APPLIANCE HISTORY...



## Helps Builders Sell Westinghouse-Equipped Homes Faster!

The greatest single, concentrated advertising campaign in appliance history is creating unprecedented desire for Westinghouse Appliances... and for new, Westinghouse-equipped homes.

Day after day, night after night, Westinghouse-sponsored broadcasts and telecasts of the political conventions over CBS have reached more prospects than ever before... a full year's commercials concentrated in one month.

Your house prospects have seen and heard these hard-hitting commercials. They have seen Betty Furness demonstrate the advantages of Westinghouse Appliances...and they want them!

Get on the Westinghouse band wagon and install Westinghouse Appliances in your houses. Cash in on this great advertising campaign that continues on through the presidential election.

**WESTINGHOUSE ELECTRIC CORPORATION**  
Electric Appliance Division • Mansfield, Ohio

### A FULL LINE OF ELECTRIC APPLIANCES, MODELS AND SIZES



FROST-FREE •



VENT FAN •



LAUNDROMAT •



DRYER •



ELECTRIC SINK •



WATER HEATER •



WASTE-AWAY® •



RANGE

\*T. M. U. S. Patent Issued: Nos. 2,459,173 and 2,324,309

... of course, it's electric!

YOU CAN BE SURE .. IF IT'S **Westinghouse**



Chet Bojarski, right, owner of Bojarski Bros., builders, talking over the Klingaman Electronic Moduflow job with Honeywell salesman John Nankercis

## “Electronic Moduflow is the perfect control system for ranch-style homes”

says Chet Bojarski, rising young Gary, Indiana, builder

“Custom-built ranch homes with radiant heating are my specialty. And I draw Honeywell Electronic Moduflow into the plans of every one of them.

“I’ve found the two go hand in hand. Together they make the perfect home heating team.

“Moduflow takes care of the rather slow response characteristic of radiant heating. It is able to do this because it has a special thermostat—the Electronic Weathercaster—mounted *outside* the house. The Electronic Weathercaster detects and responds instantly to changes in the outside temperature, sending signals to the heating plant inside. The heating plant is thus warned *ahead* of time.

“That well-known, overall time lag always present in mechanical controls does not exist with electronic controls.

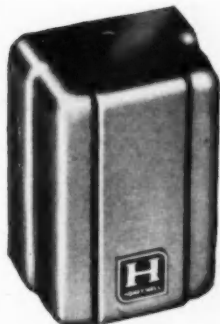
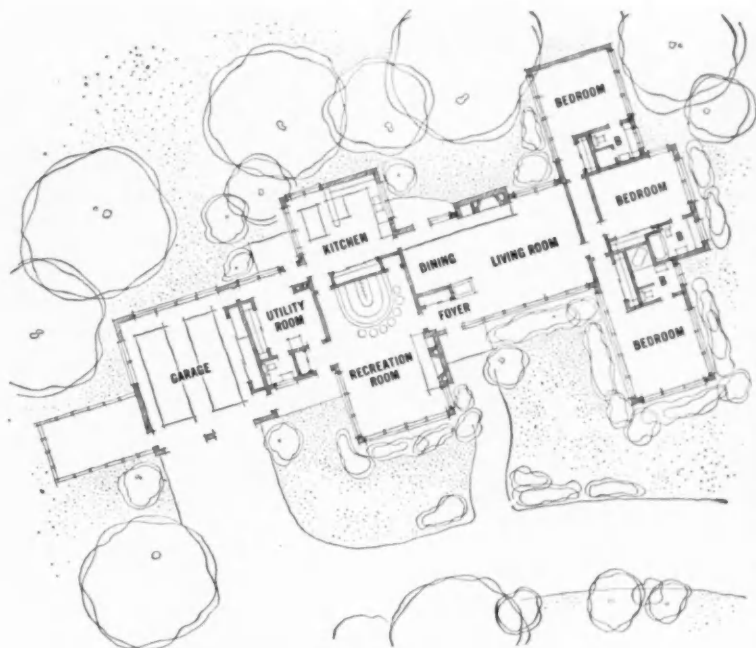
“I tell prospects radiant heating is the most modern kind of heating they can buy; and when combined with Electronic Moduflow *cannot be surpassed* for controlled comfort.”



Here is one of builder Chet Bojarski's typical Moduflow-Radiant Heat "combinations"—the beautiful 8-room rambler-type home of Mr. and Mrs. Claude Klingaman, Gary, Indiana. For details see the floor plan on next page.



Another Plus-Profit  
Idea from Honeywell



**Electronic Weathercaster.** Senses temperature changes *outside* the house, as they occur, and sends signals inside.



**Electronic Chronotherm.** Provides pinpoint indoor temperature control plus automatic night set-back, automatic morning pick-up.



**Electronic Averaging Thermostat.** Balances indoor temperature readings to within a fraction of a degree.



**Electronic Relay Amplifier.** Interprets signals from all three thermostats and relays information, by electronic impulse, to heating plant.

## Put the magic of Honeywell Electronic Moduflow to work selling your homes!

Prospects are intrigued when you mention that magic word, "electronics," in connection with the homes you build!

Electronic Moduflow is up to 28 times more accurate and sensitive than ordinary mechanical systems for controlling the temperature.

Electronic Moduflow is *the answer* to controlling temperatures in rambler and ranch-style homes. See-saw, uneven temperatures — due to the larger outside exposed areas in such homes — never occur.

Electronic Moduflow greatly increases the value of the homes you build, gives you a bigger per unit profit.

Electronic Moduflow can be used in homes of practically any size. It's a natural for controlling radiant-type heating systems, regardless of whether ceiling or floor panels are used. It gives your clients wonderful temperature control, regardless of *what* kind of heating plant or fuel they use.

For complete information, send coupon below.

MINNEAPOLIS  
**Honeywell**



*First in Controls*

MINNEAPOLIS-HONEYWELL REGULATOR CO.  
Dept. AB-8-186, Fourth Avenue South, Minneapolis 8,  
Minnesota

Gentlemen: Please send me more facts on your new  
Electronic Moduflow system for homes.

Name .....

Firm Name .....

Address .....

City..... Zone... State.....

FOR SECURITY  
AND DEPENDABILITY



ADAMS-RITE DEADLOCKS

are serving

*The Bank of Nova Scotia*

As in fine buildings everywhere, Adams-Rite specialized locks have been specified in the impressive new Bank of Nova Scotia Building in Toronto.

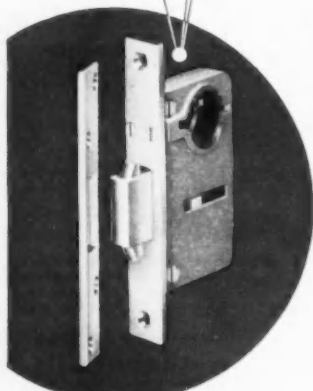
All of the revolving door entrances of the building are secured with Adams-Rite Series 1131 Cylinder Deadlocks.

Architects: Mathers & Holdenby, Toronto

Contractors: J. L. E. Price & Co., Ltd.

Hardware Consultant: F. M. Jeffrey,

Aikenhead Hardware, Ltd., Toronto



Adams-Rite Series 1131 Cylinder Deadlock takes any standard 1 1/8" cylinder one or both sides. Has no latching action and is jimmy-proof. Write for complete information.

ADAMS-RITE MANUFACTURING CO.  
140 WEST CHEVY CHASE DRIVE, GLENDALE 4, CALIFORNIA, U. S. A.

SPECIALIZED LOCKS AND BUILDERS' HARDWARE

### New Brick Finish Is Designed for Economy

A new brick finish which is applied by troweling has been introduced by a Detroit firm, American Cement Products.

Called "Quikbrik," the patented product is made from crushed face brick and portland cement. According to the producers, it forms a solid permanent finish which does not lose its original appearance, is waterproof, fireproof, verminproof and has the appearance of a standard brick wall. Low cost is cited as another advantage of the material.



Preliminary stage (top) in applying "Quikbrik." Below: Same house with brick finish completed

Before the veneer is applied to a concrete block building, the walls are given a concrete coating about 1/4-inch thick. This forms the foundation for the Quikbrik, which is applied in a plastic state.

After the finish is troweled on, it is carefully smoothed and precision cutting machines are attached to the surface. These cut the brick overlay into the desired natural brick pattern with the usual mortar lines.

Frame, brick, stucco and other types of construction require certain preliminary work before Quikbrik can be applied, but none presents a serious or time-consuming problem, the manufacturers said.

Quikbrik colors listed are light or dark red, rust, yellow, buff or white, in various brick designs and finishes. A special blending process also permits use of color combinations.

### Peoples Heads Boiler Group

Wesley J. Peoples, president and chairman of the board of the United States Radiator Corp., was elected chairman of the Institute of Boiler and Radiator Manufacturers at the group's 37th annual meeting May 7-9 in Rye, N.Y.

# SYMONS FORMS

BUILD BETTER WALLS

at

LOW COST



**A FINE JOB**—A smooth poured wall is better looking, strong and waterproof.

**A LOW COST JOB**—The SYMONS FORMING SYSTEM cuts labor costs and form costs in half and cuts out all repair and maintenance costs.

**ASK FOR ESTIMATE**—You may rent, buy, or build your own SYMONS FORMS. Rentals apply on the purchase price. Send in plans for a free form layout and job cost sheet.



SYMONS CLAMP & MFG. CO.  
4261 DEPT. H-2 DIVERSEY AVE., CHICAGO 39, ILL.

Kindly send information regarding Symons Forms.

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Address .....

City ..... Zone ..... State .....

AMERICAN BUILDER

ONLY THOR OFFERS  
SO MANY FEATURES



## IN PORTABLE ELECTRIC SAWS

**EXCLUSIVE LONG-SHAFT TRANSVERSE MOTOR MOUNTING** transmits as much as 25% extra power, supports blade on oversize ball bearings from one side of the tool clear to the other.

**EXCLUSIVE SAFETY-LOCK SWITCH**—positive protection against accidental starting.

**EXCLUSIVE SHOCK-ABSORBER GEARING** harnesses the added power of these great new saws, gives extra life to motor, gears, spindle and blade.

**EXCLUSIVE PROTECTED DEPTH AND BEVEL SCALES** are in plain sight when you use them—out of the way when you don't. Always accurate.

**EXCLUSIVE EXTRA-WIDE REINFORCED STEEL SAFETY BASE** for better balance—easier to handle, far safer to use.

**PLUS** powerful, built-in sawdust blower . . . over-size ball bearing construction . . . automatic ball bearing blade-guard . . . die-cast aluminum housings . . . steel inserts for bearings and threads . . . fingertip depth and bevel control . . . convenient handles . . . steel rip guide . . . extra-capacity switches . . . most powerful motors ever used in electric saws.

*Silver Line* means "new design"—from

rip guide to switch—to give you the safest, easiest handling, most powerful saws on the market today. 15 new features . . . many of them exclusive . . . each of them thoroughly field tested and approved for economical, trouble-free operation. Six sizes to meet every demand from the lightweight "6" to the sturdy "12". Try these great new Silver Line Saws now available at your Thor distributor. Independent Pneumatic Tool Co., Aurora, Illinois.

*Thor*

TOOLS

ELECTRIC • PNEUMATIC

# Beauty

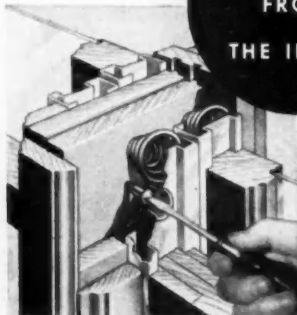


## plus a Big Bonus

**Furniture-Quality Wood Windows** look right for homes and they are right. R-O-W offers the warm enduring beauty of wood in a full range of architectural styles. Modern R-O-Ws eliminate the problems of corrosion, rust and condensation.



LIFT OUT  
FROM  
THE INSIDE



**Exclusive Patented Construction** permits quick removal. Spring-cushioned metal guides prevent sticking or rattling—insure a permanent year-round weather seal. Repeated checks find first R-O-Ws functioning perfectly after 12 years of service.

R-O-W SALES COMPANY 1387 ACADEMY AVENUE • FERNDAL 20, MICHIGAN

### Training Builders For Tomorrow

At the Barrington Consolidated High School in Barrington, Illinois, there's a new generation of builders in the making. And, although their average age is only 17 years, they have already completed one house; a second is being finished on the exterior; and a third is being framed.

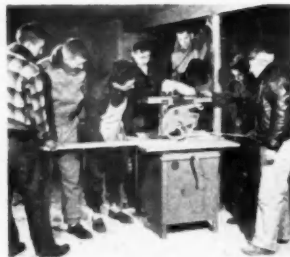
Barrington is one of thirty schools in the state of Illinois which now offer a vocational building trades



**WORK UNDER WAY** on students' third house, with plenty of hands available

course. The objective of the course is to prepare the boy for advantageous entrance in the building trades.

Standards for this program include: (1) Students shall be at least 16 years of age and have junior standing; (2) The student shall enroll with the intention of completing two years of building trades; (3) Student shall enroll with the intention of entering the trade; (4) It is



**OPERATING FEATURES** of radial saw are pointed out by instructor V. P. Lager

recommended that all enrollees in building trades have at least one year previous industrial arts on an exploratory basis;

(5) A building project equivalent to a two-bedroom residence shall be constructed as a vehicle for instruction; (6) With a one-half day program, it is recommended that the student spend two years on one project in order to get as much on-the-

job training as possible; (7) Classes are limited to 16 students.

Instructional material for the course was developed by the building trades instructors of the State of Illinois. These instructors held workshop conferences as early as 1947 and continued in 1948 and 1949, when the instruction material was published.

Specific objectives of the vocational building trades course include: (1) To orient students in the basic building trades; (2) To develop skills



**FINISHED PRODUCT**—a workmanlike job completed by the class in Barrington, Ill.



**ATTRACTIVE INTERIOR** of first house

and knowledge through practical construction; (3) To develop appropriate and safe work habits; (4) To develop the ability to apply technical related information; (5) To develop a wholesome understanding of trade and social problems.

Work on the first house project in Barrington was begun in November, 1949. Most of the carpentry work was done by members of three classes under the supervision of their instructors, W. J. Bartz and V. P. Lager. In this operation, these future tradesmen learned how to use modern power tools, much of their work being accomplished with a Delta 40-A Multiplex Saw. Local union contractors supervised their work in electric wiring, masonry, plumbing, and painting.

The boys' first house is 40 feet 6

*(Continued on page 198)*

# Best



## for Builder and Buyer




**2 to 1 Nation-Wide Preference . . .** for R-O-Ws is indicated by available building reports. Both builder and buyer select them for fine construction . . . long-lasting beauty . . . exclusive removable feature. They cost no more than ordinary windows.

**EXTRA VALUE  
AT NO  
EXTRA COST**

**R-O-Ws Lift Out Completely . . .** from inside the house . . . for cleaning, painting or glass replacement. Because of this exclusive feature, more than 7,000,000 are now in use. Homes with R-O-Ws sell faster in today's selective market.





the eye buys...

sell the preferred Visible Feature!

**WASTE KING PULVERATOR**  
AMERICA'S FINEST GARBAGE DISPOSER

**Kitchen-equip with WASTE KING Pulverator and show customers the advantage in buying your homes!**

WASTE KING Pulverator is the most modern VISIBLE FEATURE you can put into your homes — the lowest budget, highest quality feature that upgrades the home, bringing top dollar prices!

**SUPERIOR WASTE KING FEATURES!**

**"HUSH-CUSHIONS"** — give 50% quieter, smoother operation. WASTE KING is the only really quiet garbage disposer.

**LIFETIME GRIND CONTROL** — controls the size of waste particles and length of fibrous materials for long life of the WASTE KING. Prevents jamming, clogging!

**UNBEATABLE SERVICE RECORD** — less than 1% service callbacks. Relieves builder of complaints. Customer satisfaction assured!

**SELL THE VISIBLE FEATURE —**



Buy from your Plumbing Contractor now!

A Product by Olvan Mfg. Co., Los Angeles 28, Calif.  
Largest independent producer of garbage disposers in America!



OVER 300,000 IN DAILY USE!

(Continued from page 197)

inches by 45 feet 6 inches. It consists of living room-dining room-kitchen combination, bath, two bedrooms, utility room, attached garage, partial basement. The total area of floor space is 1,554 square feet, including garage. Frame construction was used. The exterior was finished with 8 inch redwood bevel siding over



COMPLETING EXTERIOR of House No. 2

wood sheathing. Special features of the house include sand finished walls, clear oak floors, forced hot water heating utilizing baseboard radiation with gas-fired boiler, birch kitchen cabinets, and warm air circulating fireplace.

About two years are required to complete each house. Upon completion, the house is offered for sale by sealed bids. Money realized from the sale of the house is used to meet current and future project expenses.

**4,450 Attend Heating School in 2 Years**

When the I-B-R School of Modern Heating marked its second anniversary of operation in April, records showed that its courses had been taken by 4,450 students in 81 cities.

The school, sponsored by the Institute of Boiler and Radiator Manufacturers, offers a three day course in methods of designing and installing hot water and steam heating systems, including panel and baseboard heating systems.

Emphasis is on low-cost techniques, as illustrated by the question on the student prospectus: "Would you like to know how to reduce the cost of a heating system in a typical six-room house more than \$400 without sacrificing quality?"

Tuition for the three days, including classroom materials, is \$23. Information about dates and locations of the schools may be obtained from the Institute of Boiler and Radiator Manufacturers, 60 E. 42nd St., New York 17, N.Y.

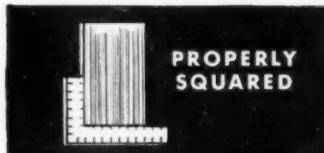
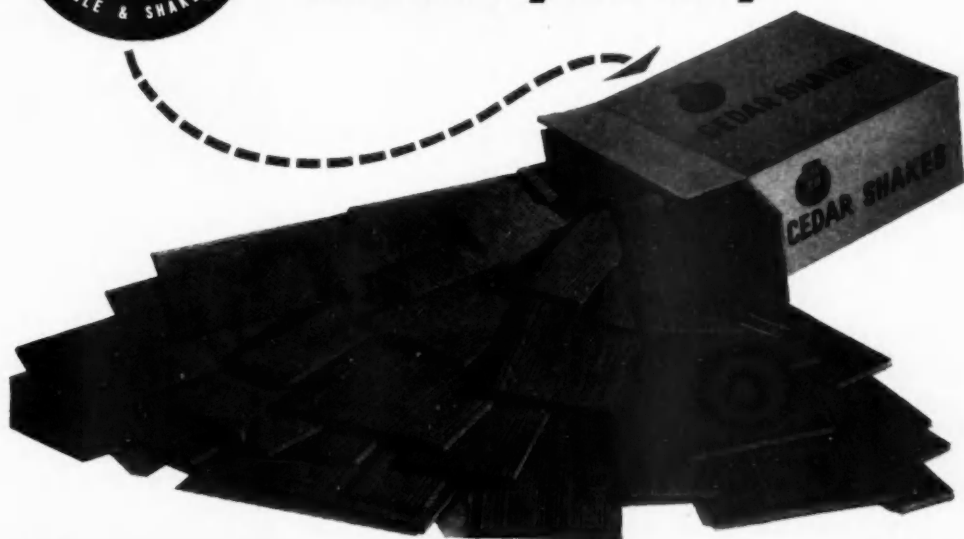
Renew Your Subscription

AMERICAN BUILDER





## Look for this ASSOCIATION LABEL on the Pre-stained Shakes you buy



**PROPERLY  
SQUARED**



**BEAUTIFULLY  
GROOVED**



**STAINED  
UNDER  
FACTORY  
CONTROL**

## YOUR ASSURANCE OF QUALITY

Retail lumber dealers and their builder customers are assured of getting quality pre-stained cedar shakes when they buy from the manufacturers whose products carry the label of endorsement of the Stained Shingle and Shake Association. All members of the Association maintain strict compliance with the grading rules self-imposed for the advancement of the pre-stained shake industry. The following are a few excerpts from the rigid rules observed for your protection:

1. All processed shakes must be rebutt and jointed to insure no greater tolerance in width than 1/16" within the length of the shingle except that a minimum of 5% of any one lot or shipment may have an allowable 1/8" tolerance based on 10 bundles or cartons packed as a representative sample.
2. Minimum width of processed shakes shall not be less than 3" with not more than 15% 4" or less.
3. Processed shakes shall be packed in units of squares as follows:

- (a) Those manufactured from No. 1 FIVEX to be packed 2 bundles 16/17 courses—total 66 courses. Guaranteed to cover 100 square feet of area at 12" exposure.
- (b) Those manufactured from No. 1 PERFECTIONS to be packed 2 bundles 14/14 courses—total 56 courses. Guaranteed to cover 100 square feet of area at 14" exposure.
- (c) Those manufactured from No. 1 ROYALS to be packed 2 bundles 12/12 courses—total 48 courses. Guaranteed to cover 100 square feet of area at 16 1/2" exposure.

### GRADING RULES FOLDER FREE

For your free copy of the Official Grading Rules on Processed Shakes, Stained Cedar Shingles and Hand-split Shakes, write to this Association at 4403 White Building, Seattle, Washington or Metropolitan Building, Vancouver, B. C., Canada.

**STAINED SHINGLE & SHAKE ASSOCIATION**

AUGUST 1952

198A

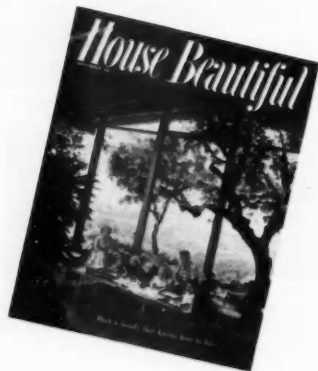
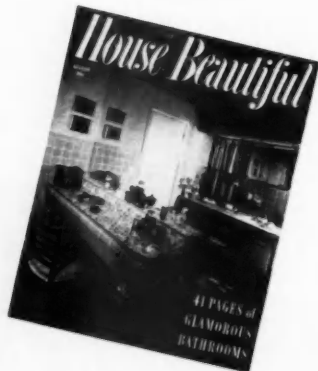
# How to get the sizzle ... in your sales!!

People don't buy boards, mortar, nails, window glass. They buy comfort, convenience, better living, attractive surroundings. So that's what you should sell them . . . for less resistance, bigger sales. How? Every issue of *House Beautiful* is filled with ideas that kindle the dreams that you can fulfill. Get those ideas in front of your customers . . . then write out the ticket. You've heard the expression: "Don't sell the steak . . . sell the sizzle." *House Beautiful* is the "sizzle" that can produce the hottest sales record for you in history.

**for instance,** August *House Beautiful*, now in the homes of your best prospects, features 41 pages of Glamorous Bathrooms. Not just bathrooms . . . but the kind of bathrooms that are filled with extras: extra materials, extra customer satisfaction, and extra profits for you. Look at August *House Beautiful*. A thousand ideas will present themselves on how you can put this issue to work for those extra profitable sales.

**and then there's** September *House Beautiful*, which will be in your prospects' homes in a few weeks. What did we say? Comfort, convenience, better living, attractive surroundings. That's what this issue is filled with. Ideas that your prospects will jump for . . . and shrug at the estimate. Try it once. Just put a copy of *House Beautiful* in the lap of a hard-to-please prospect . . . tell her that you can turn those dreams into actuality. Bet it works.

**and there's more, too.** The advertising pages of *House Beautiful* can work wonders for you. Display them, mounted on eye-catching display cards. We'll send those that you tell us to . . . with our compliments. Fill out the coupon opposite and send it in . . . today!



## Profit Builders from SEPTEMBER *House Beautiful*

### FIREPLACE ACCESSORIES

#### 99. FLEXSCREEN

"FLEXSCREEN'S 20th Anniversary" advertising includes full-page four-color space. Other "Flexscreen 20th Anniversary" developments: Easier installation, smoother spars-curtain operation through mechanical improvements in established lines. An appealing new "hooded" design minimizes stocking and selling. A new Chicago shipping-service point, 501 Pennsylvania Ave., Glen Ellyn, Ill., cuts mid-west delivery time and costs.

### ROOFING & SIDING

#### 114. CAREY FIRE-CHEK SHINGLES

#### 115. JOHNS-MANVILLE SMOOTH-GRAIN ASBESTOS SIDING

1988

### SURFACING MATERIALS

#### A. WALLS & CEILINGS

- 116. BLUE RIDGE PATTERNED GLASS
- 117. BROWN'S SUPERCEDAR CLOSET LINING
- 118. MISSISSIPPI SMOOTH ROUGH WIRE GLASS
- 119. PITTSBURGH-CORNING GLASS BLOCKS
- 101. STRAHAN WALLPAPERS
- 120. U. S. PLYWOOD "NOVOPLY"

NOVOPLY, the sensational new, all-wood panel developed by United States Plywood Corporation, is not only a beautiful panel but one with unusual properties. Its chief feature is its remarkable flatness — it is the flattest wood panel ever made, making it ideal for siding doors, cabinet work, wall paneling, furniture and many other applications.

#### 121. U. S. QUARRY "ROMANY" TILE

"VARITILE," is a distinctive ROMANY REAL CLAY TILE with a simplified fluted surface that achieves a most attractive tone variation through light reflection. Extremely popular as a wall covering in bathrooms and other residential areas. Water, stain and fire resistant. Easily cleaned. Many attractive colors. Product of United States Quarry Tile Co., Canton, Ohio.

#### 102. WARREN WALLPAPERS "WATERHOUSE" COLLECTION

### B. FLOORS

#### 49. GOODYEAR VINYL-TILE

#### 50. KENRUBBER FLOOR TILE

Free full color catalog shows rich, vibrant colors which make KENRUBBER perfect for

AMERICAN BUILDER

the floors in your home. Kenuubber stays level despite heavy traffic. Smooth nonporous surface is amazingly easy to clean and keep sparkling. Also receive a free, easy to follow, instruction booklet showing how to install these distinctive floors yourself.

- 51. PABCO CALIFORNIA ORIGINALS IN LINOLEUM
- 47. ROBERTS "SMOOTHEDGE" CARPET INSTALLATION

**WOODWORK**

- 122. MALARKEY PLYWOODS
- 123. WESTERN PINES WOODWORK DOORS, WINDOWS, & EQUIPMENT

- 124. ANGEL DOORS
- 125. ANDERSEN "WINDOWALLS"
- 126. CURTIS "SILENTITE" WINDOWS

- 100. FLEXALUM VENETIAN BLINDS
- 101. FLEXALUM VENETIAN BLINDS custom made with exclusive spring-tempered aluminum slats that snap back to shape and plastic tape that wipes clean with a damp cloth.
- 127. GATE CITY WOOD AWNING WINDOWS AWNING WINDOWS.—The horizontal sash open outward and upward; adjusted by a handle located below the sill. Open fully for 100% ventilation, tilt to any angle to control drafts, shed rain and protect interiors, guard against prowlers, and close tight for all weather protection. Screens inside. Gate City Sash & Door Co.

- 128. GLIDE WINDOWS "Sliding Walls of Glass with Lifetime Beauty" is the theme of the GLIDE WINDOW AND DOOR advertisement in House Beautiful. Glide is the only manufacturer of horizontal sliding windows and doors using lifetime aluminum. The only manufacturer of a sliding unit to pass the Pittsburgh Air Infiltration Test. For Distributor information, Catalog, Write Glide, Inc., 7463 Varna, North Hollywood, California.

- 129. KOOLVENT ALUMINUM AWNINGS
- 106. NATIONAL GUARD ADJUSTABLE SCREEN DOOR GRILLES September quarter-page featuring the FLAMINGO and MALLARD SCREEN DOOR GRILLE designs will climax a hard-hitting summer campaign by NATIONAL GUARD PRODUCTS, manufacturers of adjustable screen door grilles and window guards. Sales sheet and price list available upon request from National Guard Products, 540 Jackson Ave., Memphis, Tennessee.

- 130. BUSCO COMBINATION WINDOWS
- 131. WIN-DOR JALOUSIES

**PAINTS & FINISHES**

- 103. CABOT'S RANCH HOUSE WUES

**HEATING & AIR CONDITIONING**

- 132. AMERICAN-STANDARD BASEBOARD HEATING
- 133. B & G HYDRO-FLO HEATING
- 134. CHRYSLER AIR-TEMP
- 135. CLEVELAND TORIDHEET AUTOMATIC HEATING
- 136. G. E. HEATING & AIR CONDITIONING

- 137. HEATILATOR HEATILATOR FIREPLACE — the original heat circulating fireplace. Assures complete satisfaction, circulates heat to all corners of the room. Will not smoke. Adds little to fireplace cost. Proved by 25 years use. No limit to mental design. Rugged construction. Write Heatilator, Inc., E. Brighton and Glen Aves., Syracuse 5, N. Y., for complete information and attractive folio of fireplace designs.

- 138. MUELLER CLIMATROL

- 139. NU-WAY HEATING

- 140. SUPERIOR "HEATFORM" FIREPLACE "HEATFORM," heat circulating fireplace House Beautiful September advertisement invites readers to send to Superior Fireplace Co., at Los Angeles or Baltimore for name of nearest dealer and free 8-page folder providing complete information on HEATFORM before building or remodeling their fireplaces. Dealers requiring additional information please write manufacturers.

- 141. 141. WILLIAMSON WARM AIR HEATER \* WEBSTER BASEBOARD HEATING

- 142. WATERMAN-WATERBURY "COMFORTROL" HEATING

**SANITARY EQUIPMENT  
A. BATHROOM FIXTURES**

- 143. W. A. CASE BATHROOM FIXTURES Coupon inquiry analysis shows the importance people attach to positive protection from overflow due to bowl stoppage, an exclusive design feature of this top-quality closet. Consistent promotion of this customer benefit by W. A. CASE & SON MFG. CO. sells today's value-conscious public.

- 144. ELJER FINE PLUMBING FIXTURES

**B. WATER HEATERS**

- 61. BRYANT AUTOMATIC GAS WATER HEATING
- 63. PERMAGLAS WATER HEATERS

**MAJOR APPLIANCES**

- 60. BLACKSTONE HOME LAUNDRY In designing its combination laundry BLACKSTONE recognized the trend towards compact room arrangements of major appliances and offers a complete laundry unit which takes care of all washing, drying, and ironing chores . . . automatically, and yet requires only 6 feet of floor space. See unit at leading Blackstone dealers or in advertising pages of September House Beautiful.

- 62. HOBART KITCHENAID DISHWASHER
- 64. PHILCO FREEZER
- 65. SCHAEFER HOME FREEZER

**KITCHEN CABINETS**

- 11. GENERAL ELECTRIC TEKOLITE FOR COUNTER TOPS
- 69. GENEVA MODERN KITCHENS
- 70. KITCHEN MAID KITCHENS
- \* LYON METAL KITCHENS
- 72. ST. CHARLES KITCHENS

**HARDWARE**

- 104. LECO-LATCH
- 105. STERLING HARDWARE

**HOME ELEVATORS**

- 145. SEDGWICK RESIDENCE ELEVATORS

**COMMUNICATION**

- 95. NUTONE DOOR CHIMES

**LIGHTING & WIRING**

- 146. CUTLER-HAMMER MULTI-BREAKER

**FENCES**

- 112. ANCHOR FENCE
- 113. RUSTICRAFT FENCES

**GARDENING**

**A. EQUIPMENT & ACCESSORIES**

- \* BRIGGS & STRATTON GASOLINE ENGINES
- 107. "HOMKO" LAWN SWEEPER
- \* MAJESTIC OUTDOOR FIREPLACE UNIT

•••••  
 • This coupon will bring you  
 • free counter cards mounted  
 • with advertisements from  
 • September House Beautiful.  
 • They'll spark extra sales  
 • for you by reminding your  
 • prospects of the buying de-  
 • cisions that they'd made  
 • when they read House  
 • Beautiful.

Encircle the number that corre-  
 sponds to the product you want to  
 feature. Fill it out and mail it today.

•	11	47	49	50	51
•	60	61	62	63	64
•	65	69	70	72	95
•	99	100	101	102	103
•	104	105	106	107	112
•	113	114	115	116	117
•	118	119	120	121	122
•	123	124	125	126	127
•	128	129	130	131	132
•	133	134	135	136	137
•	138	139	140	141	142
•	143	144	145	146	

\* No card available.

NAME \_\_\_\_\_  
 ADDRESS \_\_\_\_\_  
 CITY \_\_\_\_\_  
 ZONE \_\_\_\_\_  
 STATE \_\_\_\_\_

HOUSE BEAUTIFUL MAGAZINE  
 572 Madison Avenue  
 New York, N. Y.

**TURN THE PAGE FOR MORE  
 SALES STIMULATING IDEAS**

August House Beautiful was jam-packed, too, with sparkling ads that put ideas in the heads of the best families in your community. Put these ads to work for easier sales . . . more profits.

# Profit Builders from AUGUST House Beautiful

This coupon will bring you free counter cards mounted with advertisements from August House Beautiful. They'll spark extra sales for you by reminding your prospects of the buying decisions that they'd made when they read House Beautiful.

Encircle the number that corresponds to the product you want to feature. Fill in and mail it today.

- |    |    |    |    |    |    |
|----|----|----|----|----|----|
| 6  | 33 | 34 | 35 | 36 | 37 |
| 38 | 42 | 44 | 45 | 51 | 52 |
| 53 | 54 | 55 | 56 | 57 | 58 |
| 59 | 60 | 61 | 62 | 63 | 64 |
| 65 | 66 | 67 | 68 | 69 | 70 |
| 71 | 72 | 73 | 74 | 75 | 76 |
| 77 | 78 | 79 | 80 | 81 | 82 |
| 83 | 84 | 85 | 86 | 87 |    |

\* No counter card available.

HOUSE BEAUTIFUL MAGAZINE  
572 Madison Avenue  
New York, N. Y.

NAME \_\_\_\_\_  
ADDRESS \_\_\_\_\_  
CITY \_\_\_\_\_  
ZONE \_\_\_\_\_  
STATE \_\_\_\_\_  
AB Aug Sept

## HEATING & AIR CONDITIONING

51. BRYANT HEATING & AIR CONDITIONING
52. CARRIER WEATHERMAKER AIR CONDITIONER
53. CHRYSLER AIRTEMP HEAT
54. EBC OASIS AIR DRIER
54. GENERAL ELECTRIC AIR CONDITIONING  
New Jersey's Mowarth Manor, 65 homes priced \$22,000 to \$29,000. Features GENERAL ELECTRIC AIR-WALL SYSTEM with winter heating plus summer cooling as standard equipment. Unique system assures uniform warm comfort in winter, draft-free conditioned air in summer. Write General Electric Co., 3 Lawrence St., Bloomfield, N. J. for information.
55. MINNEAPOLIS-HONEYWELL THERMOSTATS
56. MOR-SUN FURNACE
57. REPUBLIC RADIANT GAS HEATER
58. TORIDHEET AUTOMATIC HEATING
58. TRADE-WIND CLIPPER VENTILATOR  
Kitchens and small rooms must be ventilated at the ceiling level to do a thorough job. TRADE-WIND CLIPPER VENTILATORS come in two types, for installation in a cabinet over the stove or in the ceiling. Both provide complete, quiet ventilation, are simple to install and give years of trouble-free service.
59. YOUNG CONVECTORS  
\* WEBSTER BASEBOARD HEATING

## PLUMBING

60. ALLIANCE WARE BATHROOM FIXTURES
62. AMERICAN-STANDARD BATHROOM FIXTURES
61. CASE BATHROOM FIXTURES
42. CHURCH SEATS
62. CRANE PLUMBING FIXTURES  
"Who would believe this was the same room?" "Before" and "after" illustrations show how easily an old room can be modernized into a very attractive and efficient bathroom. This is one of the many ideas included in the new "Come to CRANE For Ideas" program covering bathrooms, kitchens and utility rooms.
63. ELKAY LUSTERTONE SINKS
43. STASCO SEATS
64. WEISWAY CABINET SHOWER  
WEISWAY CABINET SHOWERS are styled in the modern spirit, engineered to exacting standards, precision-built of service tested materials. They provide high quality shower bath facilities in a range of models suited to the best construction in every price class. Henry Weis Mfg. Co., Inc., Elkhart, Indiana.

## SURFACING MATERIALS WALLS, FLOORS, CEILINGS

44. STOCKWELL "EASTWARD FLIGHT" WALLPAPERS  
The C. W. STOCKWELL CO.'s advertisement in the August issue features DELTA, from the renowned collection of EASTWARD FLIGHT WALLPAPERS. The lush, trailing archids entwined in magnificent foliage add a cheerful touch of contemporary smartness to your bathroom. A 25c illustrated brochure is available at C. W. STOCKWELL CO., 3262 Wilshire Blvd., Los Angeles 5, California.
45. WARNER WALLPAPERS
65. AMERICAN-OLEAN TILE
66. CAMBRIDGE "CERATILE"
42. CHURCH WALL TILE
67. GENUINE CLAY TILE
68. MOSAIC TILE  
MOSAIC FORMFREE DECORATED WALL TILE as featured in Mosaic's August advertisement in House Beautiful, gives you new design freedom. It comes in six brilliantly conceived designs and in twelve color combinations. Gives striking new effects in both decorative panels and large vertical wall surfaces. Literature sent on request.

69. ROMANY TILE
70. VITROLITE GLASS PANELING
71. JOHNS-MANVILLE PANELS & PLANKS
72. DOUGLAS FIR PLYWOOD
73. UPSON KUYER-KRAK PANELS & CEILING TILES
74. WELDWOOD PLYWOOD

## PAINTS & FINISHES

75. U. S. PLYWOOD  
FIRZITE - SANTINILAC - WELDWOOD  
PLASTIC RESIN GLUE

## WINDOWS, DOORS, & EQUIPMENT

76. ANGEL DOORS
77. KOOLVENT ALUMINUM AWNINGS
87. HEINLEY DOOR-HI MOVABLE LOUVER SCREENS
78. NATIONAL GUARD ADJUSTABLE SCREEN DOOR GRILLES
79. NATIONAL LOCKSET
80. NEWCASTLE MODERNFOLD DOORS
6. PITTSBURGH PLATE GLASS
81. RUSCO ALL METAL COMB. SCREEN & STORM DOORS
82. TRUSCON STEEL DOUBLE-HUNG WINDOWS SERIES 138

## MAJOR APPLIANCES

35. HAMILTON AUTOMATIC GAS CLOTHES DRYER
36. PERMAGLASS WATER HEATER
37. THERMADOR BILT-IN RANGE  
The August THERMADOR ad in House Beautiful tells of two exciting new thermador products. Featured are the new THERMADOR COOKING TOP with the "middle griddle" (four cooking units with grille) and the warming drawer (for keeping rolls, casseroles, etc., hot) — two wonderful new products to make kitchen-planning easier.
63. WEIRTON STEEL FOR KITCHENS

## HOME ELEVATORS

84. SHEPARD HOMELIFT

## COMMUNICATIONS

33. BELL CUSTOM HIGH FIDELITY AMPLIFIER  
New booklet on how to get greater enjoyment from recorded music, radio and television through the use of BELL CUSTOM HIGH FIDELITY AMPLIFYING equipment. Gives suggestions on arrangements for built-in custom designed set-ups, plus information on different types of available Hi-Fi amplifier units. Sent to interested parties without charge.

## MASONRY

85. PORTLAND CEMENT

## MISC. BLDG. PRODUCTS & MATERIALS

83. WEIRTON STEEL FOR KITCHEN MODERNIZING
86. PRECISION FOLDING STAIRWAY  
PRECISION FOLDING ATTIC STAIRWAY installed for as little as \$60. Precision Folding Stairway provides extra rooms and storage space. Silently and easily operated by counterweights on roller-bearings. Fits ceilings of various heights. Requires no attic space. Accepted by FHA. Shipped ready to install by Precision Parts Corp., Nashville 7, Tennessee.
- NELSON ENZYMATIC SEPTIC TANK CLEANER

AMERICAN BUILDER

new companion to the acme 3000 series

## THE ACME BI-RAIL 5000

for by-passing wardrobe doors

ENLARGED TO SHOW DETAIL

sliding door lifts out without removing hardware

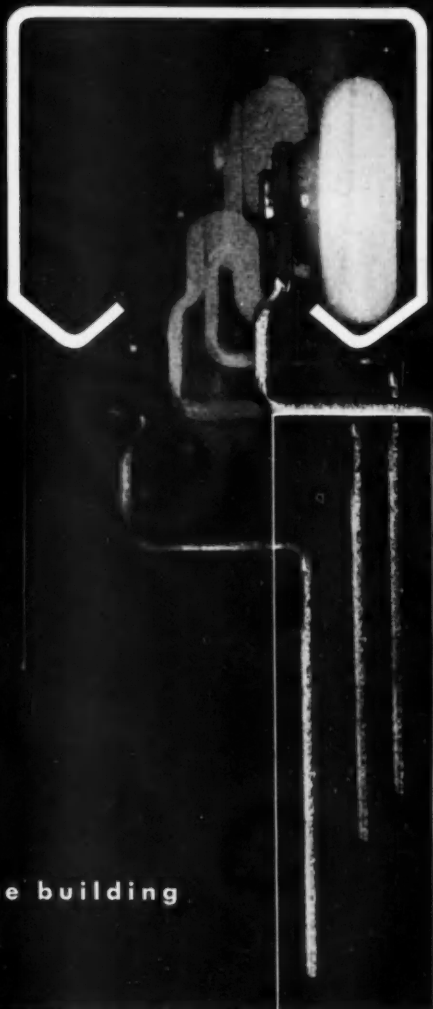
ACTUAL SIZE



solid nylon wheel

### acme 5000 features

- FRICTION CUT TO A MINIMUM  
FOR SMOOTH QUIET OPERATION
- ONE TRACK FOR ALL DOOR THICKNESSES
- TRACK OF RUST RESISTANT,  
HEAVY GAUGE STEEL



guaranteed for the life of the building

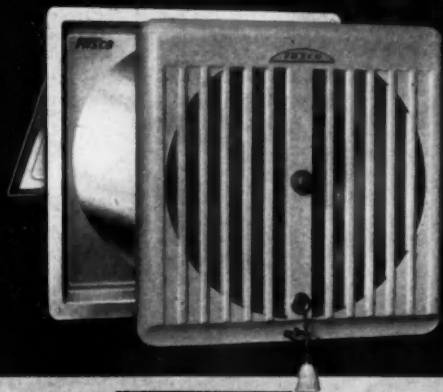
FOR NEW CATALOG WRITE TO DEPT. C



ACME APPLIANCE MANUFACTURING CO.

35 SO. RAYMOND AVENUE, PASADENA 1, CALIF.

# By Request!



## FASCO

presents **TWO** entirely **NEW**  
**Wall Ventilating Fans**  
(MODEL "847" AND "1047")

with **6 NEW** features

**YOU** asked for!

It's true—**YOU** designed these new ventilators! Even before engineering started, we asked contractors and builders from coast to coast—"What changes should we make in redesigning our current wall vents?" Your answers have been incorporated in **6 NEW FEATURES** which make these ventilators far more efficient and far easier to install and maintain.

*AND... all these additional features at no extra cost to you!*

**FREE** COMPLETE SPECIFICATION SHEETS... WRITE TODAY!

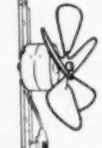
TAKE A LOOK AT THESE!

★ **new**



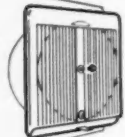
**FOUR-pole, TOTALLY** enclosed motor in both the 8" and 10" ventilator. Result: increased air delivery at a lower motor speed, with greatly reduced noise level.

★ **new**



**FIVE-petal deep pitch** blades on the 8" ventilator give more air at lower noise level.

★ **new**



An entirely new grille design, modern in appearance, easy to clean. Can be removed in a matter of seconds, without tools, by loosening one thumb screw. Grilles available in white enamel or chrome.

★ **new**



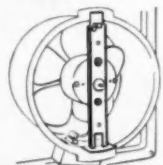
**Outside Junction Box**, accessible for quick, easy wiring. Electrician's job completed at time of rough wiring—and . . .

★ **new**



**New Separable plug** design allows installation and removal of fan blade and motor without tools or disturbing the wiring.

★ **new**



**Adjustable motor bar** permits easy alignment of grille after installation.

## FASCO Industries, Inc.

209 AUGUSTA STREET, ROCHESTER 2, NEW YORK

# FIRST AGAIN AMWELD<sup>®</sup> STEEL

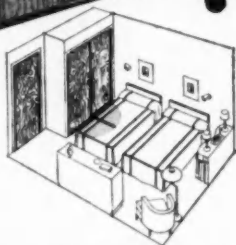
**KNOCKED-DOWN SLIDING CLOSET DOOR UNIT**

Now Available In...

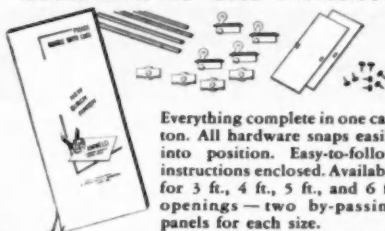
**NEW  
BIRCH  
FINISH**



Now matches flush birch swing doors—and look at the space you save... 6 to 9 square feet of floor space.



## COMPLETE IN ONE PACKAGE



Everything complete in one carton. All hardware snaps easily into position. Easy-to-follow instructions enclosed. Available for 3 ft., 4 ft., 5 ft., and 6 ft. openings—two by-passing panels for each size.

AMWELD Steel Sliding Closet Door Units are still available with grey baked on prime coat.



# AMWELD<sup>®</sup>



## PLUS THESE NEW FEATURES

- NEW** all hardware simply snaps in place.
- NEW** two large non-tarnishing plastic door pulls snap in *each* panel.
- NEW** lifetime nylon rollers provide easy, silent operation.
- NEW** self-adjusting spring held nylon guide-keepers assure ease of operation and prevent sway and derailing  
(Patent Applied For)

The original AMWELD Knocked-Down Steel Sliding Closet Door Units score again with door panels finished in baked enamel birch grain. No other finishing required. Baked enamel is enduring and so easy to clean and keep clean.

**SEND YOUR ORDER  
TODAY TO INSURE  
PROMPT SHIPMENT**

**BUILDING PRODUCTS DIVISION**

THE AMERICAN WELDING & MANUFACTURING CO. • 310 DIETZ ROAD • WARREN, OHIO

# Every Builder Needs This FREE MANUAL

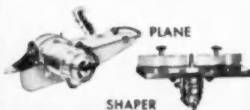


## Porter-Cable BUILDER'S ROUTER

Two models, UB and UC, featuring micrometer depth adjustment, oversize oil-sealed bearings, hardened and ground steel alloy chuck, powerful 18,000 RPM universal motor.

### Interchangeable Motor Powers Plane and Shaper

Router motor also powers two additional high-speed construction tools you'll want — an exclusive Porter-Cable feature that means big savings in your total tool investment!



## Shows How Portable Router Cuts Your Carpentry Costs

Send now for your copy of this new 48-page "Router Operating Manual." Tells how to speed up those time-consuming hand labor jobs that prolong your work schedule. Shows how your own men can do the special routing and shaping jobs usually farmed out to wood-working shops. Over 100 illustrations — clear step-by-step instructions on how to . . .

- Install plastic sink tops quickly, neatly
- Lay out and rout stair stringers 10 times faster
- Mortise door for 3 hinge butts in 1½ minutes or less
- Cut accurate contours for built-ins, valances, fireplaces, etc.

**PLUS** scores of other cost-cutting tips!

Porter-Cable's "Router Operating Manual" is yours for the asking. Absolutely no obligation. Mail coupon for your copy today!

### PORTER-CABLE Machine Co.

7108 N. Salina St., Syracuse 8, N. Y.

Please send me your free "Router Operating Manual" . . . also name of nearest dealer.

Name \_\_\_\_\_

Address \_\_\_\_\_

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

Manufacturers of  
**SPEEDMATIC  
and  
GUILD  
Electric Tools**

In Canada write:  
Strangridge, Ltd.,  
London, Ont.

## New York Life Begins Building on Chicago Slum Land

### Home Builders Association Also Plans Test Project

The urban redevelopment movement in the city of Chicago has reached a major milestone with the commencement by the New York Life Insurance Co. of two 12-story apartment buildings on slum land at 34th Street and Rhodes Ave., on the city's near South Side. These buildings, slated for occupancy in the spring of 1953, are the first units in a huge apartment project costing \$35 million. Called Lake Meadows, the project is being built by the insurance company on 100 acres of former slums cleared for rebuilding purposes



Lake Meadows when completed will look like this. 2,000 apartments in 18 buildings, and a shopping center, take the place of a 20-block slum area. Open area in upper right hand corner of site is reserved for park and school.

by the Chicago Land Clearance Commission. It is Chicago's first effort to reclaim slums by a combination of private and public agencies.

New York Life will utilize the entire 20-block site with the Lake Meadows development, which will include two 23-story apartment buildings with 1,300 suites; eleven 2-story garden apartment buildings with 100 units; and five 12-story buildings containing 600 apartments. In addition, an elementary school, park, playgrounds, shopping center, large-scale off-street parking areas and an underground garage are planned. More than eight acres of former gridiron streets and alleys will go into parks and other constructive uses.

Until the Land Clearance Commission began its work of acquiring ownership of the area and demolishing the buildings, under the Illinois Blighted Areas Redevelopment Act of 1947, the 100 acres were a slum

(Continued on page 204)

AMERICAN BUILDER



# Only Coleman makes

## Blend-Air

REVOLUTIONARY HEATING AND  
VENTILATING SYSTEM

OIL GAS LP-GAS

### WIDE HEAT RANGE

Gas furnaces from 75,000 to 100,000  
BTU input. Oil from 58,000 to  
97,000 BTU output.

### PACKAGED COMPLETE

Made only by Coleman, delivered all  
complete—ready for installation.

**GIVES LOW-COST  
UNIFORM HOME COMFORT**  
*The Automatic Comfort Your Customers  
Want — Helps You Sell Homes*

**LOW COST**  
Factory-engineered, factory-made  
to speed installation and  
keep cost down.

**MIRACLE COMFORT**  
With the new Coleman Thermostat  
Air Control, you can adjust warmth for each  
individual room and maintain constant,  
even comfort at the desired temperature.

**FAST-SELLING**  
Economy and Coleman reputation give  
quick buyer appeal and acceptance.

Send for information on this system that revolu-  
tionizes heating installation, brings the cost low.

Backed by nation-wide Coleman advertising.  
The Coleman Company, Inc., Wichita 1, Kansas.

**"IF IT ISN'T COLEMAN, IT ISN'T BLEND-AIR"**

Comfort costs so little with

**Coleman**  
*Blend-Air*

AMERICA'S LEADER IN HOME HEATING

AGA APPROVED OR LISTED WITH UNDERWRITERS' LABORATORIES

AUGUST 1952

See our catalog  
in Sweet's File  
for Builders

THE COLEMAN COMPANY, INC.  
Dept. AS-753, Wichita 1, Kansas

Please send information on Coleman Blend-Air  
 OIL  GAS  LP-GAS

Name \_\_\_\_\_

Street \_\_\_\_\_

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

No matter how big or small your home, there's a Coleman to heat it better



### 1-2-3 OF BLEND-AIR

This easy-to-install system has  
(1) Magic Blender in each room, equipped  
with new Coleman Thermostat Air  
Control; (2) revolutionary 3 $\frac{1}{2}$ -inch  
Heat Tubes and (3) compact  
Blend-Air furnace.



## Redwood in the News

The historically favored board and batten wall structure of the West is achieving considerable popularity in current building and home design. Today its usage consists of surfaced lumber as well as rough-sawn material, and several variations of structure are also effected.

Its economy in cost of erection and of material is as important to architects and home builders as its compatibility to so many contemporary structures.

Redwood became the standard material for board and batten con-

struction in the West because redwood boards lay flat, without the tendency to cup typical of many other species. However, intelligent nailing and other precautions in application are necessary in order to achieve successful construction.

Recommended methods of application and further information on board and batten construction are detailed in a new data sheet, "Board and Batten Walls," which can be obtained from the California Redwood Association, 576 Sacramento Street, San Francisco 11, California.

(Advertisement)



Know what you're getting...

get **CRA**  
**REDWOOD!**

When you see the CRA grade mark, you can be SURE the Redwood that bears it will give top on-the-job performance—every time. That's because grade-marked, trade-marked, Certified Dry Redwood has been uniformly graded, milled and seasoned to exacting standards. It's just good business to feature the best—CRA Redwood—the Redwood you can be sure of—the Redwood processed by the reputable member firms of the **CALIFORNIA REDWOOD ASSOCIATION**

SIMPSON LOGGING CO. • UNION LUMBER CO. • WARM SPRINGS LUMBER CO. • WILLITS REDWOOD PRODUCTS CO. • ARCATA REDWOOD CO. • COASTAL PLYWOOD & LUMBER CO. • HAMMOND LUMBER CO. • HOLMES EUREKA LUMBER CO. • NORTHERN REDWOOD LUMBER CO. • THE PACIFIC LUMBER CO. • ROCKPORT REDWOOD CO.

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(Continued from page 202)

of some 700 buildings. By mid-1952, the Commission had acquired more than 90 per cent of the area, had demolished 75 per cent of the buildings. Total cost of acquisition and preparation of the land for rebuilding is reported to be about \$15 million. To pay this bill, the Commission expects a capital grant of about \$9 million from the Federal Housing and Home Finance Agency, and the balance from city and state funds.

The new property will pay full taxes, which will be an estimated \$400,000 a year. The New York City pays the Commission for the cleared land on the basis of "re-use value," an amount estimated at around \$1,650,000.

More than 2,500 families who had formerly lived in the area have so far been relocated by the Commission, many in relocation housing built for the purpose by the Chicago Housing Authority with city and state funds.

### Home Builders Get Into the Picture

To encourage its members to see the possibilities in this new field of city rebuilding, the Chicago Metropolitan Home Builders Association has had a Redevelopment Committee working on a guinea-pig project which would demonstrate to builders generally what can be done with this new tool, especially to restore to constructive use the many parcels of tax-frozen vacant land in the city. Under an amendment in 1949 to the Blighted Areas Redevelopment Act, the Land Clearance Commission was empowered to reclaim blighted vacant areas and restore them to the tax rolls.

The builders' committee selected a tax-delinquent "dead" subdivision tract of 40 acres and presented it to the Commission as a site for new activity by one of the committee members. E. C. Mahoney, president of the Chicago Metropolitan Home Builders Association this year, offered to go into the tract and build 160 single-family houses of masonry construction in the \$13,500-\$18,500 price range. Subdivided in 1925 into narrow lots on the gridiron pattern, the land is now deeply in tax arrears. Mahoney's program involves a new and modern plot plan.

The Commission accepted the builders' proposal, which was passed by the City Council and the State Housing Board. But progress has been temporarily blocked by a suit to test the constitutionality of the blighted vacant area amendment to the Act.

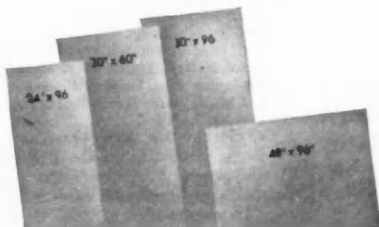
(Continued on page 206)

AMERICAN BUILDER



Westinghouse **micarta** will  
PLASTIC SURFACE  
*clinch* sales

at less cost, time and trouble!



MICARTA panels come in four sizes to eliminate almost all waste. 24" x 96" ... 48" x 96" ... 30" x 60" ... 30" x 96". (All  $\frac{3}{8}$ " thick)

Experience is proving that when the "Better Half" of the home-buying couple spots MICARTA-topped surfaces in kitchens and bathrooms she quickly jumps to the salesman's side.

There's a reason. She knows from national advertising on Television and in Better Homes & Gardens that MICARTA'S<sup>®</sup> tough, super-smooth surface requires just a swish of a damp cloth to keep it sparkling clean. In her mind's eye she has matched MICARTA'S full-range of decorator colors with her own personal color scheme.

The "Other Half" wants his *money's worth* . . . and so do you. Tell him MICARTA will last a lifetime, never needs to be replaced. *Your "money's worth"* comes in the form of MICARTA pre-bonded to plywood for easier, faster installation by any good carpenter.

Add the "housewife appeal" of MICARTA to your own savings in time and labor, and you'll agree with other builders that MICARTA is a "smart, effective salesman".

J-06473

Westinghouse  
  
**micarta**

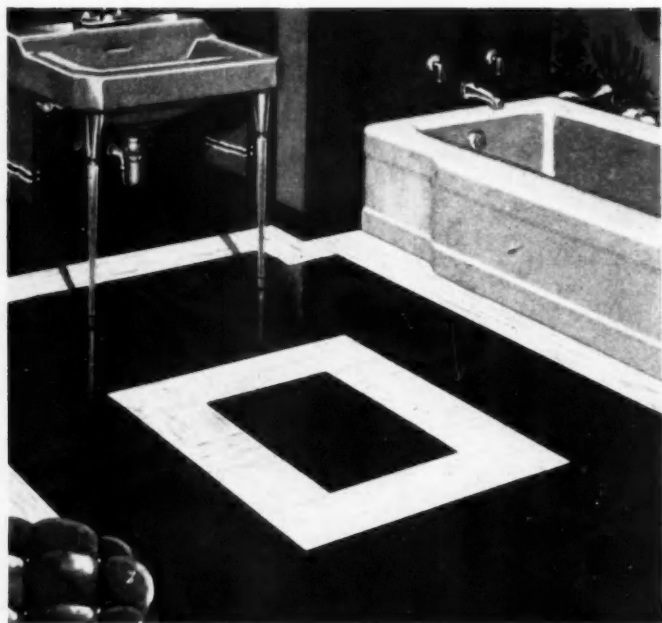
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 55 West 44th Street, New York 18, N. Y.  
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*Why every builder should use*  
**WRIGHT RUBBER TILE**  
*for bathroom floors*

- ① It costs less than other permanent bathroom floors.
- ② It is warmer underfoot than other waterproof floors.
- ③ It resists scratching better than other permanent floors.
- ④ It resists staining by acids and medicines better than most other permanent floors.
- ⑤ It helps sell houses! Women see the many advantages of rubber tile for bathrooms.

Specify **WRIGHT RUBBER TILE** in the next homes you build!

WRIGHT MANUFACTURING COMPANY  
 5203 Post Oak Road, Houston 5, Texas



**WRIGHT RUBBER TILE**

FLOORS OF DISTINCTION

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

2455

(Continued from page 204)

The Circuit Court has declared in favor of the amendment, and by fall of this year the Supreme Court is expected to do likewise. If so, Mahoney's plans to begin building on the land by next spring should materialize, since appraisals of the land value and other preparations in purchasing the land have already been made by the Land Clearance Commission. Mahoney will pay the Commission for the land on the basis of "use value."

**Pine Door Makers  
 Stress Color in  
 Sales Campaign**

Ponderosa pine woodwork manufacturers hope to boost sales through a campaign aimed at stimulating use of color in the decoration of interior paneled doors. The recently-launched advertising program is the biggest in



Three presidents discuss panel door decoration with wood stains and varnish at recent Chicago meeting of Ponderosa Pine door manufacturers. They are (from left) L. C. Paisley, National Woodwork Manufacturers Association; F. E. Bissell Jr., Ponderosa Pine Woodwork association; and W. M. Stuart, Martin-Senour Co.

history of the stock woodwork industry, according to D. G. Pilkington, general manager of the Ponderosa Pine Woodwork association.

In announcing the campaign to the trade press at a meeting in Chicago, the association said the pace-setter in the industry's varied line of "Decorator Doors" was the "Rancho," a model with three equal panels.

The Chicago meeting was third in a series being held by the manufacturers to develop products, decorative effects and promotional ideas. Working with the Ponderosa Pine group are the National Woodwork Manufacturers Association and the Western Pine Association.

Renew Your Subscription

AMERICAN BUILDER



"You save a lot more  
than space with this  
broom-closet furnace"

says **W. B. (Billy) Mitchell,**  
**Bryant Heating and Equipment Co., Inc.**  
**Charlotte, N. C.**

"Out of sight, out of mind" is by far the *safest* approach to concealed heating. Such equipment has to be *right*—or it's all wrong, and few can afford to have that happen. Making things *right* is an old Bryant custom, and it certainly has paid off in the way you've accepted our *Vertical Forced-Air Furnace*. It has paid off for *you*, too, in the way this compact, highly efficient gas furnace has performed—in thousands of single dwellings, more thousands of multiple-housing units, over the country. Completely automatic and occupying as little as two square feet of floor space in the smaller sizes, the Bryant Vertical Gas Furnace can help you answer problems of homemakers who need more living space or want to cut construction costs. Your Bryant Distributor will be glad to give you all the details and help you fit the Bryant Vertical into the plans of your gas heating customers. Or you may write Bryant Heater Division, Dept. 187, Affiliated Gas Equipment, Inc., 17825 St. Clair Avenue, Cleveland 10, Ohio.



**Bryant Model 304**  
**Winter Air Conditioner**

Gas-fired, forced-air furnace. Six sizes, with inputs from 45,000 to 145,000 Btu per hour. Approved by A. G.A. for all gases. Features Hevigage Heat Exchanger and Push-Button Ignition (city gases only).

**bryant**<sup>®</sup> *best buy*

**IN HEATING,**

**AIR CONDITIONING,**

**WATER HEATING**

# 3 Reasons why...

Architects Specify  
Builders Certify  
Electricians Recommend

*Blo-Fan*  
and  
*Pry-Lites*



No kitchen is complete or modern without a Blo-Fan electric exhaust ventilator. Its patented blade combines the volume of a breeze fan with the power of a blower. Its attractive grille is removable *without tools* and the motor assembly merely lifts out for easy cleaning. A Pry-Lite modern recessed lighting fixture completes the picture.

Easy to clean or relamp, Pry-Lites have snap-on fronts. No screws, no hinges, no nuts—and no tools needed. Pry-Lites (1000 series) have a built-in pull box, adjustable mounting straps that eliminate framing-in time, a plaster flange which fits any finish, and they are U.L. approved for any standard building wire.

In the bath... Pry-Lites and Blo-Fan go together—Pry-Lite recessed lights give perfect illumination without glare—and elimination of offensive odors and steam-streaked walls is assured with a Blo-Fan exhaust ventilator.

*Blo-Fan*

America's Most Imitated Home Ventilator

*Pry-Lites*

The Original Recessed Lights with Snap-on Fronts



**9 SPEED SWITCH**

This exclusive Blo-Fan feature makes it as easy to regulate the rate of ventilation as it is to control the speed of a car. Standard equipment on De Luxe Model 210 Blo-Fan only.

**PRYNE AND COMPANY, Box B-82, Pomona, California**

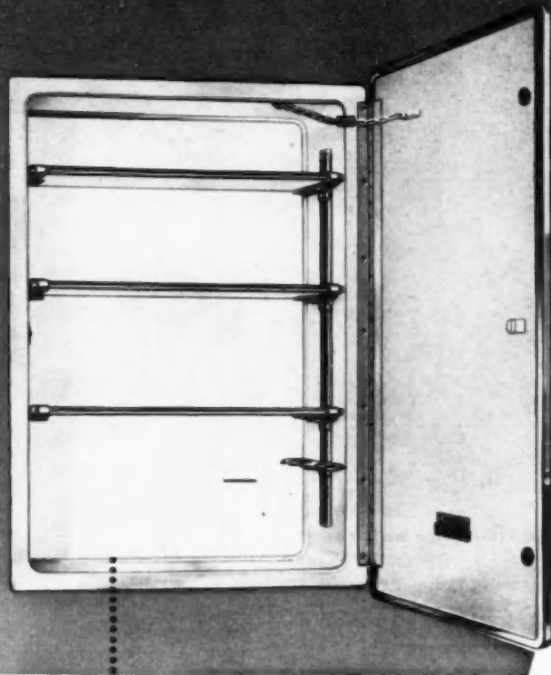
Eastern Factory: 124 Adams St., Newark, New Jersey

Warehouses: Los Angeles, San Francisco, Chicago, Atlanta

Stocked by more than 650 wholesalers in over 350 cities.

\*Trade Mark Reg.

# PERMANENCE



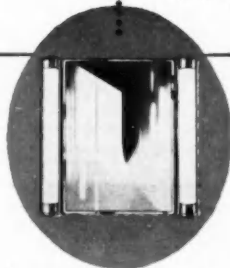
PERMANENCE is an important feature to consider in the selection of a bathroom cabinet when building or remodeling.

And it is the PERMANENCE of the interior finish that makes Hall-Mack bathroom cabinets the ideal choice for every bathroom.

Hall-Mack Porcelain Cabinets are drawn from a single sheet of iron and three coats of vitreous porcelain enamel are furnace-fused to the seamless interior. Better quality refrigerators, stoves, and lavatories are all finished in porcelain. Porcelain-on-iron is the most enduring and beautiful finish ever developed for bathroom cabinets—it's easy to clean... completely sanitary... it's a lifetime value!



The Porcelain-on-iron lifetime interiors give Hall-Mack cabinets a fresh, sparkling beauty that is ageless! This is but another example of Hall-Mack quality... another reason why Hall-Mack is the only answer to Quality Bathroom Cabinets. A Hall-Mack cabinet has every quality feature than can be desired in a fine bathroom unit. All trim is chrome plated... all mirrors are plate glass... and bulb edge glass shelves are fully adjustable. It blends perfectly with today's modern bathroom design!



Mirror sizes 16 x 22 to 18 x 26...  
Fluorescent or Lumiline lighting...  
or without lighting

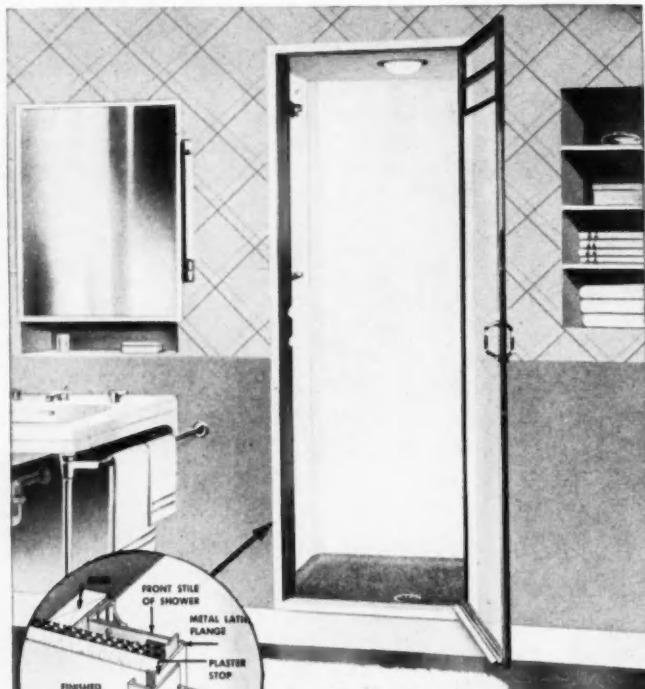
## HALL-MACK COMPANY

1344 W. Washington Blvd., Los Angeles 7, California

7455 Exchange Ave., Chicago 49, Illinois



Sold by leading plumbing, tile and hardware dealers everywhere.



Completely built-in the bathroom

a new shower designed  
for Builders

## BUILT-IN *Cadet* SHOWER, DESIGN 19B

... with Precast Terrazzo Receptor

Completely recessed, door flush with wall of bathroom, no exposed metal panels.

Beautiful in appearance—clean interior, no screws or projecting fastenings to mar the bright white, smooth enameled finish.

Permanently water-tight—no mortar joints to crack and leak.

Installed cost is much less than tile or other built-on-the-job showers. Only one trade required for installation.

Size, 36" x 36" x 80"—curtain or zephyr door as illustrated, bonderized, galvanized steel walls, baked-on synthetic white enamel—will not rust.

Install a Fiat 19B Cadet on your next job. You will find this shower readily accepted by home buyers.

### FIAT METAL MANUFACTURING COMPANY

THREE MANUFACTURING PLANTS

(Chicago area plant) Franklin Park, Ill.

Long Island City 1, N.Y.

Los Angeles 33, Calif.

In Canada: Fiat showers are made by Parcelain and Metal Products, Ltd., Orillia, Ontario

# FIAT

Please send catalog of Fiat Showers, Receptors and Doors. Also builders bathroom floor plan sheet.

NAME \_\_\_\_\_

COMPANY \_\_\_\_\_

STREET \_\_\_\_\_

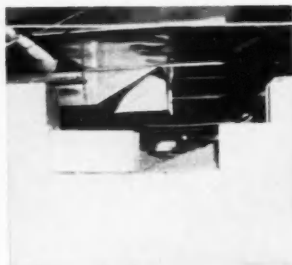
CITY \_\_\_\_\_ ZONE \_\_\_\_\_ STATE \_\_\_\_\_

Mail to Fiat Metal Mfg. Co., Franklin Park, Ill.

## Furnace Dealer Thrives on Jobs Others Turn Down

When the Dombrody Furnace Co. of Cleveland dispatches its workers on a job, it's standard practice to send along picks and shovels and other tools for digging. Dombrody is noted for taking on jobs other furnace dealers won't handle; between 35 and 50 such jobs were completed last year and each one called for overtime effort in the pick and shovel phase.

A high percentage of the installations handled by the firm are these so-called "groundhog" jobs—where a lot of excavating must be done to provide clearance for the duct work,



"Old home" installation of duct work in two-foot-high crawl space is typical Dombrody Co. job

and where the men have to inch along on their stomachs to install the ducts.

The company, organized in 1949, is operated by two partners, Louis Dombrody and Laddie Holub. Last year its billing amounted to slightly more than \$100,000, and this was all from work in existing homes, most of them 30 or more years old. No new home installations were included.

According to Holub, the firm operates in an area where only one home in 50 has a complete basement and the others vary from no basement at all to the typical farm-type fruit cellar. "Naturally," he said, "we must have the return air duct work properly located for efficient heating. To do this, we often have to do sizeable excavating jobs preceding installation of the furnaces."

Holub told of one particular challenge to his staff's skill, a 60-year-old house where—the owners had been told—it would be impossible to install winter air-conditioning because of basement space limitations. The sub-floor construction was of 12x12 solid oak beams.

(Continued on page 214)





## "As far as we're concerned, Dodge trucks are tops!"

... says **CHARLES BOYLE**, President, North Texas Lumber Co., Richardson, Texas

"For one thing, Dodge trucks are really sturdy," says Mr. Boyle. "They carry our *big* payloads easily. We work 'em hard, load 'em to the hilt—yet they give dependable service year after year. Advantages like high-capacity springs, plenty of load space, and lots of power make Dodge trucks just right for the lumber business.

"They're economical trucks to operate, too—and exceptionally maneuverable in any tight spot. We now use Dodge trucks exclusively. As far as we're concerned, they're tops!"

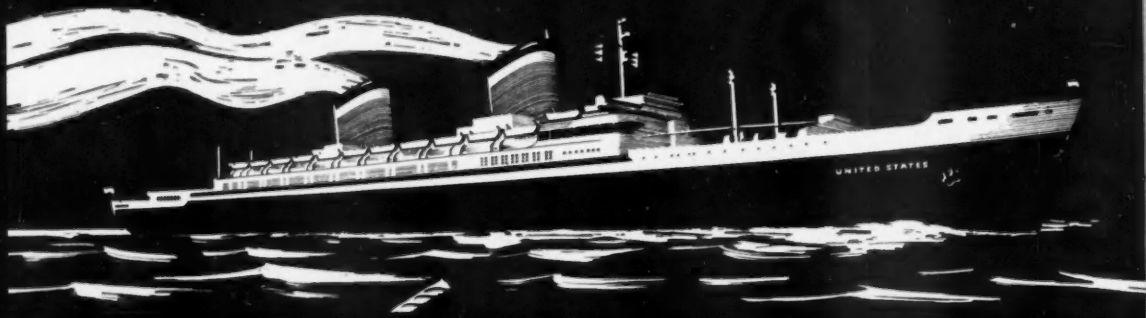
Mr. Boyle is only one of countless building-supply haulers across the nation who are solving their trucking

problems with trucks engineered to fit the job . . . Dodge "*Job-Rated*" trucks!

You'll find that a Dodge "*Job-Rated*" truck offers better weight distribution that permits bigger loads without overloading. What's more, a Dodge has a big, high-compression engine with power aplenty to move those bigger payloads fast and at low cost. And Dodge is a *dependable* truck, too. You can count on low upkeep costs and long truck life.

Actually, there are a great many reasons why you'll find a Dodge "*Job-Rated*" truck to be "*tops*" on your job. Your friendly Dodge dealer is always ready with the facts you need to solve your hauling problems . . . so why not see him soon?

# DODGE "Job-Rated" TRUCKS



## U. S. LINES AGAIN CHOOSES SCHLAGE LOCKS

**Locks face their most grueling tests aboard ship.** Sea duty subjects locks to everlasting motion during every minute of every voyage, and to the continuing corrosive action of damp salt air.

During 12 years of this rigorous service on the S.S. America, Schlage Locks have proven their ruggedness and

their extreme resistance to corrosion. Now, U. S. Lines has again selected the time-proven Schlage Lock for use throughout the magnificent, new S.S. United States.

Schlage Locks for commercial buildings and residences have the same type of durable mechanism as the locks used on the S.S. United States.

### FACTS ABOUT THE S. S. UNITED STATES THE LARGEST SHIP EVER BUILT IN THE UNITED STATES

Length . . . . .	990'	Gross tonnage	Over 50,000
Beam . . . . .	101'6"	Total passengers . . .	2,000
Depth: Keel to top of forward funnel . . .	175'	Total crew . . . . .	1,000
Number of decks . . .	12	Estimated cost	\$70,000,000
Speed . . . . .	30 knots plus	Builders: Newport News Shipbuilding and Dry Dock Co.	

Schlage Saturn Design in Luster Sealed\* Aluminum is used throughout the S.S. United States

\*Luster-Sealed Aluminum, treated with Alcoa's aluminite process, permanently resists corrosion and needs no polishing . . . ever!

# SCHLAGE®

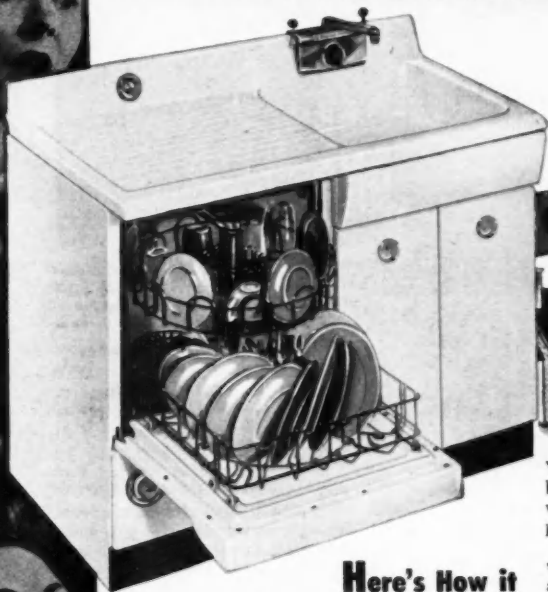
THE TIME-PROVEN CYLINDRICAL LOCK

Schlage Lock Company, San Francisco, California  
SCHLAGE LOCK COMPANY OF CANADA, LTD., VANCOUVER, B. C.



HERE IS A DISHWASHER WITH "HOUSE-SELLING" MAGIC!

# THE NEW *American Kitchens* ROTO-TRAY DISHWASHER!



- makes all others second best
- really work-free dishwashing
- washes dishes 3 times cleaner than by hand



## Here's How it Helps Sell Your Houses Faster

Wide-spread advertising and publicity makes it the dishwasher housewives would rather own than *any* other—for here is really work-free dishwashing! In addition, it follows the famous body-contour American Kitchens line for a handsome eye-catching complete kitchen! It is a recognizable quality product that bespeaks quality construction throughout. And American Kitchens and the new combination dishwashing sink is easy to install—will give you the greatest return on your dollar!

Find out today about the special discount to builders. Mail coupon!

You know that the most popular house you can build is one designed to save work for the housewife. And you know that the most popular appliance you can build-in is a dishwasher.

And now—here is the greatest of the dishwashers—the most modern, efficient of them all! The American Kitchens Roto-Tray Dishwasher with a new principle of Roto-Tray action that assures that *every* surface of *every* dish will be scrubbed hygienically clean! More work-saving features: is easiest to load—has FOUR rinses, one pre-rinse and three final hot-water rinses; front opening keeps top work surface free.



American Kitchens Division, Dept. AB-8  
AVCO Manufacturing Corp.  
Coneersville, Indiana

Please send me full information about the American Kitchens Roto-Tray Dishwasher, builders' discounts and your new Architects' and Builders' File.

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against heat, cold, dust, and noise



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All Fir-Tex Insulating Board Products are Termite proof

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*Exclusive*  
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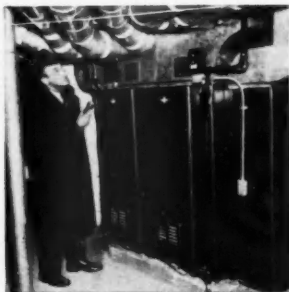
**INTERIOR FINISH.** To add an extra room with-  
in your home, finish attic or basement with Fir-  
Tex color panels and tile. Factory finished in  
White, Ivory, Wheat or Green. See your lum-  
ber dealer for suggestions and estimates.

**PLASTER BASE LATH.** Assures attrac-  
tive walls free from dirt-revealing plas-  
ter marks because dust-laden air does  
not pass through. Plaster cracking is  
prevented by a minimum.

(Continued from page 210)

slightly strong term, but it still took a little doing, Holub admitted. "We had to pit the basement, drop the floor, in order to provide head room for the duct work. Then, we broke through a wall separating the basement from the crawl space.

"In order to pull cold air from the upper suite, we had to install the duct work in the crawl space—two feet high. Sixty per cent of the duct work was installed in the unexcavated portion of the dwelling. We had to use aluminum duct work so it wouldn't rust out in this area, which is subject to dampness."



"Groundhog" project, in which two gas furnaces were installed to heat a 60-year-old 10-room house. Inspecting it is Laddie Holub, one of Dombrody partners

Two of Perfection Stove Co.'s Model 62 Superfex gas-fired furnaces were installed to take care of the 16 rooms—seven rooms and bath on each of the two floors.

It's this publicizing the fact that they consider no job too tough for them that gets the company a very high percentage of the old home business in the city, according to both Holub and Dombrody. They work in widely-separated sections; for example, many of their jobs are in the Hungarian colony, 10 miles from the shop. The source: continuous advertising in the Hungarian language paper.

Advertising is considered very important in the Dombrody business, and they concentrate on neighborhood newspapers. Television is being used, too—a five-minute sports report following a news broadcast. Another medium is bus and car cards, in cooperation with the Perfection Stove Co.

Plan NOW to participate in  
**NATIONAL HOME WEEK**

Sept. 14 through 21

AMERICAN BUILDER

# *2 new* BILT-WELL DOORS

FOR CONTEMPORARY AND  
RANCH TYPE HOMES

## OPEN UP...

NEW DOOR SALES POSSIBILITIES

with these beautiful doors  
designed and built to meet the  
exacting demands of  
today's home owners  
for elegance and lasting,  
satisfying service.



Nationally advertised Bilt-Well Doors—  
designed to CREATE new business, quick  
sales and to realize larger PROFITS!

The demand for beautiful doors to fit  
the homes of today has been constantly  
increasing. Here are two new doors to meet  
your customers' demands—doors that are  
architecturally correct for Contemporary  
homes . . . doors are made of properly  
kiln-dried Ponderosa Pine, accurately ma-  
chined and sturdily constructed.

Write us for literature and name of  
nearest supplier.

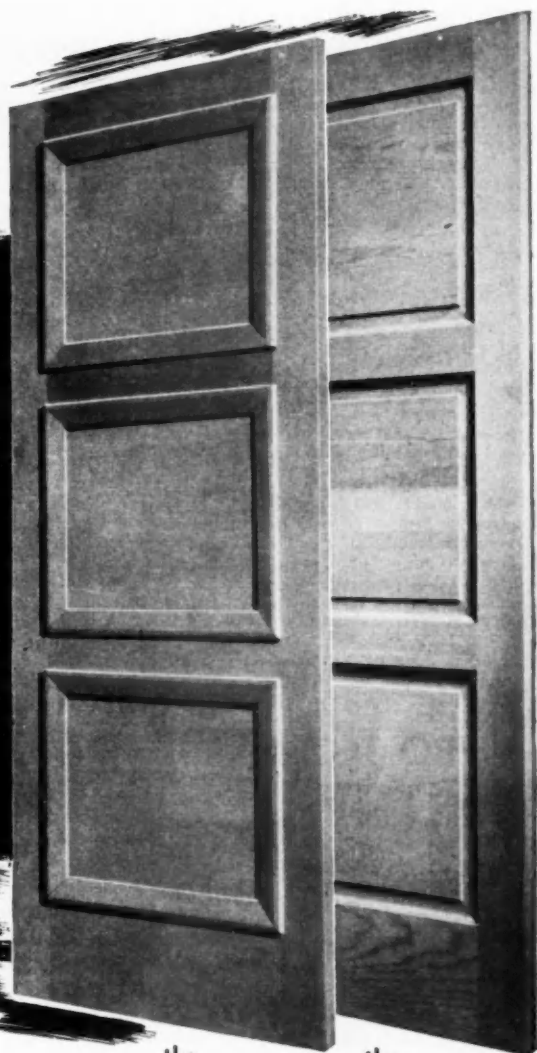


*Ponderosa Pine Woodwork*

**CARR, ADAMS & COLLIER, CO.** *Dubuque, Iowa*

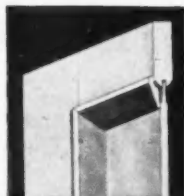
Here's a list of the Bilt-Well line • Superior Unit Wood Windows • Nu-Style & Multiple-Use Cabinets • Carr-dor Garage Doors • Combination Doors • Screens & Storm Sash • Basement Unit Windows • Shutters • Exterior Doors • Interior Doors • Entrances • Louvers & Gable Sash • Corner China Cabinets • Ironing Board Cabinets • Mantels • Telephone Cabinets • Stair Parts

AUGUST 1952

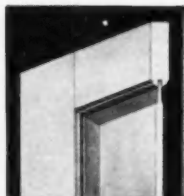


the  
**Hacienda**

the  
**Rancho**



Mitered and packaged moulding is available to convert the "Rancho" door to the "Hacienda" door. The moulding is simple to apply around the panels—either on one or both sides of the door.

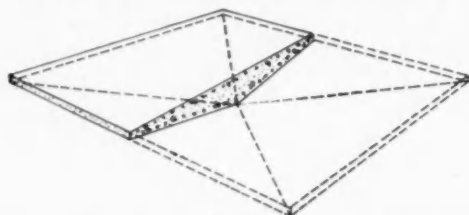


A close-up view of the new "Rancho" door (showing top rail and stile, beveled and raised). Heavy (1/2" thick) solid panels cast to shadow and accentuate the beautiful contour of the door.

## Experiments Conducted on Concrete Slab Floors

Load-bearing perimeter foundations, or piers extending into the ground, are sometimes broken by localized horizontal forces which cannot be resisted by any practical amount of reinforcing steel.

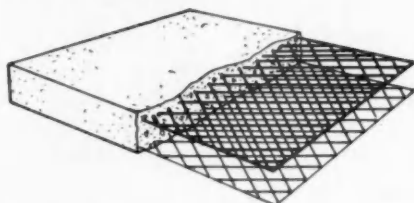
Studying this problem for the Housing and Home Finance Agency, the Housing Research Foundation of the



Inverted pyramid has most strength for the money. Diagonal reinforcing top and bottom as in flat slab below

Southwest Research Institute has completed experiments which indicate that a slab of inverted pyramid design gives the greatest strength and stiffness for the money. Perimeter foundations or grade beams appear to contribute little strength or stiffness to structural floor slabs laid on grade.

The Foundation carried out its experiments with models of slabs of various designs, built to a scale of one inch to the foot. These models simulated the strength and performance of full-scale floor slabs 24 by 36 feet. The inverted pyramid slab had a depth of 2 feet at the center and 4 inches around the perimeter. One-half-inch steel



Flat slab with diagonal reinforcing top and bottom resists unpredictable stresses up or down. Is repetitious in size and pattern

bars were placed 12 inches on center both ways top and bottom in the slab. It was found that by placing the steel diagonally instead of parallel to the sides of the slab, strength and stiffness were increased at no added cost.

While the inverted pyramid was found to be the strongest design for the money, placing the steel in the bottom section proved to be somewhat difficult. Also, it was recognized that the thin 4-inch depth of the perimeter would meet with opposition as being a radical departure from conventional construction.

The Housing Research Foundation rates the perfectly flat slab as "almost as good" as the inverted pyramid, if it has all 1/2-inch steel rods uniformly spaced 12 inches on centers diagonally top and bottom. One such slab included in the experiments had a thickness of 10-3/4 inches and diagonal reinforcing. Another consisted of perimeter grade beams and intermediate beams spaced 12 to 16 feet and poured monolithic with the slab.

## PRO-TECT-U JALOUSIES

GLASS, WOOD OR  
ALUMINUM LOUVERS

### WINDOWS

This last word in window construction, manufactured by originators in the jalousie window field, is ideally suited for porch enclosure and for prime windows.

- Adjustable closing force.
- Inside screens are removable for cleaning glass or for placing storm sash.
- Partially closed — Pro-Tect-U Jalousies resist rain and provide ventilation.

- Closed—they become unobstructed picture windows and repel hurricane-driven rains.
- Some of the features exclusive with Pro-Tect-U Glass Jalousie Windows and Doors:
- Weatherproofing—by use of interlocking metal parts at jams.
- Equally distributed closing force transmitted by means of toggle links every fourth vane.
- Opened 90% of the window area permits air circulation yet cannot be entered.

### DOORS



Pro-Tect-U aluminum frames are packaged one window to a carton. Assembly is simple. Glazing is easy.



for complete information write  
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**RICHMOND  
TYPE WFD BOILER**  
for Hot Water Heating  
Systems



**RICHMOND  
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for Steam, Vapor and Hot Water  
Systems plus Domestic Hot Water

- **WET BASE**...prevents heat from radiating to floor; permits installation at radiator level.
- **REMOTE PILOT IGNITER**...added safety and convenience feature...standard equipment with diaphragm gas valve controls for manufactured gas. Meets Eastern Utility requirements.
- **EASY CLEANOUT**...top flue cleanout that saves disconnecting of piping and controls.
- **WHITE JACKET**...baked white enamel casing of sturdy construction. Beautifully streamlined with smooth, rounded corners.

- **FIELD-PROVED**...to give trouble-free performance with minimum service... Richmond Boilers are extra efficient due to their "wet base" design...economical for maintenance and installation.

Consider together Richmond's improved design, construction and appearance and you know there are no better boilers to specify or install. AGA approved.



Richmond Radiator Company AB-8  
19 East 47th Street, New York 17, New York  
Please send me more information and literature on the Richmond Heating Units. No obligation, of course.

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COMPANY.....

ADDRESS.....

CITY.....ZONE.....STATE.....

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Make your floors 5 ways better  
... increase profits with up-to-date American machines and materials in *all five steps* in floor finishing! This assures finest floors... saves time... saves labor... on wood, cork, concrete, terrazzo, asphalt, rubber, linoleum or plastic. Send for free catalog.

... FROM START TO FINISH!



1.

**SAND WITH AMERICAN SUPER B...**  
nearly twice as fast as any other 8" machine!



2.

**DO EDGES WITH AMERICAN SPINNER**  
... also closets, small halls, stairs. Saves time!

3.

**DISC SAND WITH AMERICAN DELUXE**  
as final cut. Makes finest finish—a flatter surface—easier to clean.



4.

**USE QUALITY SEALS.**  
American Finishes are finest quality—complete line for all floors... seals, finishes, waxes and cleaners.



5.

**NEW IMPROVED AMERICAN ABRASIVE PAPERS.**  
American Black Demon and American Combination high quality papers have been improved to give longer life and faster cutting.

The American Floor Surfacing Machine Co., 411 So. St. Clair St., Toledo, Ohio

Please send latest catalog on the following, without obligation:

- Floor Sanders
- Floor Edgers
- Floor Maintenance Machines
- Floor Finishes
- Abrasive Paper

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State \_\_\_\_\_

## Bee's Honeycomb Is Idea for New Building Material

A new structural panel material, which combines the bee's honeycomb construction technique with a special adhesive, has been developed by engineers of the Chrysler Corp.

Qualities claimed for the light weight material, called Cyclecore, are exceptional strength and insulating effectiveness. A four-inch-thick panel is said to have the insulating qualities of two-foot-thick masonry.

Current commercial production of Cyclecore panels is principally for interior building partitions and for such commercial work surfaces as desk tops. The interior panels, being



Heart of new Cyclecore panels is honeycomb of impregnated paper, which is sandwiched, by special adhesive, between wood, metal or plastic skins

manufactured by E. F. Hauserman Co. of Cleveland, consist of a 2 3/8-inch core filling, bonded to asbestos cement 7/16-inch thick.

Chrysler also said that a number of field tests and installations have demonstrated advantages for the material in exterior construction uses. Because considerably less weight is supported when exterior Cyclecore panels are used, the company said, these savings are possible: 20 to 25 per cent in structural steel framing; 15 to 20 per cent in roof beams and bar joists; as much as 30 per cent in reinforcing steel for foundations; and 15 per cent less steel for lintels and anchors.

The exterior panels are bonded by Cycleweld cements and adhesives developed by Chrysler to join metal, wood, plastics, ceramics or other materials.

## Kentile Plant Enlarged

A second production line has been installed in the Chicago plant of Kentile, Inc., Joseph L. Kolcyski, vice president in charge of manufacturing, has announced. The new installation, now in operation, doubles the firm's midwestern production facilities, Kolcyski said.

**AMERICAN**  
FLOOR MACHINES • PORTABLE TOOLS



**"thrifty"  
third**  
the economy  
grade

"Little Theatre," Hotel Utah, Salt Lake City, Utah. Floored with "Thrifty" Third Grade Northern Hard Maple.



**NORTHERN  
HARD  
MAPLE** in *Beautiful*  
"Thrifty" Third grade, where  
cost, character, comfort and  
endurance count!

*the finest  
floor  
that grows*

For so many good reasons, MFMA Northern Hard Maple Flooring, in "Thrifty" Third grade, is the *right* floor—the *smart* floor—to recommend and push these days! In defense housing projects, motels and residences, in modernization work, where costs must be held down, show them that it takes just as much labor to lay poor flooring as good flooring. Show them how much a well-laid maple floor adds to the building's strength—how much longer life Northern Hard Maple will give them—how much easier maintenance—and how much better it will look. *Then* the money-saving price you can quote on a floor of "Thrifty" Third means a lot to anyone who *cares* what kind of floor he's getting for his money. Want some MFMA leaflets on "Thrifty" Third to enclose with your mail? Write —

**MAPLE FLOORING MANUFACTURERS ASSOCIATION**  
Suite 596, Pure Oil Bldg., 35 East Wacker Drive  
CHICAGO 1, ILLINOIS

**FLOOR WITH** *NORTHERN* **HARD MAPLE**  
*BEECH AND BIRCH*

AUGUST 1952

**WARM DRY FLOORS**  
in **BASEMENTLESS HOMES**  
with **ZONOLITE®**  
**INSULATING  
CONCRETE**



Homes built with warm, dry Zonolite concrete floors sell or rent faster because: Zonolite has up to 16 times the insulating efficiency of ordinary concrete. It blocks condensation, cuts heat loss into the ground. Zonolite Insulating Concrete is absolutely permanent—lasts the life of the building. It cannot rot, decay or deteriorate.



*Radiant Heating More Efficient, too!*

Zonolite, under radiant heating, directs heat upward into room, retards heat loss into the ground. Its low heat capacity does away with "heat lag" and "over ride", gives instant response to thermostatic controls.

Investigate this way to build basementless homes that have better value, added comfort and economy through the years. Mail coupon for free booklet CA-4.

**ZONOLITE**  
with  
**VERMICULITE  
AGGREGATES**

Please send me, without obligation, FREE BOOKLET CA-4 describing Zonolite Insulating floor construction.

ZONOLITE COMPANY, Dept. AB-02  
135 S. La Salle St., Chicago 2, Ill.

Name.....

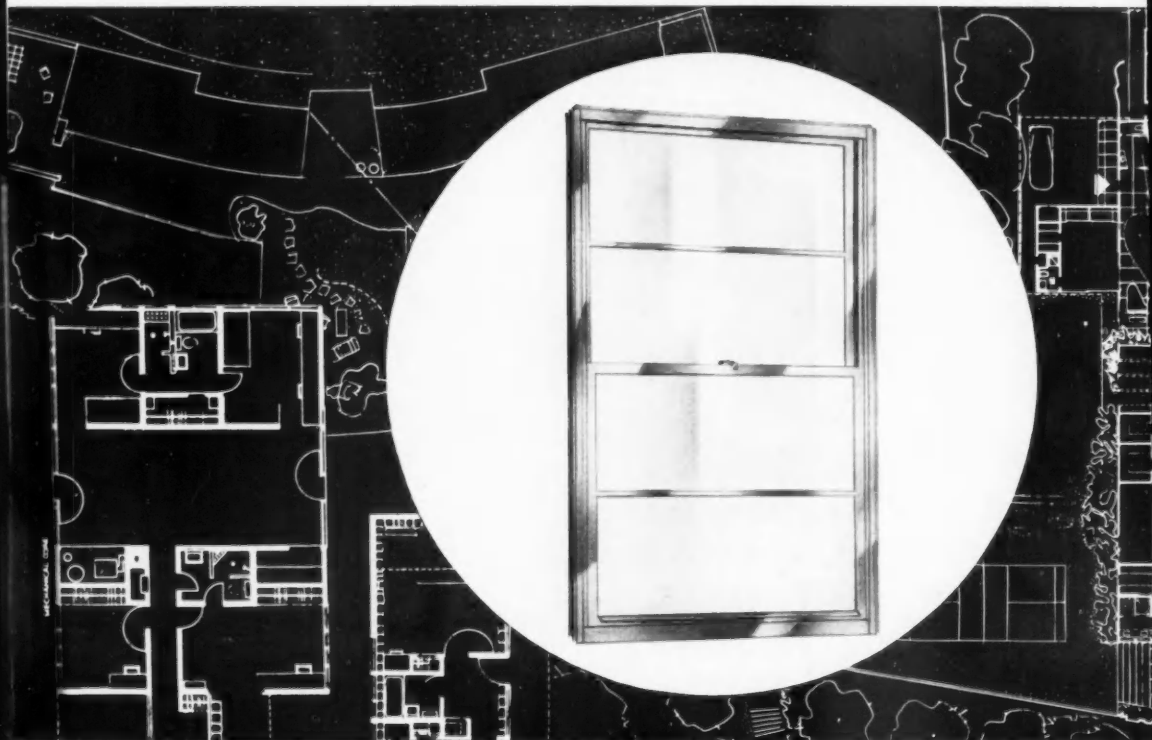
Address.....

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

Architect  Contractor

219

# made to outlast

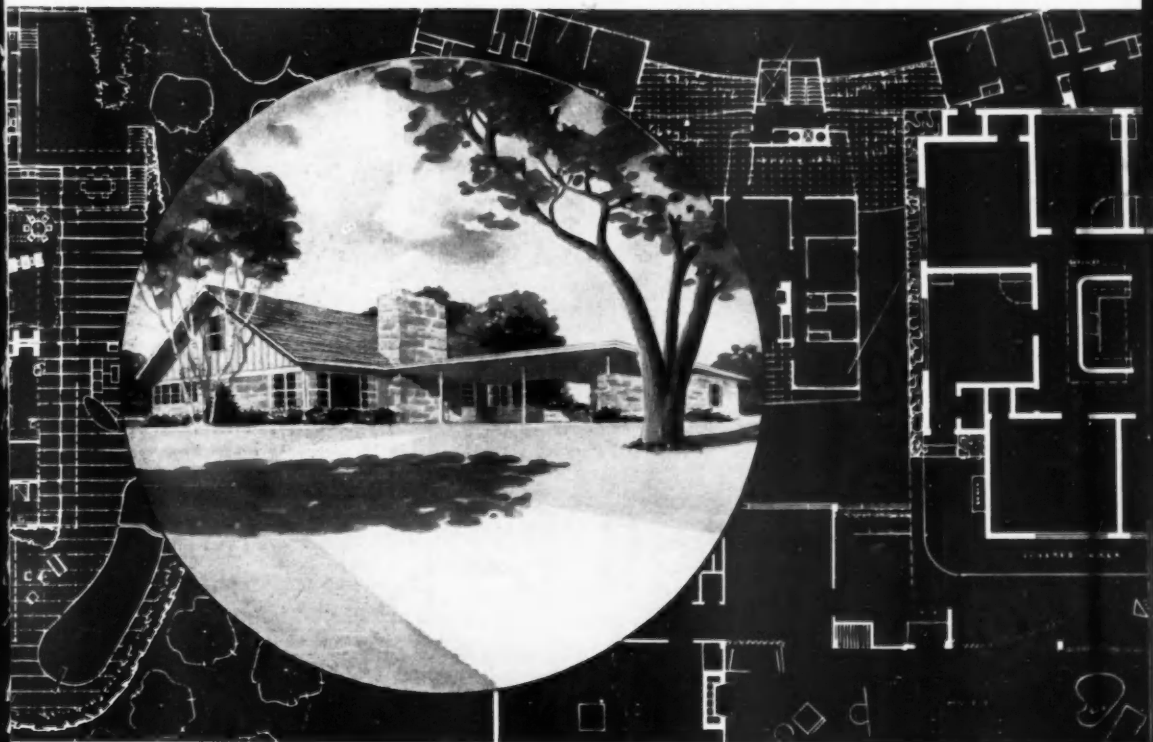


Here is Ceco-Sterling **Double-Hung** Aluminum Window, series 50-B for residences

**In times like these** it's just good business to take a second long look when selecting windows for the homes you build. • Cost of course is a factor, but the **WAY** cost is figured is the important thing. • How long will the windows last? What about maintenance? Those two questions are keys to better buying and here Ceco-Sterling Aluminum Double-Hung Windows win on both counts. • You can be sure they will outlast any home. Engineered with exacting care, and made of ageless aluminum, they give rugged lifetime

**CECO STEEL PRODUCTS CORPORATION**

# ...any home



service . . . won't rust, rot, warp, or swell. They resist climatic change . . . provide the tightest weather seal ever. • When it comes to maintenance Ceco-Sterling Aluminum Windows deliver a plus value. No painting is necessary and cleaning is a mere matter of wiping. There are other advantages too, such as easy installation . . . simplified anchorage . . . smart styling. • We like to sum it all up this way . . . when you use Ceco-Sterling Aluminum Windows you know you use the very best, you're sure of savings too.



General Offices: 5601 W. 26th St., Chicago 50, Illinois • Offices, warehouses and fabricating plants in principal cities

*In construction products* **CECO ENGINEERING** *makes the big difference*



## 1 EASY TO INSTALL

Especially adaptable to quick, economical installation over concrete. Cross-wise grooves spaced to insure better mastic adhesion. Available either pre-finished or unfinished.

## 2 CHOICE OF GRADES AND TYPES OF WOOD

Available in either Red Oak or White Oak in all standard strip flooring grades and also in the following special grades: Prime, Standard and Better, Standard, Tavern and Better, and Tavern.

## 3 SIZES TO FIT EVERY JOB

Comes in the following sizes: 25/32"x6 3/4"x6 3/4", 25/32"x7 1/2"x7 1/2", 25/32"x9"x9", 1/2"x8"x8" and 1/2"x10"x10". Completely adaptable to large or small homes, commercial structures, housing projects, schools and institutions.

## 4 DEPENDABLE UNIFORM QUALITY

Distinctive DELFAIR OAKBLOK flooring is carefully and uniformly manufactured to meet the most rigid specifications. All blocks are steel spline joined. There is no substitute for oak floors. Demand the best . . . demand DELFAIR.

D. L. FAIR LUMBER CO. Louisville, Mississippi Member: NOFMA



# Oakblok

WRITE FOR  
COMPLETE  
INFORMATION

ALSO: Standard Strip, Prefinished, Plank and Square Edge Strip

## How to Construct Precast Concrete Steps and Stairs

When building a new home, modernizing an old one, or replacing old, worn-out steps, the use of precast concrete steps can add a great deal to the value and appearance of the structure. In addition, the concrete units are durable and maintenance-free.

The precast method provides a good variety of design; and, if desired, color and distinctive finishes can be used with especially attractive results.

Equipment required consists of steel step molds, external vibrators, storage bins and hoppers, volume or weight batchers, a fixed-blade drum-type mixer and a reinforcement forming table and equipment.

Here is a description of the precast procedure, with installation data:

### Materials

Aggregates should be clean, well-graded sand and gravel or crushed stone having a maximum size of 1/2-inch. Where steps of unusual texture

Suggested Trial Mixes for  
Precast Concrete Steps and Stairs

Mix Design	Trial Mixes			Materials per cu yd of Concrete		
	Water per bag of cement	Surfaced sand	Aggregates Sand	Water	Surfaced sand	Aggregates Sand
No. 1	4.5 lb (1 gal)	140 lb (1 sack)	740 lb	740 lb	564 lb	1640 lb
No. 2	5 lb (1 gal)	130 lb (1 sack)	750 lb	750 lb	650 lb (10 gal)	1650 lb

are desired, white sand, crushed limestone and white portland cement may be used. For colored steps, clear colors can be obtained if light-colored aggregates, white portland cement and pure mineral pigments not to exceed 10 per cent of the weight of the cement are used.

The coloring, cement and sand should be mixed in a dry state to a uniform color before water and coarse aggregate are added. Excellent results are also obtained where the cement and pigment are ground in a dry state in a small ball mill.

Suggested proportioning of materials is given in the accompanying table. The quantities will probably be altered to suit local conditions. A stiff consistency should be maintained; and, in general, as little water should be used as is necessary for good placement of the concrete in the forms.

(Continued on page 224)

# No job's too big No job's too small

We're the labor-saving Hardboard Twins

Yes, we're Stan and Temp, the Weldwood Hardboard twins... two of your busiest and best helpers on any job!

You probably know us best by our full names... Weldwood Standard Hardboard and Weldwood Reztemp Hardboard, the resin and oil treated, water-resistant surfacing material.

But, called by any name, we're known as just about the most versatile helpers in the building business.

That's because we're rugged and tough, sturdy and strong. We're hard working but easy to work. And we cut with sharp, clean edges.

Light in color, too, we're easy to paint. No wonder we're such a help on so many different projects.

Let us help you on your next job.

## WELDWOOD® Hardboard

Manufactured by Abitibi Power and Paper Company

Distributed Exclusively By

**UNITED STATES PLYWOOD CORPORATION**

55 West 44th Street, New York 36, N. Y.

Branches in Principal Cities • Distributing Units in Chief Trading Areas



To meet all your requirements: both Standard and Reztemp Grades of Weldwood Hardboard come in three popular thicknesses: 1/8", 3/16", and 1/4". In sizes: 4'x6', 4'x8', 4'x10', 4'x12' and 4'x16'. Panels up to 4'x12' are wrapped six to a package. Weldwood Reztemp Tile Board is available only in 1/8" thickness and sizes 4'x4', 4'x8', and 4'x12'.

Call your Weldwood salesman for Weldwood Hardboard or Tile Board today.

**For Mixer Leadership**

**Look To** 

**A BETTER MORTAR MIXER!**

- Often pays for itself on first job.
- Triple mixing hoes with exclusive CMC adjustable blades. Perfect mixing is assured.
- Renewable, longer-lasting drum liner guarantees long-range saving.



**TOPS FOR DEPENDABILITY!**

- The CMC line of concrete and mortar mixers is built in a complete range of sizes to fill every need.
- If you want the best, the longest trouble-free performance and the absolute tops in ease of operation, the CMC line is FIRST CHOICE!

**CONSTRUCTION MACHINERY CO'S** 

**Proved In The Field** 



**Dual Prime Centrifugal PUMPS**

- Unmatched Self-Priming Speed.
- Suction Lifts of at Least 25'
- Operates Successfully when Ordinary Pumps Lose Prime and Become Air-Bound.
- Tested Under Most Severe Conditions.

Here's a handy pump that gives long, faithful service at lowest cost. This CMC DUAL PRIME Model 3M gives you the big advantages of exclusive CMC dual jet construction and advanced centrifugal design. Pumps up to 3000 gallons per hour. Open thrash type impeller handles solids up to 3/8".

Write today for latest catalog. CMC DUAL PRIME models are available in sizes from 1 1/2" to 10" — capacity from 3000 to 200,000 gallons per hour.

**CONSTRUCTION MACHINERY CO'S** 

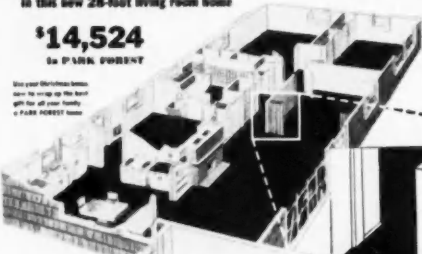
**How**  
**PARK FOREST HOMES INC.**  
**sells with**  
**"MODERNFOLD" DOORS**

**Now! Add a room in 10 seconds**

In this new 28-foot living room home

**'14,524**  
in PARK FOREST

See your Modernfold dealer  
show the work on the floor  
plan for all your friends  
a PARK FOREST home



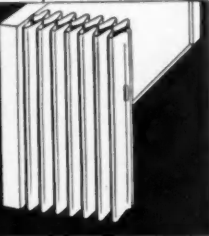
Take a Peek at Our Plan  
10 Rooms to Choose  
a Park Forest Home

- 1. Living Room
- 2. Dining Room
- 3. Kitchen
- 4. Bath
- 5. Bed Room
- 6. Bed Room
- 7. Bed Room
- 8. Bed Room
- 9. Bed Room
- 10. Bed Room

**Open a Home/Unit  
That You Can't  
Close!**

Modernfold doors are the only doors that fold like an accordion. They are made of steel and vinyl. They are the only doors that fold like an accordion. They are made of steel and vinyl. They are the only doors that fold like an accordion. They are made of steel and vinyl.

Park Forest Homes, Inc. uses full page newspaper advertisements to sell "room building" advantages of "Modernfold" doors — encourage on-site inspection of model homes.



**PARK FOREST HOMES, Inc.**

SEE OUR CATALOGUE TODAY!



It's Easy to Buy Your Own Home

Park Forest is Convenient

"Add a room in 10 seconds . . . or have a 28-foot living room!" Thanks to "Modernfold" doors, prospects find this sales feature a tough one to forget. Which is one reason why Park Forest is Chicagoland's fastest growing community.

In addition to sparking sales, steel-framed, vinyl-covered "Modernfold" doors speed on-site construction—save labor and materials. Whether used as "movable walls" . . . or in smaller sizes to save space swinging doors waste, "Modernfold" doors go up in a hurry—complete. No trimming, fitting, painting, hardware or "extras" needed.

For full details about "Modernfold"—the folding door that gives you more—call our distributor, listed under "doors" in your classified directory. Or mail coupon.

**NEW CASTLE PRODUCTS**

New Castle Indiana  
In Canada: Modernfold Doors  
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the doors that fold like an accordion

**modernfold**  
DOORS

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**SOLD AND SERVICED NATIONALLY**

New Castle Products,  
Box 856, New Castle, Indiana  
Please send me further "Modernfold" details

Name.....

Address.....

City.....County.....State.....

(Continued from page 222)

**Manufacture**

The mixing process should continue for at least two minutes after all the materials are in the mixer. As soon as possible after mixing, the concrete should be placed in the forms.

Before concrete is placed a thin coating of high-grade form oil or light lubricating oil should be applied to the inside of the forms. Concrete may be impacted with vibration, but care must be taken during the placing operation to prevent displacement of the reinforcement.

All pieces should be cast with the exposed surface face down against a smooth metal surface where possible. Vibration should prevent any irregularities in the surface of the product. Surfaces which cannot be cast against a smooth plate should be steel troweled. Large numbers of tread and riser units may be cast in gang molds on vibrating tables. In casting long stringers or side supports, individual molds should be vibrated with external vibrators.



THREE BASIC STEP DESIGNS



EXAMPLES OF STEP ASSEMBLIES

**Design**

The three basic designs of precast concrete steps are shown in accompanying diagrams, along with a wide number of designs for step assemblies which may be effectively applied. In general, it is advisable to cast the tread and riser as one piece as shown in Figure 1.

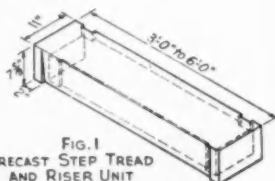


FIG. 1  
PRECAST STEP TREAD  
AND RISER UNIT  
(Reinforced as shown below)

Using this as a basic unit, the step may be supported by precast support walls (Figure 2) or block support walls (Figure 3). Normally, side supports will be used for exterior  
(Continued on page 226)

AMERICAN BUILDER

# WOMEN buy homes...

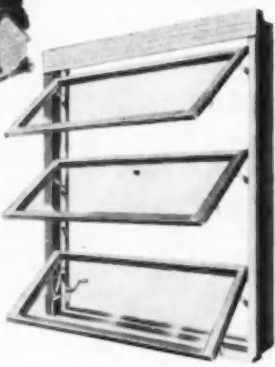
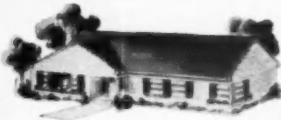
**Auto-lok**  
AUTOMATIC LOCKING  
**WINDOWS**  
ALUMINUM OR WOOD

sell homes  
to women *because*



**AUTO-LOK** is the first and only window to give women everything they've ever wanted in a window...**WITH NONE OF THE DISADVANTAGES THEY'VE PUT UP WITH IN THE PAST**

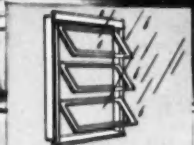
New HOMES AREN'T NEW without *Auto-lok*



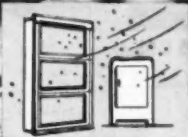
Why choose windows with any disadvantage, with the ready sale of a home at stake? Why choose ordinary windows when you can equip your homes with the first and only window specifically engineered and built to combine the best features of all window types?

Actually, you can't afford NOT to get the facts about Ludman AUTO-LOK Windows. For, AUTO-LOK homes are newer, more modern and you can guarantee these windows for a lifetime of easy operation and trouble-free service!

**TIGHTEST CLOSING WINDOW EVER MADE**  
...seals shut like your refrigerator!

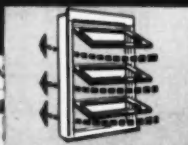


**FRESH AIR WHILE IT'S RAINING**  
No more running to close windows...rain can't enter through slanting sash!



**WARMER IN WINTER**  
Closes ten times tighter than any ordinary window...keeps heat in...saves on fuel bills!

**THE WINDOW THAT MAKES ITS OWN weather**



**COOLER IN SUMMER**  
Opens widest...scoops air inward and upward...luxurious ventilation, but no drafts!

IT'S THE WINDOW *Women Want Most...*  
LET US SHOW YOU HOW TO MAKE MORE PROFITS WITH *Auto-lok*  
*Mail this Coupon to day!*

LUDMAN *Corporation* Dept. ABB, P.O. Box 4541, Miami, Florida  
Please send me complete information regarding the ( ) Ludman AUTO-LOK Aluminum Window, ( ) Ludman AUTO-LOK Wood Window.

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Company \_\_\_\_\_  
Address \_\_\_\_\_  
City \_\_\_\_\_ State \_\_\_\_\_

**LUDMAN LEADS THE WORLD IN WINDOW ENGINEERING**





# Incredible!



...IS THE WORD  
FOR THIS

## Tracy

**ACHIEVEMENT!**



**V-66-UMS** a magnificent 66-inch sink with gleaming, lustrous stainless steel top, all-welded steel cabinet, finished in Dulux. Also available in 54" as at left.



The most exciting stimulator of kitchen interest—builder of store traffic—developer of live kitchen prospects—generator of sales! TRACY dealers are busting out all over with the two new VALUE-LINE Stainless Steel Sinks—offered at prices that are all but unbelievable. A LIMITED-TIME promotion to make the kitchen business SIZZLE! Here is another evidence that TRACY is "the quality-volume line!"

Write, wire or phone for the name of your TRACY Distributor.

THE QUALITY-VOLUME LINE

## Tracy

**KITCHENS**

HIGH  
SKY QUALITY



EDGEWATER STEEL CO. • P. O. BOX 1137 • PITTSBURGH 33, PA.

AUGUST 1952

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PROVED IN 11,666 HOMES IN ONE CITY!

# YORK-HEAT'S famous Levittown Table-Topper



COMPLETE  
HEATING  
PLANT

HOT  
WATER  
HEATER

ALL IN  
25" x 30" x 36"  
CABINET

AVAILABLE TO ALL BUILDERS  
AT AMAZINGLY LOW PRICE!

York-Heat's famous radiant heat boiler—now being installed in 5,000 Levittown, Pa., homes—provides a complete hot water boiler and heater in a gleaming white cabinet in a minimum of space. The famous oil-fired boiler can be installed in kitchen, basement, or utility room. Three styles available for standard hot water or radiant heating. Low price due to mass production savings.

**YORK**  
*Radiaire*  
**BASE-HEAT**

## LOW COST WARM AIR HEATING SYSTEM WITH MANY BUILDER ADVANTAGES

York Radiaire Base-Heat—the newest warm air heating system using Radiaire baseboard distributors, small ducts, and oil or gas-fired York-Heat—gives builders a new, low cost heating system that is easily and rapidly installed. Get the facts today.

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- Send more data on Levittown Table-Toppers.
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I plan to build . . . . . homes in 1952.

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Mail this Coupon  
TODAY FOR MORE DATA

**YORK // HEAT**

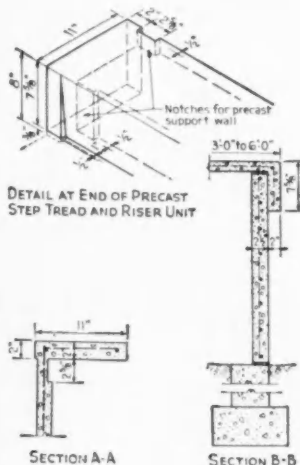
ADDS SALEABILITY  
TO YOUR HOMES

(Continued from page 226)

in Figure 2; and precast stair stringers should be reinforced in the manner of Figure 9.

Reinforcement of long stair story stringers will vary according to their lengths. Single-story stringers should be reinforced as indicated in Figure 9. All bars should be of the deformed type. If stringers are not laterally supported by walls, tie rods should be provided every four feet.

In curing, molds may be stripped



DETAIL AT END OF PRECAST  
STEP TREAD AND RISER UNIT

SECTION A-A

SECTION B-B

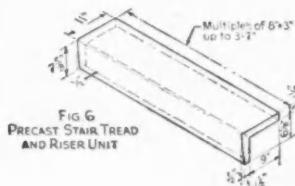


FIG. 6  
PRECAST STAIR TREAD  
AND RISER UNIT



FIG. 7  
PRECAST STAIR TREAD  
AND RISER UNITS WITH  
PRECAST STAIR STRINGERS

(Continued on page 230)

**THE ONE SURE WAY TO  
cut building time  
and  
payroll cost**



C. T. Hubbel Lbr. Co. Warehouse, Albany, N. Y.  
Contractor: Koch Bros., Albany, N. Y.

● The sooner you can get a contract completed, the sooner you can turn the job into cash . . . the sooner you can get started on your next building.

Rilco Glued Laminated Wood Arches and Trusses help you do just that . . . without hiring a lot of extra labor or adding specialists to your payroll.

Rilco structural members come to your jobsite ready to be assembled and swung into position. There isn't a sawcut to be made . . . not a bolt hole to be drilled. Every piece fits perfectly . . . and goes together fast. Your regular carpentry crew does the work without special tools of any kind.

There are standard sizes and types for practically any sort of building . . . and Rilco engineers will be glad to work with you to develop special designs for any specific structure. Write for money-saving details.



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*We guarantee this will amaze you \**

UP TO 50 FEET OR MORE

**LEVELALL**

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**PERFECTLY ACCURATE LEVEL**

*With One-Man Operation*

**FASTER THAN \$100 ENGINEER INSTRUMENTS!**

**SIMPLE** . . . any ONE man can work it. ● **GOOD INVESTMENT** . . . saves expense of a surveyor and his assistant. ● **ACCURATE, FOOL-PROOF** . . . based on a simple fundamental of physics. ● **FAST** . . . finds level points as quick as you make a pencil mark. Requires no sighting, no signaling. ● **WORKS AROUND CORNERS!** Does not require seeing distant measuring point. ● **IS WEATHER-HARDY**. Can be used in rainy or snowy weather. ● **STURDILY** built. Nothing to get out of adjustment. Always a correct level.

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**WHAT LEVELALL GIVES YOU:** Complete instructions on all uses and types of work. A sturdy leveling instrument consisting of 50 feet of superior quality vinyl polychloride tubing, filled with red Level-Flo liquid. Two Levelall mounting brackets of cadmium-plated steel with universal tube attachment. Sturdy wooden carrying case.

\$ **7.45**

Who can **PROFIT**  
with a **LEVELALL**:

Contractors, builders, engineers,  
carpenters, masons, plumbers,  
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Mail me Levelall instruments at \$7.45 each. It is understood that whether I order C.O.D. or enclose remittance, you guarantee satisfaction or money back upon return of Levelall within ten days.

NAME \_\_\_\_\_

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CITY \_\_\_\_\_

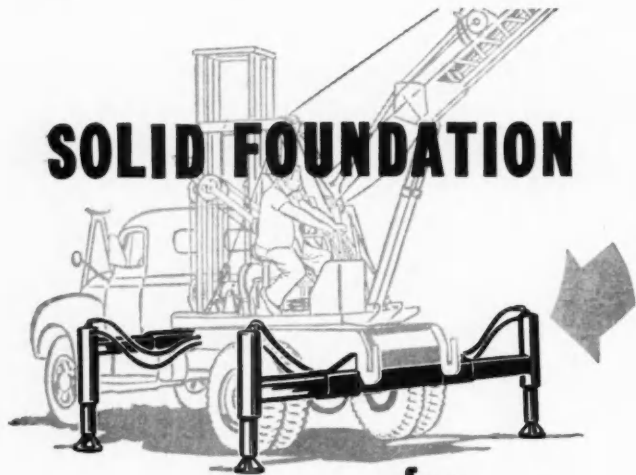
ZONE \_\_\_\_\_

STATE \_\_\_\_\_

Send C.O.D. I will pay postman full purchase price plus delivery charge on arrival.

Full purchase price is enclosed. Send postpaid.

# SOLID FOUNDATION



## for Real Crane STABILITY

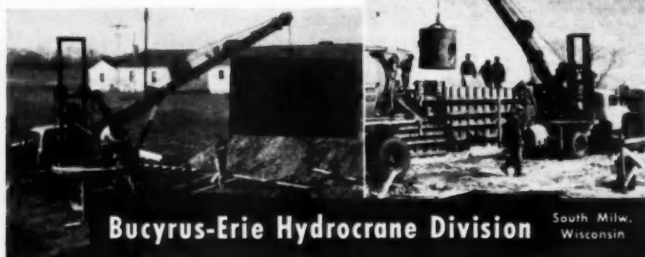
The all-hydraulic, 3-ton Bucyrus-Erie Hydrocrane has its feet on the ground—solidly. Four husky outriggers set and retract hydraulically in seconds—through controls at the operator's station. Independent control of each outrigger makes it possible to level crane quickly on bumpy ground—without cribbing or blocking.

Heavy loads can be inched into place smoothly, safely—no danger of bouncing and swaying due to flexing of tires and truck springs. Outriggers are an integral part of the crane sub-base, eliminating wracking, twisting strains to chassis and heavy pressures on truck tires. With outriggers taking the load, excess weight can be eliminated for speedier crane operation, easier truck handling, lower operating costs.

Here's another advantage. If the truck gets stuck, you can jack it up with the outriggers.

Extra stability is just one of many reasons why builders are sold on the Hydrocrane. See your Hydrocrane distributor for full details. 182H52

The combination of outriggers for solid stability and hydraulically telescoping boom for extra reach make the Hydrocrane ideal for setting concrete planking, steel beams, roof trusses, prefabricated houses—dozens of jobs.



**Bucyrus-Erie Hydrocrane Division**

South Milw.  
Wisconsin

(Continued from page 228)

within 24 to 48 hours. Wet curing for two to four weeks at a temperature above 50 degrees F. is necessary, or until representative cubes test at least 4,000 psi. Covering the units with burlap which is kept moist by intermittent sprinkling is effective in curing.

To produce a smooth finish, all exposed surfaces should be rubbed with a carborundum stone. A slurry of cement and water may be used during this operation to fill in small voids.

### Installation

Precast or block support walls must be placed on cast-in-place concrete footings resting on firm soil below the frost line. These footings should be at least 6 inches thick and 12 inches wide. Mortar is used in set-

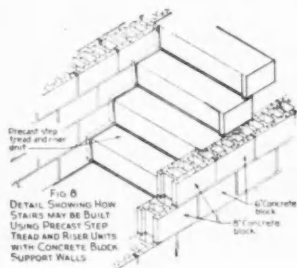


FIG. 6  
DETAIL SHOWING HOW STAIRS MAY BE BUILT USING PRECAST STEP TREAD AND RISER UNITS WITH CONCRETE BLOCK SUPPORT WALLS.

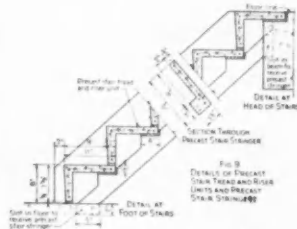


FIG. 7  
DETAILS OF PRECAST STAIR TREAD AND RISER UNITS AND PRECAST STAIR STRINGER.

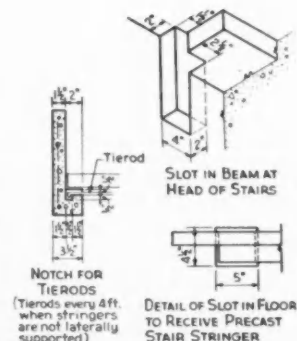


FIG. 8  
DETAIL OF SLOT IN FLOOR TO RECEIVE PRECAST STAIR STRINGER.

(Continued on page 234)

# NOW 114

## Casing and Base Patterns Standardized by Mills in the Western Pine Region



**ORDER THEM BY NUMBER!**



Now you can order any of these 114 casing and base patterns by WP number from any mill of the Western Pine Association and be sure they conform in size, shape and detail!

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THESE ARE  
THE ASSOCIATED  
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AIR COOLED  
1/2" 110V

Saves you more time  
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A Journeyman's  
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Super Saws and Blades are  
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Cutting opening in oak flooring in less  
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**MAIL TODAY!**

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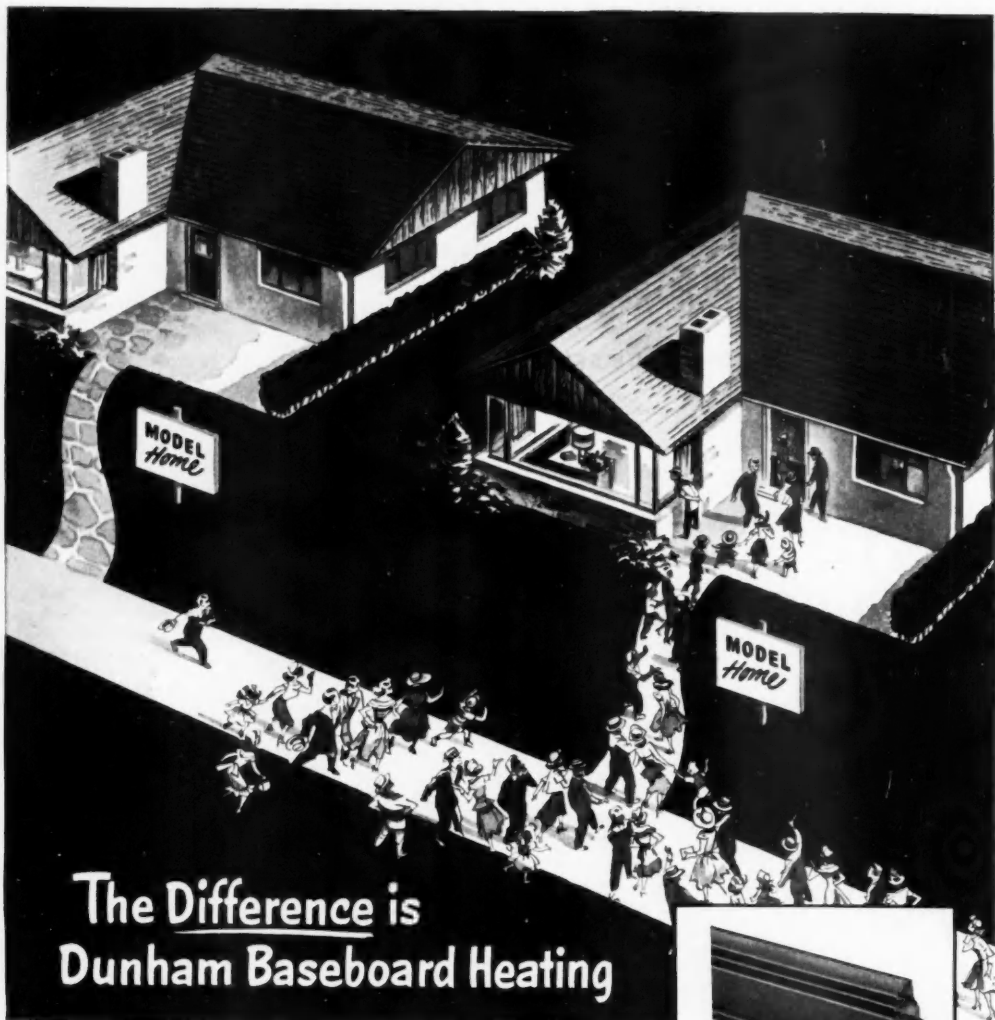
Gentlemen:  
Please send us Bulletin L-8 and name of the nearest  
Super Saw distributor.

Name \_\_\_\_\_

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

231



## The Difference is Dunham Baseboard Heating

When you're outside looking in... there's little to choose between these two homes. Yet one gets a big play—the other gets none.

You know the reason, of course. One interior offers sales stimulating "extras"—such as Dunham Baseboard Heating. That's the house that draws the crowd in today's market.

Since "it's the inside that counts" toward a quick... and more profitable... sale, isn't it a good idea to find out how Dunham Baseboard can fit into your future plans? This information costs nothing—and may pay dividends later through faster sales.

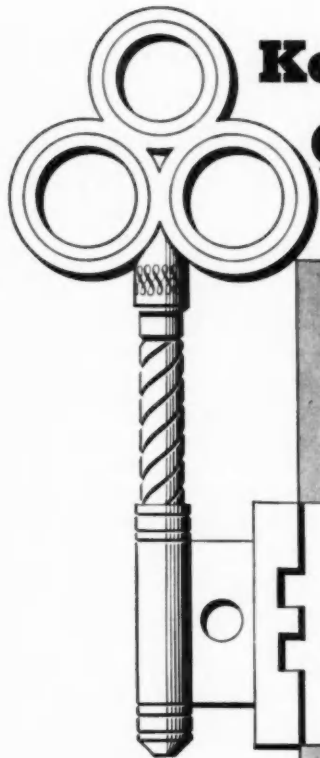


Dunham baseboard is distinctively different. Modern, smooth-surfaced enclosure has inconspicuous air openings, fits flush with floor—no "cleaning under" problem. Complete line of accessories give installation unusually neat, finished appearance. See your local heating contractor for full information, or write direct to C. A. Dunham Company, Dept. 25, 400 W. Madison Street, Chicago 6, Ill.

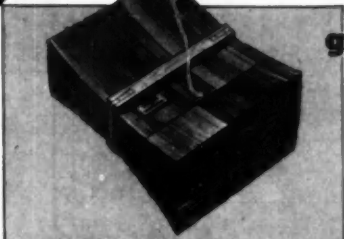
# DUNHAM

## BASEBOARD HEATING

SALES ENGINEERS AND JOBBERS FROM COAST TO COAST

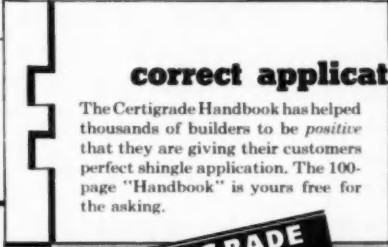


# Key to your guarantee of Quality Roofs and Walls



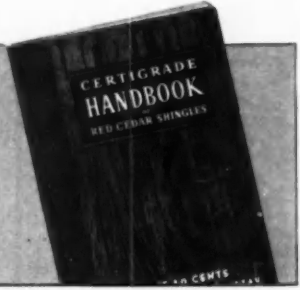
## **genuine cedar**

Builders, lumber dealers and architects know that *genuine cedar* shingle roofs and walls give longer service *per-dollar-of-cost* than any other material available.



## **correct application**

The Certigrade Handbook has helped thousands of builders to be *positive* that they are giving their customers perfect shingle application. The 100-page "Handbook" is yours free for the asking.



## **guarantee of quality**

The Certigrade label on every bundle of shingles is an unconditional guarantee that the product meets the rigid requirements of U. S. Commercial Standards.

## **Be sure when you sell...when you build**

Here's the combination that *guarantees* customer satisfaction when it comes to roofing and siding: *genuine cedar* shingles that outperform all other materials in years of life *per-dollar-of-cost*; cedar shingles unconditionally guaranteed by the Certigrade label to meet the quality standards established by the United States government; cedar shingles applied in accordance with the correct methods outlined in the Certigrade Handbook,

the nationally recognized authority of shingle roof and sidewall applicators.

When you sell Certigrade cedar shingles—or when you *build* with Certigrades—following the time-tested methods of application demonstrated in the Certigrade Handbook, you are assured that you are winning customer confidence by providing the utmost in satisfaction at the most reasonable cost.

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CERTIGRADE**

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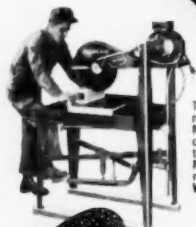


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SECONDS**

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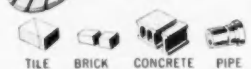
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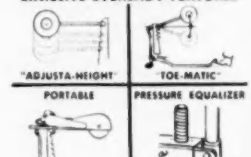
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IN MASONRY CUTTING"

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CITY \_\_\_\_\_ STATE \_\_\_\_\_

(Continued from page 230)  
ting precast support walls, tread and  
riser units, platform units, precast  
stair stringers and block support  
walls.

The mortar should be made in the  
proportions of 1 volume of masonry  
cement and between 2 and 3 volumes  
of mortar sand; or 1 volume of port-  
land cement and between 1 and 1½  
volumes of hydrated lime or lime  
putty and between 4 and 6 volumes  
of mortar sand.

The sand should be in a damp,  
loose condition. Mortar joints should  
be thin and should be pointed up by  
tooling after the mortar has parti-  
ally set. Mortar droppings should be  
wiped clean immediately with a wet  
cloth.

Drawings and data courtesy  
Portland Cement Association

**New Hotpoint Head**

John C. Sharp has been elected  
resident, general manager, and a  
director of Hotpoint, Inc., to succeed  
James J. Nance, who resigned to be-  
come president of the Packard Motor  
Co. Sharp, who has been with Hot-  
point 23 years, was vice president  
and chief engineer, and a member of  
the executive committee.

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HALF THE PAINT -  
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READY HUNG!

Better material and workmanship reduces  
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READY HUNG DOOR CORP., DEPT. A  
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GUARANTEES SCRATCH-FREE FINISHES**

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WITH STEEL  
CARRYING CASE  
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ACCESSORIES

(PATENTED)

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SANDING  
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EASY  
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Contractors and builders find this powerful, fast cutting  
Dremel Sander the perfect answer to finer finishes on  
drywall joints, plaster, doors, woodwork, siding and  
other exterior surfaces. Its straight-line sanding action  
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weight of only 5 lbs. and easy one hand operation  
make Model 2000 ideal for continuous use. Added  
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surface—ensure rapid production. Only 2 moving parts,  
never needs oiling, dustproof, overall size 3¼" x  
4½" x 7"; uses 110-120 V., A.C. Fully guaranteed.  
If your dealer cannot supply send order direct to  
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PRICE INCLUDES—**  
this all steel carrying  
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- Simplify window washing.
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The "ABRASIVE GUIDE FOR FLOOR SANDING PRODUCTS" is full of handy information, net prices, etc. Address Dept. AB-8.

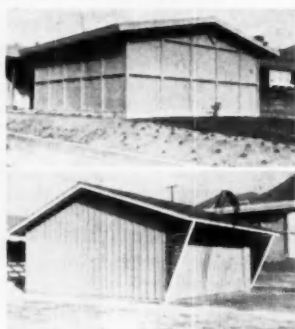
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with the  
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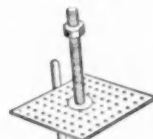
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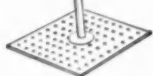
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THE 100% CONCEALED SASH BALANCE

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**DESIGNED for EASY, FAST INSTALLATION**—smooth-as-silk lifetime operation.

**EASIER TO TENSION**—Tensioning can be applied *before* or *after* installation without special tools.

**FITS WINDOW** with or without weatherstripping.

**POSITIVE LIFTING POWER** provided by highest quality coil spring.



**TWO TYPES OF ATTACHING BRACKET**—Tension is applied *DURING* installation by winding hinged bracket arm (on "L" type); *AFTER* installation by turning tensioning screw on both "L" and cup types.

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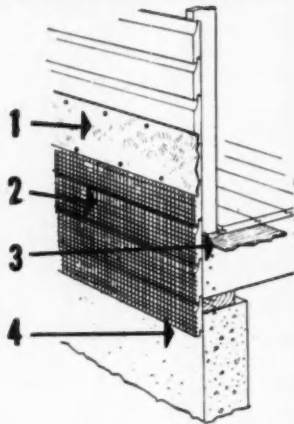
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You'll make **EXTRA PROFITS**—capitalize on the need of every homemaker—when you install the **Majestic Indoor Incinerator!** The easy modern way to dispose of *both* garbage and trash! Compact and easy to install in basements or utility rooms. Costs nothing to operate. Refuse (wet and dry garbage) serves as its own fuel. Unique "down-draft" design guarantees efficient, odor-free, sanitary performance. Load it, light it and leave it. Connects to furnace flue ... easily, quickly. Two-bushel capacity. 23" diameter, 51" high.

### Satisfaction Guaranteed

Attached to every Majestic Incinerator is a money-back guarantee that it will perform as claimed. Write us today ... don't let someone else beat you to the punch. Cash in on the **EXTRA PROFITS** of the Majestic Indoor Incinerator **NOW**.

**THE Majestic CO.**

300-A Erie St., Huntington, Indiana



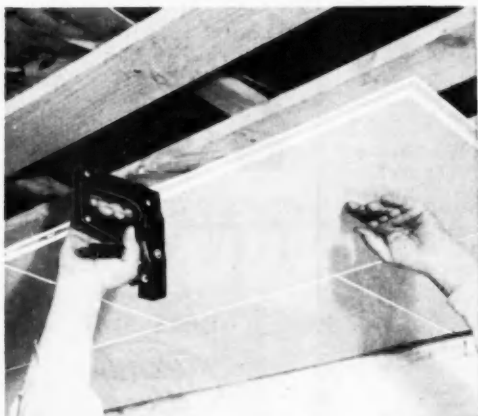
# Majestic

## INDOOR INCINERATOR

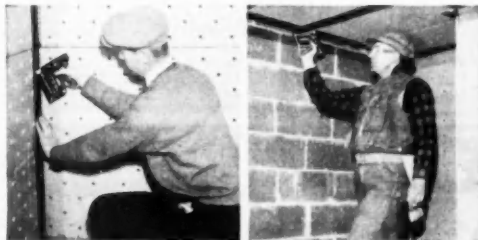
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with Bostitch T5 Tackers!



**PUT UP CEILINGS TWICE AS FAST** with Bostitch T5 Tacker. One hand operates it, the other holds the work. No marred edges... no finger marks. Staples hold tight.



**SPEED UP WORK IN TIGHT PLACES** with Bostitch T5 Tacker. Drives staples up to  $\frac{3}{16}$ " long within  $\frac{1}{16}$ " of inside corners. No lost time fumbling for nails or tacks.

**APPLY METAL LATH IN HALF THE TIME** with Bostitch T5 Tacker. Less tiring on overhead work. Easy front-door loading saves time, too.

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AUGUST 1952

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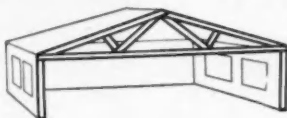
Gentlemen:  
Please send me complete details on:  
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Richkraft Reinforced and Breather Papers   
Richhead for dry wall corner protection

NAME \_\_\_\_\_

ADDRESS \_\_\_\_\_

TOWN \_\_\_\_\_ ZONE \_\_\_\_\_ STATE \_\_\_\_\_

## Suggested Design for a 28-Foot Trussed Rafter



Dead load plus live load on roof is 35 pounds per square foot. Dead load on ceiling framing is 10 pounds per square foot. Trussed rafters are spaced two feet on centers. No. 2 lumber used (1100-pound extreme fiber stress). The lumber used in one truss includes: two pieces, 2-in. by 8-in. by 16-ft.; two pieces, 2-in. by 6-in. by 16-ft.; two pieces, 2 in. by 4 in. by 12-ft.; thirteen 2½-in. Teco split rings; six bolts, ½ by 4-in.; two bolts, ½ by 6-in.; one bolt, ½ by 7½-in.

### Heating Group to Meet

The 39th annual convention of the National Warm Air Heating and Air Conditioning Association will be held December 3-4 at the Sheraton Gibson Hotel, Cincinnati.



Divide ordering headaches by six—One READY HUNG DOOR unit includes all six door materials.



**THE NEW  
DOOR AND FRAME  
PACKAGED UNIT**

READY HUNG DOOR CORP., DEPT. A  
FORT WORTH, TEXAS



**KOHLER  
ELECTRIC PLANTS**  
*Independent Source  
of Electricity*

PORTABLE, low-cost model helps finish jobs faster, saves expense and bother of temporary power line hook-ups. Operates saws, drills, grinders, pipe threaders, cutters, other tools having universal (AC-DC) motors. Develops 1500 watts D.C. Compact, weighs only 75 lbs. Handles for carrying. Two-wheel, rubber-tired hand truck available. Other sizes, 350 watts to 15 KW. Write for folder --E.

Model 1.5M5, 1500 watts, 115 volt DC. Manual control. Length 18", width 14", height 21".

Kohler Co., Kohler, Wisconsin. Established 1873

**KOHLER OF KOHLER**

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

AMERICAN BUILDER

for the **extra beauty**  
of the whitest white cement

Use—

# Trinity White



For the *whitest* white cement ask for Trinity White. It is a true portland cement made from selected raw materials. You'll get fine results with it. General Portland Cement Co., 111 W. Monroe St., Chicago; Republic Bank Bldg., Dallas; 816 W. 5th St., Los Angeles; 305 Morgan St., Tampa; Volunteer Bldg., Chattanooga.

as white  as snow

## CONNOR LAYTITE MAPLE FIRST AGAIN

Laytite 25/32x2 1/4" Maple as laid in the new Elizabeth Waters Grade School, Fond du Lac, Wisconsin. Laytite is made under Maple Flooring Manufacturers Association specifications and is famous for uniform quality. Write for prices.

Laytite MFMA Northern Maple, Birch and Oak Flooring. T&G or square edge, in bundles or cartons. Also 3rd grade Maple Flooring 2" and longer. Also Block and continuous strip.



## CONNOR LUMBER AND LAND COMPANY

P. O. BOX 1120 • TELEPHONE 3 OR 418 • TELETYPE 26 • MARSHFIELD, WISCONSIN  
CONNOR FOREST PRODUCTS SINCE 1872

# VENTO STEEL Casement WINDOWS



## They Give-

### Effortless Operation

Gracefully designed, easy-moving Roto or Lever type operators and locking handles, as specified. Extension type hinge for ease in cleaning.

### Weathertight Seal

Double contact construction gives snug fit. Positive cam action locking handle insures weathertight seal around perimeter of the ventilator.

### Lasting Service

Solid steel sections; all corners electrically welded; cleaned and prime painted. A permanent installation.

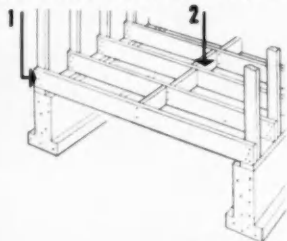
Write us for full information, also facts about Vento steel basement, utility and barn windows, Vento steel lintels for cost-saving block construction.

**VENTO Steel Products**  
CO., INC.

247 COLORADO AVE. • BUFFALO 15, N. Y.

## Joist Sizes for Grain Storage Buildings

Floors and walls of corncribs and granaries need special support to withstand great pressure of grain.



Foundation wall under each end of span.	Joist Depth	Size of Joist	Spacing of Joist
	4 feet	2 x 12 2 x 10	24 inches 18 inches
	6 feet	2 x 12 2 x 10	18 inches 12 inches
8 feet	2 x 12	12 inches	

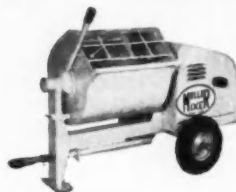
Foundation wall under each end and center of span.	Joist Depth	Size of Joist	Spacing of Joist
	8 feet	2 x 12 2 x 8	24 inches 12 inches
	12 feet	2 x 12 2 x 10	16 inches 12 inches
16 feet	2 x 12	12 inches	

(1) Well-spiked lap-joints prevent walls from being forced apart. (2) Bridging prevents joists from twisting. Use No. 2 and better lumber.

West Coast Lumbermen's Association

## CONTRACTORS—save money!

Mix plaster and mortar in a MULLER 3 FOOT MIXER



• An investment that will give you better plaster and mortar at far lower costs than old hand methods. Ideal for both inside and outside use. Holds in full batch of most mixtures.

PRICE \$312 (with electric motor)

\$330 (with air-cooled engine)

FOB Metuchen, N.J.

Also available in 6, 9 and 12 cubic foot sizes

Write for name of nearest distributor.



**MULLER MACHINERY  
COMPANY, Inc.**

Metuchen 4, N.J. Cable Address MULMIX

## Lighter Weight SAWING POWER

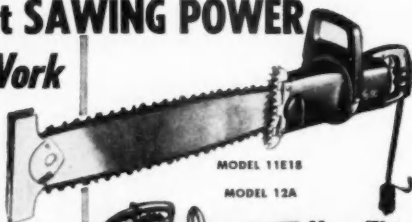
Does More Work  
Faster . . .



## Electric CHAIN SAW

Work faster clearing timber for the job or sawing beams and heavy supports on the job. Model 11E18 Electric Chain Saw weighs only 19 lbs. . . . great for scaffold and ladder work. Handles lumber and trees up to 18" thick in one cut, up to 36" in two. Cuts hard, soft, wet or frozen wood. AC-DC 115-volt, 11 amp.; 230 volt, 5.5 amp. motor.

More power to the pound  
. . . less pounds to handle.



MODEL 11E18

MODEL 12A



Use This  
Chain Saw  
Anywhere

Model 12A "one man" gasoline-powered Chain Saw. Full 360° indexing swivel. Cutting capacities: 18 to 42 inches.



**MALL  
Vibrators**

Save money on better finished concrete. Pneumatic, electric, or gasoline engine models.

40 Factory-Owned Service Warehouses, Coast to Coast,  
To Serve Our Customers and Thousands of Dealers.

**Mall**  
TOOL COMPANY

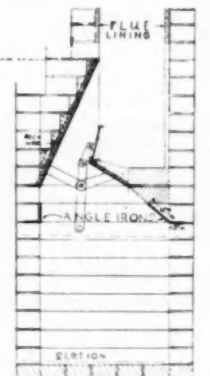
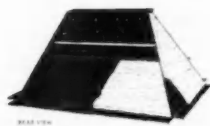
7737 S. Chicago Avenue  
Chicago 19, Illinois





## New Form Damper Is Designed for Modern Fireplace

A new form damper has been especially designed for the "modern type" of fireplace—installations with the front and one or two ends of the fireplace open to provide view of the fire from various locations in the room; fireplaces with openings in two adjacent rooms; and others located in the center of the room with four sides open.



Details of fireplace installation with openings on two sides

Called the "Hi-Form Model H," the new unit is produced by the Superior Fireplace Co., Los Angeles. When in an open position, its damper does not swing back beneath the smoke flue, but turns the wind currents back up the chimney before they can enter the throat and interfere with the draft.

The form is of rigid-steel construction. A blanket of mineral wool insulation, supplied with each unit, is placed between the metal and masonry to absorb contraction and expansion and to prevent cracking of masonry and buckling of the metal.

NATIONAL HOME WEEK  
Sept. 14-21

AUGUST 1952

## CUT SCREENING COSTS

...ADD

# "Buy-Appeal"

WITH

# Keystone

## NEW ALUMINUM FRAMELESS TENSION SCREENS

Sealed Tight...  
Held by tension.  
Exclusive sill bar adjusts  
to off-level sills.



It's the smart way to cut screening costs and add sales-appeal to homes and apartments! Use these new-type Keystone Aluminum Tension Screens on all double-hung windows!

Saves 25 minutes per window in installation time. Easily installed—no heavy frames to cut or fit. No painting—no rust. Adjustable sill bar assures tight fit on uneven windows. Easily replaced screening. Low first cost, low upkeep, neat appearance. Investigate!

## Easy to Install



## Easy Handling



## No Rust—No Painting

## USERS PRAISE KEYSTONE!

New Jersey builder says "Keystone very simple to install... solves problem of storage. Superior to other types of screens. We recommend Keystone for either apartments or homes."

New York contractor says "Installed 865 Keystone screens on one project. Cut installation time in less than half and used unskilled workers."

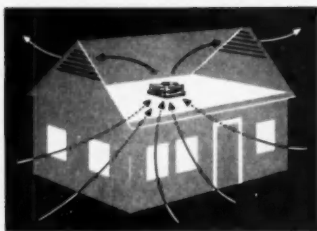
Georgia contractor says "Installed 9,000 Keystone screens on Army project. Chosen for low first cost, ease of installation, no painting, ease of replacing damaged wire."

SEND COUPON!

Keystone Wire Cloth Co.  
Dept. 116, Hanover, Pa.  
Without obligation, send me complete details on Keystone Aluminum Frameless Tension Screens.

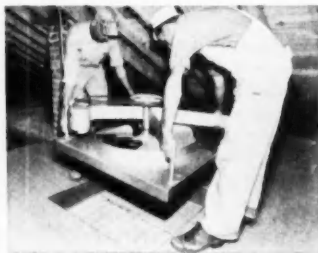
Firm.....  
Attn. of.....  
Street.....  
City..... State.....

## Low-Cost Home Cooling



### Hunter Attic Fan cools the entire house

This modern ventilating fan pulls in cool air through windows, exhausting hot stuffy air through attic louvers. In hottest summer months it circulates cooling breezes through every room in the house. The quiet, powerful Hunter Attic Fan requires little or no maintenance, costs only a few cents a night. It is backed by Hunter's 65 years of fan experience.



**Easy to install**—This compact unit is complete with automatic shutter and modern metal trim to cover the ceiling opening. No suction box to build; no accessories needed. Fan requires only 17 in. attic clearance. Available in capacities to fit any size home and any climate.



Write for new 36-page manual, "How to Cool for Comfort."

HUNTER FAN AND VENTILATING CO.  
381 S. Front St., Memphis 2, Tenn.

# HUNTER

Package Attic Fans

SEE OUR FILE IN SWEET'S

## Cabinet-Lavatories Offer Style and Utility

Two new cabinet-lavatories, designed to furnish liberal storage space as well as to provide a practical dressing table for the bathroom, have been introduced by the Kohler Co., Kohler, Wis.

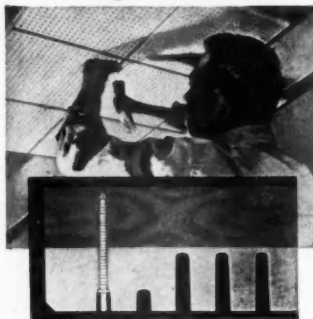
The single and double cabinets are custom-built of laminated hardwood in a neutral wheat color. Finish is a semi-gloss, described as impervious to alcohol, water and other liquids. Both cabinets have one-piece Formica tops, available in the "Skylark" pattern, in coral, chrome grey, sand tone and soft green.

(Continued on page 245)



Cabinet-lavatory provides both a dressing table and storage space.

## ACOUSTICAL TILE NAILS ... designed for the job



When installing acoustical tile choose a job-designed nail that combines ease of application with these special features: a head end which allows the nail to be driven home without damaging the tiles ... a collar which holds the tiles firmly in place...annular threading which gives superior holding power. The nails are furnished with a plated finish to prevent rust streaks where moisture is present. Send for free samples and descriptive literature.



**JOHN HASSALL, INC.**

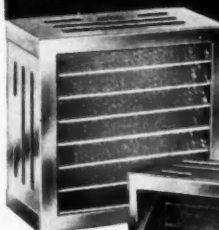
182 Clay Street  
Brooklyn 22, N. Y.

# WEATHER-BLOC

Trade Mark

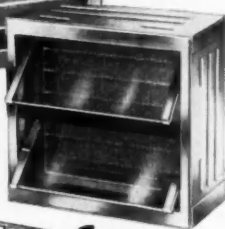
The Original

## Single Unit VENTILATOR FOR GLASS BLOCK PANELS



OUTSIDE

INSIDE



**NO SACRIFICE OF BEAUTY OR PRIVACY**

- Controlled Ventilation
- Stainless Steel Body

WEATHER-BLOC is available in 3 models in all standard glass block sizes. **STANDARD**—glass louvers outside and inside. **UTILITY**—stainless steel louvers outside and glass louvers inside. **ECONOMY**—stainless steel louvers outside and inside, 6 and 8 inch sizes only.

WEATHER-BLOC is engineered for use in Homes, Stores, and Offices. The outside presents a series of horizontal louvers which blend with glass block. The two louvers on the inside can be closed or opened to any degree with the flip of a finger, thus controlling the flow of air either upward or downward to any desired degree. Aluminum screen inside.

Purchase Through Your Glass Block Dealer or Jobber  
Nationally Distributed by  
**WINCO DISTRIBUTING & MFG. CO., Inc.**  
533 Bittner Street, St. Louis 15, Mo.

Patented  
U.S.A.—2565122  
Canada—478095  
Other Patents  
Pending



Easy to Install  
IN OLD OR NEWLY COMPLETED GLASS BLOCK PANELS

A Product of AIR RECTIFIERS, Inc.

3734 NORTH SOUTHPORT AVENUE

# WEATHER-BLOC

CHICAGO 13, ILLINOIS



Save a shocking amount of time spent fuddling with power tools—With **READY HUNG DOORS** power tools aren't needed.



ASK FOR

**Ready Hung**  
DOORS

THE NEW  
DOOR AND FRAME  
PACKAGED UNIT

READY HUNG DOOR CORP., DEPT. A  
FORT WORTH, TEXAS

PICK A  
PROFIT "PLUMB"

BRANCH OFFICES  
BALTIMORE  
BIRMINGHAM  
BOSTON  
BUFFALO  
CHARLOTTE  
CHICAGO  
CINCINNATI  
CLEVELAND  
COLUMBUS  
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DETROIT  
HOUSTON  
INDIANAPOLIS  
KANSAS CITY  
LOS ANGELES  
MIAMI  
MILWAUKEE  
MINNEAPOLIS  
NEW ORLEANS  
OKLAHOMA CITY  
OMAHA  
PHILADELPHIA  
PHOENIX  
PITTSBURGH  
PORTLAND  
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SALT LAKE CITY  
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... more business  
for just the  
picking

You'll never  
need a plumb bob to  
keep this straight:  
quote easy ABC  
monthly payments  
instead of the over-  
all cost of the job  
and you'll do more  
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Your best sales tool—the ABC Time  
Sales Program. Ask us today.

**ALLIED  
BUILDING CREDITS  
INC.**



Specialists in  
Property Improvement  
and Modernization  
Sales Financing

General Office: Box 3428 Terminal Annex, Los Angeles 54



Double doors are opened by touch latches. This cabinet has 27-inch length.

(Continued from page 244)

Features of the cabinets include deep shelves for toiletries, towels and accessories; double doors with invisible "touch" latches which open with finger pressure; and concealed hinges which do not protrude beyond the unit's width. The drawer in the larger cabinets rolls in and out on ball bearings.

The double cabinet is 42 inches long and 22 inches wide; the single unit is 27 inches long, 22 inches wide. Both are 30 inches high and the double unit has a 4-inch raised back.

The cabinets are designed specifically for the Tahoe lavatory of enameled cast iron and the Arrowhead lavatory of vitreous china by Kohler.

**Shinglistik** STOPS  
BLOWING SHINGLES  
TURNS  
COMPLAINTS  
INTO SALES



FREE SAMPLE

SEE HOW EASY TO APPLY,  
SHINGLISTIK REALLY IS!

Get your FREE Shinglistik sample now! See why this method of sealing asphalt roof shingles down against winds of hurricane intensity is absolutely 100 per cent efficient! Cuts costly return calls.

ON ANY BRAND SHINGLES . . .  
ON NEW OR OLD SHINGLES . . .  
**Shinglistik** WORKS QUICKLY AND EASILY  
Shinglistik is produced through years of experience in the asphalt roofing industry. Shinglistik doesn't string out, seals quickly (4 hour tack . . . one week bond), and is permanent protection. Get your FREE Shinglistik sample now! Turn complaints into sales with customer satisfaction . . . with Shinglistik.

FREE SHINGLISTIK  
SAMPLE

SEND LETTER OR POSTCARD TO  
SHINGLISTIK

7600 Truman Road Kansas City, Mo.  
Truman Road, Kansas City, Missouri, 7600  
Send letter or postcard to: Shinglistik, 7600  
Truman Road, Kansas City, Missouri. Include  
your name, address, dealer and brand name  
of shingles you use.

Samples cannot be distributed without  
supplier information. Limited to territory  
between Allegheny and Rocky Mountains.

NOW AVAILABLE IN GREATER SUPPLY

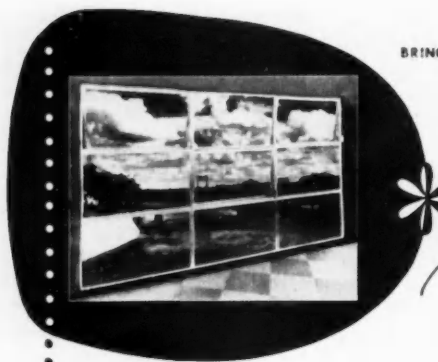
**DUR-O-WAL**  
TRUSSED  
Design

Dur-O-wal is the patented, custom designed steel reinforcing that gives masonry walls a backbone of steel. Incorporating architecture's oldest reinforcing principle, economical Dur-O-wal, lays fast, prevents cracks.

Cedar Rapids Block Company  
Dur-O-wal Div.  
659 12th Ave. SW  
Cedar Rapids, Iowa

Dur-O-wal  
Products, Inc.  
P. O. Box 628  
Syracuse 1, N. Y.





BRING THE OUTSIDE

Inside...

with

**MARMET  
ALUMINUM**

Wall of  
Windows

**Beauty in Aluminum** — Put your houses years ahead in design with the new MARMET Aluminum Wall of Windows . . . It's completely new, completely fabricated and made of finest quality extruded aluminum. A window wall unit made to your specifications delivered to the job as a unit ready to install into your rough opening. The fixed glass opening takes stock size double glazed units. Units are shipped unglazed . . . only two sizes of the glass are used, one for fixed lites 45½" x 25½" and one for operating lites 43¾" x 23¾". The operating lites are complete with roto operated hardware . . . available in a unit of single or multiples. Write for complete details.

**Other MARMET Products** . . . ● MARMET ALUMINUM WINDOWS for glass block construction (ribbon windows, monumental windows, church and chapel windows, eavesment and projected windows, residential picture windows, custom windows) ● MARMET ALUMINUM WALL OF WINDOWS, completely fabricated as a unit ready to install. ● MARMET ALUMINUM GLASS BLOCK VENTILATORS louver blocks . . . picture windows. Write for complete information today.

**MARMET** Corporation

WAUSAU  
WISCONSIN

● IMMEDIATE DELIVERY! ●



**FAMOUS  
BESSLER  
Disappearing  
STAIRWAY**

The big problem in modern housing is: more room at slight extra cost. Cash in on this need NOW, with the original and genuine Bessler Disappearing Stairway. Affords quick, easy access to upper areas; slides up into ceiling; takes up no space in room below. Hundreds of thousands sold in the last 40 years. We can fill your requirements right now—get the steady extra profits that this high-utility product can assure you.

**WRITE FOR  
DETAILS!**

**FEATURES:**

1. Seven models
2. A real stairway
3. Operates from above and below
4. Full width treads
5. Full door width
6. All steps equal height
7. For old and new installations
8. Safety-engineered
9. The original disappearing stairway
10. Taller made for all heights

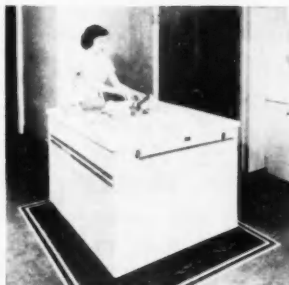
The Bessler Disappearing Stairway Co., 1900 East Market Street, Akron 5, Ohio

**All Four Sides Can Be  
Used on This Sink**

A new sink, designed for middle-of-the-room installation, was shown publicly for the first time at the recent National Association of Master Plumbers convention in Atlantic City.

Called the "Midway," the sink was developed by American Radiator & Standard Sanitary Corp. An unusual design feature is that it can be used from all four sides.

Underlying reason for development of the new unit, the company (Continued on page 247)



Step-saving is the idea behind this middle-of-room sink unit designed by American Standard



**CAULKING  
COMPOUND**



for EVERY  
caulking job

CALBAR is now available in 26 colors to match or harmonize with every building material on the market. It's elasticized, non-staining and complies with Federal Specifications and those of the Asbestos-Cement Products Association.

Write today for complete details

**CALBAR PAINT & VARNISH CO.**  
Manufacturers of Technical Products  
2612-26 N. Martha Street  
Philadelphia 25, Penna.



AMERICAN BUILDER

**FREE BOOK!**

**LIFE-TIME SECURITY**  
**IN YOUR OWN BUSINESS**



**YOU, TOO, CAN START A \$40 A DAY BUSINESS IN YOUR SPARE TIME!**

Andy Phillips says: "My BELSAW CIRCULAR SAW SHOP gives me BIG PROFITS

at LOW expense . . . I can run 35 to 40 saws in an 8-hour day . . . That makes me \$40 each."

You can start this REPEAT CASH business in your own home or garage, while you are working at your regular job. Easy to operate, no experience needed. "Pays for itself from just 65 saw jobs."—Harvey Jensen.

For as little as \$15 down payment, you can get your BELSAW CIRCULAR SAW SHOP rushed to you.

You can make \$4 to \$5 an hour in your SPARE TIME sharpening and setting CIRCULAR SAWS for builders, lumber yards, factories . . . No Extra Equipment needed, no canvassing . . . send postcard for your Free Copy of "Life Time Security" today.

**BELSAW MACHINERY CO**

4503 Field Building Kansas City 2, Mo.

(Continued from page 246)  
 said, is belief that a centrally-located sink will save steps and add convenience to many kitchen tasks, and also offer freedom in kitchen planning and layout.

The sink top of the rectangular Midway is set on an enameled steel cabinet. The unit measures 44 inches long by 37½ inches wide. Two sink wells are set in one side of the top and an 816 square inch drainboard covers the other side.

Other features include a new type of faucet, set in the unit's center, with twin lever handles operated with one hand to control hot or cold water or a mixture of both. New dial controls are on the side of the sink to work the drains. The dial can also be used to control a garbage disposer.

## annular-threaded linoleum underlay drive screws



To make your linoleum underlays hold tightly and lie flat permanently, secure them with Hassall annular-threaded linoleum underlay drive screws. They are cement-coated for maximum gripping power. Heads are flat countersunk type. Size: 1¼" x #3 gauge. State quantity when writing for prices to:

**JOHN HASSALL, INC.**

152 Clay Street  
 Brooklyn 22, N. Y.  
 Established 1850



### Glass Firm Changes Name

American Structural Products Co., a subsidiary of Owens-Illinois Glass Co., has acquired the property and business of the Kimble Glass Division of Owens-Illinois. The consolidated firm is now known as Kimble Glass Co.

Both Kimble Glass and American Structural Products have been operating for several years under the same management in Toledo, Ohio, and will continue to do so.



Are wood borers boring into your profits? Terminate the termites with **READY HUNG DOORS**.



**THE NEW DOOR AND FRAME PACKAGED UNIT**

READY HUNG DOOR CORP., DEPT. A  
 FORT WORTH, TEXAS

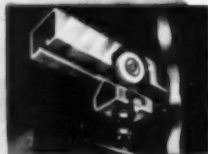


## Specify GRANT SILENT Sliding Door Hangers

For over half a century, architects have specified Grant Silent Sliding Door Hangers because:

- They Save Space and Improve Interior Decoration
- They Allow Simpler Room Partitioning

Grant No. 16 and No. 17 sliding door hangers are the only Sliding Door Hangers with rollers of nylon. There is no metal to metal contact as nylon makes up the complete rotating member of the ball bearing roller, thus eliminating metallic sound — your assurance of SILENT, smooth operating sliding door hangers. Grant Sliding Door Hangers are the only hangers with these exclusive features: • Nylon Rollers • Three Adjustments • Automatic Alignment of Doors • Center Hung Feature • Doors can Never Jump the Track.



GRANT No. 16 Single Track Sliding Door Hanger



GRANT No. 17 Double Track Sliding Door Hanger allows for a simplified installation of multiple unit doors.

GRANT also manufactures:  
 Sash Pulleys • Curtain & Drapery Hardware  
 Drawer Slides • Stage Curtain Hardware  
 Sheaves & Track • Hospital Cubicle Hardware

Write Dept. 4-1 for a catalog or individual brochures on the above Grant products.



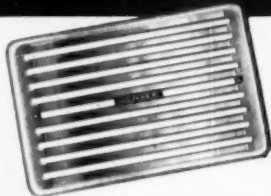
**GRANT PULLEY & HARDWARE CO.**

31-81 WHITESTONE PKY., FLUSHING, N. Y. • FLUSHING 9-1900  
 Representatives in all major cities.

*The foremost name in Sliding Devices*

# The Best IN KITCHEN VENTILATION

EXCLUSIVE IN  
**TRADE-WIND**  
VENTILATORS

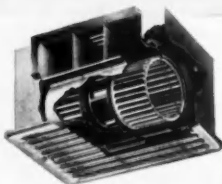


## DRIPLESS GRILLE

The exclusive design of the grille on **TRADE-WIND** Clipper Ventilators has a twofold advantage—

**First**—It is unusually attractive in appearance, rectangular in shape and inconspicuously blends into the ceiling.

**Second**—Each of the bars in the grille is trough-like in construction. These catch and hold any grease that may collect—the only truly dripless grille.



You can always count on **TRADE-WIND** for performance, quality and convenience.

The only ventilator that gives you

- Centrifugal Blowers
- Interchangeable Horizontal and Vertical Discharge
- Isolated Motor
- Dripless Grille
- Easier Installation
- Five-year Guarantee

PRICE OFFERS AN INDUCEMENT BUT QUALITY OFFERS A REASON

**TRADE-WIND**  
MOTORFANS, INC.

5705 So. Main St., Los Angeles 37, Calif.

## New Firm to Produce Sliding Glass Walls

Formation of a subsidiary, the Panorama Co., to produce low-cost sliding glass doorwalls in stock sizes and models has been announced by Steelbilt, Inc., Los Angeles.

According to W. C. Watkins, Steelbilt president, the new product, "Panorama," is priced and engineered primarily for builders of quality bargain homes who wish to include the indoor-outdoor living theme as an important design and selling feature.

All Panorama styles will be available with "Thermo-glaze," a patented development to permit dual glazing on the job with controlled dehydration of the sealed air space, Watkins said.

Panorama's new plant, expected to be completed in Los Angeles by late summer, will contain approximately 45,000 square feet of factory and office space. Manufacturing operations are planned to include cold roll-forming equipment to produce steel sections for both the parent firm and subsidiary.

• Letters to the Editor should be sent to 79 W. Monroe St., Chicago 3, Ill. Your comments are invited.



## New BEVIL DEVIL Insulation Board Set

ALL-PURPOSE SET... the tools you need for insulation board jobs. Sharp, strong, specially ground blades cut through toughest insulation boards leaving clean, smooth edges. Three tools—five blades.

All for \$5.85

Sent postage paid anywhere in U.S.A.

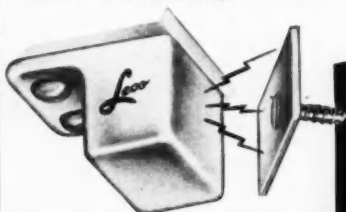
Extra Bevil-Devil Blades, of selected steel, ground to cut insulation board—package of 100 for \$4.00, postage paid.



**KIMBALL MANUFACTURING COMPANY, INC.**  
1629 SYCAMORE ROYAL OAK, MICH.

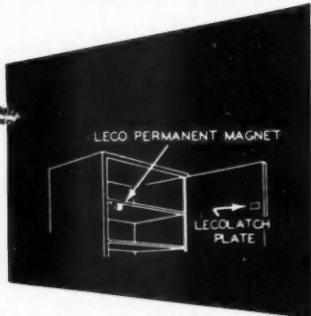
## ADDS THAT EXTRA QUALITY TOUCH!

*leco-latch* with the PERMANENT MAGNET!



USE LECO-LATCHES FOR:

Kitchen Cabinets • Music Cabinets  
Medicine Cabinets • Tool Cabinets  
House Trailer Cabinets • Ship and Boat Lockers • Any Cabinet Door!



Lasts forever—nothing to get out of order. Works perfectly—even if doors sag or warp. Doors open easily—without snap, noise or jerk. Holds door in place firmly, yet gently. Easily installed. Improves appearance. **NATIONALLY ADVERTISED**—In Better Homes & Gardens, House Beautiful, Sunset, Popular Mechanics.

Adding Leco-Latches is the easy way to add extra sales appeal to that next new home you build!

For literature, prices and name of distributor, write

**LABORATORY EQUIPMENT CORPORATION**  
ST. JOSEPH 15, MICHIGAN

another **HOMASOTE FIRST**  
—designed to reduce the cost of building

# NOVA



stabilized  
**Roller  
Doors**



and  
**Closet  
Fronts**

Higher in quality...simple and inexpensive to install...here is the roller door as you knew it would one day be perfected.

Nova Roller Doors are described as "stabilized", because—through four years of intensive research and testing—the tendency to warp and twist has been reduced to the point where these doors have year 'round, all-climate serviceability. Exclusive new construction features have relieved the stresses and strains, minimized the danger of buckling.

These are hollow core, flush doors—1-1/6" thick—regularly sold in the finest plywood and lumber—from birch and gum to imported mahogany.

The closet doors are available in 9 standard opening sizes and 5 standard heights. The passageway door comes assembled in its wall pocket, ready for installation—in five standard opening sizes. Each type comes complete in one carton and can be installed by one man in less than 30 minutes.



Nova Closet Fronts replace the old-style front of an existing closet—or make a new closet out of any suitable recess. The Nova Front is simply set into the rough opening, aligned, nailed into position. The Nova Roller Doors are instantly installed. Two types, each in four widths, are available.

*Let us send you fully illustrated and detailed literature.*

**NOVA SALES**  
Co. TRENTON N. J.

A wholly owned subsidiary of Homasote Company—manufacturers of the oldest and strongest building—building board, wood-textured and striated panels.



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Trenton 3, N. J.  
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Address.....

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

My lumber dealer is.....

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—designed to reduce the cost of building

Now sheathe and  
shingle in  
*one operation*

WITH...



**NOVA**  
insulated  
**sidewalls and roofs**

AT LAST... a truly scientific method has been developed whereby sidewalls and roofs can be shingled and sheathed—fully insulated—at one and the same time. By this method, the rich architectural effect of wide exposures—12" for roofs, 14" for sidewalls and deep 3/4" shadow lines—is available to the average home owner at a substantial saving in time, labor and money.

Nova Insulated Sidewalls and Roofs are built with three materials: asphalt-impregnated, sheathing panels—16" x 96" for sidewalls, 14" x 96" for roofs; the Nova galvanized, 26 gauge steel shingle clip, and #1 Certigrade roof shingles, or #1 Certigrade Processed Shakes (either stained or unstained) for sidewalls.

The 8" clip is placed on the bottom of the sheathing panel and the two are nailed together at each stud or rafter. The shingle is slid down the panel until the kerf in the butt of the shingle engages the clip. The second course overlaps the sheathing of the first course by 2". Only 1 1/2 lbs. of 8d galvanized nails are required per square.

There are no exposed nails to rust, stain or split the shingle; the shingles cannot curl. The quality of the materials used is of the highest; the total cost is extremely low.

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## SOIL COMPACTION

*Speeds Up*  
**FILL  
JOBS!**



## Use BARCO RAMMERS

**S**AVE labor, cut costs, and do a better job when you place *earth fill*. End the expense and nuisance of going back to add more dirt and repair unsightly sunken holes. Use Barco Rammers to tamp loose earth to original degree of compaction IMMEDIATELY!

Experienced home builders and construction superintendents report that a Barco Rammer easily pays for itself by getting work done quickly.

### ASK FOR DEMONSTRATION

The Barco Rammer is a new tool with many uses! Anyone can operate it. Easy to start; no adjusting—just "lift the handle!" It tamps backfill to high degree of compaction at amazingly low cost—Let us show you actual figures. Ask for our nearest distributor to give you a demonstration.

• Send for  
CATALOG No. 621



### BARCO MANUFACTURING COMPANY

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**Builders of Portable Gasoline  
HAMMERS and RAMMERS**

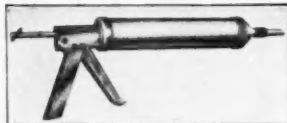
### Novel Placecard Idea Used by Home Builders



This is an example of a novel method which has been adopted by a number of Long Island, N.Y., home builders to impress members of the press and other guests invited to formal openings of model houses.

As each guest arrives a photographer gets a photo with a Polaroid-Land camera, which develops prints as the pictures are taken. Each print is clipped to a previously prepared card about six inches square with lettering about the same as shown on the above card, which is typical. The cards, with each individual's photo attached, are then used as placecards at the luncheon or dinner.

### The Only CAULKING GUN GUARANTEED for LIFE



### Uses Cartridge or Bulk Compounds

The BEAVER CAULKING GUN is precision made for longer life and better results.

- All working parts accurately machined.
- Extra heavy gauge barrels.
- Uses all caulking materials—handles light oils.
- Positive ratchet drive.
- Threaded nozzles—no bayonet joints to come loose.
- Guaranteed for life. Any gun damaged or worn out in service will be repaired or replaced by the manufacturer for only 8.15 cents.
- Three popular sizes—6 1/2", 10" and 15". List prices—\$6.50, \$7.50, \$8.50. Write for discounts.

IMMEDIATE DELIVERY

**WESTERN RESERVE MFG. CO.**

3710 E. 93rd St.

Cleveland 5, Ohio



**how to mix 12 to 15 yds.  
more concrete a day**

Gated hopper on the Jaeger 3 1/2 S "Auto-Loader" can be loaded while previous batch is being mixed. Hopper automatically shakes load into drum in a flash. This time-saving feature means 12 to 15 yds. more concrete per day. Jaeger engineered for long life. Machined steel drum tracks ride on carwheel rollers. Automotive transmission. See Catalog M-10.



3 1/2 S Tilter  
Also 6S, 11S and 16S  
Power Loaders

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ARCHITECTS!  
DRAFTSMEN!

**FREE!**  
**FREE!**

**\* LUX-RIGHT AREAWALL  
TEMPLATE TRIANGLE**

For quickly indicating, by cut-outs, the proper size and outline of LUX-RIGHT Areawalls needed to fit your basement windows.

Template is heavy plastic, 45 degree, 8-inch triangle, 1/4-inch scale. Shows LUX-RIGHT numbers for quick reference to standard sizes.

FREE to architects and draftsmen. Use your business letterhead.



Offered by the makers of "LUX-RIGHT Areawalls," "the Nation's Best" in quality, strength and design.

\*TM REG US PAT OFF

**SAINT PAUL CORRUGATING CO.**  
Expert Sheet Metal Manufacturers for 67 Years  
SOUTH END WABASHA BRIDGE, ST. PAUL 1, MINN.

### Propose Double-Hung Wood Window Standard

A proposed commercial standard for stock double-hung wood window units has been circulated by the Commodity Standards Division, Office of Industry and Commerce, to manufacturers, distributors, and other interested groups, the U. S. Department of Commerce has reported.

Stated purpose of the standard: to establish standard sizes, layouts, construction requirements, grading, tolerances, and assembly of double-hung window units for the guidance of producers, distributors, architects, builders and the public.

A limited number of mimeograph copies of the proposed standard were reported available from the Commodity Standards Division, Office of Industry and Commerce, U. S. Department of Commerce, Washington 25, D.C.

### Directs Tape Sales

Promotion of Alan H. Redpath to the newly-created position of merchandising manager of all Minnesota Mining & Mfg. Co. tape products has been announced by Louis F. Weyand, executive vice president.

*The Only Guaranteed—  
Nationally Advertised*

**RED CEDAR CLOSET LINING**

**BROWN'S**

**SUPERCEDAR**

SEAL-PACKAGED  
ALL WIDTHS 40'  
TO PKG.

**BROWN'S  
SUPERCEDAR  
CLOSET LINING**

**GUARANTEED 90% RED HEART—100% OIL CONTENT**

Write for Builders Folder and Consumer Booklet

PRODUCT OF  
**GEO. C. BROWN & CO., Inc.**  
GREENSBORO, N. C. Established 1896  
LARGEST MANUFACTURERS OF  
AROMATIC RED CEDAR IN THE WORLD

**Red Devil's  
Speed  
combination**



**Automatic Driver  
Diamond Points**

Shoots 100 Zinc or Steel Diamond Points into the hardest wood—as fast as a man can pull the trigger. Speeds up glazing of sash, frames and mirrors. Points can be driven at an angle, due to patented nose plate. For hand-driving—Perfect glazing with Red Devil Triangle Points. Zinc Coating prevents corrosion.



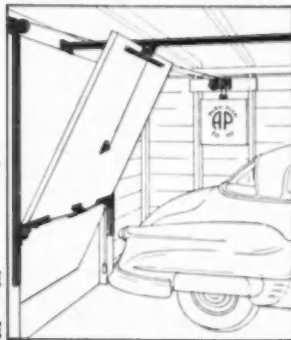
A PRODUCT OF

**Red Devil Tools**  
IRVINGTON 11, N. J., U.S.A.

**ALLITH  
50-50  
PUSH-OVER**

**GARAGE  
DOOR  
HARDWARE**

**Easy to Install . . .  
Lasting Satisfaction**

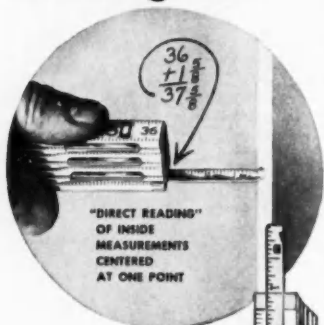


Combine the expertly-designed Allith garage door hardware with your own or any standard door. Result . . . a rugged, easily-operated overhead door that gives full and lasting customer satisfaction.

Quickly installed, standard set fits any opening up to 9' wide x 7' 6" high when doors do not exceed 275 lbs. Other sets available for openings up to 10' wide x 10' high.

**ALLITH  
-PROUTY, INC**  
DANVILLE, ILLINOIS  
IN AMERICAN BUILDER for Forty-Five Years

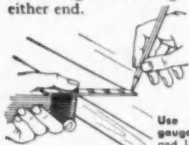
# Most versatile folding rule—



## NEW STANLEY "100 PLUS" EXTENSION RULE No. X-226

Make no mistake, the new Stanley "100 Plus" Extension Rule is the handiest, most versatile folding rule you can buy.

Read it four ways—on inside measurements using slide, entire reading is centered at one point—no chance for errors; may also be used as an ordinary folding rule for inside measurements, and as a regular folding rule reading from either end.



Use it as a marking gauge for 2", 4", 6", 8", 10" and 12", etc., measurements.

### CHECK THESE "100 PLUS" RULE FEATURES:

- Easy to read Big Black Numbers on White Sticks.
- Square ends—butt flush with work.
- Opens to even inches at end of each stick.
- 8-inch Brass slide removable for use as depth gauge.
- Handy for end-to-end measurements—opens in 6" multiples to full length, 72".
- New plastic finish wears four times longer.
- Extra Thick Rock Maple Sticks graduated all edges.

For real rule value see the X-226 at your hardware dealer's.

**Stanley Tools, New Britain, Conn.**  
THE TOOL BOX OF THE WORLD

# STANLEY

Reg. U.S. Pat. Off.  
HARDWARE • TOOLS • ELECTRIC TOOLS  
STEEL STRAPPING • STEEL

## Kitchen Producer's National Advertising Supports Home Week

Youngstown Kitchens' entire September national advertising schedule will be devoted to publicizing National Home Week and stimulating interest in local builders' exhibit homes, according to M. L. Ondo, manager for builder sales.

The campaign will be spearheaded by a double-page, four-color ad in the September 6 Saturday Evening Post; and an estimated 25 million persons will see ads in other leading consumer magazines.

The firm is also running ads in trade publications to spur builder interest in NATIONAL HOME WEEK. Ondo said, and distributors and dealers are expected to back the company's national program with local ads, store banners and other local promotion.

### Just Co. Has New Plant

Just Manufacturing Co. is now located in its new plant in Franklin Park, Ill., a Chicago suburb. The new building, of concrete and brick construction, has a ground area of 45,000 square feet, all on one floor.

the  
**EZ-WAY**  
folding stairway

it's like adding  
**another ROOM**

Converting that waste space in the attic into usable, livable space is like adding another room... it's easy and economical too with an EZ-WAY folding stairway. EZ-WAY folding stairways are completely assembled, jamb included, panel attached for easy installation.

- Touch controlled—balanced spring action
- No counterweights
- Soft-walk strips on each step
- Sturdily built, modern in appearance

Substitutes are not just as good! Write for name of nearest distributor

**EZ-WAY SALES, Inc.**  
Dept. 5, Box 300, St. Paul Park, Minn.

**HETTINGER'S**

# Triple Seal

PATENT NO. 2,725,80

COMBINATION SASH BALANCES and METAL WEATHERSTRIPPING

**NOW!  
ORDER  
TRIPLE SEAL  
IN  
ALUMINUM METAL**

AVAILABLE  
AT YOUR LOCAL  
LUMBER DEALER.  
YOU'LL  
LIKE IT!

**THE WEATHERPROOF PRODUCTS CORPORATION**  
Waldo Station, P. O. Box 8498  
Kansas City 5, Mo.

WHAT'S EVERYBODY LOOKING AT?

IT'S THESE BEAUTIFUL  
**PASTEL COLORS**  
OF JOHNS-MANVILLE ASPHALT SHINGLES!



Now, in response to the growing demand for roofs in light colors, Johns-Manville has developed three beautiful new pastel shades in the popular Thick Butt Asphalt Shingles—WINTER BLUE, NEPTUNE GREEN and BERMUDA RED.

Here are colors as up-to-date as today! They will give 1952 character and smartness to any home, plus the lasting protection for which J-M Asphalt Shingles are so famous. Backed by over 90 years' experience in the manufacture of quality roofing materials, these Thick Butt Shingles have the pleasing deep horizontal shadow lines preferred by millions of homeowners. A thick surfacing of fireproof mineral granules makes them resistant to fire as well as weather.

Ask to see Johns-Manville Thick Butt Asphalt Shingles in modern pastel colors. Johns-Manville, 22 E. 40th St., New York 16, N. Y.



JOHNS-MANVILLE  
**JM**  
PRODUCTS

**Johns-Manville**

## The Saws You Want



at the prices you  
want to PAY!

RETAIL SELLING PRICES For Rip, Cut-Off, Easy-Cut and Combination Saws			
6" - \$1.75	8" - \$2.15	10" - \$3.15	
7" - 2.00	9" - 2.65	12" - 4.35	
Supplied with Round or Special Shape Holes		As listed in Simonds Catalog "B"	

## SIMONDS SI-CLONE SAWS

Best buy in years for home-workshoppers, contractors, and schools... these guaranteed saws of Simonds famous quality. 13 types, including carbide-tipped, dado heads, and metal-cutting saws, up to 12" diameter, with round or special-shaped center holes for all electric hand saws. Look at these prices... and try to beat them at Simonds quality level! Drop in on your hardware dealer today... tell him you "want to see Simonds SI-CLONE line."

**Guarantee**  
Made of SIMONDS  
STEEL fully guaran-  
teed against any de-  
fect in material or  
workmanship.



**SIMONDS**  
SAW AND STEEL CO.  
FITCHBURG, MASS.  
Factory Branches in Boston, Chicago, San Francisco, and  
Portland, Ore. Canadian Factory in Montreal, Que.

## Issue Manual on Small Pipe Perimeter Heat

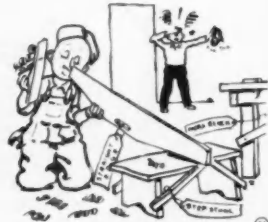
A new 24-page guide for small pipe warm air perimeter heating has been published by the National Warm Air Heating and Air Conditioning Association for distribution to the industry.

The booklet is described as Manual 10, a tentative manual for use in designing and installing low velocity heating systems, using 4-inch round pipe with winter air conditioning furnaces rated at a total external static pressure of .20-inch water gauge, or comparable, at sea level, and with a temperature rise range of 70-100 degrees F. through the furnace.

Two types of small pipe systems are described in the manual—the individual pipe system and the extended plenum system. The design and installation suggestions cover the use of small pipe perimeter heating in one- and two-story houses with full or partial basements and in houses constructed over crawl spaces.

### Changing Your Address?

Then please send your new address to  
Subscription Dept., American Builder,  
Emmett St., Bristol, Conn., together  
with your old address, three weeks in  
advance of next issue date.



Save labor spent making things to "speed up" the job—READY HUNG DOORS install in 20 minutes.



THE NEW  
DOOR AND FRAME  
PACKAGED UNIT

READY HUNG DOOR CORP., DEPT.  
FORT WORTH, TEXAS

## YOUR GLUED-BEAMS

*Immediate Delivery!!*

AMERICAN Roof Truss

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Est. 1922

Chicago

## HOW TO SELL MORE HOMES

EVERY MONTH IN THE YEAR

Organize in your own town

## NATIONAL HOME WEEK

A request on your letterhead will bring you a  
COMPLETE HOW-TO-DO-IT MANUAL

Write today to

NATIONAL HOME WEEK

## AMERICAN BUILDER

79 W. Monroe St.

Chicago 3, Illinois

Cut costs with NEW Gold Bond Gypsum Board

# TOUGHEST EDGES EVER MADE!



**WATCH THIS!** We smash a panel of new Gold Bond Hard-Edge Gypsum Wallboard against a panel of ordinary gypsum wallboard . . . closed edge smashed against closed edge. Now here's proof of the biggest wallboard improvement in 10 years — this Gold Bond improvement means faster construction, lower costs for you. Here's why. →



**GOLD BOND HARD-EDGE WALLBOARD** is merely dented! The edge of ordinary wallboard is badly gouged. It's just the kind of accident that happens *on the job* . . . makes it necessary to "baby" wallboard, wastes construction time, and costs money when damaged boards have to be replaced. Gold Bond Hard-Edge Wallboard licks all these problems!

**CUT COSTS WITH TOUGHEST EDGES EVER MADE!** Gold Bond Hard-Edge needs no "babying" on the job. This means speedier construction, sharply reduced replacement costs. Panels can be safely nailed near edges without splitting. And this great new improvement hasn't increased weight.

The new Hard-Edge—many times stronger than ordinary wallboard edge—is now standard on all Gold Bond Gypsum boards at **NO EXTRA COST!** For faster construction, lower costs on your next job, use Gold Bond Hard-Edge Gypsum Wallboard!

You'll build or  
remodel better with

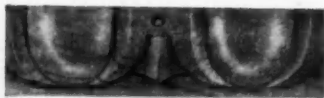
**Gold Bond**

**NATIONAL GYPSUM COMPANY • BUFFALO 2, NEW YORK**

Fireproof Wallboards . . . Decorative Insulation Boards . . . Lath . . . Plaster . . . Lime . . . Sheathing . . . Gypsum Roof Decks . . . Wall Paint . . . Textures . . . Rock Wool Insulation . . . Metal Lath and Sound Control Products

AUGUST 1952

255



**BENDIX**  
mouldings

rosettes & ornaments  
designed to help the builder  
**SELL THE WOMAN!**  
for  
FLUSH DOORS • CORNICES  
CHAIR RAILS • WALL PANELS  
MANTELS • CLOSET SHELVES

Write for illustrated catalog

**BENDIX Manufacturing Co.**  
192 Lexington Avenue, New York 16



**BOSTROM LEVELS**  
FOR HALF A CENTURY

Have been the most economical precision leveling instruments on the market.

Used and endorsed by contractors and builders everywhere. Sold on guarantee of satisfaction or money back.

Carried in stock by distributors from coast to coast. Write today for literature, prices, and name of our distributor near you.

No. 5 BOSTROM Convertible Level Detachable Compass when desired

No. 4 BOSTROM Contractors' Level

Simple, Accurate, Durable, Complete

**Bostrom - Brady Mfg. Co.**  
535 Stonewall St., S. W. ATLANTA, GA.

**New Movie Boosts Electrical Living**

A new 28-minute, full-color firm promoting "Electrical Living Homes" has been announced by Westinghouse Electric Corp. Theme of the movie, called "Better than Kings," is that modern home owners can be "monarchs of their household as they have all the electrical 'slaves' required by kingly living."

The film is suitable for showing to social and service clubs, professional groups, home economics students and many other groups, and is available on a loan or outright purchase basis, the announcement said.

Additional information may be obtained from the Better Homes Bureau, Westinghouse Electric Corp., 401 Liberty Ave., Box 868, Pittsburgh 30, Pa.

**What's Your Building Problem?**  
Is it insulation? Condensation? Damp basements? Measuring rafters? Specifying plumbing or electrical wiring requirements? Whatever it is, American Builder stands ready to serve you through the "Ask the Experts" department. Send your problem today to: "Ask the Experts," American Builder, 79 W. Monroe St., Chicago 3, Ill.

WHA'DAYA MEAN USIN' JAMB SETS FOR SHELVIN'...

Misused materials mean missed profit—Stop it with **READY HUNG DOORS.**

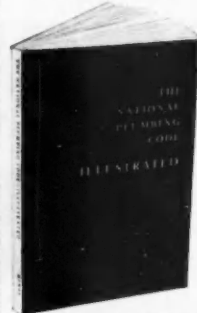
**ASK FOR**

**Ready Hung DOORS**

**THE NEW DOOR AND FRAME PACKAGED UNIT**

**READY HUNG DOOR CORP., DEPT. A**  
FORT WORTH, TEXAS

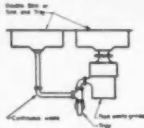
**PLUMBING SIMPLIFIED**



200 pages  
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195 drawings  
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5 1/2 x 8 1/2  
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\$3.00

**THE NATIONAL PLUMBING CODE ILLUSTRATED**  
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Executive Secretary

National Plumbing Code Committee  
Here's a handy new money-and-time-saver that diagrams and explains for you every puzzling paragraph in The National Plumbing Code. Send for it now on 10 days FREE trial. You'll get 200 pages of modern plumbing detail drawings including small residences, multi-story buildings, industrial plumbing, and much more. The 195 large, clear drawings (samples shown here are greatly reduced in size) translate the technical, legalistic language of the printed Code for you into simple, easy-to-understand mechanical design and construction that shows you what to do and what not to do. This amazingly easy guide by one of the original Code writers includes Definitions, General Regulations, Materials—Quality and Weight, Joints and Connections, Traps and Cleanouts, Interceptors, Separators and Backwater Valves, Plumbing Fixtures, Indirect Waste Piping and Special Wastes, Water Supply and Distribution, Drainage System, Vents and Venting, Storm Drains, Sizing the Water Supply System, Trailer Coach Plumbing Standards, Symbols, Bibliography, Index. Only \$3.00 for this valuable new picture-guide to the best accepted modern plumbing techniques! Send coupon below now for 10-days FREE Trial.



Bottom of pipe section, including 45° Arc from center, should be in firm contact with solid ground.

**10-Day Free Trial Coupon!**

American Builder Book Dept. 852  
30 Church St., New York 7, N. Y.

Rush me a copy of THE NATIONAL PLUMBING CODE ILLUSTRATED. After 10 days Free Trial I will return the book and owe nothing. Or, if I like the book, I will keep it and remit \$3.00 plus a few cents for postage and handling in full payment.

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Street.....  
City, State.....

# TONS of THORO System Materials used by George Sheaf & Co.



Birdseye view of Franklin County Children's Home, in Columbus, Ohio. All exterior foundation walls given two coats of THOROSEAL. All interior foundation walls given one coat of THOROSEAL and one coat of QUICKSEAL. Specified by Inscho, Brand, & Inscho, Columbus, Ohio.

## 40 Years of service

This year marks our 40th year in the manufacturing of high quality masonry materials. Today, from coast to coast, the name "THORO System products" is high on the list of specified materials by leading architects, engineers and contractors who, themselves, have achieved fame by recognition of good products.

**GEORGE SHEAF & CO.**  
 General Contractors  
 325 N. COLLETON STREET  
 COLUMBUS 2, OHIO

September 6th, 1952

Mr. Robert C. Saunders  
 Standard Dry Wall Products, Inc.  
 Box 1  
 New Eagle, Pennsylvania

Dear Mr. Saunders:

For several years now, we have been using your THORO SYSTEM Products, WATERPLUG, THOROSEAL, and QUICKSEAL, and thought you would be interested in the results we have obtained with them.

We have used THOROSEAL, applied in two thick coats as per your specifications, as an exterior foundation coating and have found this method of waterproofing foundations not only to be highly effective but economical as well as easy to apply.

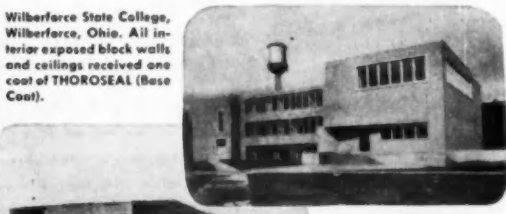
We have used THOROSEAL and QUICKSEAL, above grade on masonry walls, both exterior and interior, and are very well satisfied with the results, having obtained completely sealed walls as well as decorative finishes that have proven as durable as your literature indicates.

We have also enjoyed excellent relations with your distributor in Columbus, The Columbus Builders Supply Company, and found Mr. Horn of that company very cooperative and helpful whenever we have had reason to call on him.

In the past we have used many tons of THOROSEAL and QUICKSEAL under most every condition and found your claims for their permanence and effectiveness to be entirely justified. Please be assured we would not hesitate to recommend their use where a good waterproofing and beautifying job is required.

Sincerely,  
 GEO. SHEAF & COMPANY  
*Geo. Sheaf*  
 Geo. Sheaf  
 Owner

62/52



Wilberforce State College, Wilberforce, Ohio. All interior exposed block walls and ceilings received one coat of THOROSEAL (Base Coat).



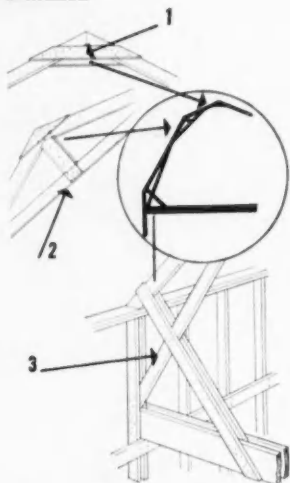
QUICKSEAL (Finish Coat) was used to provide final protection and beauty, with the wide variety of colors meeting all decorative requirements.

Get our 20 page brochure pictorially described in detail, "How to Do it."



**Standard Dry Wall Products**  
 NEW EAGLE, PENNSYLVANIA

## Roof Construction for Farm Buildings



Wind storms often build up excessive pressure inside buildings, forcing walls and roofs outward. Points

of greatest strain are the connections at the joints of sills, plates and roof.

(1) *Collar ties*, lapped over the rafters and well nailed, tie rafters together at the ridge of the roof.

(2) *Rafter braces* have a dual purpose. They stiffen and tie the two rafter units to make one solid structural member.

(3) *Wall braces* at alternate rafters will keep the upper plates in alignment, and prevent upper walls of building from being forced apart.

## Vermiculite Plaster "Star" of New Film

Applications of vermiculite plaster aggregate are shown in a color-sound film, "Lightweight Champion," recently produced by the Zonolite Co.

The film illustrates plastering techniques, lightweight construction methods, and acoustical plaster applications for sound conditioning and fire safety. It is available to architects, contractors, plasterers and others without charge, the company said.

Detailed information may be obtained by writing Zonolite Co., Film Section, 135 S. LaSalle St., Chicago 3, Illinois.

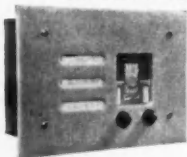
## Prefabricated Corner Is New Development For Cedar Shake Wall

A new development in cedar shake wall construction is a prefabricated corner, introduced by a Canadian firm, Capilano Timber Co. of Vancouver, B.C. It is designed to produce a mechanically correct corner.

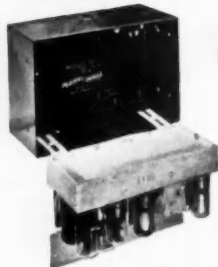


Called the "Redy-Korner," the product is made of standard-grooved, pre-stained cedar shakes, with a prime coat of stain so that it may be retouched to match any shake color. It is applied after a house has been completely covered with shakes to cover corner breaks.

## BUILT-IN RADIOS WILL SELL YOUR HOMES!



- Fits in Standard 4" Partition
- Approved by Underwriters' Laboratories
- As easy to install as any Electrical Receptacle Outlet.



## LOW COST!

Retail Price only \$34.95 plus installation.

Special Trade Prices on Request

Panels Extra: Masonite \$2.45. Plastic Colors \$4.45.

Specifications on Request.  
Territory franchises available to qualified jobbers and dealers.

# FLUSH WALL

## RADIO COMPANY

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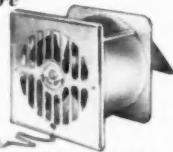


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Fully automatic Clear-Aire Kitchen Exhaust Fans help sell more new homes faster! In 8 and 10-inch standard and deluxe wall and ceiling models, for brick or frame construction. G. E. Motor, two-unit construction, mirror-bright chrome finish! Compare quality, compare price—you'll choose CLEAR-AIRE! Send coupon for descriptive literature and prices!

Selected territories open for Manufacturer's Representatives! Write for details!

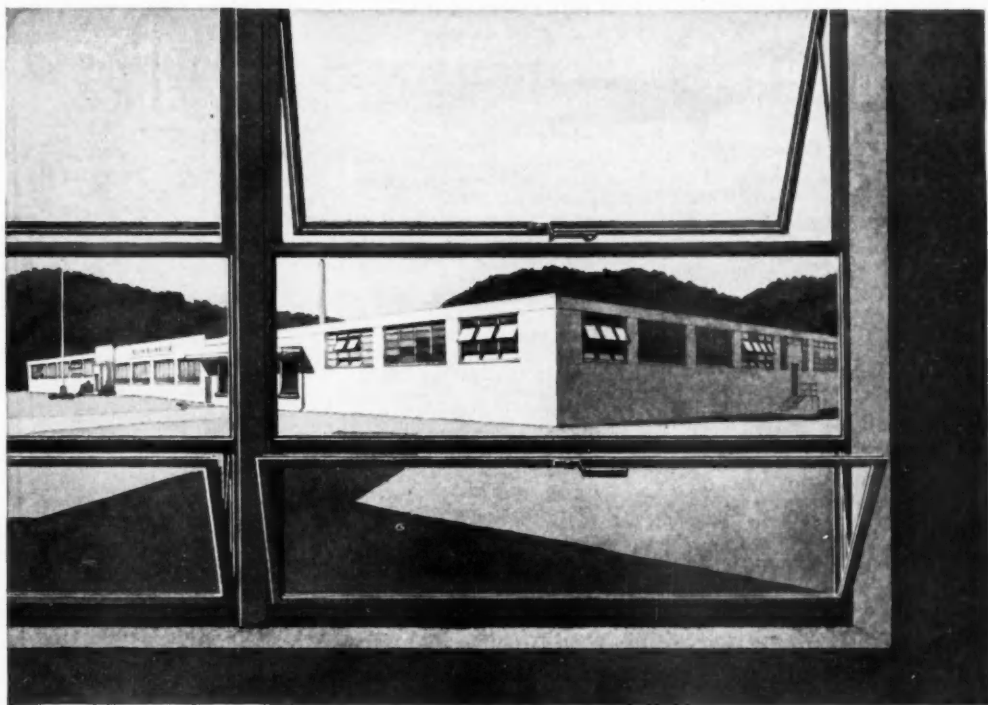


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Baltimore 15, Md.

"Clear-Aire—you see them everywhere!"

Sin-Jin Products  
Baltimore 15, Md.  
Gentlemen:  
Please send literature and prices on Clear-Aire Kitchen Exhaust Fans.  
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City \_\_\_\_\_ State \_\_\_\_\_





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Parts Warehouse) Sharp-  
sburg, Pa. Contractor:  
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Lupton Architectural Projected Windows are as modern as today — and built for tomorrow. Made of sturdy metal, precision manufactured with welded corners for extra strength, they offer long-range economy through low initial cost and minimum maintenance.

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fied to open in or out. Both sides of the glass can be cleaned from within the building.

For window satisfaction, keep Lupton Windows in mind when you build. There is a style for every building purpose in aluminum or steel . . . for residential, commercial, office, institutional and industrial construction.

See the complete Lupton line in Sweet's, or write for General Catalog.

**MICHAEL FLYNN MANUFACTURING COMPANY**

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*Members of the Metal Window Institute and Aluminum Window Manufacturer's Association*

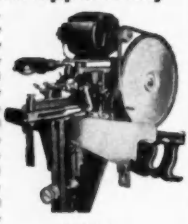
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Model 61  
Foley Saw Filer

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shows how you can start at home, make up to \$3 or \$4 an hour in spare time. Small investment, no overhead—no experience needed.

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### New Booklet Issued By J. C. Nichols Co.

An attractive new 36-page brochure on the internationally-known Country Club District of Kansas City has been published by its developers, the J. C. Nichols Co.

The promotional piece contains more than 100 photographs, along with other pertinent data.

Started in 1905 as a 10-acre tract by the late J. C. Nichols, the District, considered a model for city planning, now covers 6,000 acres with 12,000 homes. Its population is around 60,000.

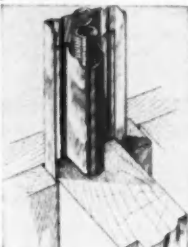
The development is made up of 50 separate subdivisions, with houses ranging in price from \$12,000 to \$500,000. It is served by 11 shopping centers. Another distinctive feature is Nichols' use of imported art objects throughout the area. The collection is valued at about \$500,000.

### N. Y. Firm Consolidates

The Solvay Sales Division has become the sales department of the Solvay Process Division, Allied Chemical and Dye Corp. Offices of the consolidated units are at 61 Broadway, New York City.

NATIONAL HOME WEEK of 1952  
September 14 to 21

## perfect balance! fast, easy installation! the new CENCO . .



- Wide variety of sizes
- Weather tight
- Enclosed springs
- Simplified framing

### COMBINATION WEATHER-STRIP SASH BALANCE

Here is the new Cenco sash balance with everything you need for fast easy installation. You get many standard sizes to choose from, and simplified framing to make your job easier—more profitable. This balance is weather tight and perfectly balanced with the correct weight spring for each size—giving long, trouble free operation. Write for complete data including sizes and prices. Immediate delivery!

**CENTRAL METAL STRIP CO.**  
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Complete line of weatherstrip materials and supplies

## BOSTWICK DIAMOND MESH METAL LATH



ST. PAUL'S CHURCH AND PARISH HOUSE  
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- Cram & Ferguson Architects-Engineers
- Carmichael Construction Co. General Contractors
- The Erieview Supply & Coal Co. Design
- Charles Briggner Plastering Contractor

## Don't take comparative costs for granted

Many people take for granted that metal lath type construction is too costly for some jobs. Perhaps you are one of them.

With the rising costs of labor and materials on such items as doors, windows, floors, ceilings, foundations, roofs, etc., perhaps a little ingenuity in the use of metal lath will save the builder "plenty" on these and other expensive items. In Illinois, a housing project used metal lath because of all-over economy and quality. You can build the thinnest, lightest, non-bearing wall with 2-hour Underwriters' endurance rating out of metal lath, 3/4-inch channel studs and solid gypsum plaster mixed with lightweight insulating aggregate.

Send for a Bostwick catalog today.

**the Bostwick steel lath company**  
103 Newton Ave., Wick, Ohio



### "The Wood Preservative Plus"

- Minimizes swelling and Shrinking of doors and floors
- Reduces Grain Raising and Separation Checks in Plywood
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- Non-toxic to handle for On-the-job Application
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- Carried by Lumber Dealers

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## Give your customers more for their money with Marlite Hi-Gloss and Woodpanel!

Eliminate costly painting operations, add sales appeal to your homes, give your customers beautiful, colorful interiors with these two, great new Marlite plastic-finished wall and ceiling panels.

**MARLITE WOODPANEL**, in authentic reproductions of fine, fully-finished wood grains, makes possible beautiful, economical interiors in dens, recreation rooms, libraries, living rooms, offices, corridors, waiting rooms, bars, lounges, etc.

**MARLITE HI-GLOSS**, a new low-cost panel in Plain, Horizontal, and Tile Patterns, is ideal for maintenance-free bathrooms, kitchens, utility rooms, laboratories, rest rooms, operating rooms, etc. And every Marlite panel features the exclusive high-heat-baked finish which resists moisture, grease, acids, heat, alkalis, and stains.

Check over your fall projects now—then choose from 67 striking Marlite color and pattern combinations for creating beautiful residential, commercial, industrial, and institutional interiors.



BATHROOM DESIGN BY EUGENE VOITA A.I.A.

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# Blue Ribbon Performance ... always!

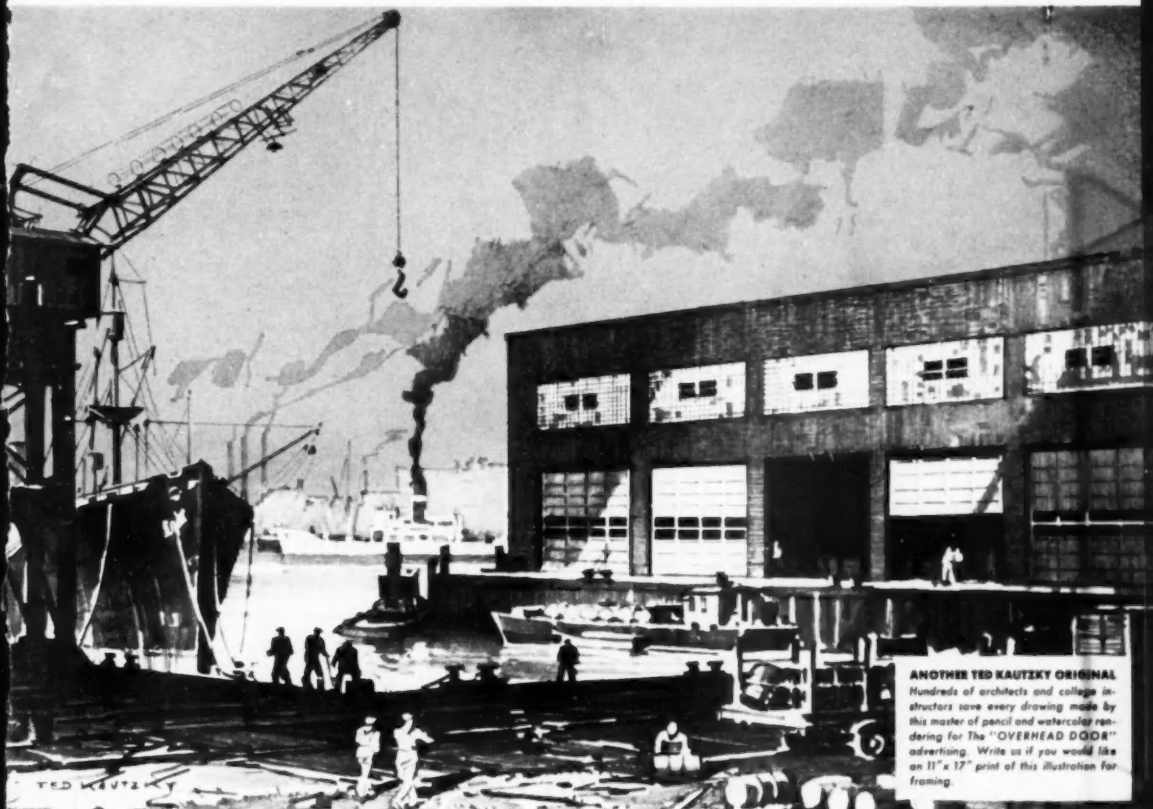
Specify The "OVERHEAD DOOR" on all garages and industrial buildings. That famous trade mark assures you and your customer the finest quality door ... expert installation ... blue ribbon performance! When you choose the door with this trade mark, you know your client or customer is getting the best!

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The "OVERHEAD DOOR" is available in sizes and designs to suit every residential or industrial use—manually or electrically operated. See our catalog in SWEET'S or write us.



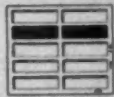
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 Tracks and hardware are also-coated to resist rust and corrosion.



**MIRACLE WEDGES\***  
 Inclined vertical tracks and graduated hinges give weather-tight closure and easy opening action.



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## Builders Install National Cabinet Hardware



**No. 770R Cabinet Door Set**—For rabbeted doors. Hinge has  $\frac{1}{4}$ -inch offset. Set consists of one pair No. 460R Offset Ornamental Hinges and one No. 707 Cabinet Latch. Any finish.

**FINE  
APPEARANCE**

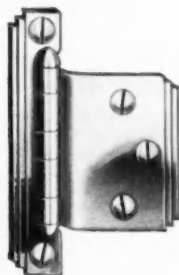
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National Cabinet Hardware is easily installed because it is designed to fit exactly for various types of both rabbeted and flush doors. It is attractive enough to be a "selling feature" when displaying the house to prospective home buyers. It exceeds the requirements for all Municipal and Federal home building agencies. Install National Cabinet Hardware and satisfy everybody concerned. Available in many styles and sizes. See your National Dealer.

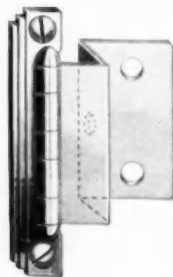
*National*

**MANUFACTURING COMPANY**  
STERLING ILLINOIS

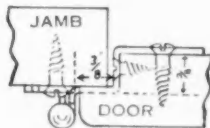


**No. 460S**

**No. 460R Hinge**—For use with doors having  $\frac{1}{4}$ -inch offset. Any finish.



**No. 460B**



**No. 460B Semi-Concealed Hinge**—Used as shown in diagram. Any finish.

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