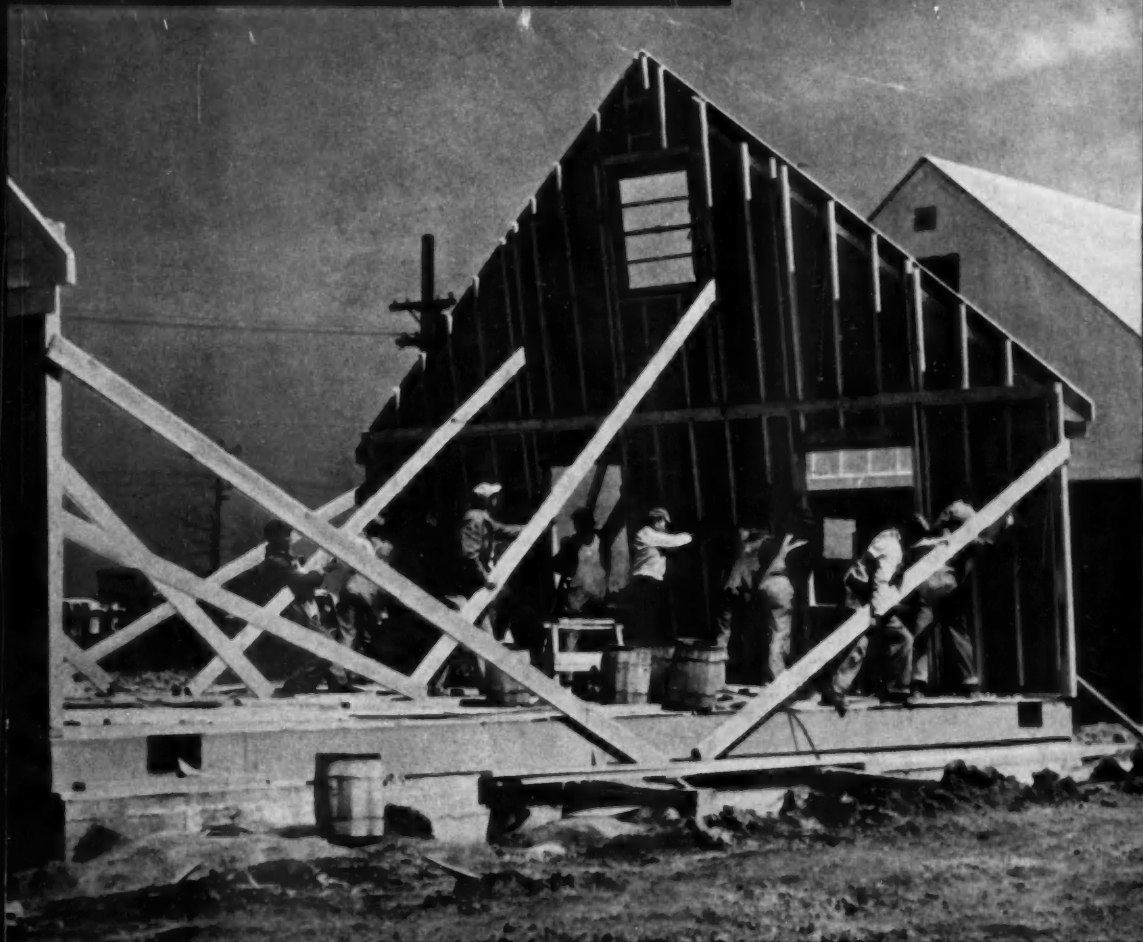


# AMERICAN BUILDER

THE BEST BUILDING PAPERS  
IN THE BUSINESS



**TILT-UP  
Framing  
Cuts Costs**

Let's Do Something Different With Kitchens and Bathrooms

**CONSIDER the BUILT-IN FAN**

A New Slant—One-Story Flat Top Garden Apartments

*see*

*newest  
time saver*

\* *adjustable strike*

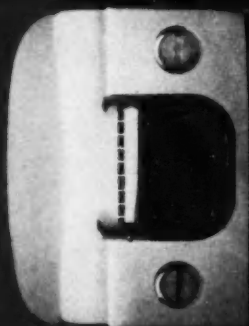
a simple device now makes it possible to move  
the opening which receives the latchbolt 1/8"  
*without* cutting new mortise.

Loosen the screws slightly and the pressure of a  
fingertip compensates for door warping,  
added layers of paint and other causes of faulty alignment.

See the latest kwikset time and money saver—  
your jobber has it now.

*sales and service company, anahem, california*

\* OPTIONAL AT NO EXTRA COST



# Now a window installed in minutes ... and already trimmed!

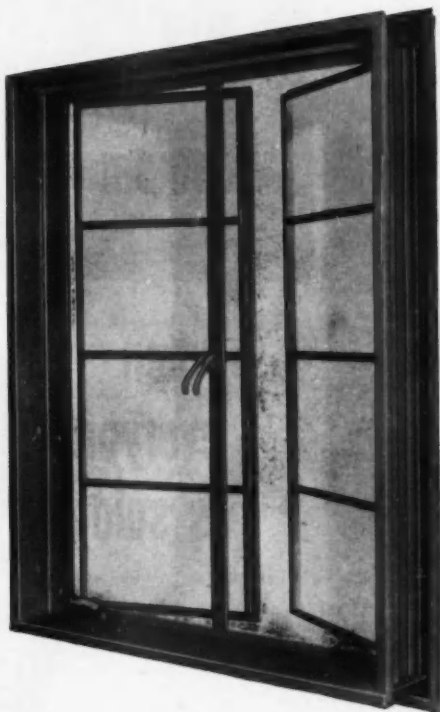
The new Fenestra\* Ready-Trimmed Steel Window Unit is sash, frame, hardware, inside trim, outside trim . . . all in one modern unit that is easy to handle, amazingly simple to install.

**Goes in Simplest Rough Opening**—Sheathing is run over studs and cripples, nailed and cut flush around opening. No need to recess for stops, etc. Same rough opening preparation for frame, brick veneer or stucco.

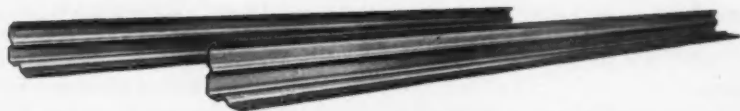
**Quickest, Easiest Installation**—Unit is simply plumbed in opening and nailed to sheathing through holes in flashing of trim—no grounds or special blocking required. No finishing or refitting. No extra trim or stops needed. Plaster or dry wall butts against the metal trim inside. Shingles, siding, stucco or brick butt against it outside.

**Helps Sell Houses**—Fenestra Ready-Trimmed Unit provides triple weather tightness—of sash in frame, of frame in trim, of trim in wall-opening. The windows are graceful and beautiful. They always open easily. They are washed, screened, and storm-sashed from the warm, comfortable *inside* of the house. And they are available Super Hot-Dip Galvanized (on special order) so they never need maintenance-painting. Fenestra Galvanized Basement Windows are also available now! And check on Fenestra's easy-to-use inside Metal Storm Sash and Screens, too.

\*G



## ANNOUNCING *Fenestra* PRESSED STEEL LINTELS



**Immediately available for all standard Fenestra Steel Residence Windows**

For everything in windows for the modern home call your Fenestra Representative today. Or write Detroit Steel Products Company, Dept. AB-7, 2260 E. Grand Blvd., Detroit 11, Michigan.

## *Fenestra* READY-TRIMMED STEEL WINDOW UNITS

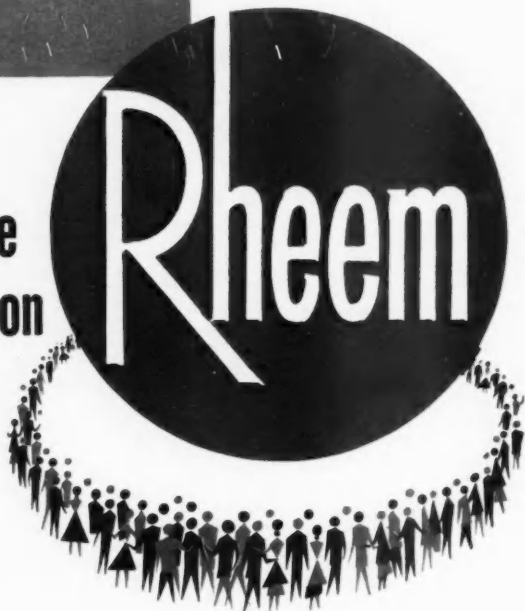
**A complete package—Sash • Frame • Hardware • Inside Trim • Outside Trim**

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equipment



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everyone  
is sold on



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# You'll save more than \$200 a house

**Assembly line methods pay off**, whether you're building one house—or hundreds. Thousands of builders are discovering the DeWalt way to faster, more accurate "on-location" cutting. The DeWalt makes every cut necessary in completing a house to tolerances of 1/100th of an inch. One builder, using a DeWalt with its exclusive Safety Power Feed, saved over \$200.00 a house by eliminating waste and recuts alone!

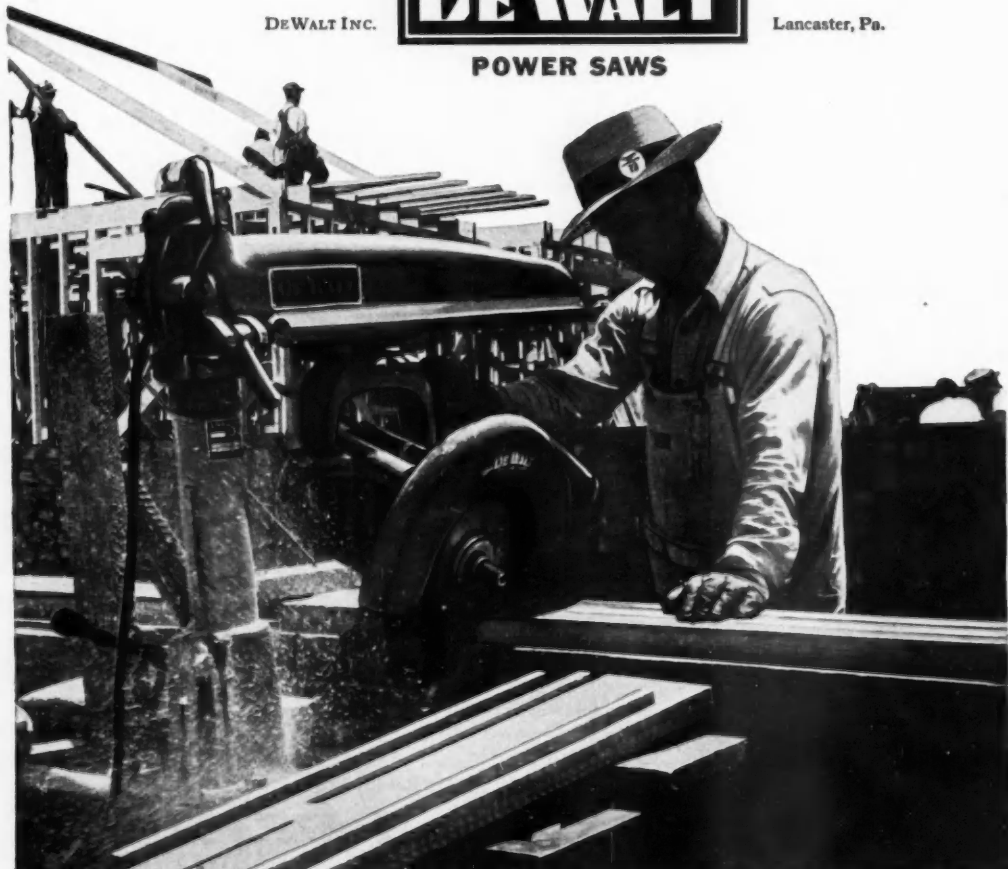
It will pay you to investigate the savings only a DeWalt Power Saw can offer. Available in five models— $\frac{1}{2}$  to 10 hp. Write for complete information. Dept. AB-7.

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# HOW GARAGE DOORS HAVE CHANGED!



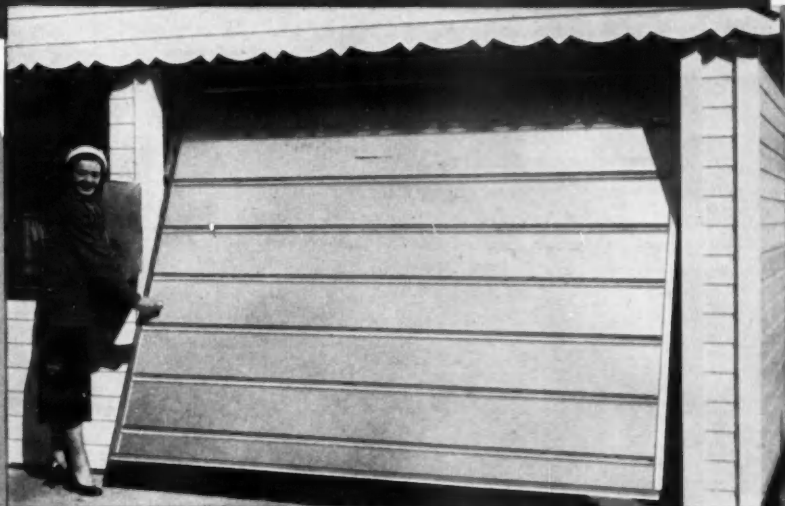
*No More*  
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panels on the job



*No More*  
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shrinking of garage  
doors



*No More*  
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resulting from too  
narrow a garage  
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**FULL 9-FT. WIDTH** accommodates today's wider cars. Horizontal lines add beauty to the garage.

**THE STRENGTH AND DURABILITY OF STEEL . . .** that can't warp, sag, rot, or shrink, assure easy operation for a lifetime. **GALVANNEALED** for rust protection and clinging base for paint—no prime coat needed. You get an enthusiastic owner every time you install a **STRAND Door**.

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**AVAILABLE** in these types and sizes: 8' x 7' Receding (track) and Canopy; 9' x 7' Receding (track) and Canopy; 16' x 7' Receding (track) only. Order from your dealer, or mail coupon for information and dealer's name.



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Please rush full information about Strand All-Steel Garage Doors for 9' x 7', 8' x 7', and 16' x 7' openings.

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## USE THESE PRODUCTS . . . GET THESE RESULTS:



**SILICON JOINT FILLER:** Ready-to-use, this mixture eliminates uncertain and time-consuming joint cement mixing. Factory-controlled uniformity assures better joints. This material works easily and minimum sanding is required.



**SILICON MIX:** For beautiful, washable, sand-textured finishes. Consists of silica beads of controlled size . . . specially baked and treated with silicon esters. Add to primer and finish coat . . . brush, roll or spray it on. It's that easy!



**SILICON STIPPLE TEXTURE:** Similar to Joint Filler in composition. May be brushed, troweled or rolled on . . . then stippled with brush, sponge or roller stippler. Gives a tough finish that hides imperfections. A final coat of QUALI-KOTE may be applied for higher washability, durability and depth of color.



**QUALI-KOTE WALL PAINT:** Specially formulated for professional use, QUALI-KOTE is ideal for dry wall finishing. It dries fast . . . provides a vapor seal . . . is washable! QUALI-KOTE is the final touch of beauty to complete a dry wall job. Available in an array of gorgeous colors and white.

**1. AT JOINTS:** Joints and nailheads can be permanently concealed. Less possibility of nails working through! Reduced possibility of future joint "shadows" due to changing thermal conditions. No burning through paint film, because materials contain no alkali. Joint Filler works easily . . . requires minimum sanding . . . actually adds tensile strength at joints.

**2. OVER ENTIRE WALL AREA:** The same perfect finish, job after job. Factory-controlled product consistency assures uniform results. You get an even, durable finish! Texture won't peel, shed, flake-off or rub-off. Can be tinted to any desired color with QUALI-KOTE. A final coat of QUALI-KOTE is recommended for added washability, durability and depth of color.

**3. CHOICE OF FINISHES:** Smooth . . . Sand . . . Stipple Texture! Everything you need in dry wall finishing is contained in the "matched-set", of four Sherwin-Williams products . . . including finish color!

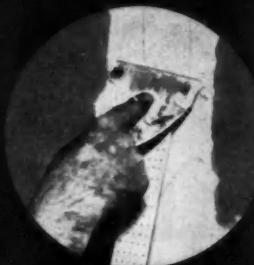


# DRY WALL FINISHING

HOW THE NEW SHERWIN-WILLIAMS DRY WALL FINISHING SYSTEM WORKS!



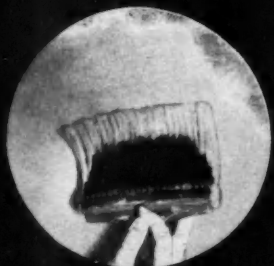
A. Fill joints and nailheads with Silicon Joint Filler, using 5-inch knife. You'll find it works smoothly.



B. Work perforated tape into soft Joint Filler. Immediately smooth a third layer over tape, spreading excess filler to either side of joint and let dry. Then, apply second coat of Joint Filler, smoothing it out five or six inches to either side of joint. Let dry thoroughly.



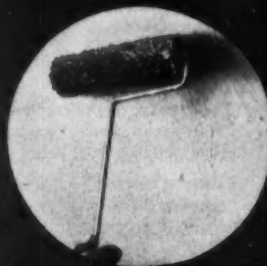
C. Sand finished joint, feathering edges to blend with wallboard. Joint Filler requires minimum sanding. Smooth off nicely to form a tight, durable joint.



D. For a smooth finish over properly treated joints and nailheads, apply two coats of QUALI-KOTE wall paint. QUALI-KOTE will give a beautiful, washable finish that will last.



E. For a tough, sand-textured finish, mix Silicon Joint Filler with QUALI-KOTE according to directions. Apply two coats to properly prepared surface. Allow overnight drying between coats. The result—a wonderful sand-textured wall finish... already colored... and washable!



F. Any number of popular stipple textures may be obtained. Brush on a mixture of Silicon Joint Filler and QUALI-KOTE. Immediately go over it with a stipple roller. Finish with final coat of QUALI-KOTE—any color—for a long-lasting, washable finish.

## Save Time and Labor!

The "matched-set" of products comes ready-to-use... speeds up job... saves on labor. No mixing required... no variance in consistency... and no waste!

For high quality dry wall finishing methods, call your Sherwin-Williams representative today... listed under PAINT in your classified phone book. For a copy of our booklet "Sherwin-Williams Dry Wall Finishing Systems," write...

# THE SHERWIN-WILLIAMS Co.

101 PROSPECT AVENUE

CLEVELAND 1, OHIO

JULY 1952



# DISASTER *averted by*

## FIRESTOP BESTWALL®

### FIRE CONFINED TO TWO BATHS IN HUGE HOUSING PROJECT

A vicious fire raged for over an hour in a small area of the Susan B. Clayton Housing Development in Houston, Texas.

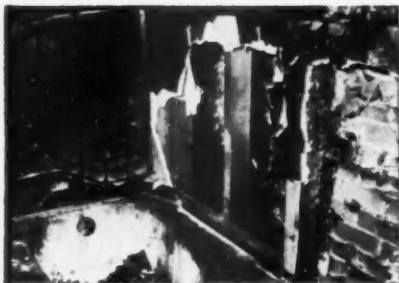
*But it could not break through the FIRESTOP Bestwall barrier.*

The untouched photos tell the story. According to FPHA authorities, FIRESTOP Bestwall "saved the entire building from being a total loss."

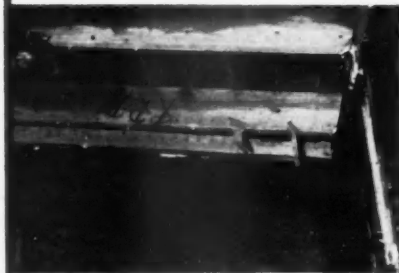
FIRESTOP Bestwall, considered by many as the greatest improvement in gypsum wallboard history, offers up to 1 hour resistance for walls and ceilings.

This amazing gypsum product far outclasses any ordinary wallboard. Besides its superior fire resistance, FIRESTOP has greater structural strength and better sound-deadening characteristics. It is the one and only wallboard carrying the mark of Underwriters Laboratories (UL) Re-examination Service.

"Facts about FIRESTOP" is yours for the asking. It contains complete information on fire resistance and other characteristics of this remarkable development.



Right foreground shows section where firemen broke through FIRESTOP during blaze. Charred side of wooden stud is the result. Then compare remaining undamaged studs between the FIRESTOP wallboards. Wallboards were broken away after fire to show undamaged condition.



FIRESTOP Bestwall was removed from overhead wooden beams after the fire to show their undamaged condition. Note that walls above tiling remained intact though severely burned.



Nowhere has fire broken through the wall, although the tile panels are blistered.



The FIRESTOP wall adjacent to bathroom remains intact and undamaged. On other adjacent walls the intense heat blackened the nailheads, but FIRESTOP Bestwall remained undamaged.



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Quality made Certain... Satisfaction Guaranteed

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READING, PENNSYLVANIA

REPORT DEPARTMENT, 100 East 42nd St., New York 17, N.Y.

# TIME-SAVING TEAM FOR BUILDERS

## STANLEY

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## Door-Hanging Tools

This trio of Stanley Electric Tools puts speed, efficiency into door hanging . . . puts you hours and dollars ahead on every building job.

Here's how you save. Stanley Hinge Butt Router, HB8A mortises 6 times faster than by hand. Leaves a smooth, flat surface every time . . . provides a solid foundation for Stanley round cornered butt hinges. Stanley Door and Jamb Template T5 makes multiple hinge mortise positioning accurate and fast in one setting. Stanley Plane Attachment, GA-142 adds double-value and utility to HB8A, operates on same motor. Does a quick, flawless job of trimming and fitting doors.

Save time and money in door fitting, hinge mortising . . . add this precision team to your building crew today. For full information on these time-saving tools—see your dealer—or write to: Stanley Electric Tools, 400 Myrtle St., New Britain, Connecticut.

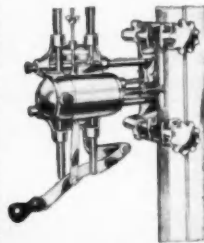


**HINGE BUTT ROUTER, HB8A** mortises 6 times faster than by hand. Leaves smooth surface . . . perfect fit for Round or Square Corner Hinges.

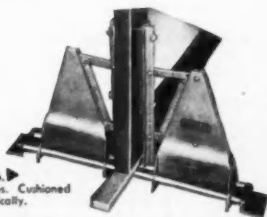


**DOOR AND JAMB TEMPLATE T5.** Makes hinge mortise positioning accurate and fast. Can be duplicated on as many doors as desired, for either 2 or 3 hinges.

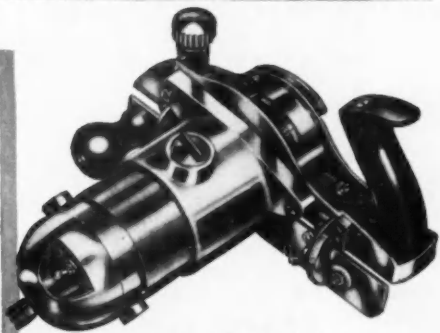
### FOR PRODUCTION-LINE EFFICIENCY THESE COMPANION TOOLS . . .



**LOCK MORTISER, LM1.** Does a complete mortising job in about 30 seconds. Easily adjustable.



**SASH AND DOOR HOLDER, GA-156.** Eliminates make-shift saw-horse set-ups. Cushioned clamps protect work . . . release automatically.



**PLANE ATTACHMENT, GA-142** Operates on same motor as HB8A. Easily attached, gives fast, flawless trimming and cutting. Ingenious design blows chips entirely free from cutter and operator.

## STANLEY

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#ARDWARE • TOOLS • ELECTRIC TOOLS • STEEL STRAPPING • STEEL

*Mack says...*



# It really when you use

## *Nu-CALK* **SPEED LOAD**

**America's Favorite Caulking Compound**

Every caulking job will be "top notch" when you use high quality Nu-Calk Speed Loads. Nu-Calk "stays put" — will not dry out, run, crack, harden or pull away. Speed Loads are easy to use, too! User's hands never touch the compound. Always has a smooth, even flow, and easy trigger action. Try it yourself and you'll see why Nu-Calk Speed Loads enjoy such nationwide popularity!

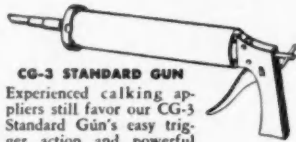
### *Nu-CALK* CAULKING COMPOUND IN CANS, TOO!

The "standard of quality" in the caulking field! Same fine product as in Speed Loads, but also available in 1/2-pint, pint, quart, gallon, 5-gallon cans. Also 55-gallon drums! Order a supply, today!



**CG-4 SPEED LOADERS**

Here's the streamlined gun that goes with Nu-Calk Speed Loads. This SPEED LOADER caulking gun is light, sturdy, fool-proof. Simply slip in a load and you're ready to calk!



**CG-3 STANDARD GUN**

Experienced caulking applicators still favor our CG-3 Standard Gun's easy trigger action and powerful piston action. Fitted for use with Nu-Calk Speed Loads or bulk caulking.

Also  
available  
in  
Nozzle-Type  
Load  
if desired

**FOR FAST DELIVERY, ORDER NOW!**  
Your order will be shipped  
same day received!

- Full freight charges prepaid and allowed on orders of 100= or more.
- Nu-Calk Speed Loads, Nu-Glaze and Nu-Phalt may be combined to make a 100= shipment.

# "Stays Put"

## M-D Quality Products

### *Nu-Phalt* PLASTIC ASPHALT CEMENT

For Sticking Down Asphalt Shingles and General Repair on Roofs and Flashings!

Comes in popular load form like M-D's famous *SPEED LOAD* for calking guns, or in 2½ lb., 10 lb., 50 lb., and 550 lb. containers.

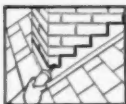
NU-PHALT HAS DOZENS OF USES!



Stick down asphalt shingles or other roofing repair work.



Perfect around gutters and valleys. Applicable to all roofing work.



Apply around chimney flashings with calking gun or with putty knife.



Handy for sticking down loose asphalt tile, and many other uses.

Use *Nu-Glaze* GLAZING COMPOUND instead of putty!



Nu-Glaze overcomes all the bugaboos about putty because it "always stays put!" Never dries out, hardens, cracks or peels off!

Nu-Glaze is not a putty, but a plastic glazing compound that's perfect for glazing, filling cracks, setting plumbing, boatwork, etc. Comes in ½-pint, pint, quart, 5 lb. cans. Also available in drums — 25 lb., 50 lb., 100 lb., and 880 lb. Order your Nu-Glaze today!



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OKLAHOMA CITY, OKLA.

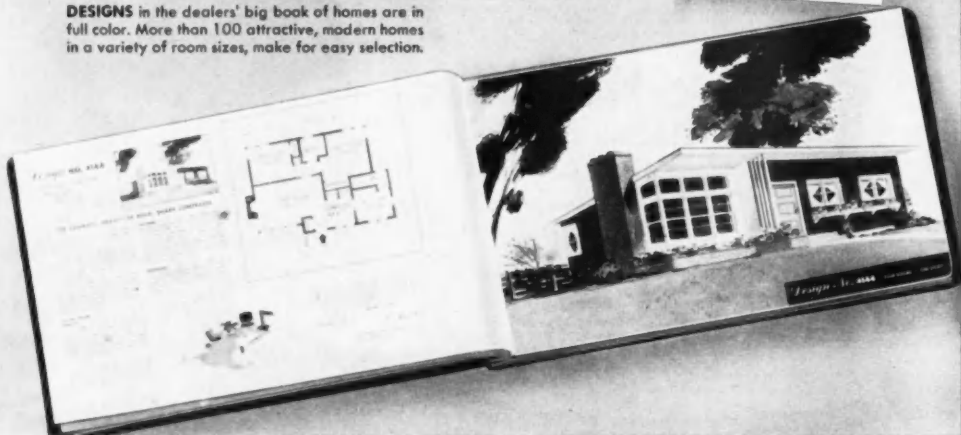
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BUILDING  
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**POSTERS** that stop traffic, invite study. House design in full color. Large floor plan. A new poster each month.

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**DESIGNS** in the dealers' big book of homes are in full color. More than 100 attractive, modern homes in a variety of room sizes, make for easy selection.



# Weyerhaeuser 4-Square

# Each year its home selling power increases

ACCUMULATED DESIGNS ACCELERATE SALES

Home builders who use the many modern designs of the Weyerhaeuser 4-Square Home Building Service, to assist their prospects in home style selections, are enthusiastic over the sales results.

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The success of the 4-Square Home Building Service is partially due to the basic soundness of its purpose. It was developed so that retail lumber dealers and their contractor customers could give the buyers of small homes all the benefits that come from professional planning . . . from the best work of architect and engineer.

The success of the Service is also due to the practicalness of designs, modern styling, simple forthright plans and the specification of standard yard materials.

And finally, it is the completeness of the program that helps contractors. The national advertising in leading shelter magazines, now in its seventh year, popularizes the homes in the Service. Contractors can obtain helpful selling aids from 4-Square Dealers . . . home folders, plan books, blueprints, material lists.

As we said, home builders who are using this Service are finding it most helpful in adding variety and interest to their standard designs.

The Weyerhaeuser 4-Square Home Building Service is now beginning its seventh season with another series of twelve home designs that will continue to be interesting and attractive. Use this Service to build business.

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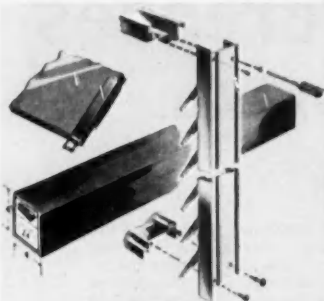


## Home Building Service



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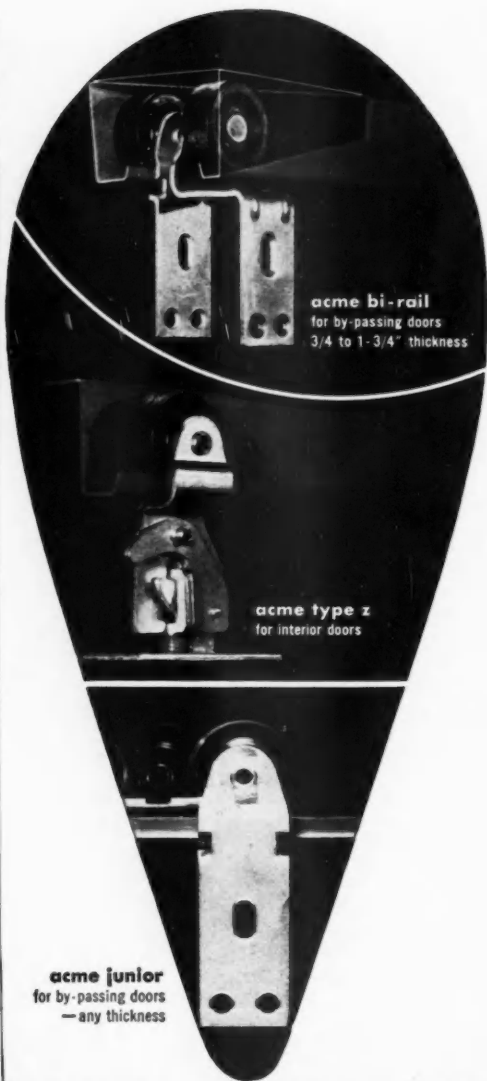
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## ***Brockbank's Six-Point Program***

**A**LAN BROCKBANK, president of the National Association of Home Builders, accurately reflects the concern of the entire industry, in turning his attention to the outlook for building starts in the coming several years. This general concern is the result of an expected decline in the number of new family formations during the mid-years of the current decade. In place of the one million or more new homes that have been required to meet actual need each year since the close of the war, only about a half million new families a year can be expected during the mid-fifties. This figure, plus 100,000 replacements on account of loss by fire, flood and wind, can reduce the actual need to about 600,000.

With an industry geared to supply more than 1,000,000 new houses a year, serious trouble for home builders can be avoided only through the creation of a market for an additional 400,000 units a year.

President Brockbank maintains that these 400,000 units, and more if necessary, can be built, and he offers a program to insure such a volume, at least until 1960, when the war and postwar children will begin to reach marriageable age. Beginning with 1960, and possibly 1959, new family formations, resulting from the tremendous birth rate of the early forties, will exceed 1,000,000 annually for an indefinite period.

In the meantime, Mr. Brockbank proposes six steps to raise the housing standard of the nation, and guarantee

a continuing satisfactory volume for the industry. The six steps follow:

1. *Work to secure the passage and enforcement of local statutes establishing minimum standards of safety, health and sanitation for all existing housing.*

2. *Promote paint-up, clean-up programs and other maintenance programs to allay or halt development of slums.*

3. *Work with city administrations in development and operation of plans to remodel sub-standard houses that can be salvaged, and to raze those structures that are hopelessly or economically decayed.*

4. *Work with city administrations on redevelopment programs for entire communities, in accordance with over-all plans for better use of land.*

5. *Set up volunteer housing welfare boards composed of civic leaders, who will grant cash subsidies to indigent families for their housing needs, and then attempt to rehabilitate such families, and interest them in cooperative housing enterprises.*

6. *Start a nation-wide move for real low-cost housing both for rental and sale.*

*American Builder* approves this program, and believes that if it is put into effect it can easily create demand for at least 400,000 new units a year, over and above the expected normal need of 600,000, and at the same time stimulate remodeling to any desired degree. We urge an early meeting of the several major factors in the light construction industry for the purpose of putting the program in operation.

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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, June 23, 1952

- ▶ **REGULATION X** is "relaxed." Effective June 11, the government eased down payment requirements for new houses. The extent of relaxation was relatively slight, and it brought little glee to the industry.
- ▶ **THE NEW CREDIT TERMS** apply on one-to-four family units and on larger multi-unit structures. Biggest break is in the low-price field.
- ▶ **VETERANS** are no longer required to make a down payment on homes costing \$7,000 or less, although closing costs must be paid in cash. For non-veterans, the initial payment is reduced from 10 to 5 per cent on homes costing up to \$7,000.
- ▶ **ON VA-GUARANTEED LOANS**, the range is from "no down payment" at \$7,000, to 35 per cent down payment on homes costing \$25,000 and up. In the case of FHA or conventional loans, required down payments range from 5 per cent at \$7,000, to 40 per cent in the over-\$25,000 category.
- ▶ **HOME BUILDER SPOKESMEN** in Washington were quick to criticize the "relaxed" credit regulation. They called the ease-up "inadequate," and "extremely disappointing."
- ▶ **THIS REACTION** means home builders, real estate groups and others will make more vigorous efforts to have Congress take away the authority by which administrative agencies maintain controls over housing credit.
- ▶ **ONE MOVE IN THIS DIRECTION** came June 11 when the House Banking Committee in writing a new defense production act, voted to junk all credit curbs. Other controls would be extended for a year. If the committee view is adopted by Congress, it will end Regulation X completely June 30.
- ▶ **REVISED REGULATION X** establishes new down payment requirements on multi-unit housing. The range is from 10 per cent in the lowest bracket to 40 per cent in the \$25,000-and-up bracket. Down payments required on this type housing previously ranged from 17 to 50 per cent.
- ▶ **TIME ALLOWED** for paying off mortgage credit remains unchanged. The maximum is 25 years on properties valued up to \$12,000, and 20 years on higher-priced homes. Veterans can get an extension if the VA finds the shorter payment period causes hardship.
- ▶ **NO CHANGE** was made in down payment requirements on non-residential properties. This matter was "still under consideration" when the June 11 revision was announced.
- ▶ **A MILD BOOM** in low-priced veterans' housing is predicted in some quarters. Other than that, builders seem to think the changes in Regulation X will have little effect.
- ▶ **DOWN PAYMENTS** are still high for middle-cost homes. The following table shows how much cash will be required in several of the price categories:

Transaction Price (per family unit)	Minimum Down Payment (FHA and Conventional)	Minimum Down Payment (VA)
\$ 7,000	\$ 350	\$ 0
10,000	1,450	580
12,000	2,350	900
15,000	3,700	2,550
18,000	5,350	4,240
20,000	6,450	5,380
23,000	8,500	7,350
25,000	10,000	8,750

▶ **FRANKLIN D. RICHARDS** RESIGNED AS FHA Commissioner effective June 30. He leaves the position heading Federal Housing Administration to enter private business in Washington, ending a 17-year career with FHA. He has served as Commissioner since 1947. Walter L. Green, deputy FHA Commissioner, is among those mentioned as possible successor to Richards.

▶ **SENATOR MAYBANK'S OMNIBUS HOUSING BILL** (S.3066) now is in the lap of the House Banking Committee. It passed the Senate May 23 without opposition. The House group expects to hold hearings on the bill within the next ten days.

▶ **APPROVAL** of this legislation by Congress would put the spur to defense housing. It would add \$900,000,000 to FNMA's advance commitment authority. Its purpose is to break the mortgage bottleneck on defense-area housing.

▶ **ANOTHER PROVISION** of the Maybank bill would increase FHA insurance authorization by \$400,000,000. Use of the new authorization would also be restricted to programmed housing in critical areas, to Wherry-Act housing and disaster housing.

▶ **HOUSING PROGRAMMED** in 168 critical areas totaled 82,965 units in mid-June. Of this number, 59,115 were rental and 23,850 sales units. HHFA reported recently that builders have started work on 16,524 units in 131 critical areas, and that 3,018 units have been completed.

▶ **THE SENATE HAS INCREASED** the number of public housing units for the year beginning July 1. In passing the Independent Offices' appropriation bill, senators approved funds for 45,000 units, compared with 5,000 which the House approved. The difference will have to be ironed out in conference. Last year, in similar circumstances, the House accepted the Senate figure. There is a good chance this year the final figure won't be higher than 25,000 units.

▶ **A "GI BILL" FOR KOREA VETERANS** has passed the House by a vote of 361 to 1. The legislators approved the provision which would require homebuilders to furnish warranties on VA-guaranteed housing.

▶ **CONTINUATION OF THE STEEL STRIKE** for two weeks or longer will force NPA to ditch plans for relaxing construction controls July 1. The agency will also revise third and fourth-quarter allocations, and the construction industry may find itself facing a new and tougher controls situation.

▶ **SUBSTANTIAL CHANGES** in controls had been in store for the third quarter. Effective July 1, NPA planned to allow home builders more self-authorization, the hold-down on recreational construction was to be lifted, and other relief granted. All this now hinges on whether steel production is restored promptly.

▶ **APPOINTMENT OF A TASK GROUP** to study the possibility of lifting construction controls was approved May 28, when NPA met with its Construction Industry Advisory Committee. NPA agreed to name such a group. Self-authorization of materials for multi-unit residential construction will be among the items up for group study.

▶ **ORDER M-100**, the control on housing, will probably end soon. If NPA goes ahead with the July 1 plans, the remaining provisions of M-100 will be incorporated into the general construction regulation, CMP Reg. 6.

▶ **HIGHER COPPER PRICES** are in prospect. The government has removed its ceiling price on imported copper, and OPS will allow mills to "pass-through" to users most of any increases which occur. The copper supply should improve as imports increase.

▶ **THE VA STILL HAS A "FOR SALE" SIGN** on mortgages acquired through the direct home-loan program. Sale of this paper would make VA's "revolving fund" self-supporting, but the agency is having slow going. After four months only 513 direct-loan mortgages had been sold, the number outstanding is over 20,000, and the agency is having to dip into funds recently authorized by Congress to keep the program above water.

▶ **MAY HOUSING STARTS** are estimated at 107,000 units, an increase of 6,000 over May 1951. The Bureau of Labor Statistics, which prepares the estimates, reported 98,600 of the May 1952 starts were private and the remaining 8,400 were public housing units. Total for the first five months of 1952 is 455,600, a decrease of 1,900 below the same period in 1951.

▶ **OUTLOOK FOR ALL OF 1952** is optimistic. Government experts predict expenditures for new construction will set a new record this year, with private residential outlays very near the 1951 level. They say 1952 housing starts will be "somewhat greater" than last year. Their guess is 1,050,000 units.

▶ **COMMERCIAL CONSTRUCTION** this year will be off sharply — about 27 per cent — because of restrictions prevailing during the first six months. With more liberal materials allotments beginning in July, this type of construction will stage "some recovery" toward the end of the year.

# Here's the Home Building Picture Across the Nation

**T**HROUGH its quarterly surveys, *American Builder* reaches into every area of the nation to sound out the feeling among leading active builders on the industry's most important topics of the moment.

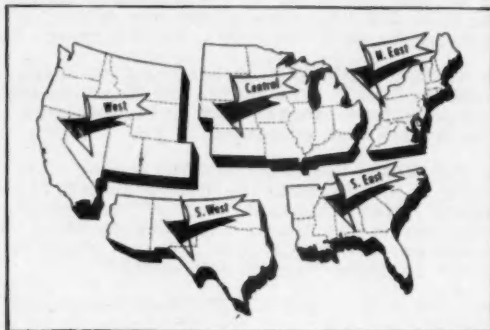
Based on last-minute telegraphic reports from these top sources, this digest of informed opinion thus presents the most up-to-date information available on current problems and provides an extremely accurate barometer for conditions in the immediate future. The map at the right indicates where each state is represented in the regional summaries.

## Consensus:

Agreement is top-heavy that termination of Regulation X would be a great "shot in the arm" for the market in most price ranges. Recent relaxation of the law is not the desired answer for most relief is wanted for price levels beginning at \$10,000 or \$12,000.

Look for a decline in home starts, perhaps 10 to 25 per cent, although there are exceptions in every regional area where increased production is forecast.

Financing outlook is not bright. VA loans continue tight as ever, even where funds are subject to substantial discount. This practice appears spreading to FHA-insured loans, which tend to be less available. Only conventional mortgages seem to remain in good supply.



Three months ago, the start of most sales resistance was pegged at \$15,000; now it's \$12,000.

Costs are on the march again, with average increase of 3 to 4 per cent in prospect; 10 per cent in a few zones.

Two old stumbling blocks, labor and material shortages, have virtually disappeared for the present.



## Would Elimination of Regulation X Provide a Healthier Home Market?

### Northeast

Three-fourths of all present unsold houses would be moved, according to Albany survey. Delaware and central New York believe \$12,000-\$25,000 range would benefit most. Consensus sees aid for all price brackets.

### Southeast

Shreveport, La., believes end of X would boost its \$9,000-\$12,000 construction at least 150 per cent. South Florida sees spur to under \$12,000 market, while Atlanta anticipates help for \$15,000 and up range. Jackson, Miss., alone indicates there will be no great change, with \$10,000 and \$11,500 houses now selling without difficulty.

### Central

No great effect expected in Cincinnati because of previous high down payment requirements of loan institutions. All other reporting centers say end of law would stimulate market tremendously: in \$10,000 range at Sioux City, Iowa; below \$12,000 and above \$20,000 at Kansas City; above \$12,000 in Lincoln, Neb., Louisville and Davenport, Iowa.

### Southwest

Entire area predicts rising sales if restrictions go, with \$12,000-\$20,000 range benefitting most. Oklahoma City anticipates investors in under \$12,000 home mortgages will probably still require down payments about the same as demanded in Regulation X.

### West

California and Colorado see benefit to houses over \$10,000; Spokane, Wash., under \$10,000. Seattle wonders if end of X is not the only solution to cut home inventories.

## Home Starts in Next Six Months—Increase or Decrease?

### Northeast

Slight downtrend forecast except in central New York, which looks for increase up to 10 per cent, and Boston, unchanged. Slash of 50 per cent expected in Washington, while northern New Jersey cities predict 20 to 25 per cent cut. Richmond, Va., attributes anticipated decrease to unsold home surplus.

### Southeast

Undetermined increase seen in southern Florida and Shreveport, La., areas, while New Orleans expects 25 per cent rise. Sharpest reductions in starts anticipated are 40 per cent in Atlanta, 25 per cent in Jackson, Miss., and 20 per cent in Birmingham, Ala.

### Central

Only sizable increase in sight is at Louisville: 30 per cent. Lincoln, Neb., sees a high volume of starts continuing only due to an air base reactivation. Davenport, Iowa, Dayton, Ohio, and St. Paul, Minn., estimate 10 per cent decreases; Cincinnati a 20 per cent drop.

### Southwest

Houston predicts 25 per cent increase and Albuquerque, N. M., a 10 per cent reduction. All other reporting centers look for a fairly steep cutback, led by a drop of 50 per cent or more at Oklahoma City. Some feeling expressed that slightly relaxed Regulation X will cause a starts slowdown until effect is determined.

### West

Coast cities predict 10 to 30 per cent decline, while Denver looks for 10 per cent improvement.



## Is Sales Resistance Increasing? In What Price Brackets?

### Northeast

Most reports find strong resistance beginning at \$12,000 to \$15,000. Washington blames large down payments; northern New Jersey suggests extension of mortgage term from 20 to 25 years would be a great help.

### Southeast

South Florida and Jackson, Miss., alone note no special resistance. Others find it in nearly all price ranges.

### Central

Lincoln, Neb., reports big market for units in \$5,500 to \$7,000 range. Strong resistance level, beginning at \$15,000 last March, now starts at \$12,000 in most cities except Kansas City, which finds sales slowdown begins at \$25,000.

### Southwest

High down payment slowing sales in all ranges and causing buyers to do more "shopping around" among completed houses, instead of ordering from blueprints, explains San Antonio. Houston reports tremendous resistance at \$25,000 level. Recent pickup in sales picture noticed in Dayton, Ohio.

### West

Regulation X financing is blamed for sales slowdown in all price groups throughout the territory. Market has dropped somewhat in the past 45 days, according to Denver while Seattle points out mass builders are by-passing large projects for groups of 25 homes only.

## What's the Mortgage Money Situation?

### Northeast

Conventional, FHA and VA loans all in very good supply at Albany, N. Y., and Boston. VA money very tight in other cities, almost extinct in Washington. Conventional mortgages generally reported readily obtainable, while FHA-insured loans are listed from fair to not very plentiful. Lone exception: in northern New Jersey, FHA is adequate, conventional only fair.

### Southeast

Money supply low, though Shreveport, La., has sufficient FHA and conventional funds. Memphis and Jackson, Miss., have VA loans available at discount of 2½ per cent. Conventional loans bringing premium in latter city.

### Central

General scarcity reported growing. VA money mostly out of picture. Davenport, Iowa, claims FHA shows definite signs of tightening, while St. Paul, Minn., finds conventional mortgages making unusual requests of borrowers. Conventional satisfactory at 4¾ per cent in Kansas City, but FHA is tight at 1 per cent discount and VA is "impossible." Des Moines, Iowa, reports plentiful loan supply, except VA.

### Southwest

VA money very tight, even with 5 per cent discount at San Antonio, 4 per cent at Houston and up to 8 per cent at Oklahoma City. Oklahoma and Texas cities charge that FHA-insured loans are not easily available unless a 1 to 1½ per cent discount is provided. Conventional in good supply.

### West

Cities in Washington troubled with tightening conventional loan demands. Seattle finds percentage of loan in comparison to appraisal not sufficient for a builder to operate successfully. Lenders financing only a few houses per builder with the conventionals, according to Spokane. VA funds range from scarce to none: FHA from fair to none.

## Building Costs—What Changes May Come in the Next Six Months?

### Northeast

Increases generally predicted, ranging from 1 to 2 per cent in Washington to around 5 per cent in Delaware, central New York and southern New Jersey. Boston and northern New Jersey believe costs are stabilized.

### Southeast

Area evenly divided between no change and a 5 per cent rise, the latter being predicted for Mississippi River section.

### Central

All territory except Nebraska and western Iowa looking for costs to go up as much as 10 per cent. Some examples: Davenport, Iowa, 3 per cent; St. Paul, Minn., 4 per cent; Cincinnati, 3 to 5 per cent; Kansas City, 5 per cent, and Louisville, 10 per cent.

### Southwest

No change expected, except at San Antonio, Tex., which believes higher steel and oil wages will bring about proportionate rise in home costs.

### West

San Francisco forecasting 10 per cent jump; Denver, 5.

## Is the Labor Supply Adequate In All Trades?

### Northeast

Situation well in hand throughout area, except at Elmira, N. Y., where sheet metal workers are scarce.

### Southeast

Adequate supply "across the board."

### Central

Louisville notes growing scarcity in all trades, and a slight shortage exists in Kansas City. Supply adequate elsewhere, but St. Paul, Minn., reports several trades on strike, including sheet metal workers, linoleum and tile setters, and roofers.

### Southwest

"More than adequate," emphasizes San Antonio. Supply abundant throughout area.

### West

Denver alone continues to have insufficient labor, with 20 per cent shortage in skilled reliable carpenters, and 5 per cent undersupply of bricklayers, plumbers and linoleum workers.

## Are Materials in Adequate Supply?

### Northeast

Steel shortage evident in Richmond, Va. Otherwise, plenty of materials all around.

### Southeast

Sufficient supplies available throughout area.

### Central

Steel critical at St. Paul, Minn. Situation well in hand in other reporting cities.

### Southwest

Copper available but in short supply at Oklahoma City. Northern Texas reports 25 per cent shortage in reinforcing steel and inability to locate any #8 copper wire.

### West

Face brick shortage of 50 per cent at Spokane, Wash., is only problem noted at the moment.

(Advertisement)

## PANEL DISCUSSION

**Builder Saves \$10 Per Square With Douglas Fir Plywood**



With unlimited choice of building materials, Rusdick Lumber Sales chose plywood siding for its new Tacoma, Wash. warehouse and the builder reports the panels cut construction costs by \$10 per square. "We chose plywood because we like a smooth, flush exterior surface but cost was an important factor and plywood was cheaper," says part-owner Russell Ross.

MacDonald Building Co. designed and built the new structure. According to L. B. MacDonald, plywood afforded the least expensive satisfactory construction. He estimates the in-place cost of plywood, unpainted, with studs 16", o.c., and metal flashing, at \$68 a square—some \$10 less than the in-place cost of other siding combined with the necessary sheathing.

The building is 50' by 150', 20' high to the roof trusses. PlyShield grade plywood, 3/8" thick, was used as a combined siding-sheathing. Panels were applied horizontally with metal flashing.

**PlyForm Grade Plywood  
Now Made In Two Types**



The familiar PlyForm grade-name now identifies special concrete form grades within both Interior and Exterior-type fir plywood. Exterior PlyForm replaces the old Exterior Concrete Form grade-name. Identified by the new diamond-bar symbol shown above, Exterior PlyForm with 100% waterproof bond is intended for use where forms will be used until the wood itself is worn away. Simultaneously, the highly moisture-resistant glue-line of Interior PlyForm has been fortified for better service, and up to 10 or 15 re-uses may be expected even though glue-line is not permanently waterproof.

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## Plywood Built-Ins Often Mean The Difference Between and

No DOUBT about it, plywood built-ins have buy-appeal. Space-thrifty plywood storage wall, built-in dining bar or crisp kitchen cabinets can often mean the difference between a house that's snapped up the minute it's offered and one that's a drug on the market—an important fact to consider as selling becomes more and more competitive.

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**Douglas Fir  
Plywood**

AMERICA'S BUSIEST BUILDING MATERIAL



Portfolio of Prize-Winning Built-Ins. Valuable collection of designs that will serve as a springboard for your own imagination. Contains over 50 designs judged best in the national "Better Living Home" architectural contest. For your free copy write Douglas Fir Plywood Association, Tacoma 2, Washington.

(Advertisement)

## Tests Prove Plywood's Great Resistance To Lateral Loads

New design data proving the extra strength and rigidity imparted by plywood subfloors and roof sheathing have been developed by plywood research engineers, culminating 14 months of tests. The new design data permits architects and builders to specify plywood floor and roof construction in schools, commercial and industrial buildings with full confidence that the structure will withstand the great lateral stresses caused by windstorms or earthquakes.

		Shear (lb.-per-ft.-width) 2 1/8" framing		
Plywood Thickness	Nail Size	Nail Spacing on all panel edges		
		6"	4"	3"
5/16", 3/8"	6d com.	185	280	315
3/8", 1/2", 5/8"	8d com.	265	400	450
1/2", 3/4"	10d com.	320	480	545

Tabulated shears should be reduced one-fourth for other than wind or seismic loads. Diaphragm width measured parallel with load.

As one result of the tests, Uniform Building Code has been amended to permit greater allowable lateral loading for plywood diaphragms as shown above in condensed form. Complete data is available from Douglas Fir Plywood Association, Tacoma, Washington.

## Plywood Helps Complete Rush Job On Schedule

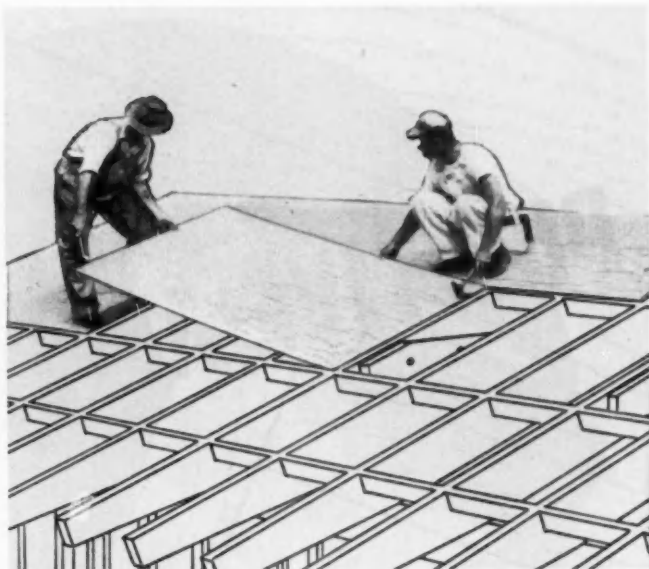


A crew of 25 men completed construction of the new Lakewood (Wash.) Branch of the Puget Sound National Bank in 10 working days to hang up what might well be a record for buildings of its kind.

The final decision to rush construction of the 2,600 sq. ft. building was made by bank officials only 18 days before job completion. Architects Lea, Pearson and Richards went to work to meet the "impossible" schedule. To give the builder every opportunity to save time, they turned to virtually all-plywood construction. Drawings and specifications were completed within a week and work was begun under the direction of O. D. Parker, building superintendent for Ketter Bros., Inc., contractors.

According to both builder and architect, plywood made possible the speed of building. The big panels were used for combined siding-sheathing, gable ends, interior paneling, roof decking and underlay floors. The plywood board and battens siding is painted barn red to contrast with white flush-surfaced gabled ends. Interior paneling is painted light green.

JULY 1952



## Prove It Yourself-PlyScord® Roof Decks Actually Cost Less

HERE's paper and pencil proof that you can cut costs with PlyScord grade plywood. Figure it both ways on the chart below. Then make a special note to put PlyScord on your next bill of materials—for better construction . . . for lower in-place costs.

### Estimating Chart to Cover 1,000 Square Feet of Roof Area\*

PLYSCORD	RATE	TOTAL	LUMBER	RATE	TOTAL
1,056 sq. ft. 3/8" or 5/16"			1,200 ft. b.m. 1x8 shiplap		
Nails 6d-12 lbs.			Nails 8d-20 lbs.		
Carpenter 6 Hours			Carpenter 11 Hours		
Helper 3 Hours			Helper 5 Hours		

TOTAL COST IN PLACE . . . . . TOTAL COST IN PLACE . . . . .

\*Data developed from Walker's "The Building Estimators' Reference Book"

# Douglas Fir Plywood

AMERICA'S BUSIEST BUILDING MATERIAL



® PlyScord is the unsanded construction grade of interior-type plywood bonded with highly water resistant glue. For subflooring, sheathing, backing, one-use forms. PlyScord is a registered grade-trademark identifying quality plywood manufactured in accord with U. S. Commercial Standards and inspected by Douglas Fir Plywood Association (DFPA).





# POSITIVE APPLICATION

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Insulation is only as good as its application. That is why Balsam-Wool® Sealed Insulation has special, reinforced spacer flanges for fool-proof application in construction—providing air spaces on both sides of the blanket, and sealing against wind and condensing moisture. Send today for A. I. A. Balsam-Wool Data Sheets. Wood Conversion Company, Dept. 119-72, First National Bank Bldg., St. Paul 1, Minnesota.

## **balsam-wool**

Sealed Insulation — A Product of Weyerhaeuser



# **BRIXMENT**

# **ASSURES A GOOD BOND**

After all is said and done, the first function of a mortar is to form a good, tight *bond* with the brick. Upon this characteristic depend both the strength and the water-tightness of the wall. A good bond is particularly important in securing water-tight walls, because most cases of leakage are caused by the passage of water *between* the brick and the mortar.

Brixment mortar assures a good, strong, *thorough* bond because: (1) Its great plasticity permits a more complete bedding of the brick, and an increased area of contact between the

brick and mortar.

(2) Its high water-retaining capacity keeps the brick from sucking the water out of the mortar too fast, and prevents the mortar from congealing before the brick is thoroughly bedded and bonded.

(3) It hardens slowly enough to permit deeper penetration and more thorough keying into the pores of the brick.

Because of these characteristics, Brixment mortar makes a *better bond*. Isn't this what you want in *your* brickwork?

**LOUISVILLE CEMENT COMPANY, Incorporated, LOUISVILLE 2, KY.**



## ...CUTS Banks, Shoulders, Ditches, Curbsides!

**EQUIPMENT**

For all kinds of mowing along highways, streets, ditches and banks—in parks, building sites and sub-divisions, the Ford Tractor with Dearborn Side Mounted Mower is the ideal unit to do your job.

Cutting in weeds, grass, and even brush is smooth and positive. The mower is designed to give you the right cutter bar angle to meet even your most adverse mowing conditions. The cutter bar will operate efficiently at angles from 45° below to 90° above horizontal and is easily and quickly controlled by the Ford Tractor's Hydraulic Touch Control. For off-level mowing along curbs, cutter bar inner shoe can be raised 12" and still maintain complete angling range. It is available with 5' or 6' cutter bars.

The Ford Tractor with Dearborn Side Mounted Mower is a compact maneuverable mowing team that allows you to easily and quickly cut where and when you need to. It is economical to own because of its sturdy construction and double V belt drive which assures smooth dependable operation on the toughest mowing jobs.

Ask for a demonstration. Find out why it is so popular with highway commissioners, street and park superintendents, contractors and their operators throughout the country. See your Ford Tractor dealer or write to Department I, Dearborn Motors Corporation.



## DEARBORN MOTORS CORPORATION

Birmingham, Michigan

National Marketing Organization for the Ford Tractor and Dearborn Equipment



### DEARBORN ANGLE DOZER

has Adjustable Angle and Pitch

Cutting width of the Dearborn Angle Dozer is from 5' to 6' depending on the angle. Ford Tractor Hydraulic Touch Control lifts or lowers the blade.



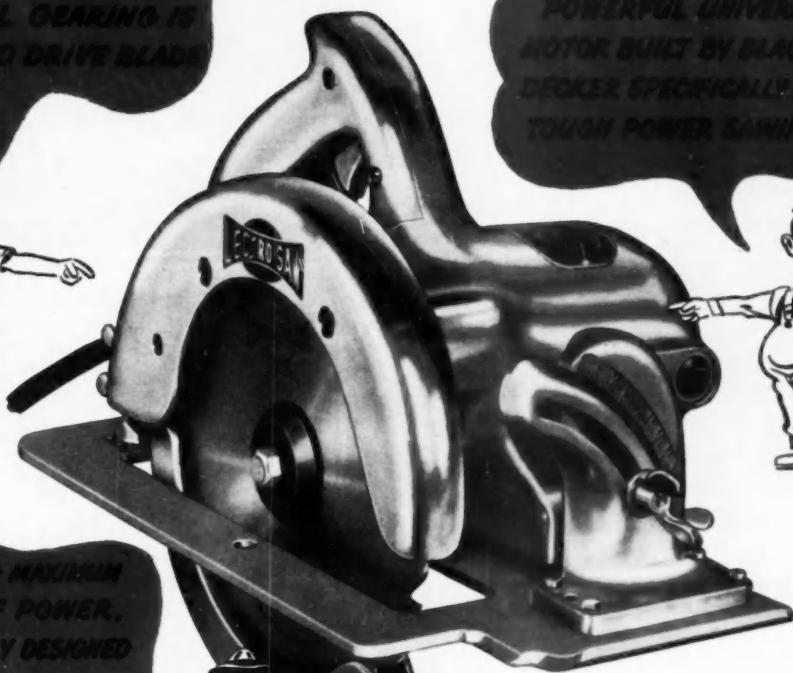
### DEARBORN ROAD MAINTAINER

...built like a Motor Grader

The Dearborn Road Maintainer has a long wheel base for effective blading; strong frame to give firm circle support; weight balanced for traction and blade pressure. Powered by the Ford Tractor.

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POWER, HIGH QUALITY  
HELICAL GEARING IS  
USED TO DRIVE BLADE

POWERFUL UNIVERSAL  
MOTOR BUILT BY BLACK &  
DECKER SPECIFICALLY FOR  
TOUGH POWER SAWING.



MAKING MAXIMUM  
USE OF POWER,  
SPECIALLY DESIGNED  
B & D BLADES  
CUT 'MOST EVERY  
BUILDING MATERIAL  
KNOWN IN A JIFFY.



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**Talk about ABUNDANT POWER**  
**Look what Black & Decker Saws give you!**

**PLUS**

- Easy Handling
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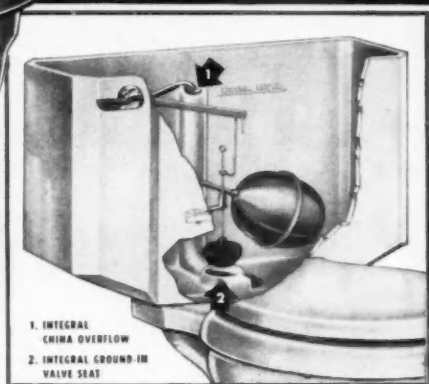
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- 6" Heavy-Duty...\$56.50
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- 8" Heavy-Duty...\$92.50

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for a convincing demonstration of  
Black & Decker Saws and Blades and  
handy, new Protector. Learn how they  
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THROUGH AND THROUGH



**BEAUTIFUL OUTSIDE**

Plus

**TROUBLE-FREE INSIDE**

= *Better Value*

Style and efficiency are combined in this Sylenta Closet Combination by Eljer.

Beautifully designed to harmonize with all types of bathroom fixtures, it is available in white or four pastel colors.

But it offers your customers much more than beauty. Most outstanding of its features are its integral china overflow and ground-in valve seat that are actually part of the tank itself. Made of real Vitreous China they eliminate thin metal tubes that wear and corrode . . . a definite "plus"

to you in the form of customer satisfaction.

In addition, the quietness of Eljer's exclusive "Elvortex" Whirlpool Jet Action is a feature that customers like and demand.

You can make more money by selling the Sylenta . . . and you can sell it easily by pointing out these exclusive advantages to your customers. For complete information on this Eljer Fixture . . . as well as the rest of Eljer's complete line of china, enameled cast iron and brass . . . see your Eljer Distributor or write Eljer Co., Ford City, Pa.

*It pays you, it pays us*—because we specialize in Plumbing Fixtures and Brass

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# ASSOCIATIONS

## *Their Plans and Activities*



### NAHB Sees Boom in Low-Rent Housing If FHA Raises Mortgage Ceilings

A big new program of low-cost rental housing can be launched soon if current government regulations are changed, the National Association of Home Builders believes.

In recent conferences with the Senate Banking and Currency committee, Alan E. Brockbank, NAHB president, said that volume production of low-rent units is being prevented by lack of financing. He urged that present FHA regulations be amended to permit insurance of mortgages up to 95 per cent of cost where the principal amount of the loan does not exceed \$6,000 on houses for either sale or rent.

At present, under Section 8, Title I of the National Housing Act, which FHA administers, the limit is \$4,750 up to 95 per cent of appraised value when the mortgagor is the owner-occupant, or up to \$4,250 and 85 per cent of appraised value when the mortgagor is a builder.

If the regulation is amended to provide for mortgage insurance commitments on rental properties to individual or corporate borrowers, this section of FHA operations would become available for rental purposes, Brockbank said.

According to the NAHB head, an increasing number of builders are planning construction of homes to sell for approximately \$7,000 or less and this same type of home would be suitable for low monthly rentals in defense areas.

### Attendance of 4,277 Is New Texas Record

With an official tally of 4,277, attendance at the recent convention of the Lumbermen's Association of Texas hit the highest mark in association history, Gene Ebersole, executive vice president, reports. The meeting, the group's 60th annual, was held at the Galveston Pleasure Pier.

Exhibit spaces numbered 170, with 132 firms taking part.

One of the most popular features was the low-cost "San Angelo House," which was built full-scale on the pier. The home attracted an estimated 25,000 outside visitors, in addition to convention personnel.

Speakers at the business sessions included General Ike Ashburn, president of the Texas Good Roads Association; Edward G. Gavin, editor of *American Builder*; Price Daniel, Texas attorney general; Dr. Neal Bowman, educator and sales psychologist; Arthur A. Hood, editor of *American Lumberman*; and W. B. Milstead, 1951 president of the Lumbermen's Association of Texas.

Dealers from Corpus Christi acted as hosts for the meeting.

*(Continued on page 32)*

#### DEALER CONVENTION HIGHLIGHTS

### Lower Sales, Profits; Keener Competition Reported by NRLDA

Sales of retail lumber and building material dealers have been running somewhat below the 1951 level, profits are lower and competition has become much keener. This was the consensus of surveys reported at the recent spring directors meeting of the National Retail Lumber Dealers Association by members of the group's executive committee.

The reports also indicated that dealers' inventories are in a healthy condition, mortgage money is rather tight in most places, Regulation X has slowed down the sale of homes except in the lowest brackets, and many builders are following a policy of caution with respect to new starts.

H. R. Northup, executive vice president, and Edward H. Libbey, secretary, reviewed the status of emergency controls and said that, except for Regulation X, dealers are not experiencing undue hardships under existing curbs. Northup reminded the board that NRLDA had urged removal of all controls, although it had recommended that authority to allocate critical materials needed for defense be retained.

#### Contest Winners Named

Ten national awards in the association's public relations contest were announced by Edward G. Gavin, *American Builder* editor. Gavin said the jury of trade press editors had also awarded certificates to 78 dealers and honorable mentions to nine more.

The companies winning the 10 equal national awards are:

Beaver Dam Manufacturing and Supply Co., Beaver Dam, Ky.; Clover Leaf Lumber Co., Edgar, Wis.; Kaercher Lumber Co., Ortonville, Minn.; Dain Supply Co., Inc., Mahopac, N.Y.; Charlottesville Lumber Co., Charlottesville, Va.

The A. W. Burritt Co., Bridgeport, Conn.; Temple Lumber Co., Kerrville, Texas; Edward Hines Lumber Co., Chicago, Ill.; Armstrong Brothers Lumber Co., San Angelo, Texas; and Pocatello Lumber Co., Pocatello, Idaho.



**OFFICIAL FAMILY** of the Lumbermen's Association of Texas for 1952-53: (seated, from left) Carroll Delhomme, Houston, treasurer; W. R. Carsow, Austin, third vice president; Harvy Richards, New Braunfels, second vice president; John Armstrong, San Angelo, first vice president; Warren Keys, Marshall, president; Lynn Boyd, Pampa, national executive committee; A. E. McCain, Tyler, sergeant-at-arms; (standing) Gene Ebersole, Houston, executive vice president; W. B. Oldham, Dallas, director, national association; W. B. Milstead, Houston, director, national association; H. L. Stokely, Brownsville, director, national association; and Vincent Ogletree, Houston, secretary.

### Hughes Speaks at St. Paul

R. G. "Dick" Hughes, National Association of Home Builders treasurer, was guest speaker at the monthly all-industry forum of the St. Paul Home Builders Association May 14. Sponsor of the meeting was the Insulation Sales Co. of St. Paul.



## Dealer's Viewpoint

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

### Real Thirst Among Dealers For Better Operating Ideas

A real thirst for up-to-date information on good operating and management methods has developed among retail lumber and building materials dealers. Through their State, Regional and National Associations, the dealers are endeavoring to find a pattern for a series of management conferences which will enable them to analyze their businesses and trade ideas on every major aspect of their jobs.

In addition, NRLDA has made a good start on the gradual preparation of a Dealer Operating Guide which will provide the same sort of information in another way. The Guide is being written for dealers by their fellow-dealers, and each chapter is carefully screened by a special committee of yard owners who are known to be experts in that particular subject.

A number of management conferences already have been held by various dealer associations. The experience gained in these experiments, which have aroused widespread interest and highly favorable reaction, has been studied and analyzed. The result is a decision to conduct a carefully-planned, 3-day discussion type conference early next fall. The hope is that a workable plan can be devised which will make it possible to schedule a continuing series of management conferences at various points around the country.

Informal surveys indicate that there is a demand for conferences on almost every management function—merchandising, advertising, buying, stock control, salesmanship, personnel, accounting, and so on.

The outstanding success of the 30-Day Courses, which have been attended by more than 5,000 dealer employees in 20 colleges and universities, has demonstrated conclusively to yard owners that education pays off.

The growing interest at this time in better management information is due partly, of course, to the fact that competition between dealers is becoming keener and is expected to become even more intensive as the emergency controls disappear and materials of all kinds become truly plentiful; but there also is the realization that every segment of the building industry is going to have to aim at maximum efficiency if the industry is to get its full share of the consumer dollar in the competitive era which lies ahead.

Like manufacturers, builders, and contractors, dealers know they will have to hold costs down and merchandise their materials and services more expertly than ever if the public is to be persuaded to spend its earnings and savings on construction instead of the host of other things that will be advertised and merchandised aggressively by other industries.

## Convention Highlights

(Continued from page 31)

### SOUTHERN CALIFORNIA

The United States has the skill and manpower to build between 1,000,000 and 1,300,000 new homes a year for the growing population, Edward G. Gavin, editor of *American Builder*, told members of the Southern California Retail Lumber Association at the group's recent three-day convention in the Ambassador Hotel, Los Angeles.

This number will be lower because of governmental regulations and restrictions, Gavin said. He added that building is the nation's second largest industry and if the government does anything to cut it down, it is endangering a needed tax revenue source.

Speaking of Southern California, Gavin said this section has one of the most acute housing shortages he has seen—but that the area is growing solidly and offers excellent construction opportunities.

Other speakers at the convention, which drew a record attendance of 2,000, were Tony Whan, Clayton Rand, Don A. Campbell, James C. Downs, Jr., John Rees, Grant C. Ehrlich and Dr. Elmer S. Nelson.

All of the association's 1951 officers, headed by Everett C. Parker of Los Angeles, president, were reelected. Completing the slate are B. W. Bartels, Ventura, vice president; C. Gilmore Ward, Santa Ana, treasurer; and Orrie W. Hamilton, Los Angeles, executive vice president.

### FLORIDA

A new feature—an open forum for dealers, manufacturers and wholesalers—was a "huge success" at the 32nd annual convention of the Florida Lumber and Millwork Association, Mrs. Marie Bennett, secretary-treasurer, reports. Registration at the meeting, held April 16-18 at the Tampa Terrace Hotel, Tampa, was 475.

Subject of the forum was "How manufacturers, wholesalers, dealers, contractors, financing agencies and public officials can work together in the coming year to do a better job of creative merchandising to building products consumers."

Participants were grouped at tables for six—four retail dealers, one manufacturer representative and one wholesaler representative. Each table prepared three questions which were referred to a group of six discussion leaders, headed by Arthur A. Hood, editor of *American Lumberman* magazine. When the panel brought up the questions, all present were invited to join in the commentary.

Francis J. Igou of Orlando was named to a second term as association president. Also reelected were B. Frank Edwards, Tampa, vice president, and Mrs. Bennett. New vice president is R. C. Tylander of West Palm Beach.



1952-53 LEADERS of Florida Lumber and Millwork Association (from left): Mrs. Marie Bennett, secretary-treasurer; B. Frank Edwards, vice president; Francis J. Igou, president; and R. C. Tylander, vice president.

Additional Association News appears  
on pages 190, 192, 208, 210

AMERICAN BUILDER

## Here's NAHB Message Urging End of "X"

The Federal Reserve Board, when it recently lifted all other credit controls, was urged by the National Association of Home Builders to suspend Regulation X.

In a telegram to William M. Martin, Reserve Board chairman, NAHB president Alan E. Brockbank declared that "Thousands upon thousands of families needing homes have been thwarted from ownership by Regulation X.

"There is no longer any reason for denying the opportunity to buy with a modest downpayment," Brockbank's message continued. "The threat of inflation has long since disappeared. The predicted scarcity of materials never has appeared. Also, defense needs, as presently scheduled, are being met.

"You are urged to take every means at your disposal to lift this absolutely unnecessary roadblock to home ownership."

## Builders' Views on Financing Heard by Senate Committee



ADDITIONAL FNMA AND FHA funds was topic as Alan E. Brockbank (left), president of the National Association of Home Builders conferred with Senator Burnet Maybank of South Carolina, chairman of the Senate banking and currency committee. Appearing recently with members of the NAHB Washington staff, Brockbank told the committee that the nation's organized builders "applauded any effort to stimulate financing of defense housing and low-cost housing."

## Boston Home Show Attracts 120,000

More than 120,000 persons saw the second annual New England Home Show and Modern Living Exposition during its nine-day run at Mechanics Building, Boston, in May. Total sales of merchandise to show visitors was reported to have been in excess of \$1,000,000.

Sponsors of the event were the Boston Real Estate Board and the Home Builders Association of Greater Boston. Fred Pittera was managing director and Dick Sullivan, publicity director.

## Cortright's Column

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



## 600 Taxes Lurk in Today's New Home

A great many people in private industry are beginning to fear that the certainties, death and taxes, may merge—that taxes may be the death of us yet.

This brings up a highly important point, one that the industry has failed so far to get across to the public: that present home costs include a vast number of direct and hidden taxes, over which the builder has no control, but which must be passed on to the buyer in the sales price.

A recently completed survey made for NAHB revealed that there are over 600 taxes which go into a new home! In view of this, it is a major miracle that U.S. home builders have produced attractive dwellings at a relatively low cost during the post war years.

This, then, is a story that the public, and the Congress, should hear. Government must share a large portion of blame for rising home costs. For example, few persons would ever realize there are over 88 taxes concerned with just the purchase, financing, sale and design of just one house! Unfortunately, there are.

And in the actual construction of the same house you can count on another minimum of 600 other taxes. A dollar and cents estimate of the total cost of the terrific tax impact is impossible. It would take the world's best accounting firm a good year to trace all the taxes from the construction phase back to the manufacturing plant of each item that went into the house. The best that can be done is to "guesstimate" on the amount of the taxes on a new home. Based on information supplied by the Tax Foundation, a non-profit institute in New York City which studies taxes, our "guesstimate" on the amount of taxes on a \$10,000 house is \$2,000. This could be a little high or a little low but it is very, very close.

Examination of historical guides, traditions and a survey of current trends indicate an upward movement in construction costs in the years ahead, with special reference to the two major cost items in every house produced. These are labor and taxes.

Therefore, if anyone predicts a gradual lowering of today's construction cost levels they must also predict that labor will receive less money per man hour, or that government will in the future collect a smaller percentage of the builder's productive effort in the form of taxes. There is nothing in recorded modern history to support such a theory nor is there anything visible in current government or labor patterns to indicate a new historic trend.

Since the sum of direct and indirect taxes currently represents a substantial part of the price which every buyer pays for a new house, there can be no decrease in this substantial part of our housing costs unless we have lower taxes.

What is the outlook with respect to taxes? Examine current local, state and national budgets and you will discover new tax peaks in the making. So, unless a miracle intervenes the tax cost of housing probably will go up in the near future. Federal taxes alone last year were over 100% above the 1920 to 1940 average and each decade from 1789 on has witnessed an increase in federal taxes. Obviously, taxes are costs which must be added to other costs in arriving at a selling price. The builder himself is a monumental victim to taxes, especially income taxes.

Normally the profit margin, the mark-up over all direct costs, in the residential construction industry runs somewhere from 10% to 15%. Indirect costs (overhead) generally take from 6% to 9% of this mark-up, leaving from 4% to 6% for profits before Federal income taxes. This is a very small margin from which the builder has to draw to set up his reserve for contingent expenses and servicing. I think it safe to say that no other major industry has a mark-up over direct cost as small as that which prevails in the residential construction industry.

No operative builder could long remain in business if this mark-up were lowered to an extent where it would be a factor offsetting tax increases. It would be pleasant to believe that with constantly rising labor, taxes, material, financing and land costs, the builder could by waving a magic wand, keep housing prices of 1962 at or below the level of 1952. It would be a very nice thought, but not very realistic.

"I pay **Only 2<sup>8</sup>/<sub>10</sub>¢** a mile to run my Ford Pickup"



says *R. S. McGarity,*  
of *Moultrie, Ga.*



GEORGIA  
Report No. 11168

"Ford Truck economy made a big cut in the operating costs of my business."

Mr. McGarity uses his Ford Truck for sales and service in rural areas and makes a large number of stops each day. He says, "Ford's fast getaway is a time and money saver in stop-go work like mine." During the Economy Run, his F-1 covered 4,554 miles, yet gas, oil and repairs cost \$126.01 . . . or less than 3 cents a mile!

A 6<sup>1</sup>/<sub>2</sub>-ft. Ford Pickup like this offers one of the biggest bodies in the half-ton field. Choice of COST CLIPPER 101-h.p. LOW-FRICTION Six, or famous 106-h.p. TRUCK V-8.

## Now! More Gas Savings—up to 14%

and more Speed Hauling power, too!

Advanced new LOW-FRICTION design in three new high-compression, overhead-valve engines, liberates power held "captive" by engine friction!

Ford's LOW-FRICTION design incorporates a new SHORT-STROKE principle that reduces piston travel up to 20% in the new COST CLIPPER 101-h.p. Six, plus two new CARGO KING V-8's—145 h.p. and 155 h.p. These engines cut friction horsepower up to 30% to give you more power, and gas savings up to 14%, too! New direct-breathing OVERHEAD-VALVES give more efficient fuel feeding. New HIGH-COMPRESSION gives extra power on regular gas to meet today's Speed Hauling needs!

SEE how little it costs to run a Ford Truck in your kind of work! The figures are in this 144-page summary of results from the 50-million-mile Ford Truck Economy Run. See it at your Ford Dealer's now!

Availability of equipment, accessories and trim as illustrated is dependent on material supply conditions.



**FORD TRUCKING COSTS LESS**  
and **FORD TRUCKS LAST LONGER!**

Using latest registration data on 8,069,000 trucks, life insurance experts prove Ford Trucks last longer!



Two years of testing show how well the new Ford Low-FRICTION engines perform under most severe conditions. They passed scores of 100-hour "destruction" tests. One model alone ran 50,000 dynamometer test-hours, over 500,000 vehicle test-miles.

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AMERICAN BUILDER

## Westchester Officers Named to New Term

Frank P. Tufaro was inducted for another term as president of the Home Builders Association of Westchester at its annual dinner dance in the Glen Island Casino, New Rochelle, N. Y., on April 26. Approximately 600 members and guests attended the banquet, at which James E. Cook, secretary, acted as toastmaster.

Emanuel M. Spiegel, first vice president of the National Association of Home Builders, charged that Regulation X affected thousands of families who can "carry" a new home but do not have enough cash to meet current high down payment requirements. Joined by Tufaro, he urged the builders to write their Congressmen demanding repeal of the law.

Rep. Ralph A. Gamble of Larchmont was among the guests who included several State and local officials.

Other officers of the association, also re-elected, include Edward A. Lashins, vice president, and Joseph M. Baltz, treasurer.

**OFFICIALS MEET BUILDERS** at annual banquet of Home Builders Association of Westchester, New York. From left to right: James E. Cook, secretary; Joseph E. Baltz, treasurer; Emanuel M. Spiegel, first vice president, National Association of Home Builders; J. Raymond McGovern, comptroller, State of New York; Frank P. Tufaro, president; Congressman Ralph A. Gamble; Col. Edward J. McGrew, Jr., chairman New York State Building Code Commission, and Hugh R. Pomeroy, director, Westchester County Planning Commission.

## Lumbermen's Plaque Goes To Former Head of U. S. Occupation in Germany

General Lucius D. Clay, "for outstanding work on the famous 'Operation Air Lift' in Germany and for highly important work for freedom as originator and national chairman of the 'Crusade for Freedom,'" was awarded the 1952 Silver Plaque of the Middle Atlantic Lumbermen's Association.

General Clay, former commander of U. S. armed forces in Germany, is now chairman of the board of Continental Can Co. He was presented the award in his New York City office by the new lumber association president, G. Hunter Bowers of Frederick, Md. Also representing the association were Charles D. Hummer, Chester, Pa., dealer and secretary-treasurer Ray E. Latschaw.

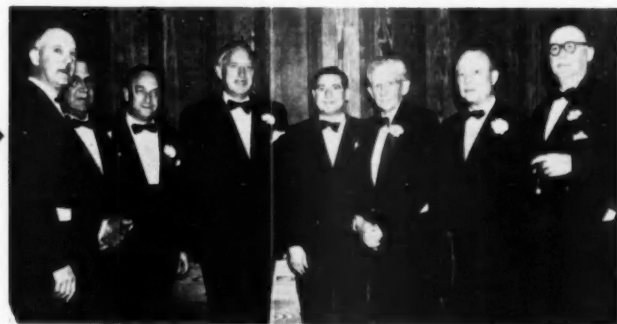
In accepting the award, General Clay remarked that "The present worldwide struggle will ultimately be resolved more through the force of ideas than through the force of arms. Freedom is a real, honest and active philosophy in which all of us may prosper materially and spiritually.

"The retail lumbermen you represent

## Distance No Problem—Even in Texas



**AIRBORNE TEAM** of builder association organizers pauses at Temple, Texas, after flight from San Antonio to deliver charter to new Bell County Home Builders Association at Killeen, Texas. They are (from left) William Ochse, Alan E. Brockbank, president of the National Association of Home Builders; E. J. Burke, Jr., and Frank Robertson. The plane belongs to Burke, has been used extensively in promoting the Texas Association of Home Builders.



exemplify the type of men whose objectives are needed to assure the preservation of all the rights guaranteed to us by the constitution. They must continue their excellent work, for the next few years can possibly be ones of crisis."



**GENERAL CLAY** (left) is presented Silver Plaque of Middle Atlantic Lumbermen's Association by G. Hunter Bowers, association president.

## New Products Demonstration Draws Well in Milwaukee

An overflow crowd turned out for a recent new products show and demonstration sponsored by the Milwaukee Builders Association, Roy F. Healy, executive vice president, reports.

The meeting was sponsored by the association's research committee, which meets every month to study new products offered by the industry and to make recommendations to builder and sub-contractor members. Donald Ganser is chairman.

Healy said another meeting is being planned for early fall, at the request of several manufacturers and jobbers who had been unable to exhibit at the first show.

## Builder Joins Research Group

Tom McGovern of Madison, Wis., a former president of the Madison Builders Association, has joined the Southwest Research Institute as a field representative.



**TREMENDOUS  
POWER FOR  
FAST CUTTING**

More work for your money! Thor electric saws are outstandingly the most powerful saws on the market today!



**DIRECT GEAR  
DRIVE FOR  
EFFICIENCY**

No power-wasting worm gears . . . direct-gear drive delivers 25% more power to the blade!



**LONG SHAFT  
BLADE MOUNT  
FOR ACCURACY**

Blade shaft runs full width of tool, ball-bearing supported at each end for life-time alignment.



**100% SAFE  
FROM  
SWITCH  
TO BLADE**

Switch-lock prevents accidental starting. Telescoping guard covers blade instantly when with drawn from work.

**BALL BEARINGS  
THROUGHOUT**



**BALANCED  
FOR EASY  
SAWING**

Natural saw-grip handle behind the center of gravity for fast, sawing, sure and safe control.

**EXTRA  
WIDE  
SAFETY  
BASE**

Blade on the right, weight of the tool ON THE WORK . . . far safer, faster by far, even for inexperienced help.

**FINGER  
TIP  
CONTROL**

No wrenches needed for depth and bevel adjustments. Extra-deep cuts, size for size, from 0° to 45°.



**SAWDUST  
BLOWER  
KEEPS  
LINE CLEAR**



**EASY BLADE CHANGE**

Change blades in 5 seconds! Makes it easy to use the RIGHT BLADE for every job.



**COMPLETE  
SIZE  
RANGE**

And priced right, too . . . from the economical \$65.00 6" model to the giant 12" blade size. ALL BUILT TO HIGHEST THOR TOOL QUALITY.



**No Wonder More and More Carpenters are Saying:**

**I'll Take Thor**

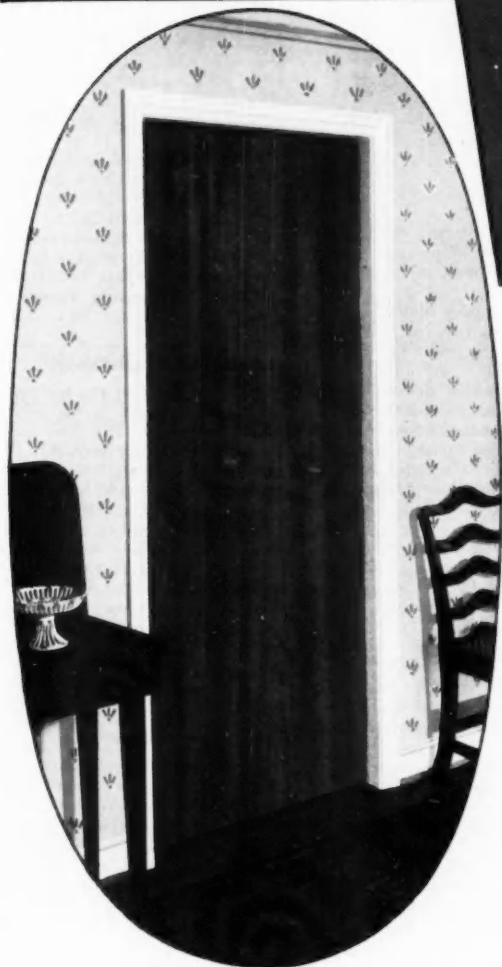
**Independent Pneumatic Tool Company, Aurora, Illinois**

MANUFACTURERS OF THOR SILVER LINE ELECTRIC SAWS

AMERICAN BUILDER

# now! MENGEL MAHOGANY Flush DOORS

Available at  
less than many  
Domestic Woods!



"Believe it or not"—Mengel Flush Doors with faces of genuine African Mahogany can now be bought for less than comparable doors built with many conventional domestic woods!

Why? Because Mengel, drawing from its own vast logging concessions in the heart of Africa's Gold Coast, brings its fine Mahogany veneers to America in tremendous volume. Second, Mengel has the wood-working equipment and know-how to manufacture its top-quality doors *with mass-production economy and efficiency!*

Use the coupon to get full details about Mengel Mahogany Doors. Until you know the facts, you'll never appreciate the extra luxury, the extra *values* now immediately available for *every* kind of job.



THE MENGEL COMPANY  
Plywood Division, Louisville 1, Ky.

Gentlemen: Please send me full information on Mengel Mahogany Flush Doors—Hollow Core and Stabilized Solid Core.

Name \_\_\_\_\_

Firm \_\_\_\_\_

Street \_\_\_\_\_

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

The Mengel Company . . . America's largest manufacturers of hardwood products  
• growers and processors of timber • manufacturers of fine furniture • veneers •  
plywood • flush doors • corrugated containers • kitchen cabinets and wall closets

for suburban  
homes beyond  
the water mains



**New F & W Pump Gives  
40-70% More Water at Less Cost!**

● Whatever your customers' requirements, there's an F & W Water Pump to meet them exactly. All offer outstanding advantages in long-life, dependable service, low-cost operation, and minimum maintenance. Shown here are just 3 of the scores of models in the complete F & W line. The VARIJET (above) delivers 40 to 70% more water, yet reduces motor load and power consumption thanks to F&W's exclusive, patented ejector. No other pump approaches its performance for shallow well operation at normal capacities and pressures. All F & W pumps are individually tested before shipment. So . . . remember F & W means Flowing Water at its best, and . . .

F & W Means Flowing Water by  
**FLINT & WALLING MANUFACTURING CO., INC.**  
766 Oak Street, Kendallville, Indiana



**F & W 2-Stage  
Deep Well Jet**

Delivers extra capacity. New, automatic control valve assures extra-performance.



**F & W Multi-Purpose  
Jet Pump**

Change from shallow well to deep well at no extra cost, by moving jet off pump down into well.

Send for F & W Data  
Book No. 200 for your files

**F&W  
WATER PUMPS**

*Farm-Used, Farm-Proved for 86 Years*

**LETTERS**

**Splendid Write-Up**

Sir: We certainly thank you for the splendid write-up of the Fairway House in the March *American Builder*. Contrary to the usual practice in such articles, there was not a single error or misstatement in the article and the house was presented in an attractive and intelligible manner.

We would appreciate it very much if you would send us ten copies of the magazine (or tear sheets with cover showing the magazine's name) and bill us for the copies and postage. We are getting some plans ready to submit in the SWRI (Southwest Research Institute) program.

Thanks again for the article and for your many services to the home builders.

Richard Hail Brown,  
B-D Development Co.,  
Birmingham, Alabama

**Please Send**

Sir: If it does not inconvenience you too much, I would appreciate the February and March copies of the *American Builder*.

We had an inquiry from England on the February article (paint series) so your magazine must be widely read.

Another reason for desiring these issues is that we maintain the most complete reference library in the country on painting and abstracts are made of all articles. Some of our writers may want to use our facilities in search of data.

Louis Fisher,  
Director of Public Relations,  
National Paint, Varnish and  
Lacquer Assn., Inc.  
Washington, D. C.

**Slow To Praise—  
Quick To Criticize**

Sir: I have been a subscriber to the *American Builder* for a good many years but like many people have never found time to express my appreciation for your wonderful publication. How often we are slow to praise and quick to criticize! I have not only saved my copies but have a memo book so that I can refer to past items of useful information.

The most useful articles to me, are the Better Detail Plates. Those on stair details are among my most prized items. I'd like to know if there is a bound volume of Better Detail Plates on the market. If there is, I would like to purchase one.

Second, I would like to see published some examples on specifications as written covering small homes. Most of the ones I use (commercial and industrial) are small volumes.

Third, the article on trusses is invaluable (March 1952, pages 116-117 issue). That is going to be very carefully filed away. I am looking forward to the articles on closets, etc., as mentioned in the article.

If there is more to the report on trusses, I would like to obtain it.

John F. Wynn,  
Columbus 3, Ohio

▶ You asked about a bound volume of Better Detail Plates. Although the publication of such a volume is under consideration it is not yet scheduled. If, and when it is available an announcement will be made in the pages of the *American Builder*. If you want to buy specification blanks write to James Zarbock, Book Department, *American Builder*, 30 Church Street, New York, N.Y.

More complete data on trusses can be obtained by writing to the Small Homes Council, University of Illinois, Champaign, Ill.—The Editor

**Should Be Repealed**

Sir: On the basis of the testimony which was presented to the Senate Banking Committee this year, I am more persuaded than ever that the control title of the DPA (Defense Production Act) should be repealed.

I am not unmindful of the fact that there is a great deal of controversy over the credit features which are incorporated in the legislation now on the books, but never have I seen such a unanimity of testimony on the dislocative effect of controls.

Everett M. Dirksen,  
U. S. Senator,  
(Republican, Illinois)

**Shopping Guide**

Sir: Again I am requesting some literature and booklets reported on in your February issue. We surely like this magazine and get a lot of good ideas and information from it. We greatly appreciate this way of getting catalogs and information on building products. Several of them we had not heard of before but have used constantly since we learned about them through your magazine.

Ralph J. Morgan,  
Sterling, Colo.

(Letters continue on page 40)



IN 1951

1,050,000 Home Freezers  
were bought

up..up..up..goes demand for Electrical Living!

IN 1946

210,000 Home Freezers  
were bought

Why is this tremendous demand for electrical equipment important to you?

Houses that are *planned electrically* for these modern conveniences have maximum sales appeal. They give you powerful selling advantages.

Westinghouse has developed basic design data to help you plan for most advantageous use of space. The Westinghouse line of equipment helps you meet market conditions, while adding "proof of quality" that is widely accepted.

A file of electrical planning material is available for the asking. To get a set, send the coupon below.

#### Westinghouse Products for Better Electrical Living

Frost-Free Refrigerators  
Speed-Electric Ranges  
WashWall Dishwashers  
Waste-Away Food Waste  
Disposer  
Poweraire Ventilating Fan  
Home Freezer

Decorative Nicarta Counter Tops  
Loundromat Automatic Washers  
Electric Clothes Dryers  
Electric Water Heaters  
Electric Wall Heaters  
Bryant Wiring Devices

Quicklog Circuit Breakers  
Precipitron Air Cleaner  
Unitaire Air Conditioners  
Electric Dehumidifier  
Westinghouse Lamps  
Westinghouse Television  
and Radio

YOU CAN BE SURE...IF IT'S  
**Westinghouse**

Better Homes Bureau, Dept. AB-7  
Westinghouse Electric Corporation  
P. O. Box 868, Pittsburgh 30, Pa.

Please send me free booklets on Electrical Planning.

Name \_\_\_\_\_

Company \_\_\_\_\_

Street \_\_\_\_\_

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

G-10233

**NEW** smoothness... **NEW** efficiency  
in powder-actuated fastening...

# Ramset JOBMASTER

## SEE THESE NEW FEATURES:

- 1-PIECE TOOL,  
for faster loading
- TRIGGER ACTION,  
for easy operation
- PORTED BARREL,  
to reduce spall
- ANGLE-FIRE CONTROL,  
for straight penetration
- VISI-CHEK BUTTON,  
for quick inspection
- Plus exclusive, proved-in-use  
ROTO-SET SAFETY SHIELD, for  
accurate positioning

Faster, lighter, easier handled, the new RAMSET JOBMASTER sets a record pace for steel and concrete fastenings. Properly trained workmen quickly become skilled operators because of smooth, simple, natural motions of loading, placing, firing. Positive controls bring improved accuracy and efficiency . . . and still lower fastening costs. Ask your dealer for demonstration of how RAMSET's years of pioneering have made the new JOBMASTER the proved-in-performance leader.

**Ramset Fasteners, Inc.**  
12117 BEREA ROAD • CLEVELAND 11, OHIO

Product Patent No. 2470117. Other Patents Pending.



ANOTHER  
**RAMSET**  
FIRST  
Designed  
BY Operators  
FOR Operators



## Letters...

(Continued from page 38)

### Please Help

Sir: In the *American Builder* a while back you stated that if one had trouble with anything, to write to you and you would send information. I would like to know how to cut jack rafters. I need more information concerning the slope, the length, the hip, and the valley rafter.

I wish you would send me information on a book of this type and if you have one I would be glad to pay for it.

Frank E. Wilhelm  
Tuscola, Ill.

► We are sending you a copy of a reprint on a series of articles that ran in the *American Builder*, titled "Construction Lumber." You will find the answers to your query in the reprint.—The Editor

### Especially Interesting

Sir: I certainly enjoy reading each issue of the *American Builder* with its very helpful material dealing with the various building problems and new types of building material.

The series of articles on paint, which began in February, are especially interesting as they no doubt are to many other readers who like all the information possible on this subject.

The *American Builder* comes in very handy many times throughout the year as a help in building work and also for information in building materials.

Also, I appreciate very much that you have accepted and published many of the How-To-Do-It suggestions I have submitted from time to time.

Arthur M. Nelson,  
Kansas City 5, Mo.

### Attributes Success to American Builder

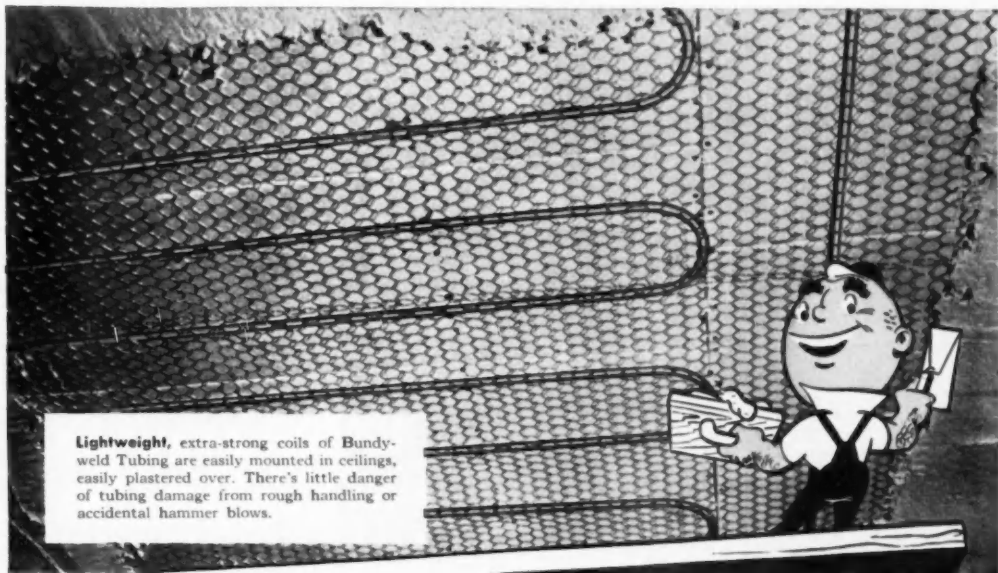
Sir: I am enclosing \$5 for a 3-year subscription to the *American Builder* which will make 47 years that I have been a continuous subscriber.

I have been a builder for 46 years and have built more schools and public buildings than any single builder in the city, and from miles around. I attribute a good share of my success to the *American Builder* formerly called the *American Carpenter Builder*.

One day in 1912, I was called to their offices and awarded first prize for the best wood worker in a contest they sponsored. My entry was a

(Continued on page 42)





**Lightweight**, extra-strong coils of Bundyweld Tubing are easily mounted in ceilings, easily plastered over. There's little danger of tubing damage from rough handling or accidental hammer blows.

## Put your houses years ahead with Bundyweld ceiling radiant heating



### Key to Low Cost

Bundyweld is the only tubing double-walled from a single strip, copper-brazed through 360° of wall contact. It's leak-proof, thinner walled, yet stronger. It transmits heat quickly, has high bursting strength. It saves 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.

**Interest** in this newest, most practical method of heating a home widens daily. Present users hail it enthusiastically. Prospective home buyers demand to know more about it.

To thousands, Bundyweld ceiling radiant heating has already proved a cleaner, more economical, more convenient way to heat. They in turn are selling friends on the idea of walls without dirt streaks, of warmth that's always even, of air that's fresh as spring.

But the biggest boom is coming from

Bundy ads in *American Home* and in *Better Homes & Gardens*. People who are planning to buy a home now or later are sending in an avalanche of coupons. They want to know more about Bundyweld ceiling radiant heating. They want to know the names of builders and architects using it. These people are *your* prospects!

Why not place your houses squarely in the middle of this interest? Why not put your homes ahead of all competition for years to come? Send the coupon!

**Radiant Heating Division  
BUNDY TUBING COMPANY  
Detroit 14, Michigan**



Bundyweld  
ceiling radiant heating

Radiant Heating Division, Dept. AB-652  
Bundy Tubing Company, Detroit 14, Michigan

- Send free 20-page nontechnical brochure explaining Bundyweld ceiling radiant heating.
- Send Bundy technical radiant heating pamphlet.

Name \_\_\_\_\_ Title \_\_\_\_\_

Company \_\_\_\_\_

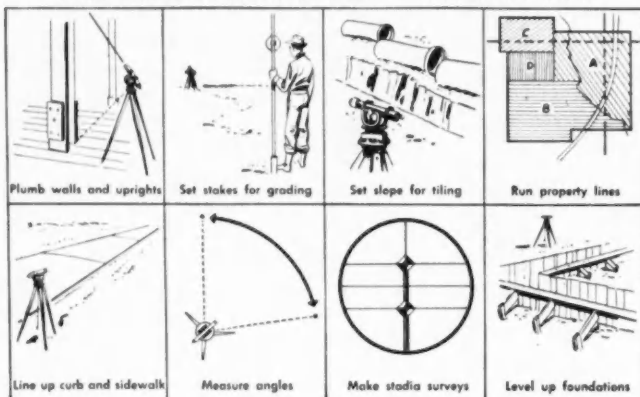
Address \_\_\_\_\_

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



## White Universal Level-Transit... most versatile instrument you can own!

INDISPENSABLE FOR THESE JOBS — AND MANY MORE



**E**NGINEERS agree: you can do more jobs better — at lower cost — with the White "Universal" Level-Transit. The improved Model 3000 has internal focusing, coated optics, a guarded vertical arc. Plus all the other quality features needed to give you lifetime durability and accuracy. The price: *only* \$185\*, complete with tripod. See your dealer, or write **DAVID WHITE COMPANY**, 311 W. Court St., Milwaukee 12, Wis.

\*Price subject to change without notice.



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

7274

## Letters . . .

(Continued from page 40)

power boring and framing machine.

Recently, I was looking over some old issues of 1926 and 1932 when Hoover was trying to stimulate building by extending credit to the underprivileged. The storm of protest from bankers, realtors, and others concerned told how it would destroy the value of real estate and make inflation. The pendulum has certainly swung to the left since. I never thought when I began to work a 10-hour day for a \$1 that the time would come when wages would be over \$2 an hour. I wonder if these are such good times. Why is it that we have so much dissatisfaction with wages, and continual emergencies to have a phony prosperity and sacrifice good American boys in Korea. I have never seen the time when so many big places are occupied by so many small men.

T. E. Peck,  
Sturgis, Mich.

### Most Complete Building Supply Magazine

Sir: We have been a subscriber to your magazine for the last five years, but we noticed that we have not been receiving the last few issues. We were not aware that our subscription had expired.

We have found that your magazine is one of the most complete building supply magazines that we have ever subscribed to, and that you have more coverage of all phases of the building industry than we have yet read. We especially like the modern house plans and prints which you always have in each issue. As we feel that our subscription has expired we wish to renew it. Enclosed find check.

W. C. Moncrief Jr.,  
Goodlettsville, Tenn.

### Likes Power Tools, But!

Sir: The article in the April issue under "Tools—Power and Hand" was very good but there are a few points on which I disagree with the writer of the article.

First, the statement that power wood-working tools make every carpenter the equal of yesterday's most skilled craftsman is certainly the overstatement of the year. Power tools will increase a man's skill, but certainly won't do his thinking for him or lay out his work.

Second, the author states that new steels have improved the quality of saws and chisels. I wish the author

AMERICAN BUILDER



## *Fitite* SHAKES ARE OPEN-AIR DRIED

### The wise builder knows that Nature dries best . . .

There really isn't much of a trick to drying a pre-stained cedar shake — if you are willing to take the time and go to the trouble of doing the job right. Dozens of experiments have been tried in an effort to find a "quick" way to do the job. Hot lights, hot air, and hot ideas of a dozen kinds have been tried. We at Colonial Cedar Company have studied all of the short-cut suggestions, and we've found that nothing beats good old mother nature for drying shake stain.

So we just use mother nature.

We take the time to "hang Fitite Shakes out to dry" in the good old fresh air. Takes a lot of doing, a lot of storing, a lot of waiting; but it assures us that we are giving Fitite Shakes the best stain coverage in the business. Have you compared Fitite Shakes with the rest?

**COLONIAL CEDAR COMPANY, INC.**  
600 WEST NICKERSON STREET, SEATTLE 99, WASHINGTON



# Choose...

## WILLIAMSON WARM AIR FURNACES

for quality low cost homes



WILLIAMSON  
GAS FORCED AIR



GAS



OIL



COAL



PIPE & FITTINGS

"Name" home equipment which reflects built-in quality and performance and does not add to construction costs always adds "eye" and "buy" appeal to any home.

WILLIAMSON Warm Air Furnaces are modern in design, made of top quality materials and have built-in craftsmanship of over 60 years of furnace design and manufacturing experience. There are WILLIAMSON Warm Air Gravity and Forced Air Furnaces for any type fuel and any size home with basement or utility room. WILLIAMSON'S complete line of Pipe and Fittings round out the full package of equipment required to heat any home comfortably and economically.

Write for details.



Williamson Furnaces are nationally advertised and have over 60 years of home owner acceptance.

### THE WILLIAMSON HEATER COMPANY

4564 G Marburg Ave.  
Cincinnati 9, Ohio

Have an authorized Williamson Representative give me information on:

- Gas  Oil  Coal  LP Gas  Pipe and Fittings  
 Basement installation  Utility Room installation

Name \_\_\_\_\_

Street \_\_\_\_\_

City \_\_\_\_\_

Zone \_\_\_\_\_ State \_\_\_\_\_

## Letters . . .

(Continued from page 42)

would tell me where to get the improved chisels as I have been trying for ten years to get a few replacements for good old chisels, worn short but of good quality. I have bought a good many high priced chisels but there wasn't one that was satisfactory. The saws are all right although not much different than they were fifty years ago except in shape. Also, nine out of ten carpenters don't like plastic handles.

James Neville  
Westerly, R. I.

### Comments on April Catalog - Directory Issue

Hundreds of communications were received from readers whose copies of the 650-page April Catalog Directory issue inspired them to send us their comments. Following are a few of the typical reactions:

Your Catalog Directory is a very complete reference. Just keep it as it is at the present.

H. H. Tile,  
Seaford, N. Y.

No more or better information can be obtained anywhere for this amount of money.

E. F. Martzall,  
Denver, Colo.

This issue makes it so easy to show customers anything; complete information on almost every product.

William McCommell,  
Louisville, Ky.

Your Catalog Directory is very helpful and I see no reason for improvement.

S. J. Kocher,  
Elkhart, Ind.

I am more than pleased with it. If next year's Catalog Directory is as good, I'll be satisfied.

Robert B. Dean,  
Montrose, Pa.

Words cannot describe my appreciation for your wonderful Catalog Directory.

Wm. M. Harris,  
Cheyenne, Wyo.

Please cancel my subscription. I don't like it.

Wm. Holdridge,  
Catskill, N. Y.

► Mr. Holdridge registered the only dissatisfied reader reaction we have received.—The Editor

• Letters to the Editor should be sent to 79 W. Monroe St., Chicago 3, Ill. Your Comments are invited.

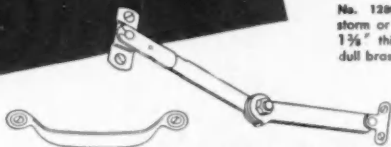
*Add Value*  
**All around the house**  
**STANLEY**  
**HARDWARE**  
**for STORM DOORS**  
**and WINDOWS**



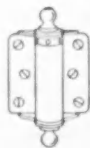
No. 1280 DOOR LATCH — For storm or combination doors up to 1 3/4" thick. Finished in bright or dull brass, dull bronze, and zinc.



No. 1716 STORM WINDOW HANGERS — For flush applications. Hold storm windows snugly to frame.

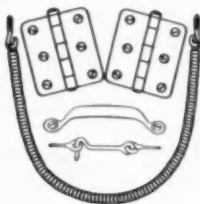


No. 1727 STORM WINDOW ADJUSTERS — Applied to each side of casing. Holds window open in any position. Strong, non-rattling. Set consists of one pair of adjusters and one pull.



No. 154 ADJUSTABLE SPRING HINGE — Easily applied heavy duty spring hinge with adjustable tension to regulate door closing, fast pin.

No. 1750 STORM DOOR SET — Full surface or half surface applications. Can be applied on door thinner or thicker than jamb.



No. 210 SNAPPY CATCH — Smooth appearance. Rubber roller insures smooth operation — sturdy spring holds door securely shut.

Think of the opportunities in Stanley Hardware for storm doors and windows to put more "sell" into a house! Shown are merely representative items; the Stanley line is *complete*. You can fill all your requirements from one source of supply. On your next building job, specify Stanley Hardware for Storm Doors and Windows. The Stanley Works, New Britain, Connecticut.

**STANLEY**

Reg. U.S. Pat. Off.



Look for this merchandise display at your Stanley dealer's.

HARDWARE • TOOLS • ELECTRIC TOOLS • STEEL STRAPPING • STEEL

## ON and OFF the RECORD

# CAN YOU

# READ

# YOUR

# STEEL TAPE

# IN ANY LIGHT?



Not unless it's a WYTEFACE!

For FAVORITE<sub>®</sub> WYTEFACE is the only steel tape of its length with jet black markings on a white background (foot-markings in red)—the ideal combination for perfect reading ease.

FAVORITE WYTEFACE is particularly durable, too—tough and strong—resists kinks, wear and rust!

Available in 25, 50, 75 and 100 foot lengths. Your supply house or hardware store carries a full line.

\*TRADE MARK

*"I'll take the WHITE one every time!"*



**KEUFFEL & ESSER CO.**

EST. 1847

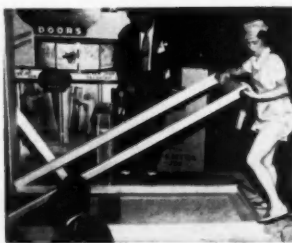
**NEW YORK • HOBOKEN, N. J.**

Chicago • St. Louis • Detroit • San Francisco  
Los Angeles • Montreal

**REGULATION X**—One of the reasons advanced late in May for not rescinding the Regulation entirely was that some control must be retained as a quick and easy base from which to re-impose the entire control in case it might become necessary later.

**WHAT THAT MEANS** — It means that there is fear in some places in Washington that complete relaxation might open the door to widespread no-down-payment sales of new homes.

**HOGAN'S BARN**—That kind of reasoning is like going around Hogan's barn to be sure that the front door is what it appears to be. There's a simple, easy, quick and sure way to eliminate no-down-payment sales without retaining any of Regulation X. It is to throw the whole regulation out, then issue an order (which HIFA is empowered to issue) making a minimum cash down payment of five or ten per cent mandatory in all transactions involving sale of new houses.



**EASY DOES IT**—These pictures do not illustrate a stunt. On the contrary they illustrate a practical demonstration of a door that can be hung completely in less than 15 minutes by a woman with no experience in carpentry. To be exact, the time was 13 minutes and 25 seconds.

**THE CARPENTRESS**—She's a Fort Worth, Texas, housewife and mother who has never done any carpentry work of any kind except to receive a half-hour of instruction in nail driving just before the demonstration.

**THE DOOR**—It's a Ready Hung, and the demonstration was made on a platform in the exhibit hall of the annual convention of the Lumber Dealers Association of Texas.

**THE PICTURES**—One of them shows the carpentress, Mrs. Eunice

LaBoon, separating the halves of the split jamb after removing the unit from a crate. The other shows her nailing trim to the wall. She did the entire job without aid, and when



questioned, said, "Any woman who can drive a nail and lift a 25-pound baby off a floor can install one of these doors in the time it took me."

**REFUTATION**—National Association of Real Estate Boards says that according to press releases, President Truman recently spoke with contempt for those who oppose public housing, and stated that they are aiding the program of Joseph Stalin. NAREB replies, "We wish to assert our convictions once more that political public housing supported by federal subsidies as we now have it in hundreds of communities is inequitable, is a failure from the standpoint of slum clearance and rehabilitation of individuals, is contrary to the spirit of American institutions, and is in itself a long step towards communism."

**FEDERAL INSURANCE**—It's here in a big way. It developed without the fanfare accompanying the advance of Federal public housing. Government just keeps adding program after program—quietly. Now, government "insurance" totals 252 billion dollars as against only 244 billion dollars in privately-written insurance. Indications are that by next year government will run 325 billion, and private, 296 billion.

**MORAL DECLINE**—These figures are another sign of the decline of American independence from an attitude of pride in self reliance to a pitiful pursuit of the delusion of security.



# BEE GEE

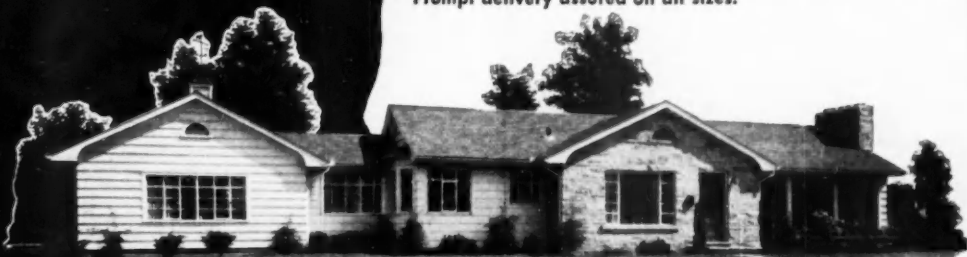
# modern wood WINDOWS



*for any style home!*

Beautiful Bee Gee Modern Wood Windows... styles for every type home... prices for every budget. Bee Gee Windows are complete units consisting of frame, pre-fit glazed sash with glass embedded in putty, copper screen and all hardware installed at the factory... ready to set in the wall.

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INSTALLATION  
PLUS**

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PACKAGED UNIT  
BY  
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What accounts for Venko's sales appeal? The fact that this expertly built boiler offers top savings to both consumer and installer. Armed with two sensitive aquastats and finest selected controls, trouble-free Venko credits the price-conscious consumer with constant low cost heat and hot water and real fuel economy. As for the installer, to whom time means money, Venko pays him profit by coming completely equipped for speediest installation. All wiring in place. All parts properly installed. All controls thoroughly tested. Yes, Venko charts a direct line to savings by eliminating waiting for missing parts — by crossing off costly service calls — by leaving greater customer satisfaction and more and speedier installations...



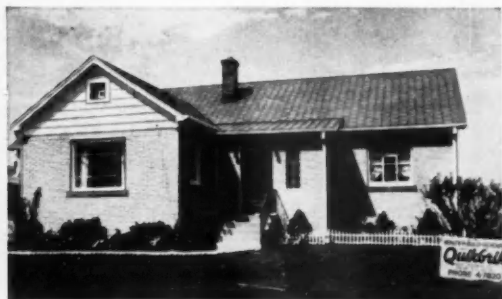
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Quikbrik is not affected by heat, cold, rain, snow or ice. It is virtually indestructible and will never need to be replaced or repainted. It protects the home or building and is the most economical method for obtaining a beautiful, modern brick finish.

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Quikbrik is a combination of the best features of the two oldest building materials known—brick and portland cement. It is applied in plastic form over any type of surface and then moulded into the desired pattern. Do not confuse Quikbrik with tacked on sidings and other substitutes.

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This booklet tells how to prepare model homes

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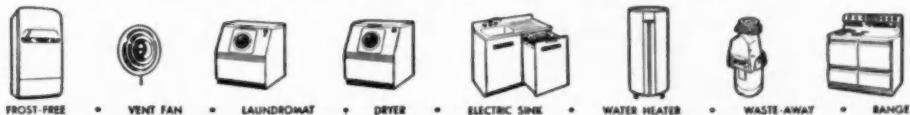
Illustrates the principles for building effective newspaper house-selling ads. Shows actual advertisements used by successful builders. Offers suggestions for radio advertising and newspaper publicity.

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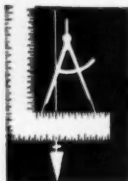
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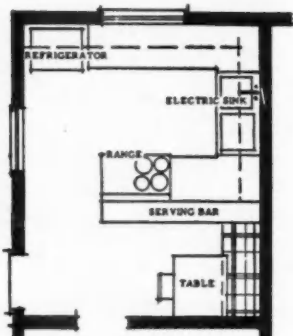
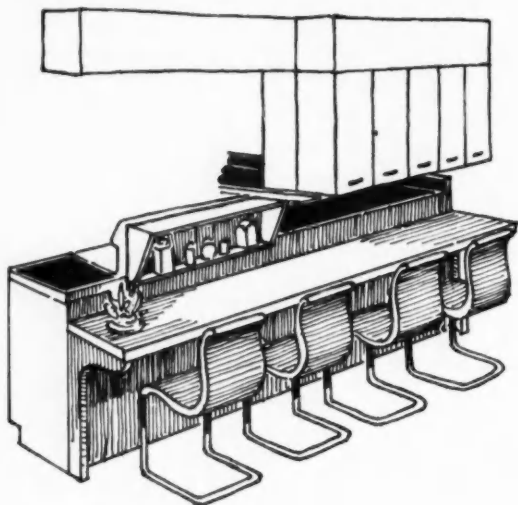


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# TECHNICAL GUIDE for Builders and Craftsmen



Range in island position dividing working and eating areas. Left: snack bar treatment at rear of range with condiment shelf above

## Ideas for Planning Kitchen Islands

### with High-Back Ranges



Good utilization of space, tray storage, snack bar and drawers

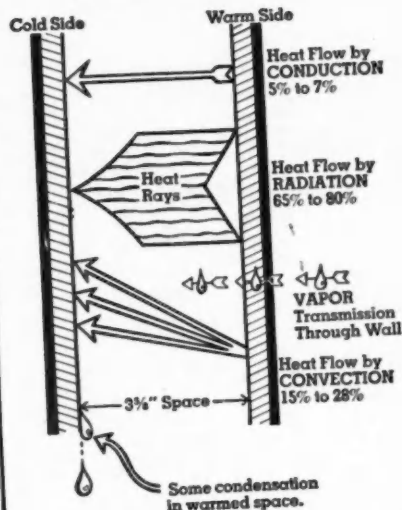
**R**ECOGNIZING the increasing popularity of the island position of the kitchen range, both in new construction and in the remodeling of houses, the Major Appliance Division of the General Electric Company, Louisville, Ky., has prepared a series of sketches illustrating island treatment of the range and adjoining areas.

The high panel at back of most ranges, measuring up to 50 inches from floor to top of backsplash, poses a problem in design when the range is placed in any position other than against the wall. These sketches indicate a few of the methods that can be employed to effectively blend this appliance with counter, base and wall cabinets.

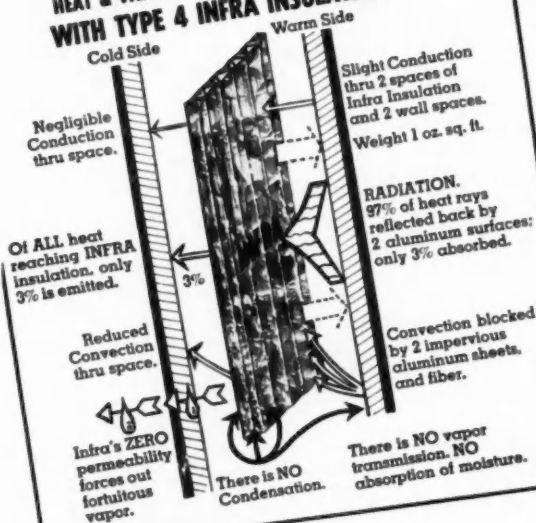
In the ideas presented, the designer has assumed that the island or extended bar will serve as a division between work space and the eating area in the kitchen. (Plans show several examples). A number of the designs provide for a snack bar built into the island arrangement, some at table height and others at counter height. In several instances a shallow cupboard is provided in back of the stove under counter line with extra deep cupboards adjoining. The area above the counter can be left open or provided with open ornamental shelves or cupboards.

(Continued on page 52)

### HEAT & VAPOR FLOW THRU AIR SPACES IN NON-INSULATED WALL



### HEAT & VAPOR FLOW THRU WALL SPACE WITH TYPE 4 INFRA INSULATION



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INFRA INSULATION, INC.—525 Broadway, New York, N. Y.

## INVISIBLE OPEN WINDOWS AND TRAP DOORS DRAIN HEAT IN WINTER, LET SUMMER HEAT IN

Doors and windows may be tightly shut, every chink and cranny caulked and weatherstripped, yet heat may flow out of a structure or in, right through solid walls and internal wall spaces, as if through open windows.

Obedient to nature's law, heat flows through *space* by radiation, in the form of invisible rays, from warm to cold; from warm humans, animals, furniture, walls, ceilings, floors; to colder ceilings, walls, floors, furniture, animals, and human beings. Heat also flows by conduction through *solids* when these warmer objects touch colder objects. Even the warmth in the air convected to and in contact with the wall flows into the wall by direct conduction. ("Wall" is used as a general term. The principle applies to walls, floors, ceilings and roofs.)

But preponderantly, it is radiation which wall, ceiling and floor surfaces inside a room absorb. These rays are transformed to heat which then passes through the wall by direct conduction, as does heat acquired by the wall by conduction and convection. The entire process is repeated, radiant flow preponderant, inside the wall *space* in the direction of the inner surface of the colder outer wall. The total heat which is caused by absorption of radiation mingling with the convected heat which has been absorbed by conduction, flows through the outer wall by conduction. It is finally dissipated in the colder, ambient air outside mostly by radiation but also by convection.

#### Heat Flow Reversed in Summer

In summer, the process is the same but the direction of heat flow is reversed; from the warm outside walls toward the colder interior walls, to be finally transferred mostly by radiation, but somewhat by convection, to the occupants of the building.

Radiation accounts for 55% to 80% of heat flow through building spaces; convection 15% to 40%; conduction 5%. Multiple accordion aluminum sheets reflect 97% of radiation, and each aluminum and fiber sheet is an effective convection block. Being mostly air, 1 oz. per sq. ft., there is almost no conduction.

Multiple accordion aluminum is non-condensation-forming. It has zero permeability to all gases—water vapor, hot and cold air, etc. No dewpoint can be reached on its surfaces or within it. It can neither sustain nor retain fortuitous moisture, for instance, rain leaking in, but expels it as a vapor because its permeability in ratio to exterior walls is infinity and the minimum requirement is 1 to 5.

Multiple accordion aluminum is available as Infra Insulation, Types 4, 6, and 4 Jr. For an amplification of this discussion, get FREE "Simplified Physics of Vapor and Thermal Insulation."

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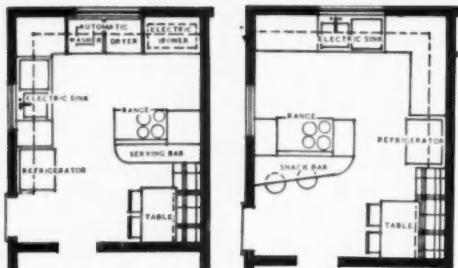
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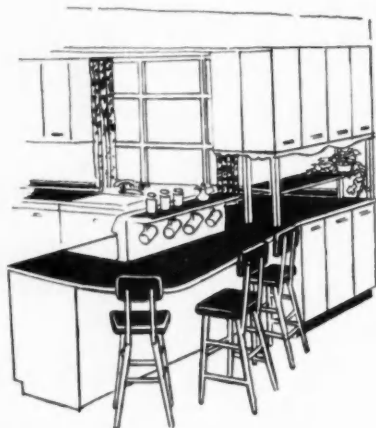
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# TECHNICAL GUIDE for Builders and Craftsmen



Two kitchen plans showing island arrangement with bar



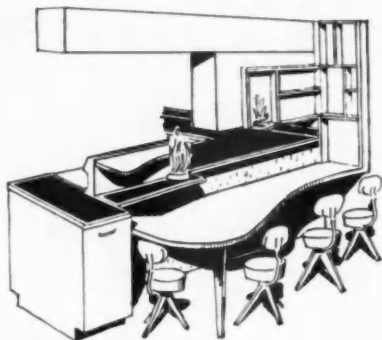
Snack bar is counter height: wood face and shelf built in back of range top

Drawings courtesy of General Electric Co., Louisville, Ky.

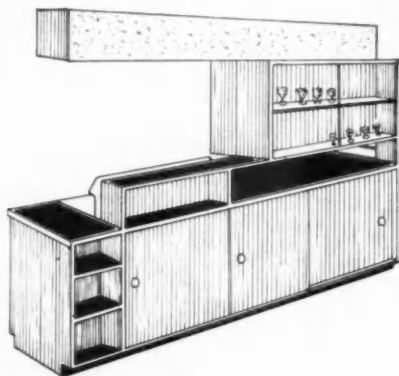


Laundry facilities combined with snack bar in island treatment

(Continued from page 50)



Cupboards above form a complete division between work and eating area

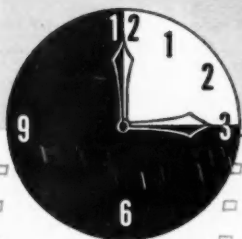


Shallow cupboards placed in back of range. Extra depth cupboards adjoin



Treatment for back of cabinets across ceiling, without wall

# 15 minutes to more STORAGE SPACE



## with STEELCRAFT Spacemaker

### STEEL SLIDING CLOSET DOORS

Steelcraft Spacemaker Sliding Doors can be installed in just 15 minutes . . . and the only tool needed is a screw driver. It's a fact . . . you not only save time and money on installation, but add more usable space inside and outside the closet and add space to the room ordinarily taken up by old-fashioned swinging doors . . . and makes every inch of closet space easily accessible.

Steelcraft Spacemaker steel sliding closet doors are packed in individual cartons with all necessary hardware and instructions for installing. They can be purchased with steel casing if desired. The Steelcraft steel casing is shipped as a complete one-piece welded assembly.

#### Steelcraft Spacemaker Steel Sliding Closet Doors have these advantages —

- TROUBLE-FREE operation assured.
- WON'T STICK, warp or sag.
- EASY to install.
- SILENT—Glide on noise-free rollers.
- BONDERIZED, Painted and Baked—will not peel or chip—satin-smooth surface takes any desired finish or color.



1. Steelcraft sliding doors are packed in cartons complete with all necessary hardware and simple instructions.



2. Check casing for plumb, level and true, then attach guide channel to head.



3. Next attach guide to the floor. No drilling is necessary.



4. Attach door guides to top of each door.



5. Fasten door rollers to bottom of each door.



6. Set doors in place by inserting top in guide channel. Place rollers in floor guides.



7. Make final adjustment on guides so they move smoothly and easily.



8. Finished closet door assembly, ready for painting to match any color scheme.

#### MAIL THIS COUPON TODAY!

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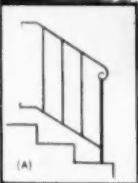
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**COST, LABOR  
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Mass produced for low cost. Easy, fast to install... build masonry to fit. Solid bar handrail, 1/2" square pickets, strongly welded one-piece construction. Sections bolt together 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" treads) available in 1, 2, 3, 4, 5 & 6 step lengths. Illustrated is 2-step No. 205-2S.  
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FREE:** Write for catalog and Coffman Rail-O-Graph—shows how No. 205 Step Rails fit any size step.

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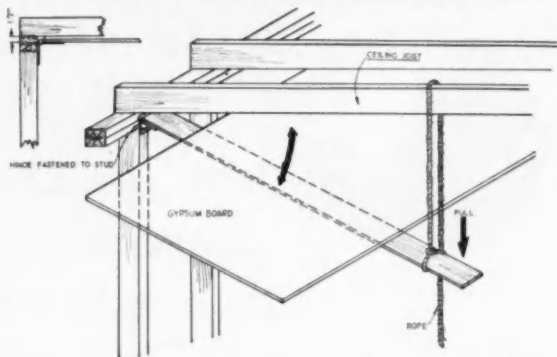
The R. J. Coffman Co. Inc.

Dept. A-2, ORLANDO, FLORIDA

54

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

### One Man Method of Ceiling Sheetrock Application

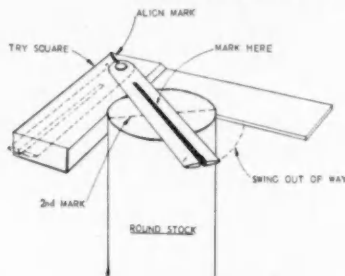


An easy way to apply gypsum board to a ceiling is made possible by the simple holding device indicated in the sketch above.

This device is secured to the wall with a hinge and consists of an 8-inch board nine feet long, secured to ceiling joists at opposite ends by a

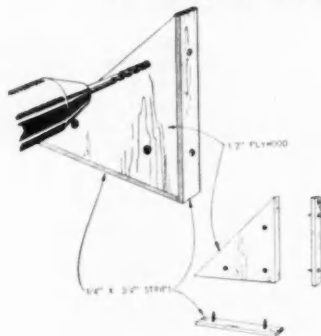
rope. Gypsum board is placed with center of panel on board, and raised up to position by pulling rope over the joist. Secure rope tightly to hold board in position and then nail board to ceiling joists.—E. P. Savident, Powell River, B. C. Canada.

### Center Finder for Round Stock



With this altered Try-Square the exact center of round stock can be quickly found. Take a narrow strip of heavy sheet metal, slot it with a hacksaw and rivet it to the square as shown. Move the metal strip half way between blade and handle and then make a mark on square and strip. Align marks and scribe.—Herbert E. Fey, New Braunfels, Texas.

### A Template for Drilling Holes



Hardware for cabinet doors can be set accurately by using a template as shown in drawing. When assembling the various parts of template place the members flush with each other on the side where holes are marked for drilling. This provides an edge on the opposite side so that template can be held in position on the corner of cabinet door. Holes are drilled on the face side of cabinets.—Clement Houdek, Grafton, N. Dak.

AMERICAN BUILDER





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## NEW DISTINCTION FOR ANY STYLE OF HOME WITH *decorator doors* of Ponderosa Pine

Now you can make interior color schemes *complete*—with these distinctive Ponderosa Pine Decorator Doors. With their delicate shadow-lines and beautifully proportioned panels, they offer you and the home owner almost unlimited decorative possibilities. What's more, you have a wide variety of Ponderosa Pine paneled doors to choose from, styles that fit every type home, contemporary or traditional.

Ponderosa Pine Decorator Doors are precision-made—clean and sharp in their detailing—with a satin-smooth finish that takes practically any kind of decoration. They are available preservative water-repellent treated for high resistance to dimensional changes.

Our new consumer booklet, "Latest Color Style News," contains a wealth of information on Ponderosa Pine Decorator Doors, information which you, too, will want for your file. Mail the coupon now for your free copy.



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Chicago 3, Illinois



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# Ponderosa Pine

WOODWORK

# To Hold Your Profit

# MECHANIZE!

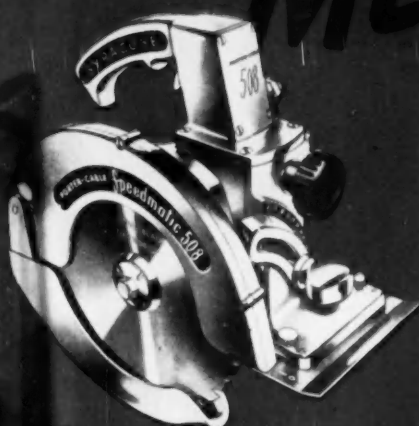
**Electric Tools Offset Labor Costs . . .**

Inflated labor costs are giving builders plenty of problems for 1952. All pointing to that final question: how to overcome the sales resistance of higher prices for new homes?

**What to do? The answer: Mechanize!**  
 Mechanize the time-consuming manual jobs that prolong the working schedule. Mechanize the costly hand operations that can be done 5 to 10 times faster. Mechanize to improve the skill and output of inexperienced help.

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Speedmatic and Guild Electric Tools slash construction time and costs. They greatly speed up operations—promote higher production per hour; keep expenses down, profits up!



## New Speedmatic KICK-PROOF SAW

Exclusive Kick-Proof Chain eliminates dangerous kickback—99%! Prevents motor burn-out—loss of control—overstress on saw—damage to the work. Speedmatic's handle is directly in line—motor saw center to bit, hold and guide. Blade on right—keeps the handle at end of cut-off—never steps on main piece—strengthened base gives steady rest.

### MODEL 508 SPECIFICATIONS

Saw Blade, 9" (1/2" hole) • Depth of Cut @ 90°, 2 1/2" • Depth of Cut @ 45°, 3" • Net Weight, 17 lbs. • Helical gear drive eliminates torque and rattle • Instant depth adjustment, cut in seconds. New safety guard leaves lower teeth engaged—won't jam with chips or cordwood. (Model 507, 7 1/2" Blade)



## New Guild ORBITAL SANDER

Sands with, against, and across the grain—without gouge or pattern Sands wood, plastic, composition, metal. An indispensable tool for built-ins, trim work. Blends glued, butt, miter joints without marring. Won't chip or strip plywood when edging. Sands in corners, recesses, right up to molding. Levels plaster patches—smooths dry-wall joints.

### 106 SPECIFICATIONS

• Pad Size, 3 1/2" x 7 1/2". Pad Speed, 4,000 RPM—travels in 1/4" overlapping orbits. Sandpaper Size, 3 1/2" x 9" (1/2 of standard 9" x 11" sheet). Net Weight, 6 lbs. Powerful Universal motor, WON'T VIBRATE. Gearless drive, no maintenance. Ruggedly built for heavy production.

Model 106  
**\$49.50**

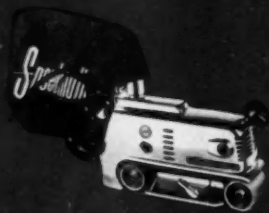
★ See Speedmatic and Guild Electric Tools at your Porter-Cable distributor's. Ask to be shown their many cost-cutting features . . . get a convincing on-the-site demonstration that will prove their profit-saving advantages.

# PORTER-



**BELT SANDER**  
Model A-3

10" wide belt sander for grinding and sanding. Belt Speed, 600 SFPM. Overall Size, 4" x 12" x 6". Net Weight, 9 lbs. Rests solidly on the work—sands flat and true. Grinds, removes paint, levels, polishes any material.



**DUSTLESS SANDER**  
Model 50

Grinds, sands, levels, polishes. Dustless. 10" wide belt. Belt Speed, 600 SFPM. Overall Size, 4" x 12" x 6". Net Weight, 9 lbs. Rests solidly on the work—sands flat and true. Grinds, removes paint, levels, polishes any material.



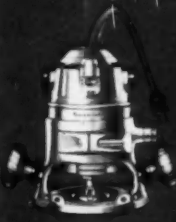
**FINISHING SANDER**  
Model 50

Grinds, sands, levels, polishes. 10" wide belt. Belt Speed, 600 SFPM. Overall Size, 4" x 12" x 6". Net Weight, 9 lbs. Rests solidly on the work—sands flat and true. Grinds, removes paint, levels, polishes any material.



**ROUTING PLANE**  
Model 50

Grinds, sands, levels, polishes. 10" wide belt. Belt Speed, 600 SFPM. Overall Size, 4" x 12" x 6". Net Weight, 9 lbs. Rests solidly on the work—sands flat and true. Grinds, removes paint, levels, polishes any material.



**ROUTER ROUTER**  
Model 50

Heavy Duty Model 50 also available. Sums heavy sanding, leveling, smoothing. Motor powerful. Overall Size, 4" x 12" x 6". Net Weight, 9 lbs. Rests solidly on the work—sands flat and true. Grinds, removes paint, levels, polishes any material.



**HINGE BUTT TEMPLET**  
Model 5006

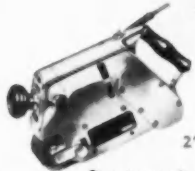
Cuts a hinge butt every 1 1/2 min. Cuts butts for 2 1/2" to 5 1/2" hinges. Assures accurate alignment and exact fitting of any door and jamb up to 7" high. No rule needed to locate mortises, numbered notch rod sets proper measurements. Made of extruded aluminum. Used with Guild Router; also with other routers by means of suitable guides.

*Speedmatic*



**KICK-PROOF 6" SAW**  
Model A-6

(Two other models: 8" and 4 1/2" blades) Kick-Proof Clutch eliminates kick-back when blade hits knots or hard spots. Saw Blade, 6 1/2" (5/8" hole). Depth of Cut @ 90°, 2". Depth of Cut @ 45°, 1 1/2". Net Weight, 12 lbs. Calibrated quadrant for bevel cuts. Knob-screw locks depth adjustment at any point from zero to 2".



**2" SURFACING SANDER**  
Model A-2

Easy to use in any position. Belt Size, 2" x 21". Belt Speed, 600 SFPM. Size Overall, 4" x 12" x 6". Net Weight, 9 lbs. Rests solidly on the work—sands flat and true. Grinds, removes paint, levels, polishes any material.



**HANDY ROUTER**  
Model 100

Makes decorative cuts quickly and accurately. Speed, 20,000 RPM. Chuck, 1/4" capacity, adapters available down to 1/16". Overall Size, 7" high x 5 1/2" base dia. Net Weight, 5 1/2 lbs. Depth adjustment from 1/64" to 1". Exclusive True-Spin chuck. Interchangeable motor also powers Guild Plane and Shaper.



**POWER PLANE**  
Model 101

Zooms through wood at 20,000 RPM. Width of Cut, 1 1/8". Depth of Cut, zero to 3/32". Net Weight, 8 lbs. Front and rear shoes are ground parallel. Bevels up to 25°. Quickly converted into jointer or moulding plane.



**HINGE BUTT TEMPLET**  
Model 5006

Mortises for a hinge butt every 1 1/2 min. Cuts butts for 2 1/2" to 5 1/2" hinges. Assures accurate alignment and exact fitting of any door and jamb up to 7" high. No rule needed to locate mortises, numbered notch rod sets proper measurements. Made of extruded aluminum. Used with Guild Router; also with other routers by means of suitable guides.



**COMBO TOOL**  
Model D-6

Sands, Grinds, Buffs, Polishes, Drills. Disc Size, 6" dia. Speed under normal load, 2,000 RPM. Net Weight, 5 lbs. 13 oz. Helical gear drive. Nearly double the power of similar tools, allows 50% more working surface. Has bench stand and power take-off (extra).

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Manufacturers of SPEEDMATIC and GUILD Electric Tools

In Canada: Write Strongridge, Ltd., London, Ont.



Metal window is set in the horizontal one-piece gable end

## ***This Tilt-up Framing***

**A one piece gable end and long length ceiling joists reduce costs on framing and interior operations**

**BUILDER:**  
*Mills and Sons, Chicago, Ill.*

**ARCHITECT:**  
*Elmer J. Fox, Chicago, Ill.*

**H**ERE is a framing idea using tilt-up methods in which time saved in erection more than offsets the additional cost of extra long framing lumber required. Developed by Mills and Sons, Chicago builders, this system enables them to deliver a three bedroom house in 17 days.

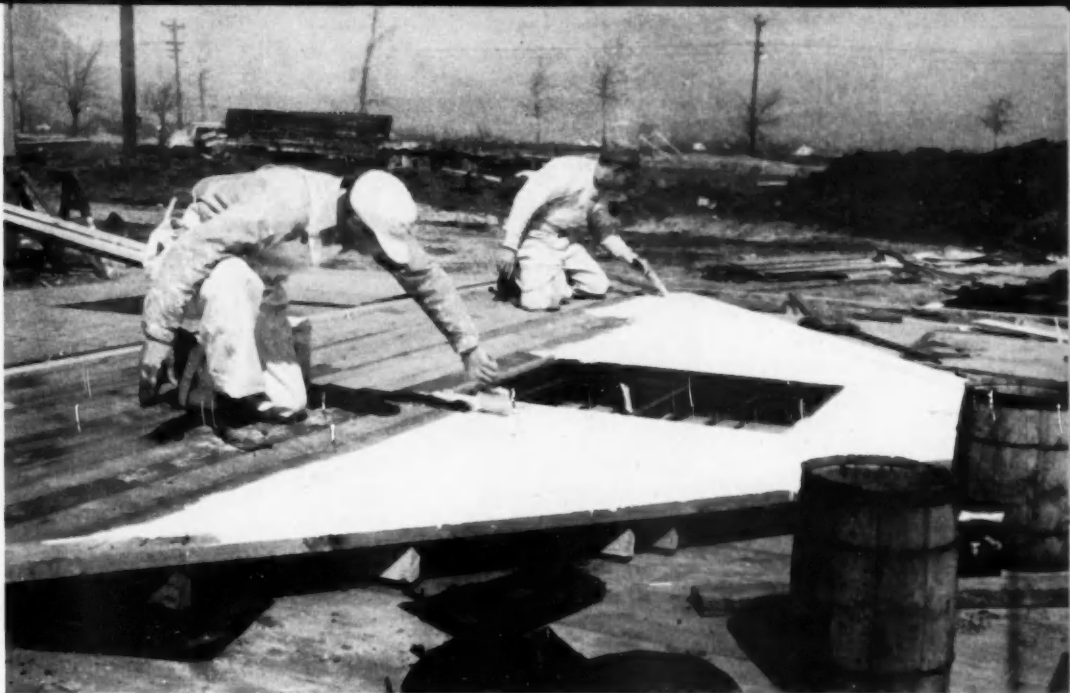
One piece gable ends using long length 2x4's are assembled on the foundation deck. After each large unit is framed, sheathed, siding applied and painted, it is tilted into place. Both completed gable ends are



Blocking on the box sill keeps section from sliding off during tilt-up. Alignment of wall and sill is carefully checked.



Men start raising gable end. Both ends are raised, braced and nailed in less than five minutes



Gable end is painted while it is in horizontal position

## **Method Cuts Cost**

erected in less than five minutes. Scaffolding is eliminated with this system. This also constitutes a saving.

After both sidewalls are in position, ceiling joists are laid. The long 26-foot, 2x8 joists span the building. The long joist system speeds interior wallboard and flooring installations because the builder can finish the interior of the exterior walls, and the floors, before placing the partitions, which are non-bearing.

Roof sheathing is nailed to all rafters but the gable fly rafter. This nailing is completed after the gable is aligned and plumbed with the aid of a transit. The end is squared from the inside of the structure before the roof sheathing is applied.

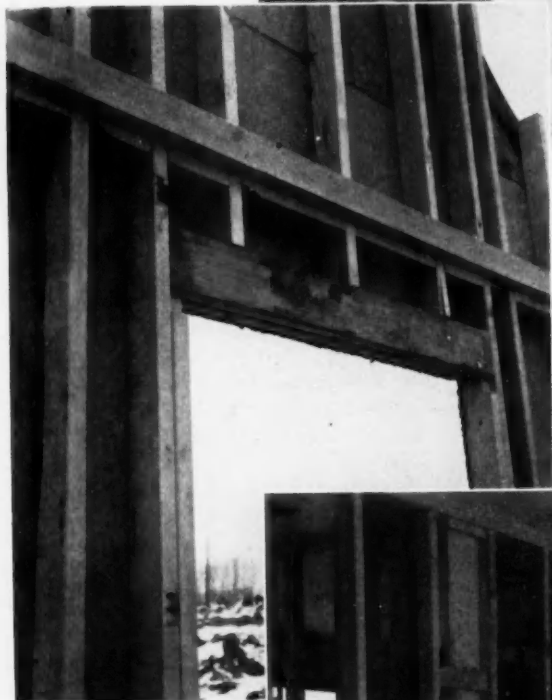
After wallboard and oak flooring are installed in the partitionless interior, partitions are framed on the floor and raised into position. After plumbing and electrical work has been finished, the remainder of the wallboard is installed.

Each operation is handled by a crew trained specifically for that phase of the work. The individual crews follow each other along the line of houses in various stages of construction.



Bracing is pre-nailed to speed anchoring when gable end is in vertical position

Extra long 26 foot, 2x8 ceiling joists enable builder to apply ceiling plaster board to a large unobstructed area. Partitions are set after the wall-board and oak flooring are in place



Window header, fire stop cripples, and long studs are shown in the closeup photo. Builder claims greater strength for the one piece wall. Window cripple is notched for a 1x2 metal window frame nailer

Partitions are assembled horizontally and tipped in place after ceiling and exterior wall plaster-board is installed. Pre-finished oak flooring is also laid before partitions are raised. Finished floor is covered with waterproof paper while partition work is being done

MAN HOURS SAVED WITH TILT-UP FRAMING SYSTEM	
Operation	Savings in Man Hours
Gable end raising	4
Floor Laying	6
Dry Wall Installation	4
Ceiling joists and bearing partitions	10
<b>Total</b>	<b>24 hours per house</b>





Power hand saw cuts cripples above doorway header. The sidewall construction begins after both gable ends have been tipped into place. House is framed and sheathed in one day

#### BRAND NAME PRODUCTS USED

Armstrong asphalt tile	Minneapolis-Honeywell heating controls
Barrett shingles	Modernfold door
Conco furnace	Richkraft building paper
Crane plumbing fixtures and water heater	Richflex insulation
Devoe and Reynolds paint	Schaefer exhaust fan
Edwards door chimes	Schlage hardware
Faries bathroom cabinet	Truscon windows
Insulite wall sheathing	United States Gypsum wallboard
	Youngstown kitchen cabinets



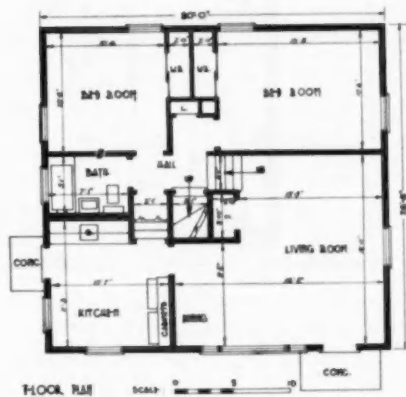
Three bedroom house has 1000 square feet of floor area. Window walls and sheltered entrance add to styling. Floor plan is at left



Tri-level model with conventional front elevation, has half basement. A large unfinished third bedroom is on top level. Elevation below left, layout right



First level has kitchen and living-dining room. Bath and two bedrooms are on the second level. Plumbing is back to back

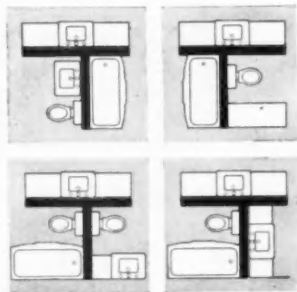
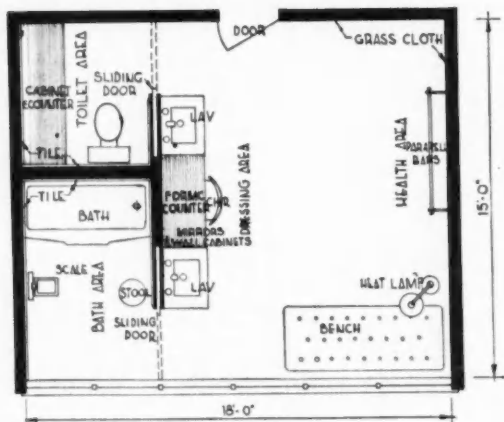


# Do Something Different with



New planning ideas with high sales appeal . . .

- 1 **A T-bathroom**
- 2 **A bathroom which doubles as a laundry**
- 3 **A kitchen without walls**
- 4 **A combination kitchen-and-nursery**
- 5 **A kitchen styled for ranch-type houses**



**I FAMILY T-BATHROOM**  
The plumbing core is confined to the T which stands in the center of the space with the fixtures grouped around it. This frees the perimeter walls of the rooms and simplifies piping connections. Sliding

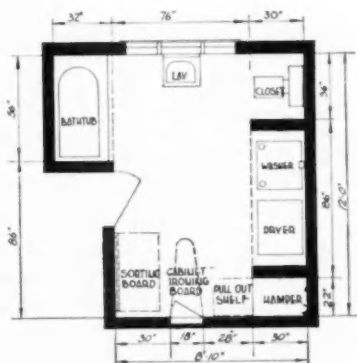
doors, recessed in the arms of the T, provide privacy for the simultaneous use of lavatory, water closet and bathtub. This T-scheme makes possible a number of variations in the placement of fixtures.



# Kitchens and Bathrooms

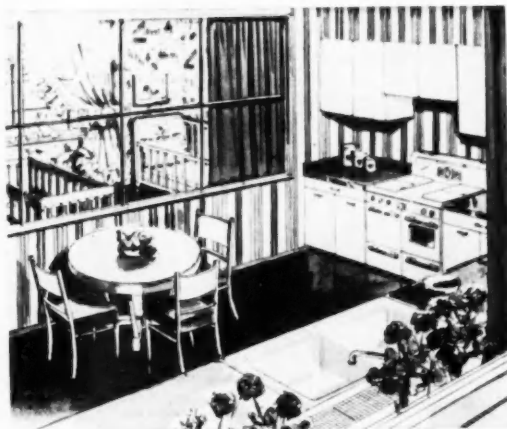
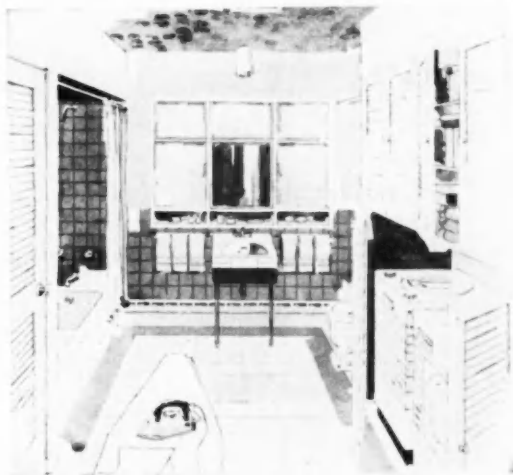
**T**HE Crane Co. of Chicago has announced a new service designed to help builders and architects do bigger and better things with kitchen and bathroom styling. Built along the lines of the "style guide" books of the paint manufacturers (which sell paint by suggesting color schemes for actual rooms), this innovation is a large 48-page sketchbook showing new ideas for kitchen and bathroom planning and decoration.

Instead of merely cataloging the various items in the company's line, this new style book incorporates the fixtures into actual rooms. Further, these rooms are not simply pipe dreams, but for each planning idea shown, Crane can provide working drawings that enable the builder to duplicate the idea in houses which he is currently planning. Useful for both new house design and problems in remodeling, this sketchbook is available from dealers.



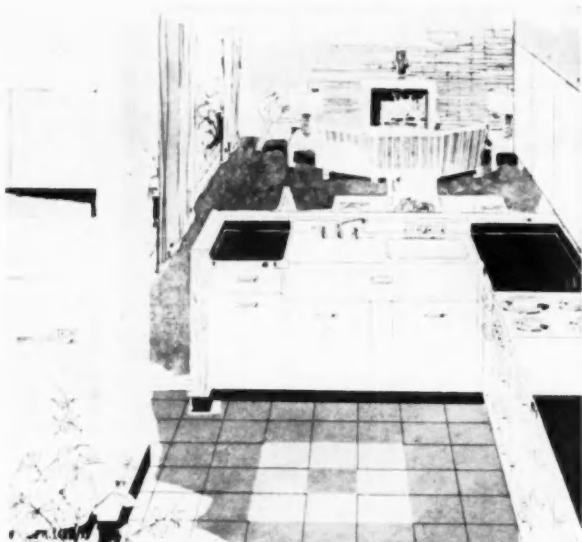
## 2 WHY NOT HAVE A LAUNDRY IN THE BATHROOM?

Louvered doors conceal ironing board, sorting board, pull-out shelf, clothes hamper and automatic washer and dryer.



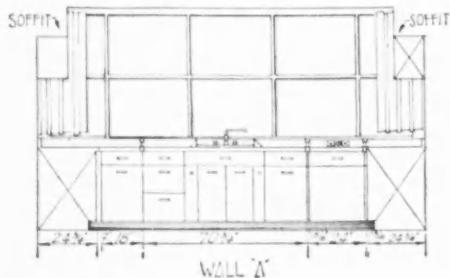
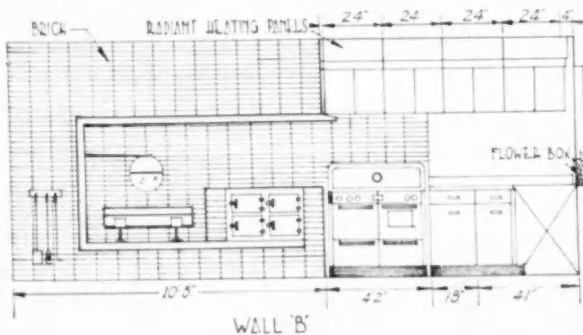
## 3 COOK AND BABY-SIT, TOO

This kitchen enables the busy mother to keep an eye on the children while working at cooking chores. The nursery space can later be converted into a bedroom.

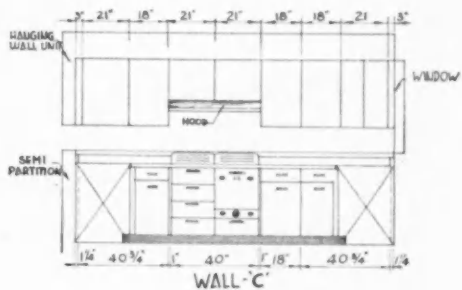
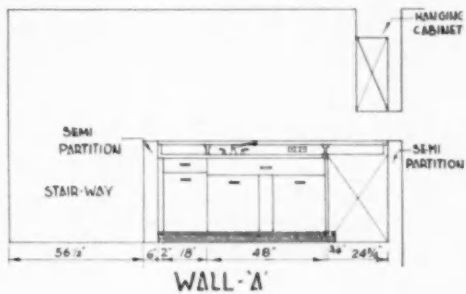
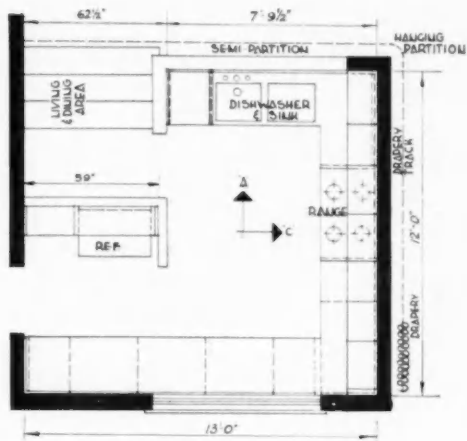


#### 4 A KITCHEN DOESN'T HAVE TO HAVE FOUR WALLS

Living room, dining room, and kitchen occupy one large open space. The kitchen is raised three steps and redwood paneling conceals all the fixtures and cabinets when viewed from the living-dining area. Exhaust fan above the stove provides the necessary ventilation in kitchen area.

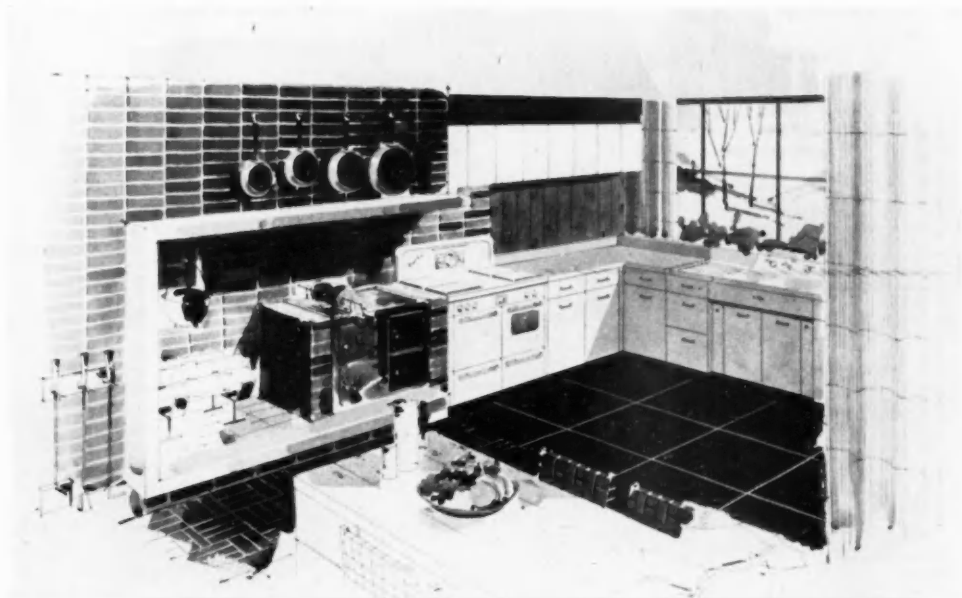


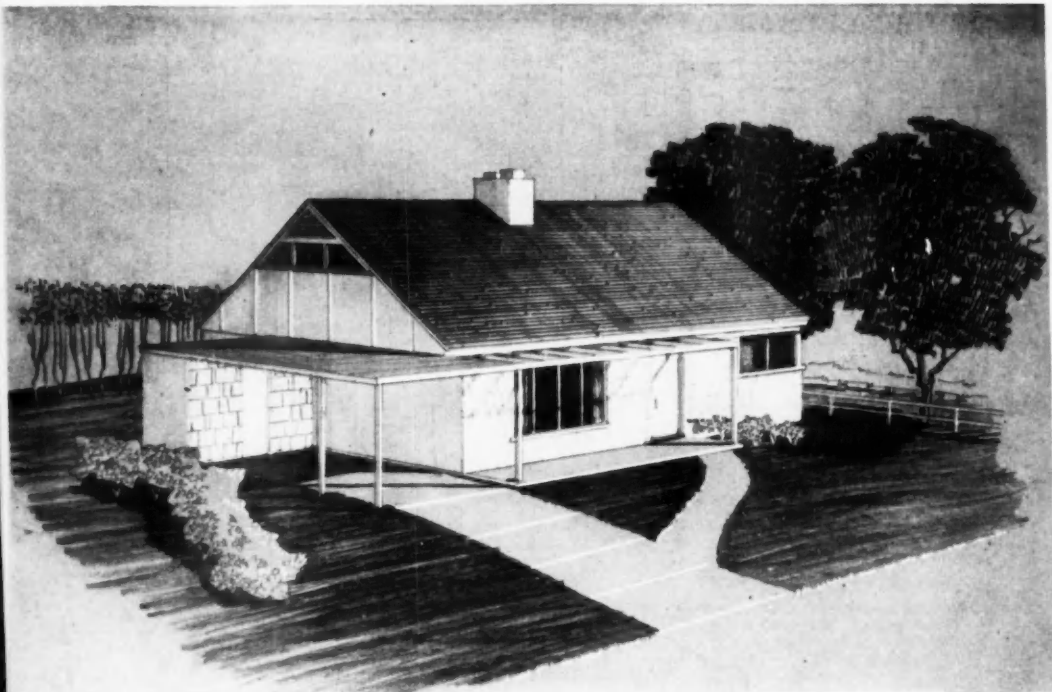
The sink can be sun-tan, with counter tops harmonizing. Panel the room with knotty pine. Notice the bamboo drape on track which can be pulled to close off the kitchen equipment from the brick barbecue and dining area.



In the center unit, the refrigerator space is 36 inches wide; the wall cabinet alongside it is 21 inches in width

## 5 RANCH-STYLE IN THE KITCHEN





Contemporary approach to Cape Cod is accentuated in the arrangement of carport and entranceway

## ***This Low-Cost House Is Expandable***

DESIGNED BY:  
*Walter T. Anicka,  
 Ann Arbor, Mich.*

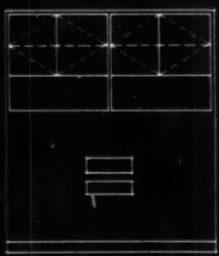
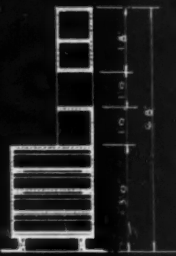
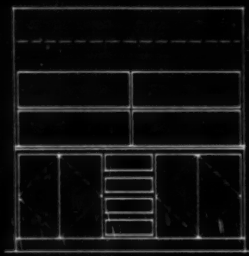
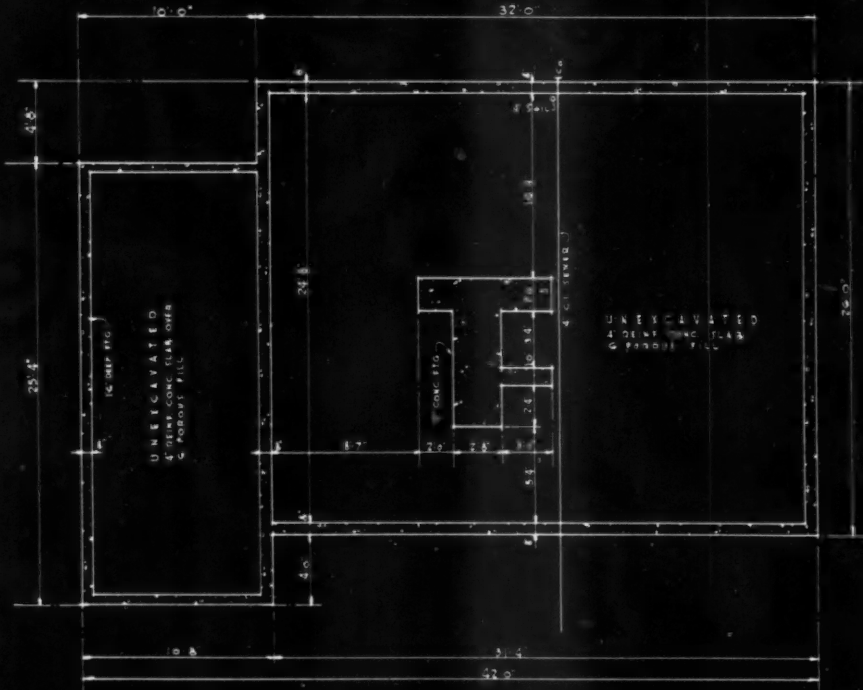
**AMERICAN BUILDER**  
**Blueprint House**

**A** COMPACT 887-square-foot house plus a carport, entranceway and expandable second floor, is featured in this month's blueprint. The dwelling is estimated to cost \$7,800 without lot, walks, driveway, screens or storm sash for the doors or windows. These are items to be supplied by the purchaser and not considered in the basic price structure.

The style is a modified Cape Cod, with a contemporary approach in the arrangement of carport and entranceway. The blending of the two has produced an extremely interesting profile, one that would lend itself to economical construction.

When considering its size, the circulation obtained in the plan layout is unusual. Upon entering, a small hall at one end of living room permits by-passing the major rooms to go directly to bedrooms and bath. The fireplace and surrounding masonry walls form the hub of the house, around which the living, dining room and kitchen are located. A pass-through cabinet forms the separation between dining room and kitchen. A stairway from the service hall leads directly to the second floor which is left in the rough for future completion.

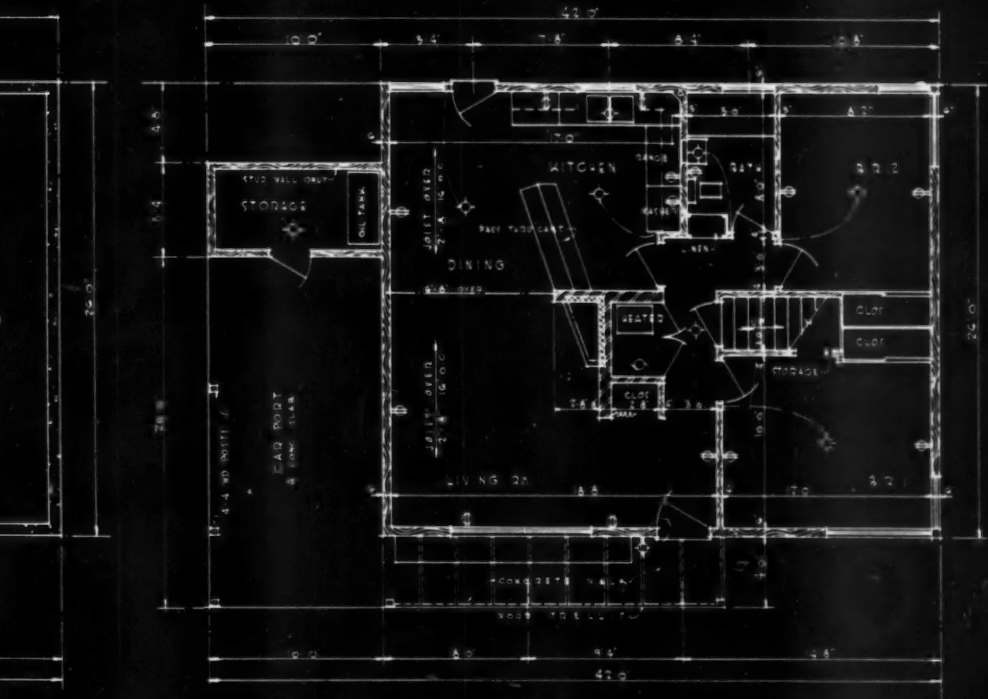
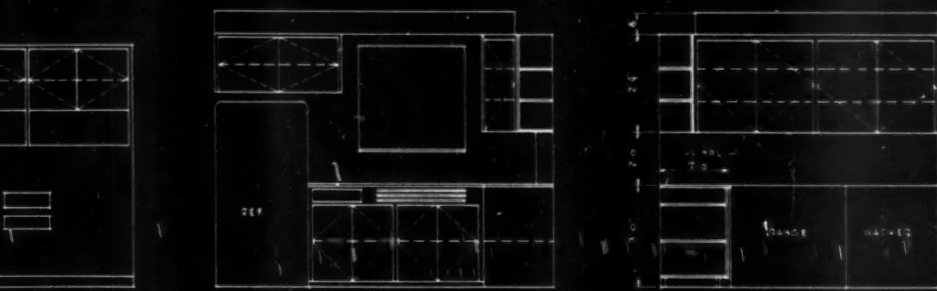
The house is constructed of poured concrete foundation, concrete floor slab and frame walls above, faced with wood shingles and plywood. Insulation is limited to first floor and attic ceilings.



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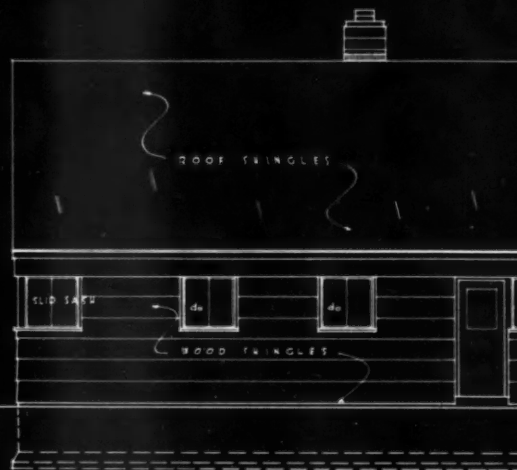
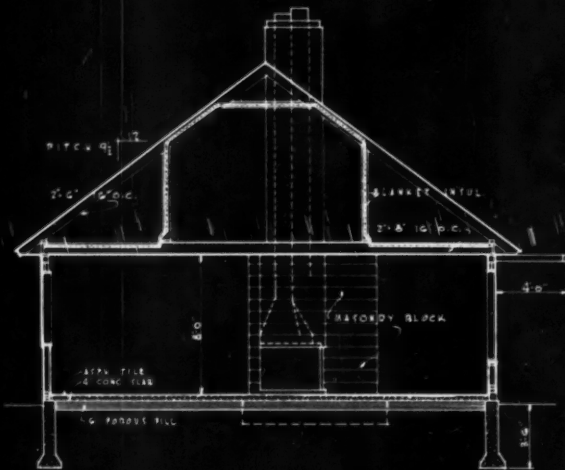
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FIRST FLOOR

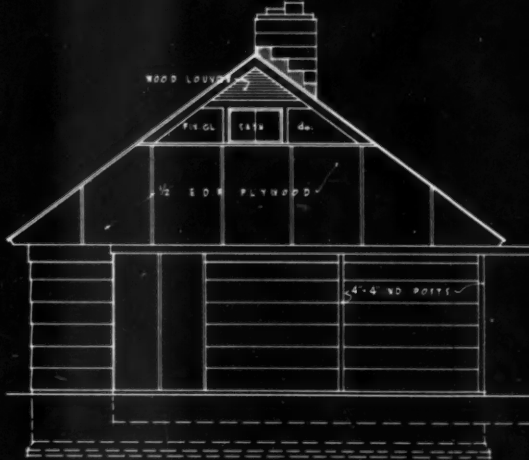
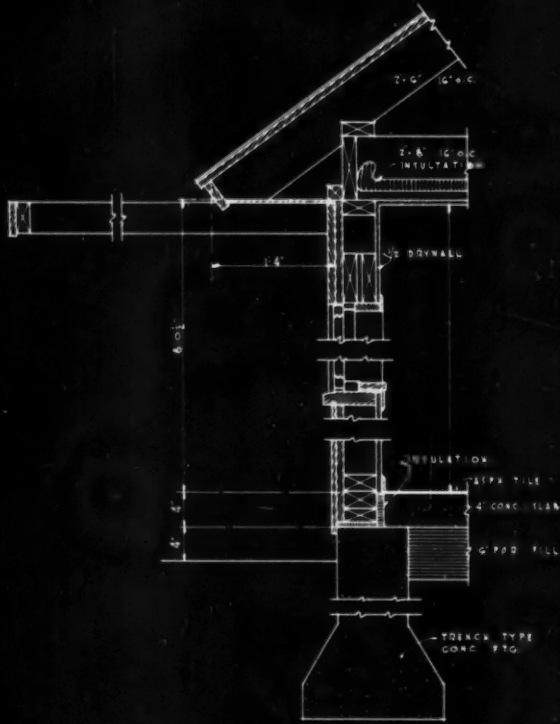
PLAN

DESIGN No A B 181  
 AMERICAN BUILDER BLUE PRINT SERIES  
 Designed By  
 Walter T. Anicka, Architect  
 617 Forest Ave. Ann Arbor, Mich.  
 Simmons Boardman Pub. Corp. 79 W. Monroe St. Chicago, Ill.



- CROSS SECTION -

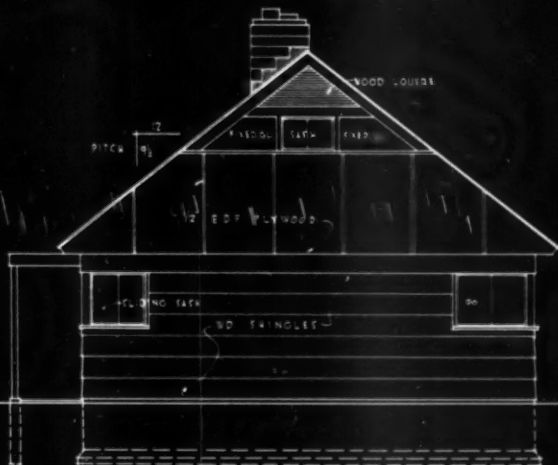
- REAR -



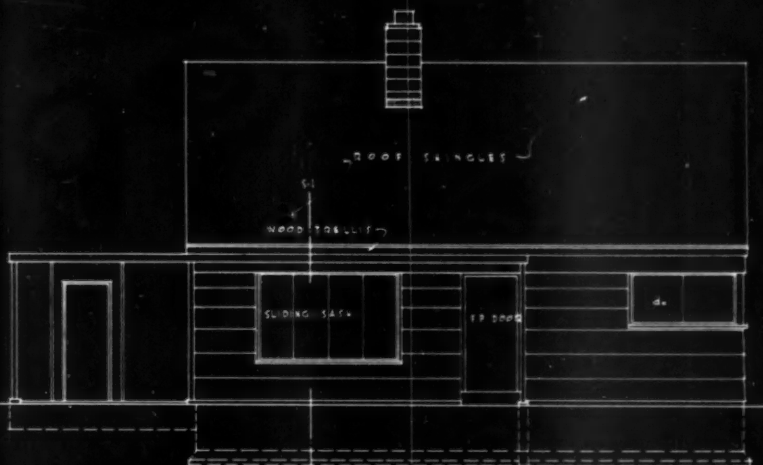
- LEFT SIDE -

SECT S-1

E L  
S C



RIGHT SIDE



FRONT

ELEVATIONS  
SCALE: 1/8" = 1'-0"



# Quantity List of Materials

## For American Builder Blueprint House No. AB 181

Walter T. Anicka, Designer

### General Information

House — Type	Frame
Area	832 sq. ft.
Cube	11,648 sq. ft.
Height taken for cube was 14 feet	
Carport — Area	200 sq. ft.
Cube	1,700 sq. ft.
Height taken for cube was 8 feet 6 inches	
Storage — Area	53 sq. ft.

### Excavating

Trench for foundation	161 lin. ft.
Chimney footings	40 cu. ft.

### Cement Work

Foundations	520 cu. ft.
Concrete work	1,085 sq. ft.
Thickness	4 in.
Sidewalks	65 sq. ft.
Anchor Bolts	40 — 1/2" x 14"
Miscellaneous	1,085 sq. ft. 6" Paired Fill

### Masonry

Type	Concrete Block
Chimney	165 cu. ft.
Flue lining (tile flue)	2 — 12" x 13"
Cap	4 in.
Fireplace	110 sq. ft. 8" Block
Throat and damper	1
Lintels	1

### Millwork

Windows — Type	Sliding Sash
	2 — 3'x2'
	1 — 3'x4'
	1 — 3'x6'
	1 — 5'x8'
	5 — 3'x3'
Windows Glazed including trim	4 Fixed Gl 2'x4'6" cut on angle one corner
Exterior Doors	1 — 3'x7'
	1 — 2'6" x 6'8"
	1 — 2'4" x 6'8"
Exterior Millwork	2 Peak Head Louvers
Interior Doors including jambs and trim	4 — 2'6" x 6'8"
	1 — 2'4" x 6'8"
	2 — 2'2" x 6'8"
Special Interior Doors	1 Folding Door opening 2'8"
	4 — 2'6" x 6'8"
	Sliding Doors
Special Interior Millwork	1 "Pass-thru" Cabinet
	Kitchen Cabinets and Cases
	1 Linen Cabinet

### Carpentry

Beams and Girders	1 — 6" x 8" x 12'
	5 — 4" x 4" x 8'
Foundation Plates	400 Lin. Ft. 2" x 4"
Bridging	200 Lin. Ft. 1 x 3
Studding and Plates	156 — 2x4 — 8'
	38 — 2x4 — 12'
	15 — 2x4 — 10'
Ceiling Joist	50 — 2" x 8" x 14'
	33 — 2" x 4" x 10'
Roof Rafters	50 — 2" x 6" x 18'
Framing Lintels	2 — 2x8 — 10'
	1 — 2x6 — 14'
	2 — 2x6 — 20'
	1 — 2x6 — 12'
Sub-Floor	400 b.f.
Roof Sheathing	1,750 b.f.
Side Wall Sheathing	1,750 b.f.
Side Wall Materials	14 Squares Wood Shingles and 440 sq. ft. 1/2" exterior plywood
Carpenter Stairs	2 — 2" x 12" x 16'
	15 — 2" x 10" x 3'
	14 — 1x8 — 3'
Flooring (Area to Cover)	740 sq. ft. — 1st floor only
	350 sq. ft. for 2nd floor
Exterior Material (Soffits)	66 lineal ft. 1'4" wide Plywood
Eaves	66 lineal ft. 1" x 4"
	66 lineal ft. 1" x 8"
Batten	66 lineal ft. barn batten
Insulation	1,600 sq. ft. blanket insulation
	120 lineal ft. perimeter insulation

### Rain Conduction

Flashing	Chimney Flashing
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### Roofing

Type: Built Up	Area: 12 squares
	25 squares

### Interior Walls

Area to be covered (1st floor only)	2,800 sq. ft.
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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.



**AMERICAN  
BUILDER**  
*Selected Homes*

## A House on a Hill that has Well-Planned Expandability



**FROM THE REAR**, the house becomes a two-story structure of impressive proportions. The house is frame. Interior wall and ceiling finish is plaster and mahogany veneer paneling. Clay tile is used for walls and floors of both baths. The house has a radiant hot water heating system with coils in walls and ceiling

**LOCATION:**

*Vuecrest,  
Bellevue, Washington*

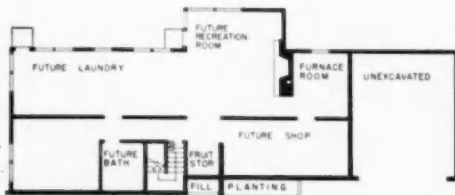
**ARCHITECT:**

*Ronald R. Campbell*

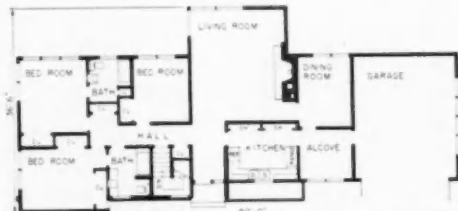
**BUILDER:**

*Modern Home Builders, Inc.  
Seattle, Wash.*

**I**N WORKING out a design for this hillside site, the architect has taken full advantage of the natural opportunity such a site provides for later expansion. The entire basement is on a ground level and can be later taken into the living area of the house by finishing off a planned recreation room as well as bedrooms on this level. A complete bath was roughed in on this level when the house was built, and radiant heat coils were laid in the floor. The basement also has a fireplace. The house was built to sell for \$32,500 on a lot 100 by 200 feet.



**BASEMENT PLAN**



**FIRST FLOOR PLAN**

# SPLIT PLAN Created for Sunshine Living

**BUILDER:**  
*W. A. Appin*  
*Tampa, Florida*

**H**IGHLY stylized stucco, large window areas, semi-enclosed breezeway, and open planning are the main features of this Florida home built by W. A. Appin of Tampa.

The breezeway is the focal point of traffic because the den-bedroom and the living room are adjacent to it. Breezeway walls are plastered. Floors are red clay tile with a glazed tile base. Ceiling is cypress paneled.

The stucco is over concrete block. Footings are 8x16 inches poured four inches below grade. Two 3/4-inch pencil rods reinforce the footing. Two courses of blocks were run up and about eight inches of fill placed below the slab. A vapor barrier consisting of two layers of 15 pound asphalt mopped felt was placed over the fill. The slab was increased to eight inches in thickness under the bearing walls.

The plate is bolted to a continuous reinforced concrete lintel placed on top of the concrete block wall.

Ceiling joists and roof rafters are 2x6. The roof is asbestos cement shingles. Gables are wood siding in horizontal or vertical design. The interior walls are furred and plastered.

**JALOUSIES** make breezeway a semi-enclosed room and allow complete circulation of air



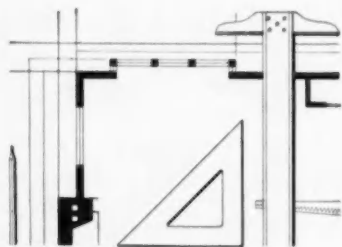
HOUSE is 70x29 feet, on a 220x110 foot lot. \$15,000 sale price included landscaping



JALOUSIES enclose breezeway which serves garden and street



PROJECTING counter top separates kitchen and dining room



## Planning instead of "Skimping" Creates Excellent Low-Priced House

### LOCATION:

Phoenix, Arizona

### DESIGNER AND BUILDER:

Frank R. Fazio



**PANEL IN FOREGROUND** backs up kitchen cupboards. High windows above dining table permits full use of that wall



**LIVING ROOM** wall finishes are varied with use of plywood to back up built-in wardrobe closet partitions in some models



**COMPACT KITCHEN** contains adequate cupboard facilities, ventilation and light. Bathroom plumbing backs up against kitchen sink wall. Floor is rubber tile

**S**HOULD low-priced housing be simply a squeezed-down version of more expensive houses? That is the question Frank R. Fazio, Phoenix, Arizona, architect asked himself not long ago. His design of the Lux-Econ house, which sells in that area for \$5,950 on the owner's lot, is the answer.

While he was doing architectural work over a five-year period on many large homes in the Phoenix area, Fazio had kept a persistently observant eye on low-priced housing projects, and when a home loan institution recently asked him to design a low-priced house, he was ready. In the belief that planning instead of skimping is the solution to the problem, Fazio searched first for a central "theme" and found one in "flexibility."

Knowing that one of the less attractive earmarks of low-priced housing is an all-the-same appearance, he created a "revolving" plan which gives the builder a choice of three sides for a front elevation instead of the usual one. A living room picture window on one side; a balanced high-window-low-window effect on another, and attractive high windows on the bedroom side gave him this versatility. Here is how he did it.

He made each of the five rooms of average size—about the same as the rooms found in houses for moderate-income families. Living room dimensions are 15x20 feet; the master bedroom, 11x15 feet; the second bedroom 10 1/2 x 10 feet; the bath 5 x 8 feet; and the kitchen and dining areas of comparable dimensions. There is no skimping here. He had already saved money in the planning.

The number one problem, however, was to save on labor costs. Fazio has reduced these in a number of ways. For example, he removed the conventional partition separating the two bedrooms by installing sliding door wardrobes from floor to ceiling. This provides ample closet space in place of the usual cramped "two by

fours," and adequately separates the two bedrooms.

The ingenuity of the Lux-Econ home just starts here. By making kitchen cupboards serve as a separating wall between the kitchen and dining room, Fazio saves additional construction costs. Then, by cutting away the section just below the cupboards, he provides a snack or cocktail bar which utilizes the kitchen workspace as a serving area. On the back of the cupboards he put plywood which hides the cupboards from the dining room, and also allows a space for a sliding panel which completely covers the cutaway bar section when it is not in use.

By keeping the dining room separated from the kitchen with a partial cupboard wall, he created a one-room spacious effect and at the same time allowed for easy serving.

Construction costs, however, are not the whole story in low-priced housing. By designing built-in units wherever possible he made it easy for the new owners to get along on a minimum of furnishings. The large hallway provides access to both bedrooms, bath and living room. It contains a built-in linen closet and above that a plenum installation from which registers open into each room for the cooling system. This makes for efficient cooling and saves the expense of ducts.

The cooling system consists of a louvred metal cupola on the roof with fiber pads on four sides. The hot, dry Arizona air is pulled through the moistened pads by a fan. This cools the air and circulates it to the various rooms.

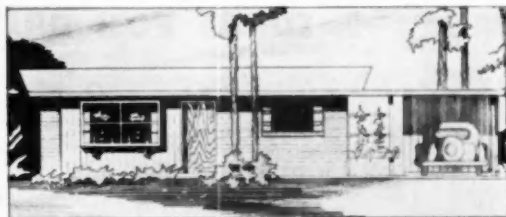
The foundation and exterior of the house are also planned for economy. By using the monolithic pour method of uniting floor slab, stems and footings, strengthened with reinforcing steel, the specifications save the considerably greater expense of the usual three-operation concrete pouring method. A terrace is provided just outside the living room



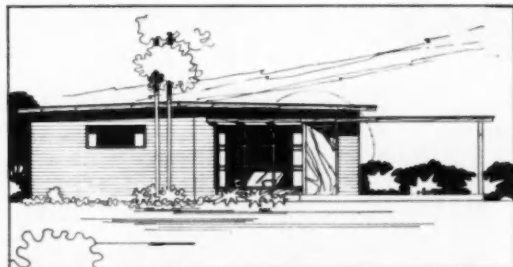
Cost Estimate on the Lux-Econ House  
Erected in Phoenix, Arizona, on Owner's Lot

Items	Cost
Building Permit	\$ 5.00
Water Connection and Meter	55.00
Concrete Foundations, Floors, etc.	605.70
Masonry—Pumice Blocks	470.00
Lumber Material, Rough	628.54
Finish Lumber, Millwork and Doors	455.00
Steel Sash—Aluminum	120.00
Metal Cabinets—Medicine	12.50
Roof—3 Ply Built Up and Gravel	200.00
Lath and Plaster	396.00
Electric Wiring	135.00
Electric Fixtures	35.00
Cooling Complete	95.00
Plumbing and Heating (heating—Panel Ray-Wall)	680.00
Painting and Decorative	325.00
Floor Sanding	44.00
Ceramic Tile—4'-0" High Around Tub	75.00
Hardware, Rough	25.00
Hardware, Finish	50.00
Floor Covering and Linoleum Drainboard	75.24
Insulation	48.00
Carpentry Labor	550.00
Common Labor	50.00
Cesspool—1—500 gal. septic tank and 1 cesspool	77.50
Glass, Glazing, Mirrors, etc.	45.00
Grading and Filling	45.00
Insurance and Bond	70.00
Social Security	90.00
Sales Tax	28.00
Overhead and Profit	459.50
<b>Total</b>	<b>\$5,950.00</b>

**STANDARD PRICE**  
on this 2-bedroom  
house with carport  
and outside storage  
room in the Phoenix  
area is \$5,950 on  
the owner's lot

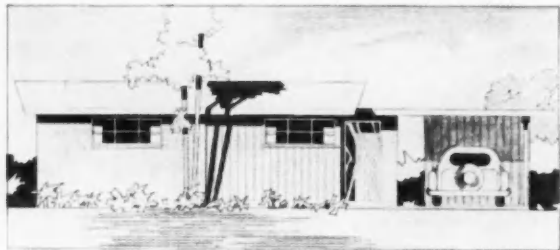


**REVOLVING PLAN** on this small house gives the builder a choice of three sides for front elevation variation

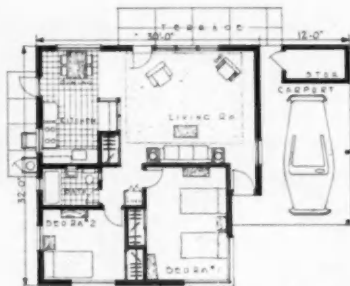


TO ACHIEVE ROOF LINES shown in this elevation, an 18-foot 2x14 is ripped diagonally to get two pieces, each 4 inches at one end and 10 inches wide at the other. Placed with the 10-inch widths at the ridge, the members serve both as rafters to give pitch and joists to give a flat ceiling on the inside



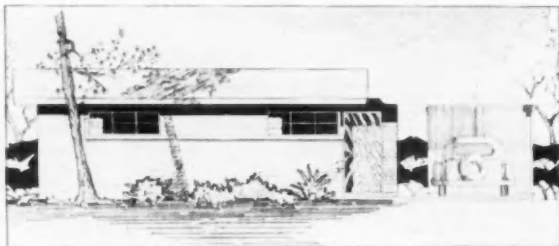


**DESIGNING BUILT-IN UNITS** wherever possible makes it easy for purchasers of this house to get along with a minimum of furnishings—another factor which makes the unit particularly attractive to low-income families



picture window and a concrete platform is at the rear accessible from the kitchen. The laundry tubs, water heater and plumbing for a washing machine are on this platform. A strong decorative lattice-work enclosure across the platform can be used later as a wall support in case a utility room is planned in the future.

The house can be constructed with a pitched roof or a flat roof. By taking a stock piece of 2 x 14-inch lumber 18 feet long and cutting it diagonally lengthwise, Fazio provides the two pieces of lumber which serve as both rafters and ceiling joists. The diagonal cut makes it possible to eliminate ceiling joists, and still



maintain the proper roof pitch.

Exterior wall finishes are specified in combinations that give variety to

even this low-priced house. Pumice-block masonry and redwood are used in clever decorative balance.

## IDEAS FOR GARAGE DESIGN

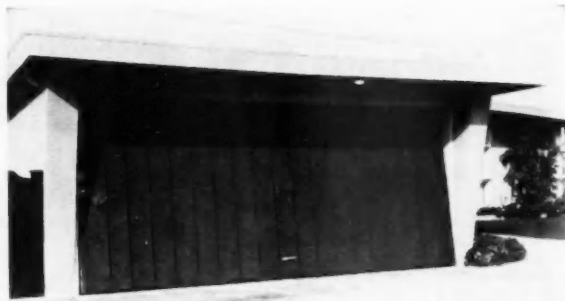


### Inexpensive way to match doors—

Tied solidly to the house with an unusual roof extension, this garage has a door which matches the entrance door to the house. Against a red base color, the white frame and pair of X's on the garage door are made of 1 x 3 strips.

### This overhang is a rain shield—

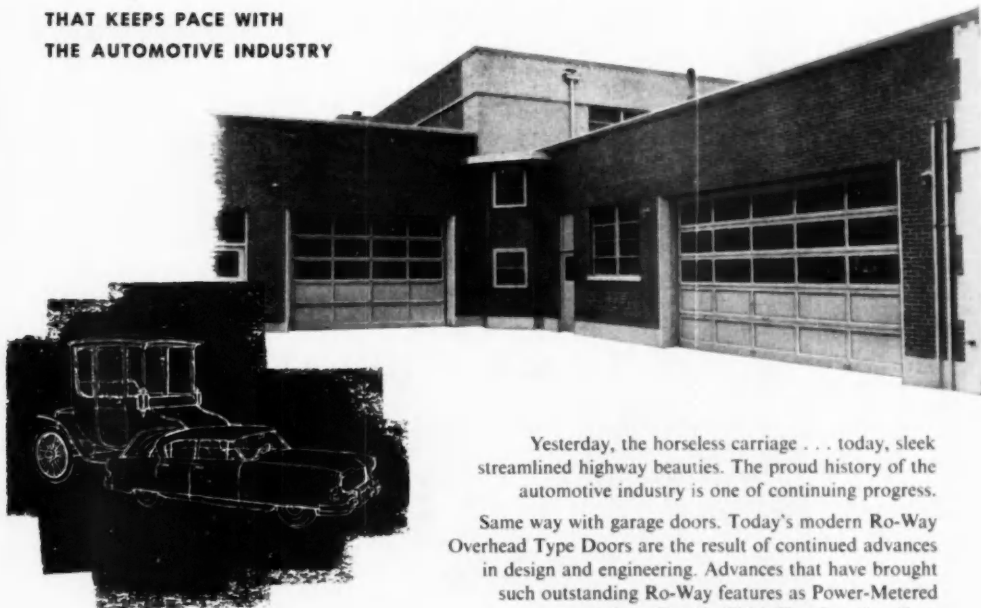
It also has decorative merit in that it provides an interesting frame for the wide garage door. Width of front roof overhang is about four feet. Fasia of overhang is 2 x 10 slanting inward from the top. Stucco flange walls slant outward 18 inches from the base. Beam across top of door is 4 x 16, and bears on vertical 2 x 6's which form door jambs. Door is 1 x 12 boards with battens.



# LOOK <sup>to</sup> RO-WAY...

for garage door engineering

THAT KEEPS PACE WITH  
THE AUTOMOTIVE INDUSTRY



Yesterday, the horseless carriage . . . today, sleek streamlined highway beauties. The proud history of the automotive industry is one of continuing progress.

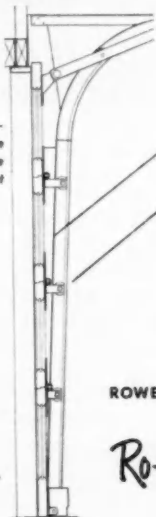
Same way with garage doors. Today's modern Ro-Way Overhead Type Doors are the result of continued advances in design and engineering. Advances that have brought such outstanding Ro-Way features as Power-Metered springs, Double-Thick Tread track rollers, Friction-Reducing track.

Now Ro-Way engineering brings two new pace-setting features—

- 1 **TAPER-TITE CLOSURE**—Vertical tracks taper away from the side and head jams at a pitch of  $\frac{1}{4}$ " per door section.
- 2 **SEAL-A-MATIC HINGES**—of graduated height, guide the closing door tightly against jams; these same hinges immediately free the opening door from jams to provide easy, frictionless operation.

Such developments are typical of the advanced engineering you will always find in Ro-Way Overhead Type Doors. Good reasons why it's good business to specify Ro-Way for all commercial, industrial and residential installations.

Sales and installation service in principal cities. See your classified telephone directory for nearest Ro-Way distributor.

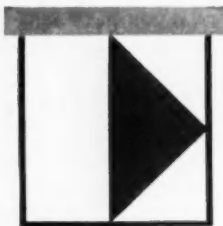


ROWE MANUFACTURING CO., 708 Holton St., Galesburg, Ill.

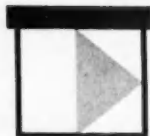
there's a...

Ro-Way for every Doorway!





*as fundamental as  
counter tops...*



*A good house  
is always better  
when it includes  
raceways for  
concealed  
telephone wiring.*

Without working surfaces, a kitchen fails in one of its chief functions. And without telephone raceways, walls, too, are functionally incomplete. Raceways conceal telephone wires, a fact which impresses prospects and makes homes more salable. Owners consider built-in telephone facilities well worth the cost of a few lengths of pipe and a few hours labor.

Your Bell Telephone Company will be glad to help you work out economical telephone conduit installations. Just call your nearest Business Office.

**BELL TELEPHONE SYSTEM**

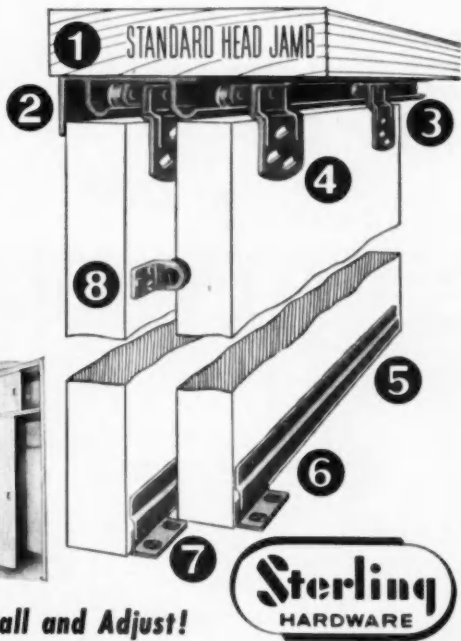
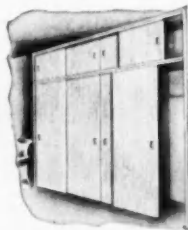




# Here's Why

**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.
- 7 NO TRACK ON THE FLOOR** to catch dust and dirt ... floor is clear and clean at all times.
- 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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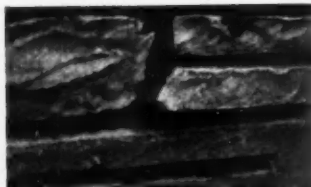
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*"We never expect  
to change from  
ATLAS MORTAR"*

says **JOSEPH BLAZES**, mason contractor who first tried easy-troweling Atlas Mortar when it was specified for the Prince of Peace Church at Dallas, Pa. "After the first batch," writes Mr. Blazes, "we have been using Atlas 100 per cent . . . at present have used over 1,500 barrels."



**SMOOTH AND "HIGHLY PLASTIC,"** says Mr. Blazes. Masons like the way fat Atlas Mortar responds to the trowel.



**STRONG BOND.** With Atlas Mortar this house of worship is built to endure. Note the true, tight joints.



**A JOB TO BE PROUD OF.** The uniformly good color and appearance of Atlas Mortar do much to enhance the beauty of the church.

**ATLAS MORTAR** has proved itself on both large and small jobs, and in laboratory tests as well. It complies with ASTM and Federal Specifications for masonry cement. If you would like more information about Atlas Mortar, write Universal Atlas Cement Company (United States Steel Corporation Subsidiary), 100 Park Avenue, New York 17, N. Y.

OFFICES: Albany • Birmingham • Boston • Chicago • Dayton • Kansas City  
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AD M-35R

SKILLED HANDS PREFER

# ATLAS MORTAR CEMENT

THE SATIN OF MASONRY CEMENTS

"THE THEATRE GUILD ON THE AIR"—Sponsored by U. S. Steel Subsidiaries—Sunday Evenings—September to June

**Builders from coast to coast agree that—**

# TWINDOW<sup>®</sup> *has the edge!*

**Its stainless steel frame makes handling easier and safer... saves installation time on the job.**

BUILDERS everywhere have found that Twindow—Pittsburgh's window with built-in insulation—is the ideal unit for new homes as well as in their remodeling work. That's because of its high quality and the many advantages it offers the homeowner. Its exclusive stainless steel frame, while protecting the seal and glass edges, also makes handling safer and easier and saves installation time on the job. For Twindow is installed like a single pane of glass. And there are 47 standard sizes available to fit the standard wood, steel and aluminum sash made by leading sash manufacturers.

When you put in Twindow you give homes all the benefits of large glass areas, without sacrificing heating and air-conditioning efficiency. Twindow's insulating properties actually effect savings in these services. For Twindow gives about twice the insulating value of ordinary, single-glazed windows, minimizing drafts near windows, and under normal



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cooler than the outside temperatures.

You'll find it to your profit to choose Twindow for all your jobs. The coupon below will bring you our free, descriptive literature and installation details. Why not send for this information at once?

**TWINDOW<sup>®</sup>**  
*the window with built-in insulation*

Pittsburgh Plate Glass Company  
2123-2 Grant Building, Pittsburgh 19, Pa.  
Without obligation on my part, please send me descriptive literature and installation details on TWINDOW.

Name.....

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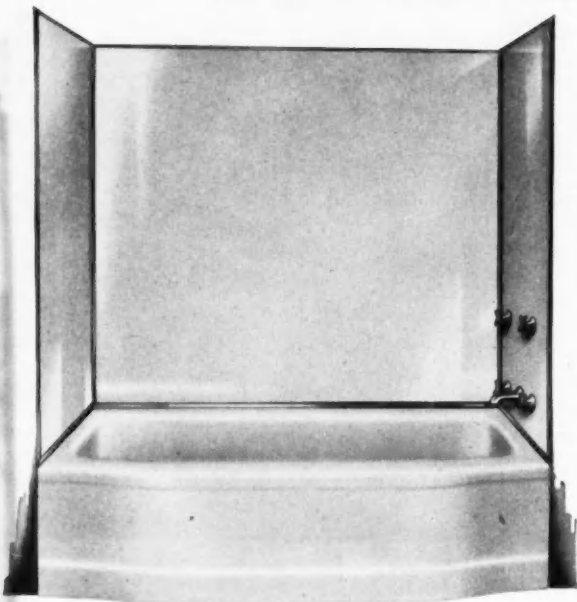


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**PITTSBURGH PLATE GLASS COMPANY**

# Announcing

## ARMSTRONG'S TUB ALCOVE UNIT ... IN M-67 MONOWALL



Now Armstrong announces a new, easy-to-sell bathtub alcove remodeling unit, specially tailored to the big home remodeling market. In a single package, there are three pre-cut pieces of Armstrong's M-67 Monowall®, along with metal channels and waterproofing channel filler to finish completely the alcove around a five-foot tub. This unit, which retails for about \$30 is just what your customers need to modernize an old-fashioned bathroom. You'll find it easy to promote, easy to sell.

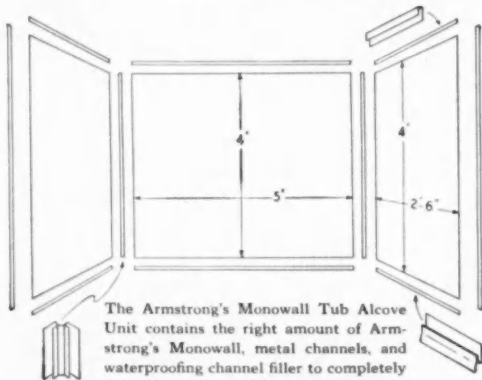
### Easy to install

The three large panels in the new unit are made to fit the standard size tub recess. Little or no cutting and extra fitting is necessary. Installation is completed easily with ordinary hand tools. Metal channels are pre-cut to length, and corners are mitered at the factory.

### Choice of colors

The new package unit is made in a choice of four of Monowall's attractive decorator colors: Porcelain White, Wedgwood Blue, Primrose Yellow, and Cascade Green. Monowall's exclusive M-67 plastic finish makes all these Monowall colors clear and lustrous—eliminates the danger of cracking, chipping, or peeling due to steam and splashing water.

Don't miss out on this new business builder. It's another fast-selling Armstrong item you'll find easy to merchandise. For full information contact your Armstrong lumber dealer today or write directly to the Armstrong Cork Company, 1607 Lincoln Street, Lancaster, Pennsylvania.

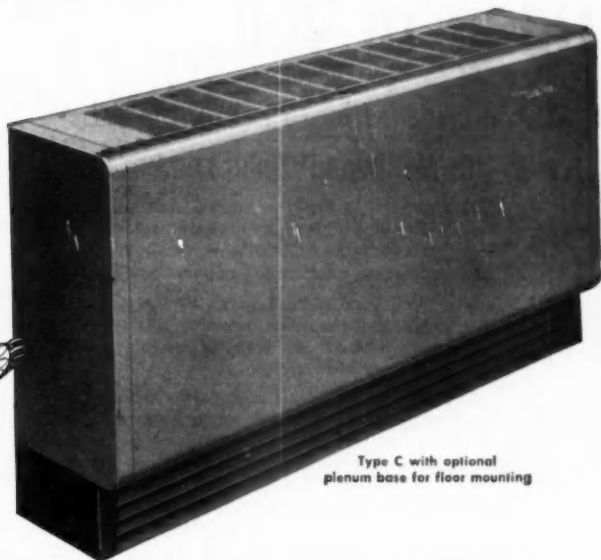
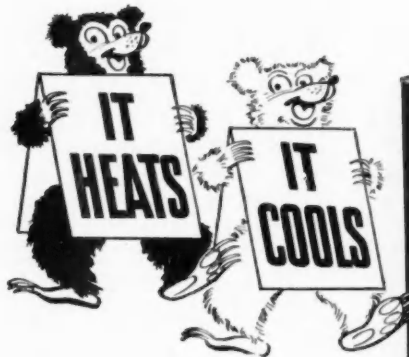


The Armstrong's Monowall Tub Alcove Unit contains the right amount of Armstrong's Monowall, metal channels, and waterproofing channel filler to completely finish the walls of a 5-foot bathtub alcove.

**ARMSTRONG'S M-67 MONOWALL**

AMERICAN BUILDER

Don't let old-fashioned radiators stymie modernization plans



IDEAL FOR STORES, SHOWROOMS, SCHOOLS, BANKS, HOTELS, HOSPITALS, THEATERS, CHURCHES, OFFICES, VESTIBULES AND OTHER COMMERCIAL AND PUBLIC BUILDING AREAS

Type C with optional plenum base for floor mounting

## Modine Cabinet Units simplify remodeling... save space... permit addition of cooling

WHAT YOU GAIN when you replace old-fashioned radiators with Modine Cabinet Units	
SPACE	Cabinet Units occupy only a portion of space taken by radiators.
CONCEALMENT	Cabinet Units can be built-in or installed outside of rooms served.
COOLING	You can have both heating and cooling in a single unit.
VENTILATION	Attachment of optional plenum-damper base permits fresh air introduction.
AIR CIRCULATION	Quiet blower fans provide positive air distribution.
APPEARANCE	Attractively styled cabinets blend with modern decor.

THERE'S no need to accommodate unsightly, existing radiators in modernization work. One attractive Modine Cabinet Unit can replace up to three or more radiators... frequently with no change in piping.

Mounted on the floor, wall or ceiling, Cabinet Units take little space. When installed with ducts they can be completely concealed above a false ceiling or behind a partition.

Where desired, chilled cooling and hot water heating can be provided with a single unit for year 'round comfort. Other models for steam or hot water heating only. Fresh air introduction is possible through use of an optional plenum base.

Not as elaborate or expensive as unit ventilators or air conditioners, Modine Cabinet Units are economical to use. What's more, the scrap value of the radiators they replace defrays part of their cost. (For example, a 280 lb. Modine Cabinet Unit replaces 3200 lbs. of cast iron radiation.) Available in five sizes from 120 to 640 Edr.

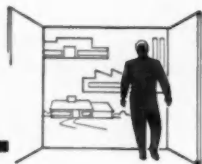
For complete information write for free illustrated Bulletin 550. Modine Manufacturing Company, 1501 De Koven Ave., Racine, Wis. C-1149



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**Modine**  
CABINET UNITS  
FOR HEATING & COOLING

# Open to you...



*more and more profitable jobs*  
...with the **Weldwood® Solid Lumber Core Door!**

You'll find many a new job ready and waiting for **Weldwood Solid Lumber Staved Core Doors**... new jobs in residential, commercial and institutional applications.

The **Weldwood Solid Lumber Staved Core Door** offers *solid value* throughout. It's a quality product that combines beauty, convenience and ease of working...with durable, trouble-free performance.

The **Weldwood Solid Lumber Staved Core Door** has all the appeal of beautiful flush veneer faces with the practical advantages of a solid, dimensionally stable wood core. All core pieces, cross bandings and faces are thoroughly kiln-dried and laminated with waterproof glues to form a strong, solid structure highly resistant to warping and swelling. It is unusually suitable for both interior and exterior use.

You can hang the door from either side...and it's specially adaptable to custom-cut lights and louvers.

Hardware goes on quickly, easily and permanently.

The facings are of richly figured hardwood veneers in all popular species.

The doors are made in a wide variety of standard sizes and thicknesses: 1 $\frac{3}{4}$ " and 1 $\frac{3}{8}$ " from stock...also available in 2".

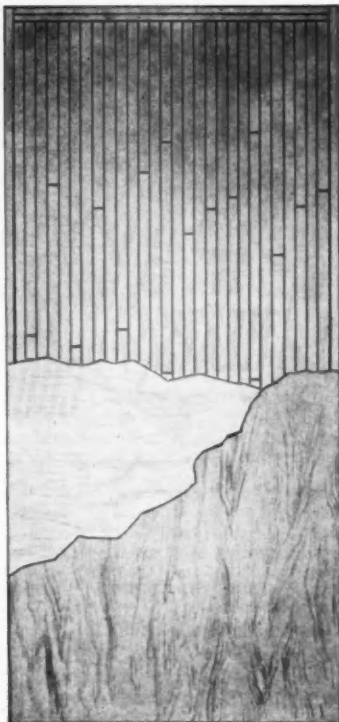
**Weldwood Solid Lumber Staved Core Doors** are available in two grades: regular, with a solid softwood core... and Architectural Grade, with basswood core.

Get complete information on this member of the **Weldwood** door line at your lumber dealer or nearest **Weldwood** branch or distributing unit.

While there, also ask to see **Mengel Doors**, both solid and hollow...and **Weldwood Fire Doors**.

**The Mengel Hollow Grid Core Door** gives you a low-price, high-quality flush door to meet the demand for a serviceable, durable interior door that provides beauty at budget prices.

**The Weldwood Fire Door** is the *only* wood-faced, mineral core door that carries the Underwriters' label for Class "B" openings. It's the *only* such door on the market that combines striking beauty of fine decorative hardwood veneers with *absolute* fire protection.



## WELDWOOD Partition Panels

...made with  
an incombustible  
mineral core

Use these beautiful wood-faced partition panels in offices, hospitals, schools and other institutions... even in homes. They're the most versatile partition panels ever developed... readily adapted to the low-railing, 7-foot and full ceiling height types of partitions.

Weldwood Partition Panels are obtainable with flush, architecturally clean faces of beautiful ash, avodire, birch, elm, gum, Korina, mahogany, oak, prima vera and walnut. Available in all sizes up to and including 4'x8' or 8'x4'. Stock thickness: 1 $\frac{3}{4}$ ".

United States Plywood Corporation carries the most complete line of flush doors on the market including the famous **Weldwood Fire Doors**, **Weldwood Stay-Stroke Doors**, **Weldwood Staved Lumber Core Flush Doors**, **Mengel Hollowcore Doors**, **Mengel and Algoma Lumber Core Doors**, 1 $\frac{3}{8}$ " and 1 $\frac{3}{4}$ " with a variety of both foreign and domestic face veneers.

## WELDWOOD® FLUSH DOORS

Manufactured and distributed by

**UNITED STATES PLYWOOD CORPORATION**

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## Thinking About Air Conditioning for Your Houses?

# CONSIDER THE BUILT-IN FAN

**Y**EAR-ROUND air conditioning systems have yet to become standard in speculative home building. But the problem of proper ventilation for tightly-built modern houses—as well as buyer interest in it—grows constantly more pressing and universal.

Advances in the use of insulating materials have heightened the ventilation problem. New houses built in the north as well as in the south suffer from reduced "normal" air change and circulation because of thoroughly insulated walls and windows. This is a factor which seriously affects the comfort of the building, in winter as well as in summer. Another factor is the increasing American preference for shower-bathing. To stratified air caught within a winter-bound house is added a high accumulation of moisture content which is as hard on bodily comfort as on the interior finish of the house.

Everyone knows, of course, how a house traps solar heat. Even though the night temperature may be refreshing after a scorching day, the bedrooms of the house will be stifling until midnight or later. A house is always cooling off or heating up by radiation, in response to outside temperature. But there is always a time-lag between inside temperature level and outside temperature. Add modern insulation to the picture and this time-lag becomes about four hours. If the sun is blazing all afternoon, 2 p.m. outside heat will finally have penetrated the insulated attic or

roof space by about 6 p.m. Thus the house becomes hottest from 6-10 p.m., a time of day when the house is most used for family activity. It will be coolest between 1 a.m. and sun-up, when supposedly everybody is dead to the world in fitful slumber. So the fact has gradually become obvious that it is as important to cool off the insulation in a modern house, as to cool the rooms themselves.

In winter, the comfort of an insulated house is generally at the mercy of the effects of overheating; the accumulation through the house of cooking odors (this can happen even with a kitchen ventilating fan); tobacco smoke at party times; mould and must from high inside humidities caused by shower-bathing, laundering and the like.

### Proper Ventilation the Answer

Proper ventilation is naturally the answer to these problems of inside atmosphere. An adequate system of ventilation cools the house in summer by increasing the rate of evaporation of moisture upon the skin, producing immediate personal comfort; by carrying away accumulated daytime heat stored in walls, roof, furniture, etc., and by drawing fresh outside air into the building mass. In winter, such a system quickly re-establishes proper temperature after a sudden warm-up of the heating plant; rapidly removes smoke and odors, drawing in fresh outside air; dries out high inside humidities, thus

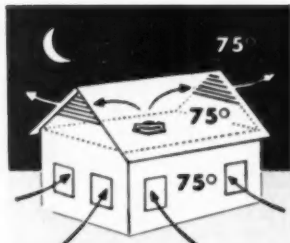
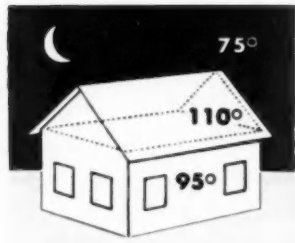
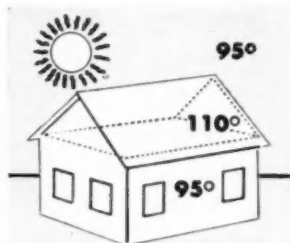
eliminating mould; freshens the entire building and improves the functioning of the heating plant by breaking up the stratified layers of stale air—a process which is especially salutary just after the house has been cleaned.

Since nobody is going to forego the advantages of modern insulation, and since few house buyers can yet afford year-round air conditioning plants, the big question is: "Is there such a thing as an adequate ventilating system for average home use?"

The answer is, "Yes, there is." Builders in whatever geographical area would do well to study the possibilities of the built-in fan as a practical and effective system for giving proper ventilation in new houses.

Whether or not the builder actually supplies the fan unit itself as part of the purchase price of the house, he can provide for its installation in the construction of the house. The price of such a fan may run from \$250 to \$400, depending on the size of the house, plus installation cost; but if installation requirements as to opening for the fan shutter and exhaust louvres, have already been met by the builder in his construction of the house, the cost to the buyer of adding fan ventilation should be little more than the cost of the fan unit itself.

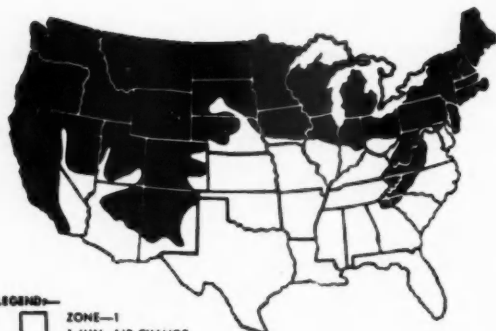
Such a practice gives the builder a potent sales point—a roughed-in summer-winter ventilating system which is practical and within the reach of the average buyer.



## The Tools You Need

To work with this idea requires familiarity with the principle of fan selection, location, and installation. But fortunately these principles are not overly complicated. Look around for the fan product which you think is best for your market, then get the manufacturer to guide you in calculating fan installation requirements for any given house plan. Certain basic calculating tools are used, and will include—

- (1) A WEATHER MAP of the U.S. marked for zones which will determine the rate of air change;
- (2) TABLES which determine the proper fan model, size of grille or louvers, and size of exhaust area.



LEGEND—  
 □ ZONE—1  
 1-MIN. AIR CHANGE  
 ■ ZONE—2  
 1½-MIN. AIR CHANGE

### EXAMPLES:

**ZONE 1**  

$$\frac{\text{Volume of Home}}{1 \text{ Min. Air Change}} = \frac{12,000}{1} = 12,000 \text{ CFM} = \text{Fan Capacity}$$

**ZONE 2**  

$$\frac{\text{Volume of Home}}{1.5 \text{ Min. Air Change}} = \frac{12,000}{1.5} = 8,000 \text{ CFM} = \text{Fan Capacity}$$

## The Tools at Work

To give a taste of these tools at work, and of the line of thinking that will become second-nature to the builder who goes in for fan ventilation, here is a series of actual cases. Popular house types have been selected as they are being built here and there over the country. Each one is analyzed for a built-in fan installation which will function as a ventilating system for the entire house. The tables and map used are those shown on this page, from the Hunter Fan and Ventilating Company, a fan manufacturer, with headquarters in Memphis, Tenn.

FAN SELECTION TABLE

Fan Cat. No.	Fan Cap. C.F.M.	Zone No. 1 Total Volume Cubic Feet	Zone No. 2 Total Volume Cubic Feet
*4,700-BV	4,750	4,000 to 5,250	5,200 to 8,000
*6,800-BV	6,800	5,400 to 7,000	8,700 to 10,800
*7,600-GV	7,700	7,100 to 8,300	10,900 to 12,600
*95-GV	9,500	8,500 to 11,000	12,700 to 15,500
50-AXB	5,100	4,500 to 6,000	5,500 to 8,200
75-BXB	7,500	6,500 to 8,250	9,700 to 12,000
10-DXB	11,400	10,750 to 12,000	15,000 to 18,200
14-FXB	16,000	13,000 to 16,750	21,000 to 25,500
18-HXB	20,000	17,000 to 20,500	27,500 to 32,000
18-HXB-3	22,500	21,000 to 23,000	32,500 to 37,000

\*Package Attic Fans

CEILING GRILLE AND AUTOMATIC SHUTTER SELECTION TABLE

Fan Cat. No.	Fan Cap. C.F.M.	Grill Area Sq. Ft.	Fin. Ctg. Opening For Wood or Metal Grille		Fin. Ctg. Opening Automatic Shutter		Req'd. Exhaust Area Square Feet		
			Width	Length	Width	Length	Wood Louvers	Metal Louvers	½" Mesh Screen
*4,700-BV	4,750		30½	34½	30½	34½	11.0	8.5	7.0
*6,800-BV	6,800		33¾	38½	33¾	38½	16.0	12.2	10.0
*7,600-GV	7,700	Ceiling Opening For Manual Shutter only →	27¼	40½	38¾	40¾	18.0	14.0	11.0
*95-GV	9,500				38¾	40¾	22.0	17.0	14.0
50-AXB	5,100	7.5	27¼	40½	30½	34½	12.0	9.0	8.0
75-BXB	7,500	11.0	34½	48½	33¾	38½	18.0	14.0	11.0
10-DXB	11,400	17.0	39¼	64½	38¾	49½	27.0	21.0	17.0
14-FXB	16,000	24.0	49¼	72½	49¼	52½	37.0	29.0	24.0
18-HXB	20,000	30.0	46½	96½	60¼	60¼	48.0	37.0	30.0
18-HXB-3	22,500	34.0	46½	104½	60¼	67½	54.0	42.0	34.0

\*Package Attic Fans

Draw a line straight across, under the fan which gives the required C.F.M. (cubic feet per minute), and the other data follow automatically



## 2-Story Conventional in Iowa

Volume of the house: 10,659 cubic feet.

Its location in Zone 1 requires a 1-minute air change:  $\frac{10,659}{1} = 10,659$  C.F.M.

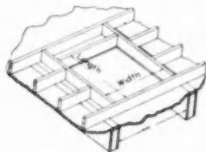
1

The design of the house makes the package-type of attic installation the best. Tables show that in the package fan models, 95-GV, a fan delivering 9,500 C.F.M., is suitable for Zone 1 houses having from 8,500 to 11,000 cubic feet.

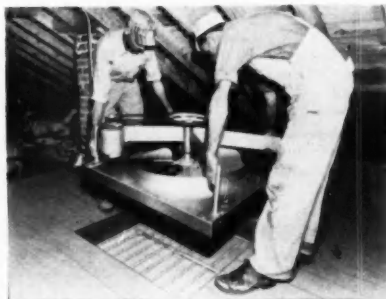
Shutter size must be  $38\frac{3}{8}$  by  $40\frac{7}{8}$  inches.

Exhaust area required in wood louvers is 22 square feet.

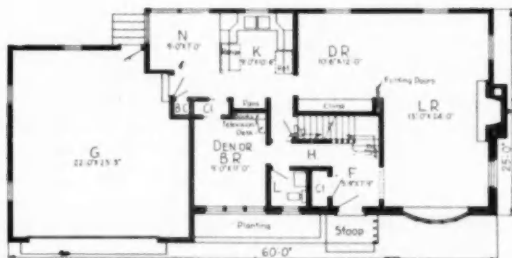
Locate fan in ceiling over upstairs hall.



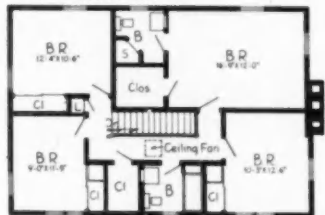
Rough opening is framed as shown in the figure, according to required dimensions as given in the tables. Ceiling trim is included with the shutter in the package



Ceiling view of fan installed in attic space over upstairs hall. Shutter is motor-driven

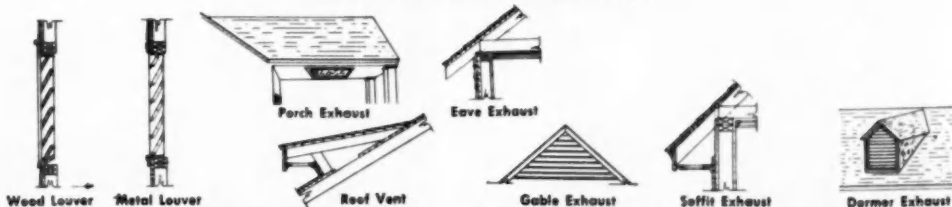


FIRST FLOOR PLAN



SECOND FLOOR PLAN

### Types of Exhaust Openings



Good practice calls for more than one discharge vent—preferably located on sides of the house not facing prevailing winds. Frequently two or more types of exhaust openings are necessary to obtain the required amount of exhaust area

## 1½-Story Conventional in Minnesota



Enclosed basement stairway, with door at bottom closed when fan is in operation, acts as a suction box. Wood louvered grille opening is cut into stair wall, in this case providing the necessary area of 11 sq. ft. Opening is 40 inches square. The fan crate is part of the installation and is set on a cupboard base against the stair wall. Turkey wire covers the exhaust side. Required exhaust area is obtained by opening basement windows when fan is operating

Volume of the house: 10,878 cubic feet.  
Location requires 1.5-minute air change:

$$\frac{10,878}{1.5} = 7200 \text{ C.F.M.}$$

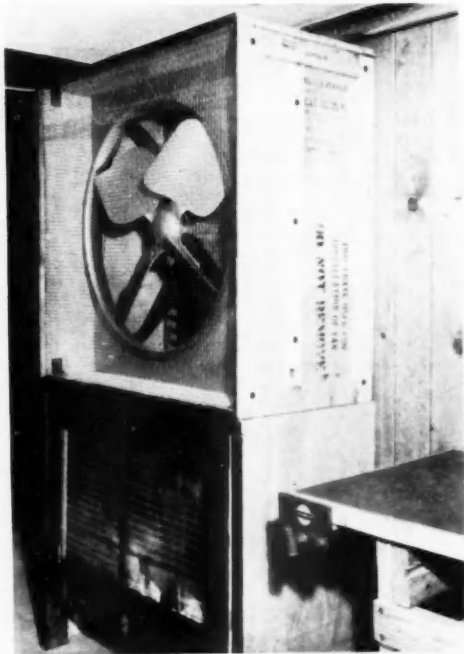
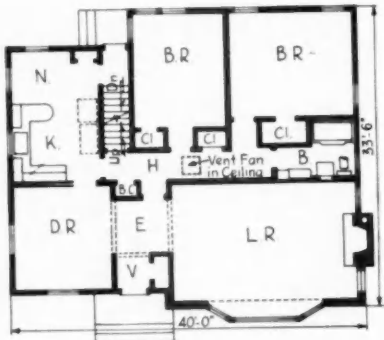
1.5

Design of the house is such that upstairs space is filled in, leaving inadequate room for fan installation. A basement installation is called for.

Table shows that either of two fan types would do the job: 7600-GV, a 30-inch package fan with ¼ h.p. motor delivering 7700 C.F.M.; or No. 75-BXB, a 30-inch fan delivering 7500 C.F.M. The latter would probably be best.

Exhaust area required would be 18 square feet. Open as many basement windows as necessary to meet this need.

Locate the fan against one wall of the enclosed steps to the basement, as shown in the photographs.



## Ranch-Type in Nebraska

Does this long, low design require one fan or two?

If one fan were located above central hall, it would not cool kitchen end and would draw cooking odors through to main part of the house.

Therefore it is best to think of this design in two ventilation zones, each with its own fan built in.

Zone 1 would include living room, breakfast nook, kitchen, and recreation room. Zone 2 would include the three bedrooms, bathrooms, and the sunroom.

Volume of Zone 1: 5170 cubic feet.

Volume of Zone 2: 7175 cubic feet.

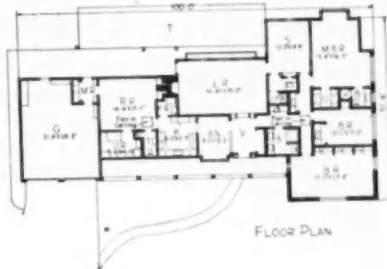
Location of the house in weather Zone 2 requires a 1.5-minute air change:

$$\begin{array}{r} 5710 \\ \hline 1.5 \\ \hline = 3800 \text{ C.F.M.} \\ 7175 \\ \hline 1.5 \\ \hline = 4800 \text{ C.F.M.} \end{array}$$

Thus each zone of the house will require one 24-inch fan with 1/6 h.p. motor delivering 4750 C.F.M.

Each fan will require shutter opening of  $30\frac{1}{2}$  by  $34\frac{1}{2}$  inches.

Exhaust area for each fan must be 11 square feet of wood louvers. But it would not be possible to construct wood louvers in this type of house. A soffit exhaust would be required—an inch-wide slot running around soffits at their outer edges, away from wall of house. How many linear inches would be required? 11 square feet equals 1584 square inches, times two (for two fans) gives 3168 square inches as the required exhaust area. Measurement of the periphery of the house shows that 3360 linear inches are available under eaves for exhaust slot. This is more than ample.



Locate fan for Zone 1 in inside corner of recreation room ceiling, near kitchen door and utility room.

Locate fan for Zone 2 in hall ceiling of bedroom wing. In this position it can pull from living room as well as from bedrooms.

## Large 1-story, U-shaped, in Southern California



Such a design obviously requires two fans. The house divides naturally into two ventilation zones.

Zone 1 includes living room, dining room, and the bedroom wing. Zone 2 includes the kitchen department, maid's room and bath, and service porch.

Volume of Zone 1: 8865 cubic feet.

Volume of Zone 2: 2580 cubic feet.

Location of the house in weather Zone 2 requires a 1.5-minute air change: Thus a total of approximately 12,000 cubic feet (house zones one plus two) requires fans delivering 8000 C.F.M.

$$\begin{array}{r} 12,000 \\ \hline 1.5 \\ \hline = 8000 \text{ C.F.M.} \end{array}$$



Tables show that a combination of fans Nos. 4700 BV and 6800 BV will carry the system. The first is a 24-inch model, the second a 30-inch.

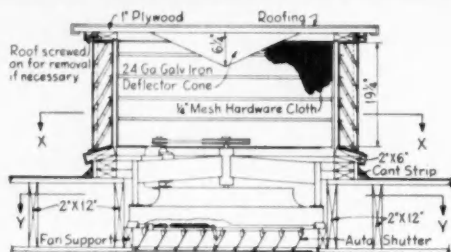
Locate the 24-inch fan as indicated in ceiling of service porch. In this position it will help carry off air from living room.

Locate the 30-inch fan in ceiling of hall in bedroom wing, as indicated.

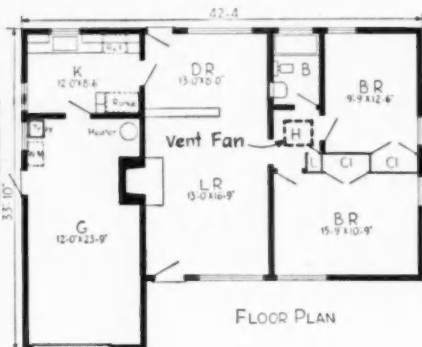
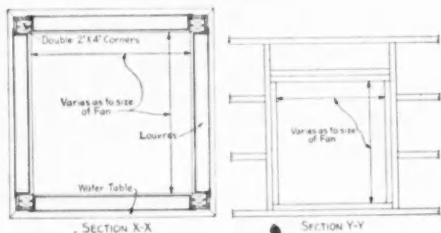
Both of these fans are package models, and will require a total exhaust area of 27 square feet in wood louvers.

Shutter opening for the 24-inch must be  $30\frac{1}{2}$  by  $34\frac{1}{2}$  inches; for the 30-inch, shutter must be  $33\frac{3}{4}$  by  $38\frac{1}{2}$ .

## Small Flat-Top in Northern California



CROSS SECTION



FLOOR PLAN

Volume of the house: 6685 cubic feet.

Location in Zone 2 requires a 1.5-minute air change:

$$\frac{6685}{1.5} = 4400 \text{ C.F.M.}$$

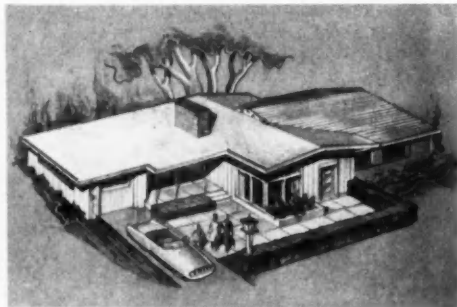
Table shows that fan No. 4700-BV, a 24-inch package fan, with  $\frac{1}{6}$  h.p. motor delivering 4750 C.F.M., will do the job.

The big question in dealing with a flat top is *location of fan*. Sometimes a wall installation may be possible; or crawl space area may be available if house is built on uneven ground. But for the flat top built on a concrete slab foundation, there is rarely any alternative to building a cupola on roof to house fan. Such a cupola can be designed to harmonize with the roof line (see drawings).

For this house, a cupola installation would be required, either in wood or metal. Locate the ceiling grille and shutter in hall, as indicated.

Shutter size required:  $30\frac{1}{2}$  by  $34\frac{1}{2}$  inches.

## A Low-Pitched Roof in Missouri



Volume of the house: 8310 cubic feet.

Its location in Zone 1 requires a 1-minute air change:

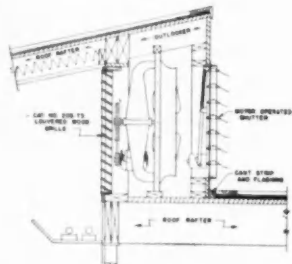
$$\frac{8310}{1} = 8310 \text{ C.F.M.}$$

Table shows fan size required: a 36-inch package fan with  $\frac{1}{2}$  h.p. motor delivering 9500 C.F.M.

Shutters size must be  $33\frac{3}{8}$  by 40 $\frac{1}{2}$  inches.

Exhaust area required is 22 square feet of wood louvers. If this total can't be reached in such a low-pitched roof, vents could be cut into eaves to make up required total.

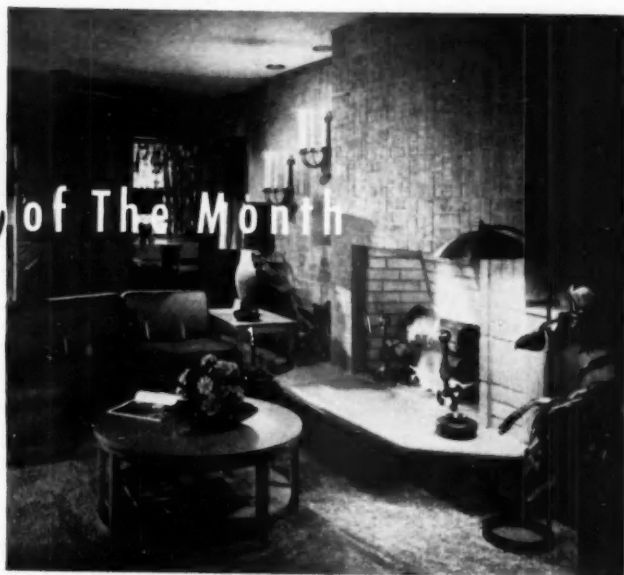
Locate fan in horizontal position in ceiling over the hall, so that it can draw air from all rooms.



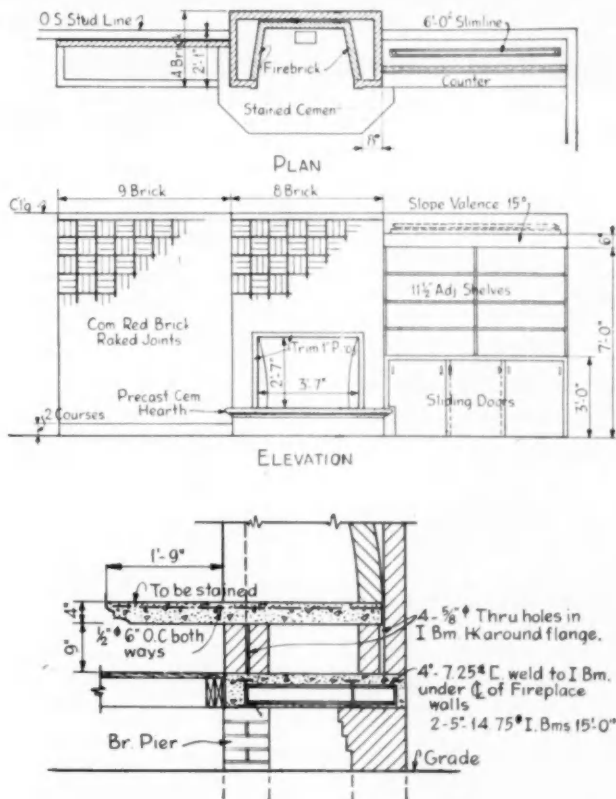
A true shed roof would take the fan mounted vertically on the flat portion of the roof under the wide over-hang. In this position it discharges directly into the outside air.

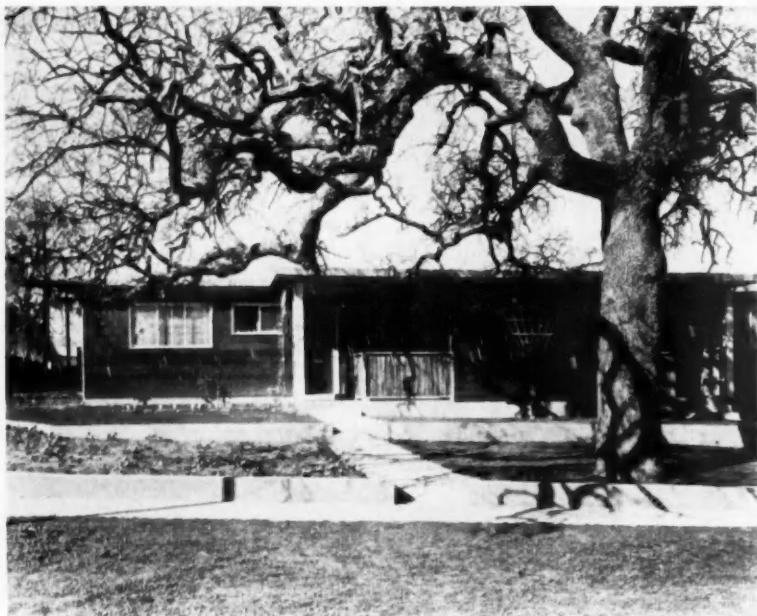
# Idea of The Month

## Make a Feature of the FIREPLACE WALL



This living room for a 6-room house packs an unusual wallop in its handling of the fireplace wall. Fireplace and adjoining wall section to the left are in common brick with wire-cut edges, applied in pattern. Green paint was applied and wiped off before dry. The fireplace has a raised concrete hearth. A low brick planter is part of the brick wall section adjoining the fireplace. Indirect lighting has been used in the ceiling above this planter. The fireplace is flanked on the right by bookshelves combined with a cabinet with sliding doors. The plants seen back of the sofa are not standing in a planter, but have been placed in a mahogany knickknack case cleverly applied to the living-room side of the entry closet. This closet has a wardrobe built into its door. Designer of the house was James F. Patrick, president of the Pomona (Calif.) Chapter of the Building Contractors Association of California. The house was built as part of that association's home show, then dismantled and moved to a permanent site.





**LOCATION**  
Sacramento, Calif.  
**ARCHITECT**  
Albert M. Dreyfuss  
**BUILDER**  
Jere Strizek, Inc.

**EXTERIORS** are varied with stucco, redwood siding, used brick. Most suites have planters at front entrance, which is really the back entrance since these dwellings are designed for rear-garden living. All units are built on concrete slabs with asphalt tile floors. All wiring is underground

## Flat-Top Garden Apartments

### Have Air of Small Homes



**BUILDINGS** are staggered so that not more than two patios adjoin one another. There are lawn areas and plantings on all sides of each building. The cul-de-sac plan makes for privacy and quiet. A few live oaks were on the property but the builder transplanted many shrubs and trees including large palms and olive trees. The whole development is enclosed by a redwood grapestake fence. There are two play areas for children, enclosed in 4-foot redwood fences

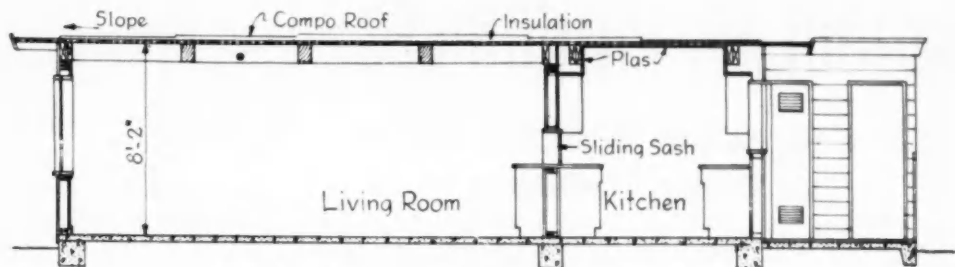
**K**nows as a builder specializing in flat roof houses, Jere Strizek has used the flat-roof type with outstanding success in a 63-unit apartment development off Marconi Avenue in Sacramento, Calif. For a rental of \$90 a month (plus \$5 for carport space), a tenant gets a 2-bedroom

suite which gives him an unusual atmosphere of individuality and privacy. Everything has been done to minimize the mass living quality which afflicts many apartment developments. Rental includes water, ranges and refrigerators and maintenance of lawns.

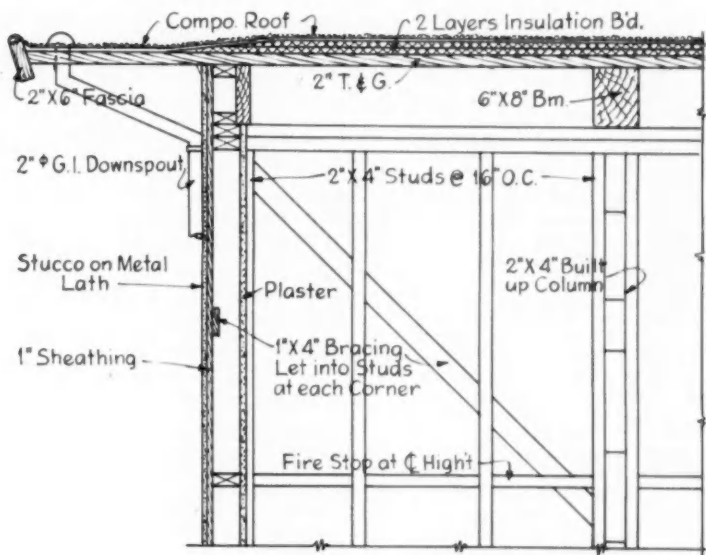


**THERE ARE 12** one-story buildings in the group, some with six suites each, some with four—63 suites in all. Each suite has an area of 950 square feet not including the rear patio. The living-dining room is 15 by 20 feet; the master bedroom, 12 feet 2 inches by 15 feet 2 inches; the second bedroom, 9½ feet by 13 feet. Walls between suites are built with staggered studs and blanket insulation for sound deadening

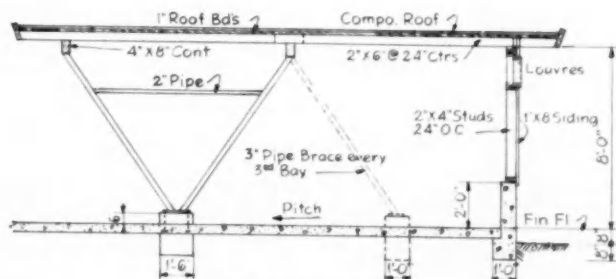
**AMERICAN BUILDER**



SECTION THRU LIVING RM. & KITCHEN

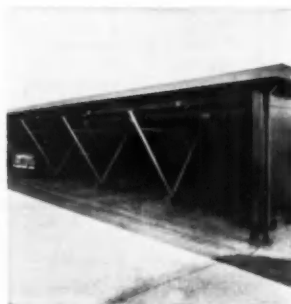


TYPICAL FRAMING DETAILS



SECTION THRU CARPORT

TWO CARPORTS serve residents, while visitor parking is by curb indentations. The carport design is unusual, is reminiscent of the old-fashioned hitching shed. Tenants like this design because it makes car-handling easy. One end of the carport buildings houses a laundry room for the tenants



# MODULAR PRINCIPLES:

## How to Adapt 4-inch Control to Home Building

### Chapter 7 — The First Floor Platform

By Griffith S. Clark\*

**T**REATMENT of all walls as 4-inch walls is nominally correct in the fundamental 4-inch control method. However, each wall is centered in the 4-inch control area so that the covering material on the studs, no matter what type is used, will constantly encroach beyond the 4-inch control point. Mud sills are cut  $3/16$  inch short of the over-all nominal length of the foundation and are placed  $3/16$  inch in from the exterior of the outside modular line, which is the vertical plane of the stud face.

Schedule all material for sequence in cutting and delivery at the job site or for use at the shop. Each piece should be detailed and classified with symbols so that it can be readily identified on the sill and girder plan (see Figures 1, 2, 3).

#### Mud Sills

Mud sills should be placed flat upon the foundation walls and not leveled and grouted until the entire platform has been assembled. Half-lapped mud sills can be aligned faster and easier than mitered, butted or housed sills. They also tie the bottom of the joists together in a more substantial way.

When bearing directly on foundation walls, mud sills are firmer for nailing the joists and are leveled as a unit when the top of the rough floor is applied. If there is any inaccuracy in the over-all dimensions of the foundation walls, it should be divided between both sides of the foundation by moving the sills accordingly.

Bore 1-inch holes for  $5/8$ -inch anchor bolts. It is most difficult to register pre-drilled plates with template-spotted anchors. Time will be saved by having the proper equipment available for site boring.

All intermediate sills are cut in 4-inch increments. Sill members which terminate at the outside end of the building are cut  $3/16$  inch short.

#### Joists and Headers

All headers are also cut in 4-inch increments for intermediate locations and are  $3/8$  inch short when they terminate at the outside end of the structure. Headers are nailed to the top side of the sill with the outside face set  $3/16$  inch from the outside edge of the sill.

The floor joist and header detail

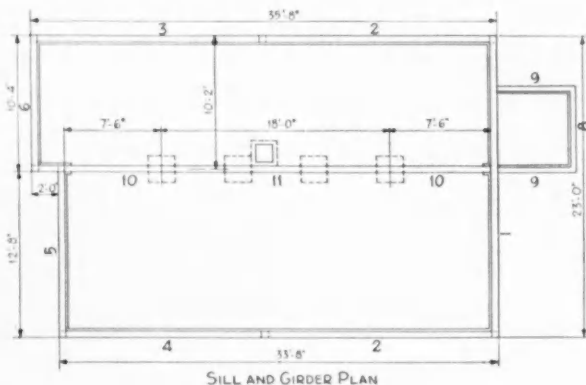
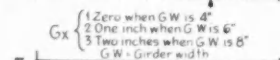
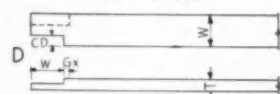
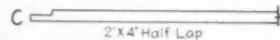
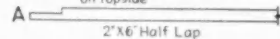


FIG. 1—Sill and girder plan to facilitate pre-cutting

MEMBER	STOCK	DETAIL				LENGTH	HEIGHT	REMARKS
		1	2	3	4			
1	2"x6"	A-T	T	A	A-T	15'-0"	1	
2	2"x6"	A-T	T	A	A-T	18'-0"	2	
3	2"x6"	A-T	T	A	A-T	18'-2"	1	
4	2"x6"	A-T	T	A	A-T	16'-2"	1	
5	2"x4"	A-T	T	A	A-T	15'-0"	1	
6	2"x6"	A-T	T	A	A-T	10'-4"	1	
7	2"x4"	A-T	T	A	A-T	2'-4"	1	
8	2"x4"	A-T	T	A	A-T	6'-4"	1	
9	2"x4"	B	T	A	A-T	5'-0"	2	
10	2"x6"		T	A	A-T	1'-4"	2	Build up
11	2"x6"		T	A	A-T	1'-0"	1	Build up

This is nominal length. Actual is  $3/8$  less.

KEY AND TYPICAL DETAILS  
A—Undercut T—Top B—Bottom A-T—Undercut on topside



plan should start with the zero location at the lefthand front of the house, as faced from the street. Details should show center line locations of all partitions. Since all walls are considered as four inches thick and all rooms are designed with their nominal interior dimension in 4-inch multiples, the center lines of all partitions will fall on 2-inch increments.

Before placing floor joists, review the following:

1. All joists should be placed with their crowns up.
2. First, or starting, joists should be doubled to provide proper nailing for the walls above.
3. Joists should be doubled under all partitions that run parallel to the joists and should be spaced apart a distance equal to the partition plate above by full-depth 2x4 blocks two feet on centers.
4. All headers and trimmers for openings should be doubled.
5. Set all joists with tops flush with sill header. Wedge if short in dimensional length.
6. Lay out 16-inch spacing on sill starting from lefthand side facing home.

\*The author has been associated for the last 18 years with F. Vaux Wilson, Jr., vice president of the Homasote 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.



## STEP BY STEP ANALYSIS OF THE MODULAR PROCESS

This intensive series in *American Builder* marks the first time a major publication has explained exactly what modular control is.

Each chapter is part of a valuable text being brought up-to-date by a pioneer in the modular field. Collectively, these installments will show the progressive builder how to increase efficiency in home construction. Thus, substantial savings in both labor and material costs are made possible. And—anything that will do that in this highly inflationary era surely comes under the heading of "must reading."

After several articles dealing with the general advantages of modular principles, *American Builder* last month inaugurated its specific study with a discussion of masonry below grade and basement floor problems. Working upward to the roof through a typical house, the chapter on these pages explains construction of the first floor platform (sills, joists, headers, subflooring); the recently developed floor wall procedure (which takes the place of sills and starter joists), and pier construction.

Next month, there will be a discussion of first-story walls, including both exterior walls and interior partitions.

Subsequent chapters will touch on the first-story ceiling, second-story walls, the roof, non-rectangular sections and strapped ceilings. These elements must be considered from the conventional approach, including scheduling and precutting as well as off- or on-site fabrication of the component parts.

Still other valuable chapters will be devoted to use of the saw, roof-rafter cutting, estimating, etc.

Throughout the presentation, there will be frequent deviations from normal procedure. There is a reason for each change, but many of these reasons will be omitted for the reasons of brevity. The editors invite inquiries from readers on this fascinating, but complicated subject.

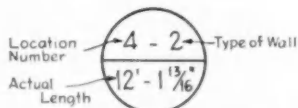


FIG. 2—Example of numbering system

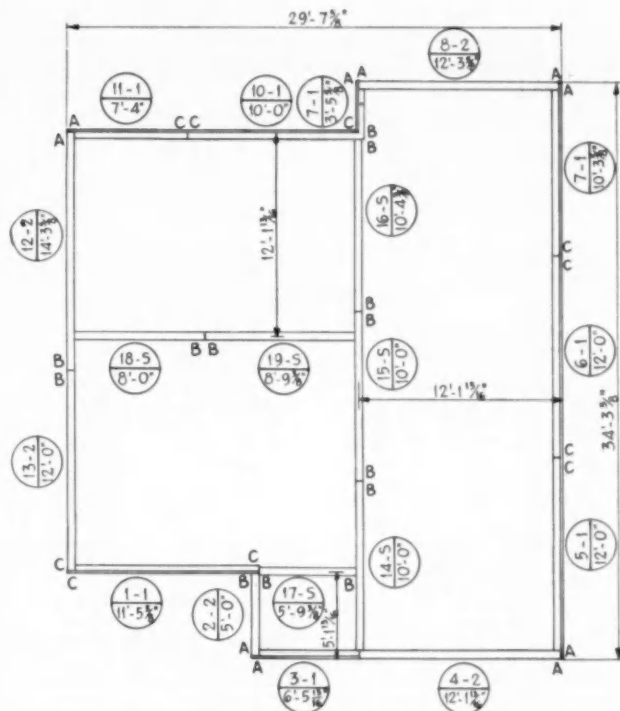


FIG. 3—Typical sill plan with identifying symbols

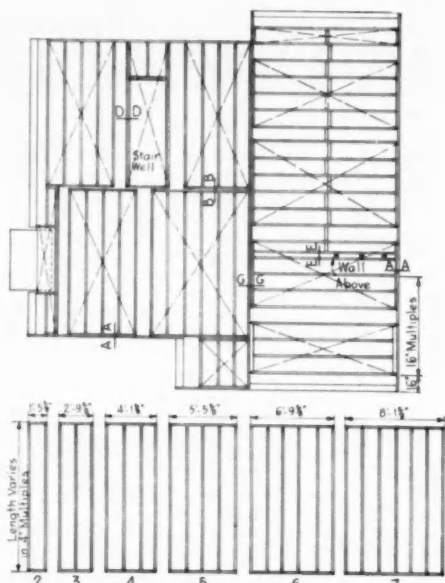
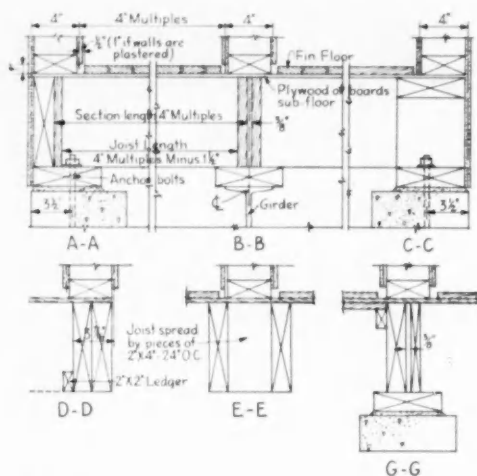
Every joist should be toe-nailed, with at least one nail on each side of the joist at each bearing point. Joists lapped at girders should be nailed together with at least three 16d nails, and joist framing to sill headers should be nailed through the headers with three 20d nails into the end of the joist. When joists from adjacent spans are butted at the girder, they should be spliced with a piece of 1x6, two feet long, set along the lower side of the joists to bear on the girder; nailed to the joists with six 8d nails three to each side of the joint, and toe-nailed to the girder below.

When ready to install floor joists, the starting joists should first be placed all around the foundation walls. This forms a control for squaring the platform. Precut framing may be used to establish dimensions. All common joists are cut in 4-inch multiples as far as possible to simplify chances of error and eliminate waste. The distance between the centers of exterior walls is in 4-inch multiples; therefore, the inside face of the sill headers is on the same vertical plane as the center line of the stud. If the sill headers are 1 3/4 inches thick and studs 3 5/8 inches

wide, the exterior face of the sill header is set back 3/16 inch from the stud face, as explained in the beginning of this article.

After the outside joists and headers have been placed, frame for all openings and place double joists under partitions. In assembling headers and trimmers, nail one of the members of the double header to the ends of all the tail beams that it supports, using three 20d nails for each beam. If the header contains two or more joists, it must be ledged with a 2x2 and the joists must be cut to receive it. The second member of the double header should be nailed to the first member with 16d nails staggered 16 inches apart and driven at a cant along top and bottom edges. Trimmers should be nailed to the end of the header in similar manner.

This assembly is important in that it will support required loads. When required by local codes, the ends of headers should be supported by steel hangers. Check over-all with a steel tape for diagonals and adjust. After the frame has been squared, place and nail all remaining joists. If plywood subflooring is to be used, check the center line of every eight feet of joist to provide backing at joints.



### Subflooring

Subflooring may be 1x6, 1x8 or plywood. If 1x6 boards are used, start the diagonal placement with a 22½ degree angle from in front of the house. A square cut can then be made at joining over joists to save time, eliminate waste and give sufficient bearing for nailing. Use two 8d common nails for intermediate nailing on 1x6's and three 8d nails for 1x8's. If tongue and groove boards are used, omit one board every four feet for expansion, but insert them before applying the finished floor.

If plywood is used for subflooring, line up the longest length of the plywood across the joists and square up the entire length before secure nailing is started. Use galvanized or coated 7d nails. After plywood is applied, it is a good practice to mop it down with a half-and-half mixture of crankcase oil and gasoline, then rub this off with a dry mop or bag. The fire hazard is eliminated in a few minutes and the plywood will then withstand weeks of exposure without damage from the weather.

The outside edge of subflooring should be trimmed in the same plane as the mudsill, which is the stud line.

The platform should now be leveled. After this has been done, shim with slate and grout, then tighten anchor bolts.

This completes the conventional method of first floor framing. Where site conditions allow or proximity of an off-site shop permits, a builder might well consider sectionalizing this operation. Concentration on supervising a few men in the shop could eliminate a large proportion of field labor.

## Floor Wall, Fabricated Floor Framing, Cut Five Building Operations to Two

Floor walls are of two types in design. Type 1 is composed of a header and sill combination which is used as a header at the ends of the joists and performs exactly as it would in con-

ventional work. Type 2 is used in place of the end joists or starting joists. It consists of two 2x6 members with short 2x6 studs; the overall height of the Type 2 wall being

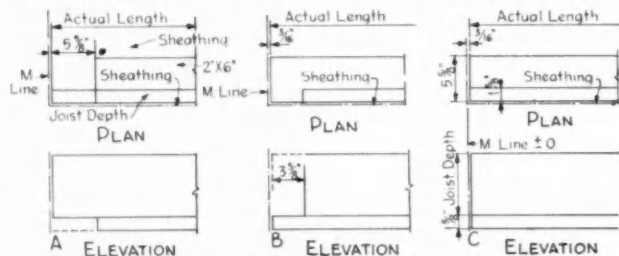


FIG. 5—End conditions in floor wall, type 1

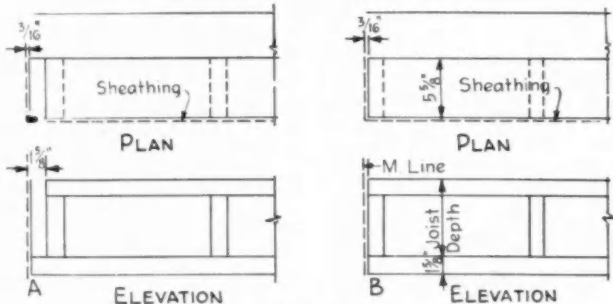


FIG. 6—End conditions in floor wall, type 2

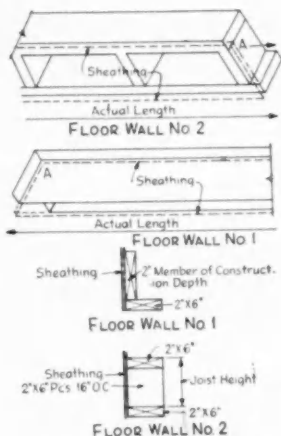


FIG. 7—End view in both types of floor walls

the same as the header placed on the mud sill (see Figures 4, 5, 6, 7 for details).

Use of floor walls simplifies the field operation in many ways. In this instance, the mud sills, headers and doubled starting joists are erected in the same time as conventional mud sills are applied.

Floor joists are cut  $1\frac{1}{2}$  inches short of their nominal dimensions and are assembled in sections of varying widths, from two to seven joists, making the maximum widths of the largest sections 8 feet  $1\frac{3}{4}$  inches. The joists are joined with "oneby" boards of the same width as the depth of the joists. Solid bridging is shop applied. A loose piece of bridging  $14\frac{3}{8}$  inches long is tacked to the side of each section to facilitate field placement when 16 inches on centers spacing is used.

When placing floor framing sections, they should be separated by the usual joist spacing, thus preventing a doubling of the joists with the resultant hard spot.

This floor wall procedure minimizes field erection problems considerably because mud sills, headers, joists, partition support and bridging are erected in two operations.

#### Review

Modular control makes this feasible. When the plan is detailed, establish a tick strip parallel to the foundation at right angles to the joist direction. Start with the zero location on the left end facing the structure. Mark off the 16-inch joist spacing. Outline center lines of partitions running parallel to joists. Group joists into standard sections of from two to seven joists. Insert locations of spread joist sub-assemblies. Number sections in sequence so that odd

numbers start at left side for the front half of the building, with even numbers for the rear half. In shop fabrication, put only one section number on each section. That symbol should be on the "oneby" header facing the front of the building, to prevent reverse placement of the section in the field (see detail in Figure 4).

If plywood subflooring is used, check every 8-foot joist and adjust

so that its center line will coincide with plywood joint for nailing. When the diagonals of the basement and floor wall have been checked and the sections similarly checked, subflooring can be shop applied. Hold back subflooring  $3/16$  inch at each end joint and supply a filler  $15\frac{3}{4}$  inches wide for field application. This will give sufficient tolerance to avoid delay at the site.

## Underpinning Used to Level Precast Concrete Piers

Pier construction presents the troublesome problem of height and the resultant shimming necessary to obtain a level frame. If precast concrete piers are used, they must be set most carefully to cope with this problem, created by the actual depth of the footing excavation and the exact thickness of the footing. This condition can be eliminated by the use of underpinning.

Locate the piers and excavate to the depth required to satisfy the frost line. Fabricate a 1x8 frame four inches wider in each dimension than the pier and pour this amount of concrete in each excavation. If these forms are fabricated with a quarter-inch cant on each side sloping in toward the top, they can be reused. Pour the footing. The precast pier should have a piece of 2x8, the width of the pier, anchored with three 20l common galvanized nails, which are driven in the underside at least two inches on angles and set in the green concrete. Height of the piers will be the depth of the frost line, less the footing thickness and high enough above grade to meet the grade clearance requirements. All piers will be of the same height; all excavations

the same depth. The difference in site elevation is obtained with underpinning (see Figures 8, 9).

Piers are placed when the footings are about to take their initial set and plumbed in alignment to meet the detail of the vertical plane of the building. After a footing has set, use a transit to obtain the variations in elevation. Starting at the highest point, mark on the pier the exact height required, less the thickness of the girder, and make a similar notation on the plan. With a portable saw at the site, cut 4x6 members the desired lengths and toe-nail the 2x8 block on the pier. As these vertical members are erected, tie together with 6x6 girders in the horizontal plane, one girder at front, center bearing and rear of the house. Brace uprights diagonally with 2x4 ties. Proceed with subflooring.

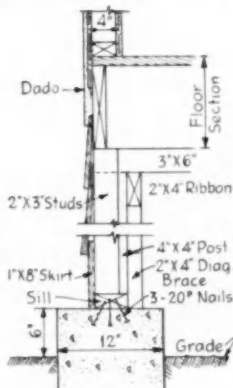


FIG. 8—Detail of underpinning a precast pier in a fabricated floor section

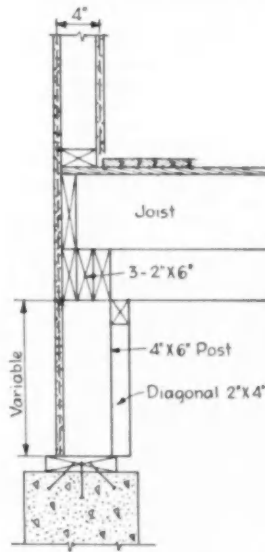
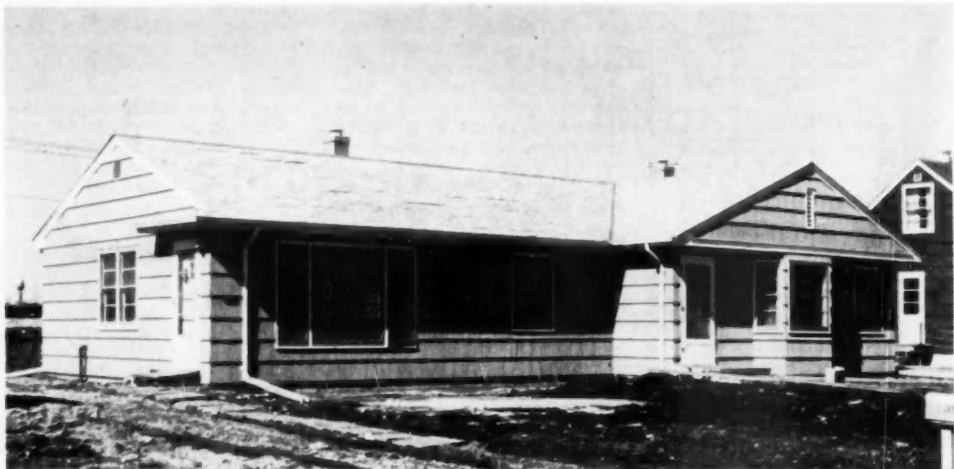


FIG. 9—Precast pier with underpinning in the conventional floor framing method



TWO BEDROOM MODEL of Cinderella house; see floor plan below. Three bedroom units are also available

## A "Cinderella House" Widens the Market for a Low-Cost Subdivision

**Sometimes half a house is better than none**

"Merryview" is a St. Paul (Minn.) subdivision of 135 units most of which are two and three bedroom houses, with basements, selling at \$13,400 and \$14,900, on 50- and 60-foot lots. Builder and developer is the Bisanz Bros. Construction Co. Bisanz has introduced a new idea for a development of this kind. It is a double bungalow type scattered sparingly through the subdivision, selling for almost \$3,000 less than the single-family models. Thus Merryview reaches out appealingly to those families who would like to live there but who couldn't quite make the grade otherwise.

Bisanz calls this new house type the "Cinderella house" and is building it with both two and three bedrooms. Price for each 2-bedroom unit is \$10,870 (with 40-foot lot); \$12,470 for three bedrooms. The price includes a GE automatic washer and dryer, color choice inside and outside, inlaid linoleum in kitchen, bath and on counter tops, automatic hot water heater, double compartment kitchen sink, recessed bath fixtures, choice of blonded or painted woodwork, natural gas heat, all assessments, full city sidewalks.

Cinderella is built on a concrete slab foundation, has asphalt tile floors. Like the rest of Merryview houses, it uses the Insulite system of applying shingle-backer and side-wall shingles over Bildrite sheathing. Bisanz says this system saves on time and material waste and makes for a lower price to the buyer of the house. Prefabricated trusses are used

on the Cinderella model wherever possible.

On 25-year mortgages, at 4 per cent, non-veterans can purchase a 2-bedroom Cinderella house for \$3,170 down, with total monthly payments of \$56.53.

President of the Bisanz company is L. W. Bisanz, president this year of the St. Paul Home Builders.



## Step by step down the sales receiving line

Bisanz Bros. Construction Co. worked out this lively pattern for Open House Day at its new subdivision, Merryview. Anchor for this one-day campaign was provided by two model houses completely furnished by a local department store, and newspaper advertising and publicity. Results: 22 houses sold



**1** FOUR MEN were assigned to handle parking and directing the crowds. On open house day, roads leading to the development were well marked. That evening, floodlights lit up the area



**2** ONCE INSIDE a model home, visitors were greeted by a hostess. She gave each visitor a 12-page pamphlet describing Merryview fully. Financing as well as construction points was covered. Visitors were urged to take their questions to the basement



**3** BASEMENTS of both model houses were set up as headquarters for the sales staff. Here customers could study displays on Merryview building materials and sales data. The conversations that went on here furnished plenty of ammunition for follow-up calls



**4** TAPE RECORDERS took down interviews, thus providing for later analysis of likes and dislikes of Merryview prospects. Bisanz especially likes dislikes. From them a wise builder can develop ideas for improving the design at his houses to meet the tastes of his market



**5** AFTER MOVING IN, a Merryview couple is visited by one of the three Bisanz brothers, who presents the Home Owner's Service Policy of NAHB, and the booklet, "Important Information About the Care of Your New Home"; also a loose-leaf binder of construction data



**MUTE EVIDENCE** of the high water level in Pennsauken Gardens is this view taken after a first-day digging operation from the surface through sandy and clayey soil above the solid clay. Once the bulldozer and scoop had dug down more than two feet, tiny rivulets of water oozed out of the sides and into the pit. Thousands of gallons of water had to be pumped out each morning before work could continue. Trench has already been dug and filled in along the rear lot line of houses in the background

## How to Stop Basement Flooding



**TOUGH GOING.** Despite the force of its drive, 10-inch knives of the clamshell rarely penetrated more than halfway into the mass, brought up less than half a bucketful at a time

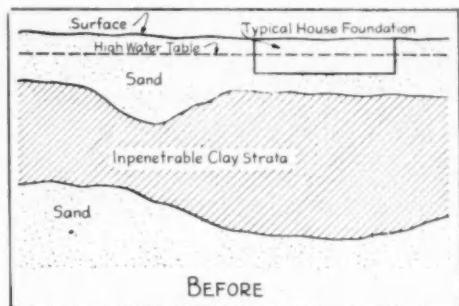
Maybe you have a condition similar to the false water table which Builder William A. Wegmann discovered under his 179-house subdivision in Camden, N. J. What he did about it makes a story of pluck and ingenuity

**W**HEN basements become flooded and all the accepted methods of relief are tried to no avail, something is radically wrong that calls for drastic action.

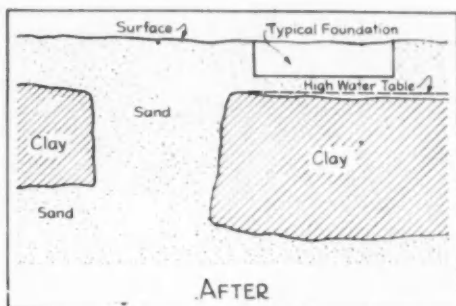
That's the way William A. Wegmann of Camden, N.J., felt last year when faced with this dilemma for the first time in more than 30 years of home building in the area. His unique solution, a further testimonial to the resourcefulness of the home builder, has been termed by some as "the nation's biggest dry well."



**25-FOOT DROP** from this crane was required by a 3,000-pound clamshell in order to make any impression on the clay. The work of digging and filling was all done from one side of trench



**FORMIDABLE BARRIER.** Typical ground condition in Pennsauken Gardens development at Camden, N. J., sketched above, showing how thick clay mass just below foundation footing level created a high, false water table by preventing surface water from reaching ground water level. After a 20- to 25-foot wide



The trouble began when new owners of 20 all-brick, 4½-room houses complained they had a foot or more of water in their basements. Recommendations of engineers from the Veterans' Administration and other sources were followed at considerable expense, but success was fleeting. After a few weeks, there would be the familiar call: "There's a foot of water in my cellar!"

Bill Wegmann was puzzled. The homes comprised the first group of his Pennsauken Gardens development, planned for 179 dwellings. All were on the same side of the street along his tract's northern boundary and on the highest land in the area. Before starting construction, he had made test borings extending three feet below the basement floor level, left the holes open two weeks and found no trace of water.

However, he noted that homes across the street, erected by other builders, were also being plagued by the same trouble for the first time—and then he got an idea.

An area of 60 by 80 feet was marked off in back of the home on the highest ground at one end of the street, and workmen began to dig it out. After going down two feet or so, Wegmann struck water, but after going down another eight feet he struck a thick vein of solid clay. This, he decided, was the villain, for it was so hard and so thick that not a drop of water could get through. Water from rain and other precipitation just collected on top of the clay and stayed there, creating the false impression that the water table was extremely high.

So, while water continued to seep through the sides of the hole near the surface, he dug down 15 feet more until he got through the clay to sand. Then he filled up the hole with sand and, ever since, the neighboring house has had a dry basement.

Engineer friends of Wegmann who had come to the site to tell him, "You're crazy," stayed on to watch in growing amazement as water trickled down the sides of the pit and, finally, after the clay bed was cut through, disappeared through the new sand.

Following several test borings in the area, Wegmann discovered that his entire tract had this clay stratum starting at approximately eight to 12 feet below the surface. He reasoned that if he could find the low point of the clay vein, cut a wide trench through it for the length of his development, and fill the trench with sand, then the imprisoned water from all around, seeking its lowest level, would gradually seep down through the sand trench to the real ground-water level.

He got permission from local authorities to do this, provided he did not open more than 300 feet of the trench at a

trench was cut as deep as necessary to cut through the clay, and was filled with sand (below), the imprisoned surface water, seeking its lowest level, filtered down through the channel of sand. Only water remaining above the clay was that which was lower than entrance of the cut

time. But a new difficulty cropped up. The lowest clay surface was found to be in the rear yards of the homes having the flooded basements. Owners refused to have their ground ripped up, expressing fear their homes might be undermined, so it was decided to start digging along their rear lot lines.

Wegmann hired a subcontractor with a long crane, scoops, clamshell, bulldozers and half-tracks to excavate a trench 864 feet long, approximately 25 feet wide at the surface and 20 feet wide at the bottom. Depth depended on the thickness of the clay, but at one point it extended from 12 to 37 feet below the surface. Average thickness was estimated at about 20 feet, which meant that some 13,000 cubic yards of clay had to be removed.

The actual digging was both a complicated and dangerous operation because all work had to be done from the side away from the houses. Bulldozers were used to remove surface dirt, followed by a front-end loader to break up large, frozen lumps of dirt and to trim the sides of the pit. The dirt was picked up in a scoop attached to a large crane and piled up near the trench.

When clay removal began, the scoop was exchanged for a ton-and-a-half clamshell with 10-inch teeth. Nicholas Mannino, the subcontractor, had to maneuver the crane, which was mounted on caterpillars, close to the edge of the pit in order to reach all the clay. There was constant danger that the ground might give way under the crane, because the clamshell had to be slammed down from a height of 25 feet or more to get sufficient "bite" into the tough clay. At that, the knives seldom penetrated more than five inches, so that less than half a bucketful was removed at a time.

The operation began last October and has just been completed, lasting eight months. Its success was assured as the clay was removed in back of each house. Owners, once more on speaking terms with Wegmann, reported no more water trouble. Moreover, the neighbors across the street also have dry cellars again.

Unfortunately, the "dry well" cure is not the procedure which every builder who finds a false water table under his land can use, because of the great expense involved. But fortunately for Bill Wegmann, his costs were not nearly as high as they might appear, due to two unusual circumstances:

1. He had a sand pit on one end of his tract with more than sufficient sand to replace the clay. No sand had to be bought and trucked to the site.
2. He found a market for the clay. A Philadelphia pottery has arranged to buy and remove it!



TYPICAL SLUM AREA of Indianapolis will be rebuilt by private enterprise. Redevelopment Commission clears land, saves tax money

## Private Slum Redevelopment Program Defeats Public Housing

**C**IVIC leaders, builders, and realtors of Indianapolis have defeated the public housing menace and started a privately financed program to rejuvenate and rebuild their substandard districts.

None of Uncle Sam's money is wanted by the Hoosier citizens. They defeated public housing by showing that public housing gives too little and costs too much. Backed into a corner after the bitter fight, the private enterprise exponents laid a three point program to raise blighted areas.

The Indianapolis plan for rehabilitation includes three major steps. The first, slum clearance, is to be handled by the City's Redevelopment Commission. Second, border line sections will be repaired and financed through private enterprise. Land re-use, the third step, will see amateur, private builders, and a "Civic Pride" corporation erecting low cost housing.

### Slum Clearance

The Indianapolis Redevelopment Commission was made possible by a unique Indiana law. The Indiana Redevelopment Act of 1945 provides a means for solving slum problems on a long range plan of small cost to the taxpayers. To build a fund upon

which to operate, local assessments for the first two years are .10 per \$100 rate of taxation. After the two year period, the rate decreases to a nickel, but actually has been much less.

#### OUTLINE OF STEPS TAKEN IN REDEVELOPMENT



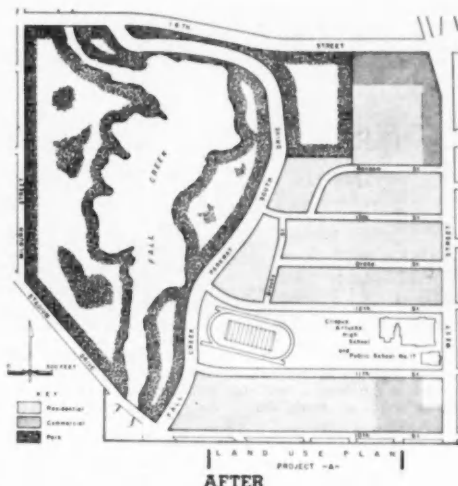
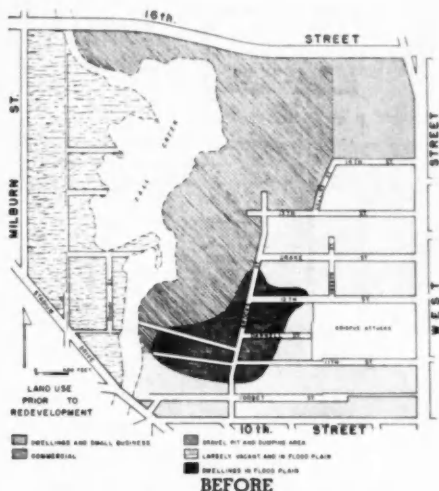
Properties taken over by the Commission never leave the tax rolls. This procedure keeps taxes current for the year of resale. Along with increased taxes, after rebuilding, the sale of the land will replenish the city's treasury. Land deeded to park, school, and other city departments is acquired for less money under the plan. Recreational use of the land can be written off as social rehabilitation expense.

To date two projects have been undertaken by the Indianapolis Redevelopment Commission. Both have been negro slum areas. The redevelopment process is slow due to the complicated workings of the law and the relocation of the people. But as soon as land is cleared and improved it is sold to private enterprise for re-use.

Paul L. McCord, president of the Commission, has led the city's fight for a rehabilitation program.

Falling in line with the Baltimore plan, Indianapolis will enforce its laws. The Indianapolis Times real estate editor, Don Teverbaugh, found a long forgotten state public health law that has teeth. The building commissioner through the Board of Health can fine landlords from \$500





Land use maps of a blighted area in Indianapolis prior to redevelopment and as it will appear after rehabilitation

up to \$1,000 a day for breaking state health laws. Since March 1, 30 per cent of the complaints have been settled without recourse to legal process. It is estimated that 10,000 houses in the area need some type of repair before they will be acceptable under the law. This Baltimore approach, however, is not one sided on the part of the civic leaders. They are going to argue in behalf of landlords for rent increases when remodeling and rebuilding is accom-

plished. It is hoped that a one per cent per month increase will be granted by the rent board.

The "Civic Pride" corporation, now in the formative stage, will buy structures, remodel them, and then rent or sell them. They will also lend money for the remodeling of sound substandard structures.

#### Rebuilding Cleared Areas

Three methods of land re-use are under way in Indianapolis: (1) Co-

operatives; (2) Private Builders; (3) "Civic Pride" corporation.

#### Cooperatives

A nationally recognized negro settlement group (Flanner House) raised over \$140,000 by local subscription to finance a revolving construction fund for 60 houses for negro veterans of World War II. Armed with the money and with plans by Alden Miranda, local architect, the group successfully bid on the first 21 lots sold by the Redevelopment Commission. After the houses were erected, ready financing was obtained from a local building and loan association and an insurance company.

The group built a \$35,000 shop and equipped it with \$9,000 worth of tools. Veterans helped each other to reduce costs. Savings were estimated at from \$1,600 to \$2,400 per structure.

#### Private Builders

Many local builders have erected low-cost rental units. Largest single development is the 338-unit Barrington Heights negro rental project built by L and I. Construction Corp. Barrington Heights tenants pay \$55 a month rent for two-bedroom units of 700 square feet. Kitchens are furnished with range, refrigerator, sink, and ample cabinets.

#### "Civic Pride" Corporation

Local civic leaders, builders, and realtors are planning a corporation which will finance modernization of substandard dwellings and build low-cost rental units.

SUNDAY REAL ESTATE SECTION of the Indianapolis Times carried facts about the Baltimore plan. These were incorporated into the Indianapolis plan. Other newspaper features in subsequent weeks included facts of Memphis low-cost housing, and Indianapolis need for action



ONE OF 60 single-family units financed by Flanner House, negro settlement group, and designed by Indianapolis architect Aiden Meranda. Owners helped each other in the construction in an effort to reduce costs. Idea of the negro foundation is one of "sweat equity." Floor plan is at right



James Hurt, president of the Real Estate Board, is behind the organization of the "Civic Pride" enterprise. Tentative plans call for purchases of stock to be limited to \$500 per individual. Stock return would be between three and four per cent. The corporation plans to buy and rebuild peripheral slum property and build low-cost rentals on land cleared by the city planning commission. Local builders will receive contracts for the

remodeling and construction work. Hurt is hopeful of building rental units which will rent for \$30 to \$50 a month. He believes that families that cannot afford that figure must be treated as welfare cases. Concerning the corporation, Hurt also stated that a private enterprise program would offer low rent housing cheaper and faster than public housing, and it would not saddle the city with a tremendous tax burden.

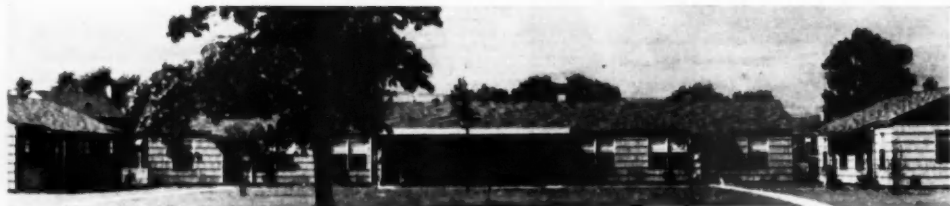
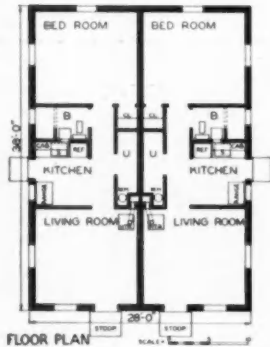


PROPOSED DUPLEXES to be built by the "Civic Pride" corporation will resemble these rentals built by Palmer and Son, Indianapolis builders. Special emphasis will be placed on concrete construction



ONE BEDROOM duplex rentals have cement floors, and cement shower stalls. Walls are painted insulating concrete block. Back to back plumbing and simplicity of design reduce costs of these units

BARRINGTON HEIGHTS privately owned multi-family negro rentals contain 338 two-bedroom units. The development was designed by Paul I. Cripe, Inc., designing engineers. Multi-family low-cost rental units incorporate back to back plumbing, ample closets



NATIONAL HOME WEEK

September 14 to 21, 1952

Created and Promoted by AMERICAN BUILDER



*How to*  
***Sell More Homes***  
***All Year 'Round***

By tying in with 1952 NATIONAL HOME WEEK promotion



The  
**MODEL HOME**  
is the greatest  
sales device for  
selling Homes

*The Perfect Program for Manufacturers whose  
products flow through the established distribution channels*



# Make 'em Want it...

BY COMPARING VALUES...

## RENT PAYING



At \$60 a month, for instance, a renter pays out \$18,000 in 25 years and has nothing but regrets and a stack of rent receipts to show for it. Rent is an out and out expense—it goes on and on—year after year. You become less and less secure. You always live in constant fear that your lease won't be renewed, or renewed at higher rentals.

## HIGH COST OF RENT RECEIPTS

The renter has no security. He and his family move every few years and usually pay a higher rental with each move. His children feel insecure—moving from school to school, church to church—losing old friends—always having to start all over making new friends. And when the renter reaches middle or old age, he is worse off. His earning power is on the decline, yet his expenses remain the same.

## HOME OWNERSHIP



For the same \$60 a month, the renter can get a mighty fine home designed to his special needs. Home ownership helps maintain a decent standard of living. It ANCHORS his living costs—turns rent-paying into home-savings. At the same time, the new home owner always has the feeling that each month he is gradually reducing his mortgage and getting closer to owning his home clear and free.

## REASONS FOR BUILDING NOW

You protect yourself against increasing rents.

Prices are right—may go higher.

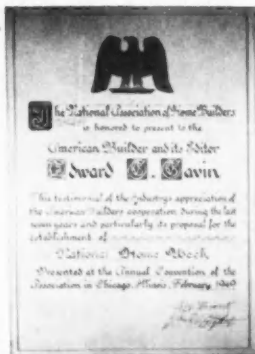
Interest rates and financing charges are lowest in history. You make low monthly payments like rent, but instead of going to the landlord, these payments pay for your own home.

A Home is your best protection against inflation or a boom that means higher rents and prices, as well as higher wages.

A Home continues to provide shelter and security no matter what happens to economic conditions.

### **NATIONAL HOME WEEK was created by the Editor of AMERICAN BUILDER**

In November, 1947, American Builder's editor, Edward G. Gavin, conceived the idea and plan that became National Home Week. Knowing that the industry needed an effective and dramatic public relations activity that could be organized quickly, Ed. Gavin wrote a letter to Edward J. Carr, then president of NAHB in which he proposed a nationwide mass demonstration of new homes for public inspection during one week, and detailed a plan of operation. Upon Carr's invitation, Gavin appeared before the association's directors in February, 1948, and won enthusiastic endorsement for the idea. The following year he was awarded the plaque shown at the right, and publicly acclaimed as the originator and developer of "an idea that has proved to be the most effective public relations program ever devised in the interest of home builder."



# then follow Through and SELL



## Bringing the Public to the Home

Because every day living revolves around the home, it holds top interest in every family. Records prove that well planned demonstration homes outpull many events because of the family interest it promotes. Sound, inexpensive planning and good promotion that focuses public attention on advantages of home ownership, pays off every time, all year around in large as well as small communities.

## In Chicago... 1,300,000 People Visit 86 Display Houses

Chicago observance of Week differs slightly in timing and detail but objective is the same—promotion of home sales. During 1951 event, participants sold 960

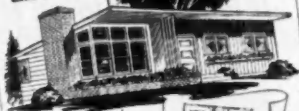
**A** HALF MILLION people visited 86 display homes in Chicago during the National Home Week observance. The event, which drew more than 1,300,000 people to the demonstration homes, marked the 15th anniversary of the National Home Week observance. The event was held from August 10 to August 13, 1951. The observance was held in Chicago, Illinois, and was the largest of its kind in the country. The event was held in Chicago, Illinois, and was the largest of its kind in the country. The event was held in Chicago, Illinois, and was the largest of its kind in the country.



## 2500 People Visit National Home Week House in Town of 1400.

### On Display in New Athens

A home  
to notice  
and admire



A home  
to cherish  
and enjoy



SEPTEMBER 10 THRU SEPTEMBER 17  
Open Home: Weekdays, 5 till 9 p.m. — Sat. & Sun., 1 till 9 p.m.  
IN EAST LAWN PLACE, NEW ATHENS, ILL.

• COMPLETE HOUSE AND  
AT CLOSE 0

New Athens

**O**BSERVANCE of National Home Week in a town of 1,400 people. This event, which drew more than 2,500 people to the demonstration home, marked the 15th anniversary of the National Home Week observance. The event was held in New Athens, Illinois, and was the largest of its kind in the country. The event was held in New Athens, Illinois, and was the largest of its kind in the country.

It is hard to say what the actual number of people who visited the home was. The observance was held in New Athens, Illinois, and was the largest of its kind in the country. The event was held in New Athens, Illinois, and was the largest of its kind in the country. The event was held in New Athens, Illinois, and was the largest of its kind in the country.

## HOME DEMONSTRATION

The Model Home is the greatest sales tool for Builders and Dealers. It is their one great opportunity to combine their talents with the modern materials and equipment of manufacturers to show Mr. and Mrs. America, the best home values for the money.

## CLOSING THE SALE

Once today's building values have been thoroughly demonstrated and explained, thousands of renters and owners of older homes become prospects for new homes. "You get More House for Your Money Today," will sell for you.





**MR. BUILDER...  
MR. DEALER...**

**Now it's your Move...**

*Here is the greatest merchandising idea in all home building history. It brings the prospects to your place of business—the Model Home. This program doesn't have to be limited to National Home Week. The idea is good anytime. It's a year-round sales opportunity.*

## How to Organize a National Home Week in your own Town

### If you are a Builder

No community is too small or too large to participate in National Home Week. No solicitation of funds necessary—no trick promotion. Merely focus public attention during National Home Week on the houses you already have to show. The AMERICAN BUILDER folders shown below explain how, in co-operation with your retail lumber dealer, you can stimulate public interest in home ownership and remodeling. If you wish, send for both folders—and give one to your lumber dealer.

### If you are a Dealer

National Home Week is a natural, inexpensive, made-to-order merchandising and public relations activity, designed to make money for all lumber dealers all year round. The folder shown below describes 4 simple outlines to help you organize demonstrations to fit your operation—either alone or with your builder customers.

- PLAN NO. 1** For dealers who build homes or act as contractors.
- PLAN NO. 2** For dealers who offer design, financing and supervising services and work with local contractors.
- PLAN NO. 3** For dealers who confine their services to selling materials to builders and home owners.
- PLAN NO. 4** For dealers who will have no houses of any kind for demonstration purposes.

**Tie into the greatest merchandising idea in all Home Building History**

### MAIL COUPON for these AMERICAN BUILDER Manuals

AMERICAN BUILDER  
79 West Monroe St., Chicago 3, Ill.

Send me your Manual on How to Plan Home Demonstrations

I am a  Builder;  Dealer

Send me one of each Manual

My Name .....

Firm .....

Street .....

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

108



**These Manuals show you how**

Each of these folders—one for the Builder, and one for the Dealer—described in simple language, Home Demonstrations that have proved successful in many parts of the country. Send for your copy today.

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# PAINING

# Interior

## SURFACES

Last month our paint series discussed *Painting Exterior Surfaces*. This chapter takes the story inside the house

**P**AIN types currently in professional use for finishing interior walls and ceilings may be grouped in four main classes: (1) the oil-base flats, with semi-gloss and gloss finishes for use on woodwork and walls where frequent washing is necessary; (2) the rubber latex type; (3) casein and resin emulsion paints; and (4) flat wall enamel which has an alkyl resin vehicle instead of linseed oil.

No. 1 is perhaps the easiest to use and is usually preferred by painters. It has a low sheen and hides imperfections in the wall, especially when a stippler is used over the finish coat. However, an oil-base flat cannot be applied until the plaster is thoroughly dry. In freshly plastered walls, unreacted lime is readily available to combine with the oils in a paint vehicle, to form soaps. These soaps attack the paint coating at its foundation, and if this action is sufficiently strong, the coating will powder off, and is spoken of as having been "burned."

Generally, it is considered risky to

paint fresh plaster walls until they have aged at least a week. Then the first coating should be a so-called primer-sealer, which is an undercoat designed to have a good alkali resistance, completely seal the surface and give adhesion to the finish coatings. When freshly applied, an oil-base flat remains tender for a day or so and must be protected from injury. When used on dry wall construction, three coats of this type will usually be necessary to cover the joints adequately. A wall painted with an oil-base flat is semi-washable.

The use of rubber-base paint has certain advantages, not the least of which is the high degree of washability of such a coating after it has aged for about a month, and its pleasing low luster. Latex paint can be applied to plaster almost as soon as the plastering has been done; no lime burning will occur. This paint also seems made to order for excellent performance on wallboard, and acts as its own sealer. It is odorless and dries very quickly. Its sheen is



**FOR PAINTING WALLBOARD,** special undercoats have been developed. One such coating was pioneered by builder Andy Place of South Bend, Indiana. It was formulated to enable painters to prime the dry wall in the morning and then go back in the afternoon and apply the finish coat. One finish coat seems to do the job.

somewhat greater than that of the oil-base flat, but in the opinion of some, its effect is less rich, and it inclines to be sloppy in its working. It will rust metal and should not be applied directly to wood. Also, since its adhesion is not as good as that of other paints, it may come off in patches.

The water-mixed paints included in Type 3—casein and resin emulsion paints—are tending to drop out of the picture for wall finishes because such paints are not washable. Also, they have created difficulties in re-painting, especially if it is desired to apply a different type of coating to the surface. If an oil-flat is applied directly over casein, for instance, sealing will usually result because the oil paint won't penetrate the casein. The removal of casein often turns out to be a major problem. Sometimes steaming it off will do the job, if it has been applied over wallpaper. Ceilings call for a scraping process.



Frederick Lewis

**MILDEWED SURFACES** should be cleaned and sterilized before painting. A detergent-fungicide makes the job easier.





New Jersey Zinc Co.

**RUBBER-BASE PAINT** may be applied with brush, roller or spray, and is especially suitable for roller application. In brushing, use a full, wet brush, and don't try to brush the paint out. Latex paint is odorless, inflammable, dries quickly to a pleasing soft sheen that is in the eggshell and velvet-finish class. No special primers are needed, as latex paints themselves act as sealers. Two coats will usually do a satisfactory job. Several weeks are required before these coatings acquire maximum washability and resistance to knocks and bumps. At first they tend to be tender.

Type No. 4—the alkyd flat wall enamel—combines the richness and depth of finish of the oil-base flat with many of the virtues of the rubber-base paint. It dries fast, has great washability, but is not quite so fool-proof when used on dry wall construction. Spot-priming of joints and plaster over nailheads is necessary when using it.

The term "alkyd resin" perhaps needs amplification at this point. It does not mean simply "synthetic," but refers to a class of products made usually by combining soybean or other non-yellowing oil, glycerine (or penta) and phthalic anhydride in exact chemical proportions. It is perhaps the most outstanding vehicle used in paint finishes at this time. The alkyds are the base for finishes used on refrigerators, automobiles, boats, railroad equipment and war equipment. Their superior performance in such finishes has naturally placed the alkyds at the forefront of newest developments for interior wall paints.

*Trim* is usually painted an eggshell enamel, applied in two coats, but three coats give the best effect. There is a tendency to use flat wall paint on trim, but this isn't sensible, since woodwork needs periodic washing.

Best practice on walls and woodwork is to use factory-mixed paint and avoid the high cost of mixing paint on the job to suit the fickle whim of the buyer. A favorite indoor sport of buyers and painters alike all too often takes the exasperating form of mixing paint to achieve a certain hypothetical shade or tone. Mrs. Buyer and the painter will stand around for hours mixing and matching, and when the paint has

finally been applied, its color will turn out to be not at all what the lady had in mind. A paint mixed to "butter yellow," for instance, when actually applied to all four walls won't look like butter yellow at all, but will appear darker and harsher, because color increases in intensity with area and reflection. Make an iron-clad rule to use only ready-mixed colors, and results will be not only more satisfactory as to decorative values, but cheaper.

Never conclude that the surface (especially if it is new) can be covered properly in one coat. Even at their best, one-coat materials require a rare degree of painting skill—something the manufacturer seldom advertises. Make it a rule to stipple all walls with a roller stippler to hide blemishes.

Beware of painting over hollow-tile construction. The plaster may seem dry, but even as long as a year later there may still be moisture left in the tile, which will work through the plaster and saponify in soft spots in the paint.

Interior coatings are subject to abnormal failures due to excessive thickness. Therefore, interior painting should always be done with the minimum number of coats and maximum spreading rates that will produce satisfactory appearance. Keep coatings of enamel relatively thin. Brush them out about as far as they will permit. Never add oil or varnish to enamels, but a volatile thinner may be used when necessary.

#### Preparing Surfaces

Woodwork should be clean and free from resin. Any physical imperfections should be smoothed out by

#### HOW TO LOAD A BRUSH



Dip it in about  $\frac{1}{3}$  the bristle-length. Tap gently on sides of can to "settle" the paint into the brush. Never scrape on rim of can. Always start with a clean brush.

#### HOW TO PATCH PLASTER



Correct way to cut and fill

Wrong way to cut and fill

To fill large cracks, undercut as shown in drawing, and fill with a suitable compound. Sand smooth and prime with a sealer or with thin shellac.

#### HOW TO PREPARE WOODWORK



Remove wax, furniture polish, grease or oil by washing with turpentine or mineral spirits. Wipe dry with a clean cloth. When dry, sand glossy surfaces with No. 3/0 sandpaper and dust with a clean cloth dampened with turpentine or mineral spirits. Always sand new wood surfaces before finishing.

#### HOW TO APPLY SPATTER-DASH FLOOR FINISH



Spattering is done after the floor has been painted a solid color and allowed to dry. Have the brush well filled with the contrasting color selected, and strike the brush sharply against a stick or piece of iron pipe held in the other hand. Small spatters are made with less paint in the brush and by striking the brush against the stick held about one foot from the floor. Make large spatters with a brush full of paint and by holding the stick about three feet from the floor.

sandpapering. Seal any knots before painting, with WP-578 White Pine Association Knot Sealer or with shellac. Nail holes should be puttied after the priming coat of paint or varnish has been applied. If the painting is being done over old coatings, spot-prime any damaged spots and then sandpaper lightly after the

## HOW TO APPLY AN OIL PAINT TO WALLS AND CEILING

Use a 3½- or 4-inch brush. Finish ceiling first. Complete a 3-foot strip across the ceiling, doing the final brushing in the same direction on each section. Finish another 3-foot strip, and so on, until ceiling is completed. On side-walls, start at ceiling and work down in about 3-foot square sections, cross-brushing horizontally and finishing with vertical brush strokes toward the ceiling. Completely finish a 3-foot strip from ceiling to baseboards.



Brush on the material



Then cross-brush with strokes in the opposite direction

## HOW TO REMOVE WALLPAPER

Soak the paper thoroughly with warm water, using a large sponge and plenty of water. Use a putty knife to lift off wallpaper. Remove all traces of paste on wall by washing with a solution of 1 to 2 table-spoonsful of paint cleaner in a gallon of warm water.



1.



2.

Photos courtesy of Medina Portland Cement Co. and The Reardon Co.



3.



4.

**PAINTING BASEMENT WALLS** with cement-water paint helps to keep out moisture and decorates the room. (1) Wire brush all surfaces to remove dirt and loose particles. Fill any large cracks with a heavy paste made by mixing the dry paint with a little water. Before painting, spray the surface (unless it is non-absorbent) with a fine fog spray from a garden hose and allow the water to drain completely before applying paint. (2) Use a scrub brush for applying the first coat to a rough surface, using circular motion. (3) For a smooth surface, use a bristle, whitewash or calcimine type of brush, keeping the brush full of paint. Do not brush the paint out. (4) Cure the coating by applying a fine spray after the first coat has hardened and maintain in a damp condition for 24 hours. Apply a second coat, using a whitewash or calcimine brush. Cure in the same way, keeping damp for 48 hours.

primer has dried. If the surface is being changed from a varnish finish to paint or enamel, all the varnish must be removed, and any wax left on the surface by the varnish-remover must be cleaned off with paint thinner. Alligating (cracking) of a new coat may occur if it has been applied over dissimilar coatings.

## Natural Finish

There is a great variety of natural finishes for interior woodwork other than floors. A simple method recommended by the Forest Products Laboratory is a varnish finish with or without stain, and filler if a hardwood with large pores such as oak is used. On softwoods such as Southern yellow pine or Douglas fir, a thin coating of shellac should be used as a sealer if stain is to be applied. After the stain has been used, hardwoods with pores larger than birch should be filled with wood filler. This may be colorless or colored. The colored filler will emphasize the grain.

When working with woods of large pores the filler mixture should be stiffer than when used with other woods. The filler mixture is brushed well into the wood, and excess filler is wiped off before it has had time to set; wipe at first at right angles to the grain and then wipe with clean rags in the direction of the grain. This filling process is followed by the application of three coats of interior varnish, each coat drying at least overnight; if possible sandpaper lightly between coats. The final coat can be left with its natural gloss or rubbed to the appearance desired.

For natural finish floors, when oak or other hardwood with large pores is used, the first operation is that of filling the pores. Softwoods, and hardwoods with small pores such as maple, do not require filling. Next, two coats of sealer are recommended

Wall Area	Paint Required* (2 Coats)	Floor Area	Paint Required* (2 Coats)
100 Sq. Ft.	7 lbs.	100 Sq. Ft.	2 quarts
200 Sq. Ft.	14 lbs.	200 Sq. Ft.	1 gallon
300 Sq. Ft.	20 lbs.	300 Sq. Ft.	1 gal., 2 qts.
400 Sq. Ft.	27 lbs.	400 Sq. Ft.	2 gallons
500 Sq. Ft.	34 lbs.	500 Sq. Ft.	2 gal., 2 qts.
600 Sq. Ft.	40 lbs.	600 Sq. Ft.	3 gallons
700 Sq. Ft.	47 lbs.	700 Sq. Ft.	3 gal., 2 qts.
800 Sq. Ft.	54 lbs.	800 Sq. Ft.	4 gallons

Medusa Portland Cement Co.

**BASEMENT PAINT CALCULATOR.** The wall area figures are based on 30 sq. ft. coverage per pound of paint; for the floor paint, 425 sq. ft. coverage per gallon. \*The amount of paint required varies depending upon the porosity of the surface. These figures are approximate for surfaces which are average in density.

by the Forest Products Laboratory, the sealer usually being mopped on to the floor with a suitable applicator. Let it stand a few minutes to allow most of the volatile thinner in the sealer to escape. Then buff it with steel wool, using if possible a power buffing machine. Repeat this process the next day. The buffing makes sure that all of the material is held within the wool near the surface and is not left over the wood. Wax is generally used to preserve sealer finishes. The last coat of sealer should be dry for a week or more before the wax is first applied.

#### Painting Dry Wall

Dry wall construction of gypsum board presents a painting problem because of the porosity of the surface, especially the joints, which must be built up to a surface suitable for paint adhesion. The perforated tape process of filling the joints is standard practice. Over the joint a perforated paper wall tape or gauze is embedded in joint filler compound; when dry, a second layer of filler is applied and feathered out several inches on each side. The joint is sanded smooth before painting.

Whether painted or papered, wallboard should be sealed first. You can't paper wallboard, then decide to

remove the paper later on and paint, unless the surface has been sealed in the first place. Several manufacturers have developed special undercoats for use on wallboard, and one such coating was pioneered by builder Andrew Place of South Bend, Indiana. It was formulated to enable painters to prime the dry wall in the morning and then go back in the afternoon and apply the finish coat. One finish coat seems to do the job. The sealer dries to a hard, opaque finish in less than four hours.

The new rubber latex emulsion paints seem made-to-order for 2-coat use on wallboard and are highly recommended for this type of surface. They act as their own sealers.

Some builders, especially of large projects, get around the wallboard painting problem by using a fabric wall covering which can be applied without filling the joints.

#### Plywood and Hardboard

The most perfect plywood wall paneling job can be ruined unless the correct finishing technique is used. Simple yet attractive light stain finishes for interior walls of Douglas-fir plywood have been developed. The procedure is to subdue the grain contrast yet preserve the natural beauty of the wood. Basic steps are:

1. An application of interior white undercoat thinned one part undercoat to one part turpentine or painter's thinner. This may be wiped with a rag or dry-brushed for more grain show-through. When it is dry, it should be sanded lightly with fine sandpaper.
2. One coat of thinned white shellac or clear resin sealer. This sealing coat may be thinned more or omitted completely if greater color penetration is desired. This should also be sanded lightly with fine sandpaper, when dry.
3. One-color coat, which may be an interior finish undercoat or an enamel, thinned as for the first step; or color in blending oils. Light stains may also be used. The color coat is applied thinly and wiped or dry-brushed to proper color tone. When dry, it should be sanded lightly with fine sandpaper.
4. One-coat flat varnish. To achieve the best effect here, the varnish coat may be buffed with No. 1 steel wool. A variety of colors and shades may be obtained with this method by changing the color coat.

An inexpensive but pleasant blond finish can be obtained on Douglas fir plywood with a single coat of interior white undercoat thinned so the wood pattern shows through. The undercoat may be tinted if color is desired. Then apply a coat of clear shellac, lacquer or flat varnish for durability. Attractive and economical one-coat stain-wax finishes in various colors are marketed by a number of manufacturers.

When the natural appearance of fir plywood is to be retained, a simple coat of white shellac and flat varnish will do it, although a normal amount of darkening will take place under exposure to light. When using conventional stains on fir plywood, the method is to apply a clear resin sealer, followed by successive coats of stain and varnish. The sealer may be omitted if greater color contrast is desired.

Smooth, jointless enameled walls may be obtained with fir plywood

#### DO'S AND DON'TS WHEN FINISHING WOODWORK AND FLOORS

- DO—allow plenty of time for coats to dry.
- DO—paint when weather will permit opening windows to allow ample ventilation.
- DO—remove all hardware before you start to paint. You'll get a better job and save time.
- DO—be careful when painting high places. Use a sturdy ladder and be sure the paint can is set on a steady surface.
- DONT—paint over grease, oil, or wax. Remove with turpentine.
- DONT—paint or varnish over a glossy surface. Rub it down with sandpaper.
- DONT—pile on heavy coats of paint or varnish. Two

- thin coats will always be better than one thick coat.
- DONT—fail to putty up all cracks, crevices and nail holes after the first coat is dry.
- DONT—fail to stir the paint thoroughly. Half-heated stirring results in poor hiding, lack of uniformity in the finish coat, differences in degree of gloss, etc.
- DONT—leave paint or varnish uncovered when through for the day. Cover tightly to prevent skin from forming on the top. If skin has formed, don't mix it in. Carefully remove the skin before stirring.

DuPont

panels by first covering the plywood with painter's canvas or an inexpensive unbleached muslin. Panels should be butted closely and all nail holes, hammer marks and joints filled with crack filler. Then the paneling should be primed with flat white oil paint. Next, hang the muslin as wallpaper with wallpaper paste, strained to remove all lumps, taking special care to get neat joints. When this is dry, a coat of glue size is applied. Over this apply any conventional enamel finish.

When water-thinned paints are to be applied over fir plywood, the panels should be treated with a clear resin sealer to prevent grain raise. Paint coats can then be applied according to the manufacturer's directions. Textured surfaces are obtained by priming with a regulation undercoat followed by a heavy coat of stippling paint, worked with a stipple brush, roller or sponge.

**Hardboards.** Paint hardboards as you do hardwood surfaces, following the instructions of the manufacturer of the particular product applied. Practically any type of finishing material may be used in decorating the Masonite "Preswoods," for instance, and may be applied by brushing, spraying, wiping, dipping, knife or roller. For especially smooth finishes, sand lightly between coats with fine sandpaper. Novel effects on hardboard may be obtained by tinting. Such tints, made by mixing color in oil, turpentine and white flat paint to the desired shade, are brushed on and the excess immediately wiped off with a clean cloth. Suitably colored flat paints, thinned with turpentine, may be used in the same manner with similar results.

#### **Radiators and Grilles**

The U.S. Bureau of Standards reports that the last coat on a radiator is the only one which has an appreciable effect on heat emission from the radiator; so while it may be desirable for various reasons to avoid the use of metallic paints on radiators, no appreciable saving in fuel will result from the use of non-metallic rather than metallic paints.

The trick of painting radiators is to avoid blistering and cracking of the finish, and changed color due to excessive heat. Gloss wall paints and enamels should be avoided since they tend to blister and flake more than flat or eggshell finishes. Prime new radiators with a thin coat of interior trim primer, and when this coat is thoroughly dry it can be followed with a thin coat of finish paint. Coatings should go on as thin as possible to minimize danger from blistering and flaking. Under no circumstances

should the heat be turned on full until the finish has hardened thoroughly.

#### **Painting Basements**

Cement-water paints are much used for inside basement walls, and give a decorative cement-like finish to concrete, stucco or masonry. They repel moisture effectively. This type has portland cement as a base with other ingredients added to give high hiding power and color. The paint is mixed with water. No thinner or special sealer is required.

For basement floors, use a rubber-base (chlorinated rubber) paint which will be unaffected by moisture and resistant to grinding of dirt and grit, oils and grease.

From many years of experimentation in treating basement walls, the Medusa Portland Cement Company recommends the following method:

(1) Wire brush all surfaces to remove dirt and loose particles. Make a heavy paste by mixing the dry paint with a little water, and fill the large cracks. (2) Spray the surface with a fine fog spray from a garden hose. Let the water drain off completely before painting. If the surface is dense and non-absorbent, do not wet it before painting. (3) Apply the first coat to a rough surface by using a scrub brush and working in the paint with a circular movement. For smooth surfaces, use a bristle, whitewash or calcimine type of brush. Use a sweeping horizontal motion to apply the paint, keeping the brush full of paint. Do not brush the paint out. (4) Cure the coat by applying a fine fog spray of water after the first coat has hardened. Keep damp for 24 hours. (5) Apply the second coat in long, even, horizontal strokes, using a whitewash or calcimine brush. To cure, apply a fine fog spray after the coat has hardened and keep damp for 48 hours.

If the basement wall has been painted before, it is best to remove the old coatings. A solution of caustic soda mixed 1½ pounds to one gallon of hot water will remove oil paint, oily stains, soot, grease, shellac and glue size. Wash with water after the old film softens and then rinse thoroughly. Muriatic acid mixed one part to five parts of water will remove whitewash, calcimine, cold water paints and efflorescence. Scrub surface and then water wash and rinse. Be sure to wear rubber gloves and avoid contact with either the acid or the solution.

For concrete floors which require a chlorinated rubber coating to resist alkali, the Medusa formula is: (1) Clean thoroughly, using a lye solution if necessary to remove grease

or soap, then rinse. (2) Etch the floor with a 10 per cent solution of muriatic acid, letting it stand 10 minutes. Rinse and dry thoroughly. (3) If a few drops of water are readily absorbed on the surface, porosity is sufficient for rubber-base paint. Stir the paint and apply as it comes from the can, usually in two coats. (4) Apply second coat when first is absolutely dry to the touch. This coat and any third coat should be brushed out to give an even spread and good coverage. (5) Paint if possible when heating equipment is in use. Otherwise, ventilate by use of an electric fan placed on the floor. Condensation of moisture will prevent the bonding and hardening of the paint.

#### **Rules-of-Thumb for Estimating**

For interior estimating, it is simple enough to figure the area of floor and ceilings. For stairwell ceilings, figure the entire width and length of the stairwell so that you will have enough to paint the under part of the stairs.

For walls, one of the large paint manufacturers, Devco & Reynolds, recommends that you multiply the distance around the room by its width, and deduct 15 square feet for each window and single door. Other rules, as this company gives them, are as follows:

Windows may be figured as 35 square feet for one side, sash and frame; or 20 square feet for one side, frame only; or 15 square feet for one side, sash only. For doors: 35 square feet for one side, including frame; 70 square feet for two sides, with frames; 20 square feet for one side without frame; 20 square feet for one side frame only.

Baseboards can be considered as linear square feet. This will include picture molding. The average stairway in a house can be considered at 135 square feet for treads, risers and stringers. With balusters, make it 300 square feet. For radiators multiply front area by four.

It is useful to remember that an average small room will take one gallon of paint per coat for smooth finish walls; one gallon of enamel per coat will cover the average kitchen; rough plaster walls will need about two gallons of paint per coat; a bathroom will take from two quarts to one gallon depending on size.

#### **Failures**

Failures of paint on interior surfaces are most commonly due to moisture in the walls from leaking plumbing or a construction defect such as no flashing over a window. In penetrating through the plastered wall, the moisture picks up alkali and

# WHAT TO USE - WHERE AND WHY

This table recommends suitable paint materials for most types of interior structural surfaces. The descriptions of special properties and functions will help to make the right choice in the light of requirements of the individual job.

Interior Material	Recommended Paint Material	Special Properties and Functions
<b>Walls</b> Stone Concrete Cinder Brick (in cellar)	A. Oil-type masonry paint.	Long durability.
	B. Cement-water paint, primer followed by top coat.	Moisture-resistant.
	C. Chlorinated rubber masonry paint.	Alkali-resistant. Water-resistant.
	D. Rubber or polystyrene emulsion paint.	Alkali-resistant. Seals against moisture.
Plaster	A. If virtually alkali free after treatment with neutralizer, apply first coat of plaster-primer, followed by oil-type flat, semi-gloss, or gloss finish, or a flat wall enamel which has an alkyd resin as a vehicle instead of linseed oil.	Long-lasting, flats are semi-washable. Gloss and semi-gloss good vapor barriers, and washable. Alkyd flats very washable, low sheen.
	B. Rubber or polystyrene emulsion paint.	Excellent washability. Flushing and ghost-free. Alkali and moisture resistant. Good humidity vapor barriers.
	C. Oleoresinous emulsion paints and casein paints.	Easy to apply, only semi-washable.
	D. Calcimines.	Not washable.
Wallboard or Plasterboard	Special non-penetrating oil-type wallboard primer, followed by flat, semi-gloss or gloss finish. May apply rubber emulsion paint directly.	Uniform sheen, durable.
Fabric or papered walls	Oleoresinous emulsion or rubber latex based paints.	Non-penetrating, uniform sheen.
<b>Woodwork</b>	A. On bare wood apply one coat of enamel undercoat, followed by semi-gloss or gloss enamel, one or two coats. If white, use alkyd resin type non-yellowing enamel. On previously painted wood the undercoat may be omitted. Surface must be clean.	Good washability, gloss and color retention. Long lasting.
	B. For clean finishing system, stain with oil stain, if desired, or bleach for blond finish. Apply varnish type low solids sealer-filler. Follow with one or two coats of interior varnish. (Do not use spar varnish.)	Good appearance, gloss retention, washable, oil and grease resistant.
<b>Metal Trim etc.</b>	Metal primer, followed by any desired oil type or emulsion finish.	Corrosion-resistant, durable.
<b>Floors, wood</b>	A. Stain with oil stain if desired, and apply first coat of varnish type sealer-filler, or a coat of two pound shellac cut. Follow with two coats of floor varnish. Wax, if desired.	Hard, tough, wear-resistant finishing system. High gloss.
	B. For dull finish, use penetrating oil-wax clear, or stain.	
<b>Linoleum</b>	Use linoleum lacquer. Do not use varnish because of discoloration.	
<b>Asphalt Tile</b>	Wax only. Solvents in paint or varnish would be harmful to asphalt tile.	
<b>Concrete</b>	If alkali is present, paint with chlorinated rubber floor paint. Otherwise oil type floor paint may be used, two or more coats for longer wear.	Abrasion and wear resistant.
<b>Glass</b>	Use special clear synthetic resin finishes designed specifically to give frosted effect.	

reacting with it will saponify with the oils on the painted surface. The result is that the paint will soften and change in color. White may turn brown, or a blue may turn green.

But for new homes, the real failure is that situation which arises from a slap-dash job, with colors selected without regard for decorative values, with too few coats applied (resulting ultimately in washing through), and little care taken with details. The paint may be applied to woodwork for instance, without sandpapering the woodwork first, and the result will be a rough, crude finish. Poor quality work detracts from the potential value of the house.

The various technical troubles encountered with wall finishes can be listed as "ghosting" or flashing, color flooding or streaking, spotty hiding, sagging, peeling, and cracking (alligating).

*Ghosting* is the condition in which the surface becomes porous in spots of lighter color than the rest of the wall. It is caused by an improperly sealed surface. *Color flooding* is caused by using the wrong tinting colors for the paint type selected. Tinting-color designed for use with casein or water paints won't work, for instance, with paint which has an oleoresinous binder. *Spotty hiding* is the result of poor brush technique and insufficient mixing. Failure to taper off at the end of one stroke and start lightly at the beginning of the next stroke will cause it. This trouble is encountered particularly with the use of deep tones. For such jobs, in addition to correct brush work, see to it that the surface is really sealed, and tint the sealer the color of the finish coat.

*Sagging* is also due to poor brush work. If a surface is properly brushed out, the general downward flow of the wet film is uniform throughout and no sagging takes place. *Peeling* may be caused by painting over a dirty or greasy surface, the presence of moisture, an earlier coating of inferior quality, or a gloss surface which has not been sanded. Gloss finishes are very hard, and putting on another coat of gloss over an existing one requires going over the old surface first with sandpaper or steel wool to create adhesion for the new coating.

*Cracking*, or alligating, usually comes from applying a fast-drying, quick-setting coat over a more flexible, improperly dried coat. As the undercoat continues to dry, shrinking in it will continue, and this tears the finish coat apart, because the finish coat is highly pigmented, is quite set, and is not subject to the same degree of shrinkage.

# "Ask The Experts"

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## Three in One

*I have read many of the questions that are answered in your columns, so would appreciate it if you could help me out with the following:*

**No. 1:** *Could you send me a pamphlet on operational procedure for operating a transit leveling instrument.*

*I.R.M., Sarnia, Ontario*

We are sending you a copy of our 1952 Solor Ephemeris which we think will be of assistance to you. We would suggest that you contact McGraw-Hill Publishers who are in a position to recommend the most suitable book covering surveying.

*Keuffel & Esser Co.*

**No. 2.** *Please give the proper simple method of figuring the number of bags of cement to the yard per different strength mixes. (Canadian measurements please).*

*I.R.M., Sarnia, Ontario*

The strength of concrete is chiefly dependent on water-cement ratio, and not on the proportions of aggregate to cement, assuming of course that the concrete has proper workability for the conditions of placement. Since U.S. gallons and Imperial gallons are unequal (5 U.S. gallons, equal to about 4 $\frac{1}{8}$  Imperial gallons) and since the American sack of portland cement weighs 94 pounds, whereas the Canadian sack of portland cement weighs only 87 $\frac{1}{2}$  pounds, the various tables on mixtures published in the U.S., showing quantities of materials are not valid for use in Canada.

In general, in order to adjust U.S. tables for Canadian use, multiply the water-cement ratios, when shown as gallons of water per sack of cement, by .78 for equivalent Canadian units.

In other words, take any U.S. table and multiply the water by .78.

Canadian companies operating in Canada issue handbooks in which the tables showing quantities of materials are given in Canadian units.

*Portland Cement Association*

**No. 3.** *I would appreciate the most up-to-date data on perimeter warm air heating as shown in the January issue of the American Builder, both for installation and for economy.*

*I.R.M., Sarnia, Ontario*

I'm sorry that as yet we do not have enough information about the design and installation of such systems to make it possible to give acceptable rules. As you know, this system was developed only recently.

Quite a number of similar systems have been installed in different parts of the United States but we find that all of them have been designed by local heating contractors in cooperation with the builders. No "standardized" rules for design procedure have been followed.

*National Warm Air Heating & Air-Conditioning Association*

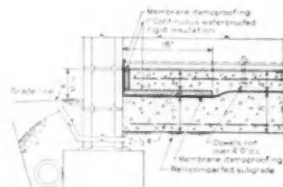
## What is the Proper Way to Lay a Slab Floor?

*We have a problem that is troubling us and maybe you can help us solve it. In our business of making home loans we also make loans for the construction of new homes and quite a number of them are of the ranch type, one story house with concrete slab floor. Now the question that we have is: "What is the correct way to build a concrete floor slab on the ground?"*

*One contractor told us that he levels the dirt off inside the foun-*

*ation and then puts in some sand fill and pours his concrete slab on it. Another contractor does much the same except that he uses stone fill. We have insisted that the soil should be leveled and compacted. Then there should be a layer of stone or gravel at least six inches thick. Above that a vapor or moisture barrier in the form of roofing felt or Sisalkraft, should be laid. We would appreciate it very much if you would let us know the proper way to build a slab floor so that we can settle the questions.*

*M.F.S. and L.A.,  
Bowling Green, Ohio*



Your recent letter to the *American Builder* was referred to our general office. Accordingly, I am sending you the enclosed copy of "Concrete Floors on Ground for Residential Construction." In this booklet are given construction details as well as recommendations on various procedures that should be followed. I would like to add that a concrete first floor placed on ground provides a satisfactory, economical, long-life type of construction. When properly built, such floors will be dry and warm. Any desired type floor covering—hardwood, linoleum, carpet, tile, etc., can be applied over such floors. Recommended practices for applying various coverings are given in another bulletin which is also being enclosed.

*Portland Cement Association*

## Chimney Trouble

*I am a carpenter by trade, but, in my building experience I have laid up two chimneys. Each chimney has a flue for the fireplace and one for the heating plant. The flues extend above the chimney cap about four inches on one, and one inch on the other. Both fireplaces draw well. However, when the wind is blowing from a certain direction the smoke has a tendency*

**to drive down into the heating flue and come out into the basement through the flue openings on the gas water heaters and the furnaces. Any suggestions that you can make will be greatly appreciated.**  
**A.C.D., Auburn, N. Y.**

In regard to the chimneys and the back drafts there are several assumptions which I am making in this reply. I am assuming:

1. The chimneys were constructed according to accepted construction standards and practice; that is, the top of the chimney should extend a minimum of 3 feet above flat roofs, and 2 feet above the ridge of peak roofs.
2. The flue for the heating system is the one that extends one inch above the chimney cap, while the flue for the fireplaces is the one which extends four inches above the chimney cap.

There are a number of things that could be causing your trouble and several possible solutions. Assuming that the chimneys in question are properly proportioned and of sufficient height in relation to the flue size, I am inclined to think that the back draft is caused by eddies set up by a high building, nearby trees, hill, or a down draft caused by wind conditions since the problem seems to arise only when the wind is from certain quarters. Both causes can be eliminated by installing a metal hood over the chimney top with the open ends parallel to the ridge; or a revolving jack which swings away from the wind and sets up a suction in the flue.

Structural Clay Products Institute

#### **How can a Floor Slab be Heated Economically?**

*I would like to be advised as to the most reasonable floor inserted heat unit equal to 45,000 or 51,000 B.T.U.'s. There is a Coleman heater, but are there others using a simple installed fresh air intake at two-direction distance of 12 to 15 feet?*

*I am using a concrete floor slab system here, but find that the overhead circulating units are not sufficient for concrete floors here. I also found that the standard down-draft heating unit is too expensive an installation for the type of house we have designed and for which there is such a great demand.*

**W.F.M., Middletown, N. Y.**

The majority of heating contractors with whom I have discussed the problem of heating houses having concrete slab floors laid directly on

the ground, tell me that there is always liable to be a complaint of uncomfortably cold floors unless heat is put directly into the slab itself.

In the case of warm air heating, this means having warm air ducts imbedded in the slab. Heating contractors in most areas having winter temperatures about the same as those that prevail in Middletown, report that they have never found space heaters (stoves) or wall furnaces a safe bet unless the slab is unusually well insulated around the edges and underneath. The only alternative seems to be the above mentioned system with ducts imbedded in the slab.

National Warm Air Heating & Air Conditioning Assn.

A list of manufacturers of all types of heating units appears in the April *American Builder Catalog-Directory* issue.

#### **Building on Filled Ground**

*I want to build a house out of hollow concrete blocks, but the building inspector in my area will not give me a permit unless I can show him a drawing of a special footing with all the figures to prove that the house would remain in a fixed position. His reasons are:*

1. It is filled ground—15 years ago it was part of the bay.
2. The elevation is approximately one foot and the sub-ground is always wet.
3. That the ground would not hold the weight of the house or a conventional foundation.
4. That the weight of the frame house is approximately 1400 pounds per square foot, and that a concrete block house would be approximately 2000 pounds per square foot. The footing would have to be figured on the basis of 2000 pounds per square foot.

*The lot still requires another 18 inches of fill to bring it up to the sidewalk level. What would you suggest?*

**S.J.A., Alameda, Calif.**

We have studied the details contained in your letter very carefully, but have come to the inescapable conclusion that it is impossible for us to express a long range opinion on this problem when so many local factors are involved.

We feel sure that your particular construction problem—based as it is, on the limitations of unstable soil—is one that can only be solved by a local engineer familiar with the actual foundation possibilities in your imme-

diated area. He is also the only person qualified to give you an expert opinion on your specific building problem in relation to the local building code.

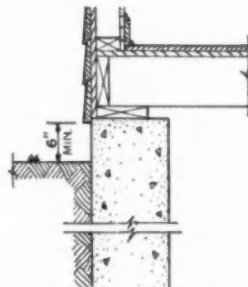
I am sorry that we cannot come up with a quick answer for you. Good luck with your problem and thank you for your interest in concrete.

Portland Cement Association

#### **How to Get Rid of Termites**

*I am writing to see if you can help me out. I've noticed termites in the attic of my home and I would like to know if there is anything that I can do to exterminate them. I have a paint sprayer available, so if there is any chemical on the market that could be used in a paint sprayer, or for that matter, any other way, would you please inform me.*

**J.W., Indian Orchard, Mass.**



Poured-concrete foundation walls and piers that are easily inspected, offer complete protection against hidden termites

A copy of your letter has been forwarded to this office for reply. A copy of Farmers' Bulletin 1911 is being sent to you for your information on termites and their control. Please note that the species present in the Northeastern States nest in the ground and whenever they go above the surface of the soil they construct earthen shelter tubes in which to travel back and forth. The Department of Agriculture emphasizes structural changes in order to make foundations of buildings permanently termite proof. Chemicals should be used only where such changes are found to be impractical. The bulletin referred to describes the best methods of treatment.

If you are not absolutely sure on the determination of the insect found in your house, we would suggest you pack up a few specimens in a stout container and mail them to your State Entomologist or local Experiment Station for identification. The proper identification of the insect may save you some unnecessary expense.

Entomologist,  
U.S. Dept. of Agriculture

# Sand Floors nearly Twice as Fast with **AMERICAN SUPER 8**



SAVE LABOR  
WITH THESE  
"PLUS" FEATURES!

Shift into high gear in your floor sanding operations . . . *step up* production with the sensational American Super 8 . . . *increase your profits!*

Contractors say "It's tops!"—because the Super 8 meets their needs today . . . *saves time and labor* . . . *reduces costs!* Check these American Super 8 features that mean high production . . . low upkeep . . . long-life dependability! Powerful 2 H.P. motor . . . drum driven by vari-speed transmission . . . drum speed range from 1600 to 2800 r.p.m. for greatest efficiency under varying conditions . . . drum speeds easily selected by "dialing" Drum Pulley . . . great range of drum pressures selected by variable control —52 lb. to 103 lb.—to meet all conditions in floors. Operates efficiently with low voltage! Has double volume dust pick-up . . . low center of gravity . . . many more *plus* features!



Powerful 2 H.P. motor starts under a "no load" condition due to automatic take-up of motor pulley.



American Sustaining Device provides variable control of drum pressure to meet all conditions in floors.



Single adjustment quickly changes drum speed . . . range 1600 to 2800 r.p.m.

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FLOOR MACHINES • PORTABLE TOOLS

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Please send free description and prices on the new American Super 8 Floor Sander. No obligation.

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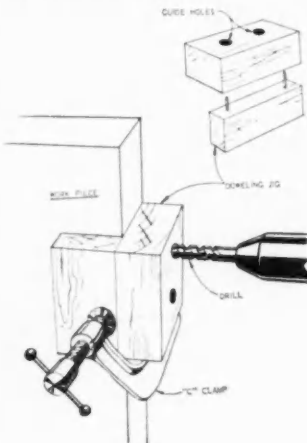
## No. D-92 Wood Stairs

The charm of the provincial house and the exquisite detail of entrance hall and stair, which is an integral part of the design of authentic early American homes, has been captured in this modern Colonial dwelling, shown in the photograph and drawing on the opposite page.

In considering the portion of the plan that is shown, it is found that an interesting grouping of levels center around the stair landing. The landing is extended to form an approach to the main entrance door and also to provide access to the living room, which is located three steps below the dining room and landing level.

The railing, which forms a portion of the dining room wall treatment, and the open area on one side of the rake of stair leading to second floor, is extremely well placed, providing a splendid view from any portion of the living room. The curved face of the newel extension blends well with the angular lines of the stair hand rail, balusters and 'V' jointed pine boards.

### How to Make a Doweling Jig



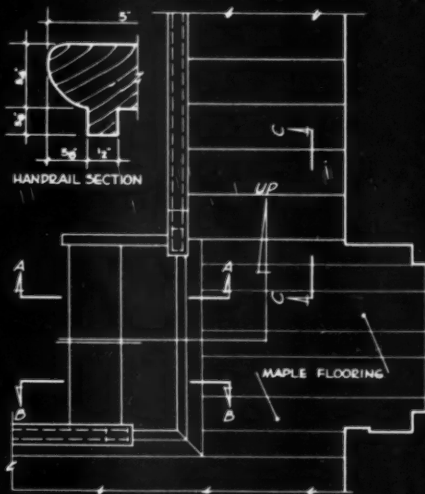
A doweling jig can be made quickly and easily by using several pieces of scrap wood. Drill as many guide holes as may be required depending upon the number of dowels that are to be used. This insures perfect spacing between the holes of the two pieces to be joined.—R. L. Rogers, New Britain, Conn.



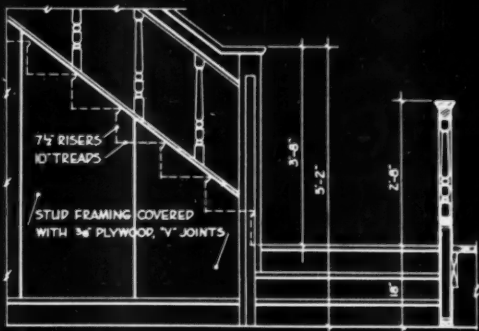
# AMERICAN BUILDER'S BETTER DETAIL PLATE

Detailed by K. Roderick O'Neal A.I.A. for American Builder

## NO. D-92 WOOD STAIRS . . .



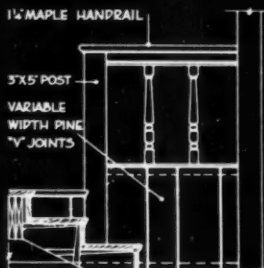
Plan . . .



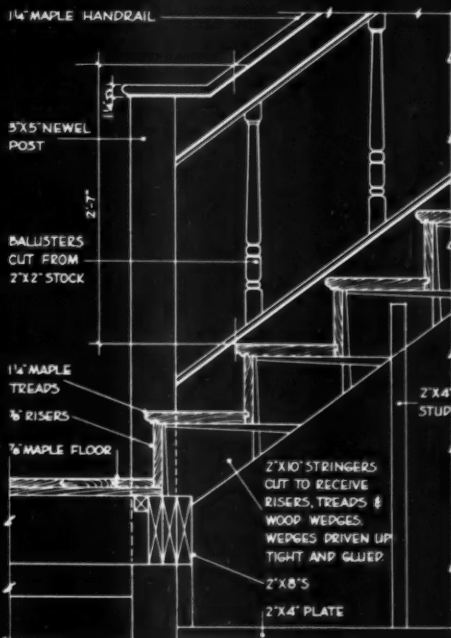
Elevation



Section A



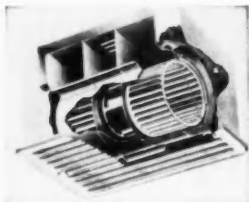
Section B . . .



Section C . . .

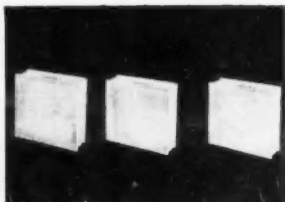
# NEW PRODUCTS

## Offered by Manufacturers



### SMALL ROOM VENTILATOR AB75208

Designed for small rooms and kitchens is this dual blower ventilator. Designated as model 1501, this Trade-Wind Clipper can be used in rooms up to 1000 cubic feet. The unit develops 300 cfm using 1/30 h.p. motor turning twin 6-inch squirrel cage blower wheels at 1450 rpm. The unit is quiet in operation and can be discharged either horizontally or vertically. Trade-Wind Motors, Inc., Dept. AB, 5725 S. Main St., Los Angeles 37, Calif.



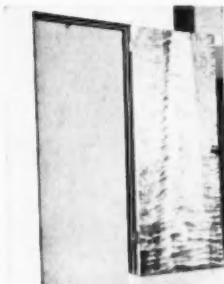
### LARGER GLASS BLOCK AB75221

The "Big 3" are 12 inch additions to the existing lines of 8-inch glass block now made by the Pittsburgh Corning Corp. The new, larger units have patterns for varying the amount of light that passes into the interior of the house. They weigh a third less than 8 inch concrete block. Pittsburgh Corning Corp., Dept. AB, 307 Fourth St., Pittsburgh 22, Pa.



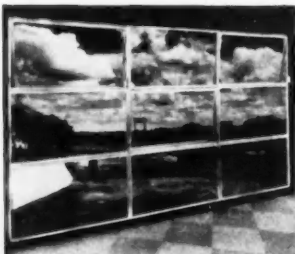
### ACOUSTICAL TILE AB75213

Made of glass fibers, a new acoustical tile may be installed in suspended ceiling construction and existing ceilings with standard acoustical tile adhesives. Available in two surfaces, textured or perforated, and many thicknesses, it is manufactured by Owens-Corning Fiberglas Corp., Nicholas Bldg., Dept. AB, Toledo, Ohio.



### STEEL DOOR FRAME AB75206

Now available for low-cost installation is a new interior 1 1/4 inch steel door frame. The unit comes in three pieces for rigid installation. The edge of the jamb provides the plaster ground. The unit comes with jombs punched and recessed for standard 3 1/2 x 3 1/2 inch butt hinges. Kewanee Manufacturing Co., Dept. AB, Kewanee, Ill.



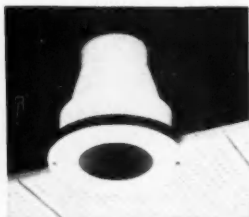
### ALUMINUM RINDOW WALL AB75209

Welded aluminum window wall frames are available in sizes of a single sash high and a single sash wide to a multiple of three in both width and height. Operating lights are complete with hardware. Standard sizes of Thermopane can be installed in the unglazed units. Marimet Corp., Dept. AB, Wausau, Wis.



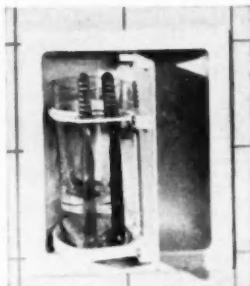
### PORTABLE LIGHTING AB75225

Known as Rolla-Duct, this portable branch circuit extension rolls power, light, and heat to any location. It can be raised to a height of 5 1/2 feet, and in the collapsed state it can be rolled under a job. It is approved for a 20 ampere load and has a built-in circuit breaker. National Electric Products Corp., Dept. AB, Chamber of Commerce Bldg., Pittsburgh 19, Pa.



### SPOT ACCENT LIGHT AB75205

The Silver-dot is an incandescent down-light fixture for special effect lighting in commercial or residential interiors. The unit requires a ceiling opening of 6 1/2 inches in diameter and a recess depth of 7 1/4 inches. It provides a six foot diameter circle of light at a vertical distance of six feet. Silvray Lighting, Inc., Dept. AB, 100 W. Main St., Bound Brook, N. J.



### TOOTHBRUSH HOLDER AB75220

A new space saving disappearing toothbrush holder that fits into the bathroom wall. The unit is easily installed and holds four brushes, a drinking glass, and a bar of soap. The complete unit is molded in white Plaskon urea by Wilcox Plastics Co., Dept. AB, Los Angeles, Calif.

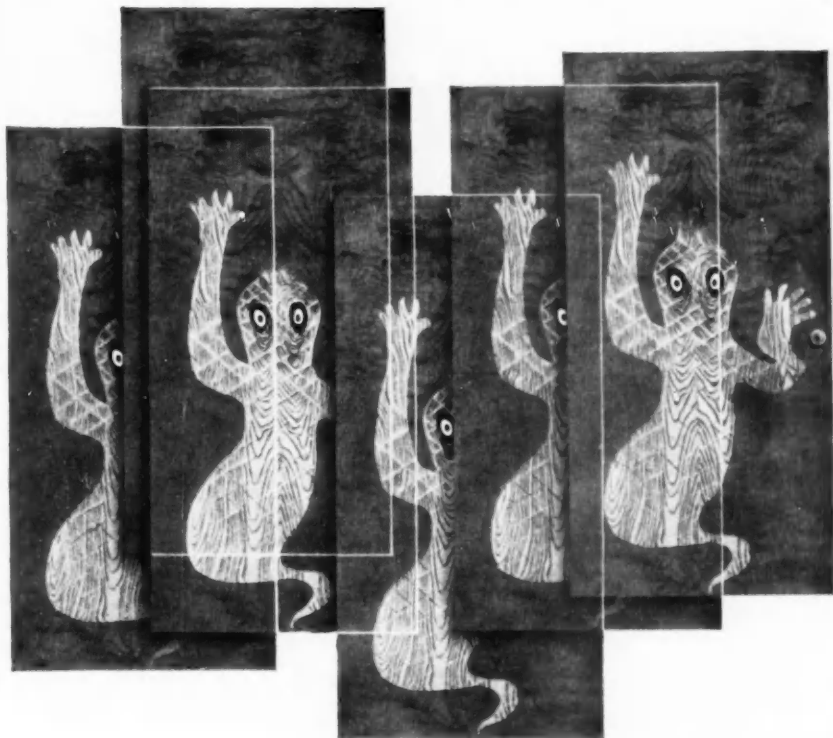


### PHILLIPS SCREW DRIVER AB75216

A new hand driver has removable low-cost inset bits for driving Phillips recessed head screws. The unit is adaptable for the factory line and home work shop. The driver and holder take interchangeable bits for various size Phillips head screws. Continental Screw Co., Dept. AB, New Bedford, Mass.

New Products continued on page 122

# DON'T BUILD HAUNTED HOUSES



## NO CORE PATTERN GHOSTS WITH **Roddiscraft HOUSEMART** 7-PLY CONSTRUCTION

**G**HOSTS usually don't show up until the finish is applied and the door hung. Customer complaints and call-backs are mighty costly then. Insure against core-pattern ghosts with Roddiscraft Housemart Doors.

Roddiscraft 7-ply construction is one reason why architects prefer Roddiscraft doors 2 to 1. Priced for the residential market.

### NATIONWIDE **Roddiscraft WAREHOUSE SERVICE**

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Chicago 32, Ill. .... 3865 W. 41st St.	Milwaukee 9, Wis. .... 4601 W. State St.
Cincinnati 2, Ohio .... 936 Depot St.	New Hyde Park, L. I., N. Y. ....
Dallas 10, Texas .... 2800 Medill St.	Plaza Ave. & S. 18th St.
Detroit 14, Mich. .... 11844 E. Jefferson St.	New York 55, N. Y. .... 920 E. 149th St.
Houston 10, Texas .... 2403 Sabine St.	Port Newark 5, N. J. .... 103 Marsh St.
Kansas City 3, Kan. .... 35 Southwest Blvd.	Philadelphia 34, Pa., Richmond & Tioga St.
Los Angeles 58, Calif., 2620E. Vernon Ave.	St. Louis 16, Mo., 3344 Morganford Road
Louisville 10, Ky. .... 1201-S 5. 15th St.	San Antonio 6, Texas, 727 N. Cherry St.
	San Francisco 24, Cal., 345 Williams Ave.

# Roddiscraft

RODDIS PLYWOOD CORPORATION  
Marshfield, Wisconsin

# CUT LABOR COSTS... SPEED PRODUCTION



WITH THIS  
NEW...

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**BUILDERS'  
TRANSIT-  
LEVEL**

### Accurate, Precise, Solidly Built

This modern builders' transit-level will out-perform any other instrument on the market . . . pay for itself, over and over again, in decreased labor costs, increased efficiency and output. It's today's way to do all of these jobs faster, more accurately than ever before:

- MEASURE FROM PROPERTY LINES
- LAY OUT ANGLES
- LEVEL UP EXCAVATIONS FOR FOUNDATIONS
- SET SLOPES FOR DRAINAGE OR SEWAGE
- STAKE OUT BUILDINGS
- SET CONCRETE FORMS TO LINE AND GRADE
- DETERMINE THE AMOUNTS OF CUT AND FILL
- PLUMB VERTICAL LINES
- SET GRADES FOR THRESHOLDS, SILLS, LINTELS, ETC.
- SET STAKES FOR GRADING PROPERTY

### Focuses on Objects as Close as 3 Feet Away

The durable materials, simple design and superior workmanship in K&E's Builders' Transit-Level assure accurate adjustment throughout years of rugged service. It's easy to operate; and its telescope is so good that you can see objects, quickly and clearly, even in poor light or inside buildings—actually focus on objects as close as three feet away!

For details of the No. N5155 K&E BUILDERS' TRANSIT-LEVEL (a transit and a level in one instrument), the No. 5153 K&E BUILDERS' LEVEL or K&E Leveling Rods, write to your nearest K&E distributor or to Keuffel & Esser Co., Hoboken, N. J. Easy-to-follow instructions with each instrument.

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and Materials,  
Slide Rules,  
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## KEUFFEL & ESSER CO.

EST. 1867

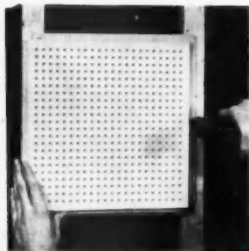
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and Materials. Slide Rules, Measuring Tapes

NEW YORK • HOBOKEN, N. J.

CHICAGO → ST. LOUIS • DETROIT • SAN FRANCISCO  
LOS ANGELES • MONTREAL

## NEW PRODUCTS

(Continued from page 120)



### ACOUSTICAL CEILING AB75217

Acoustilite has a flanged tongue and groove joint for fast, easy application with staples or nails, or a beveled butt-edge joint for adhesive application. High light reflection is assured from the white surface which may be cleaned with a brush, damp cloth, or by dry cleaning. It may be repainted many times without loss of its acoustical efficiency. Insulite, Dept. AB, 500 Baker Arcade Bldg., Minneapolis 2, Minn.



### DOOR OF THE MONTH AB75218

A new packaged "Door of the Month" idea features 48 door styles. The doors are manufactured in two sizes, 2 feet 8 inches and 3 feet models. Both are 6 feet 8 inches high and 1 7/8 inches thick and are guaranteed by the manufacturer, Angel Novelty Co., Dept. AB, 340 Broad St., Fitchburg, Mass.



### PATTERNED ASPHALT TILE AB75202

Four designs are being added to the group of patterns offered by Kentile. Each of the new "ThemeTile" designs is a factory made standard 9x9-inch square. A beribboned Scottie pup in black and a dove grey, a sail boat in aspen green and yellow, a maple leaf in toledo red and yellow, and a champagne glass in quarry red and yellow are the new designs. Kentile, Inc., Dept. AB, 58 Second Ave., Brooklyn, N.Y.

New Products continued on page 124

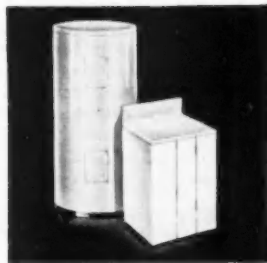
"Home buyers are sold on  
**electric** water heaters,"



These Cliffwood houses in suburban Shaler Township are in the medium-price bracket—from \$13,500 to \$18,500 including equipment. Built on hilltop sites, of simple modern design, all are equipped with *Electric Water Heaters*.

## says Pittsburgh builder **NOBLE S. CLAY**

"People like the features of *Electric Water Heaters*—so completely automatic, and with the attractive appearance that blends so well with other kitchen and laundry equipment," says Mr. Clay. "They're pleased, too, with the cleanness of operation, and the operating economy that results from short hot water lines and fully-insulated tank. And frequently we find that the *Electric Water Heater* permits definite savings in construction and installation. Because it requires no chimney flue connection, we can locate it in the utility room or kitchen—for most efficient operation—or in the combination kitchen-laundry so often used in modern plans."



*Equip Your Homes with*  
**electric water heaters**

**THEY'RE WHAT  
 PEOPLE WANT!**

**ELECTRIC WATER HEATER SECTION**  
 National Electrical Manufacturers Association  
 135 East 44th Street, New York 17, N. Y.

ALLCRAFT • BAUER • BRADFORD • CRANE-LINE SELECTRIC • CROSLY • DEEPFREEZE  
 FAIRBANKS-MORSE • FOWLER • FRIGIDAIRE • GENERAL ELECTRIC • HOTPOINT • HOTSTREAM  
 JOHN WOOD • KELVINATOR • LAWSON • MERTLAND • MONARCH • NORGE • PEMCO • BEX  
 RHEEM • SEPCO • A. O. SMITH • THERMOGRAY • TOASTMASTER • WESIX • WESTINGHOUSE



ATTRACTIVE screen of Blue Ridge Patterned Glass separates living room and dining room. Architects, Stevens & Wilkinson, Atlanta, Georgia.

## Smart Individuality with a screen of PATTERNED GLASS

The extra touch—the eye-opener that wins instant admiration and approval—that's what you get when you use Blue Ridge Patterned Glass.

It brightens rooms, it decorates, it adds a lot of salable charm to a home. Patterned Glass lets light through, but guards privacy. Use it in partitions, in panels flanking the entrance door. Its use is as wide as your imagination.

Blue Ridge Patterned Glass is economical to use. Your L·O·F Distributor or Dealer can give you an estimate. And remember, every square foot you use means just that much less plastering, painting or papering.

You can choose from more than 20 attractive patterns—linear, textured and checkered—with pronounced design or over-all soft diffusion. Ask your L·O·F Distributor or Dealer to show you samples.

Libbey Owens Ford Glass Company  
Patterned & Wire Glass Sales  
8-172 Nicholas Building, Toledo 2, Ohio

Please send me my free copy of "New Adventures in Decorating"

Name (please print) \_\_\_\_\_

Address \_\_\_\_\_

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

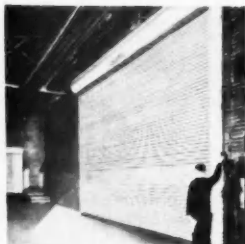


# BLUE RIDGE Patterned GLASS



## NEW PRODUCTS

(Continued from page 122)



### WINDOWS IN ROLLING DOORS AB75231

Narrow, transparent, panes of heavy-duty plastic are available in commercial and industrial rolling doors. Interlocking steel slats can be replaced by the plastic materials. The fenestration in the door allows more light and vision to the outside. The Kinneer Manufacturing Co., Dept. AB, Seventh and Field Ave., Columbus 16, Ohio.



### WALL TYPE GAS FURNACES AB75212

A jet principle moves heated air with a velocity of 300 feet per minute without the aid of moving parts. The furnace is installed in the wall and only the air intake and discharge grilles are visible. The furnaces are available in capacities of 25,000, 35,000, 45,000 and 55,000 BTU inputs. They are gas-fired and fully approved by the AGA, Royal Heaters, Inc., Dept. AB, 1024 Westminster Ave., Alhambra, Calif.

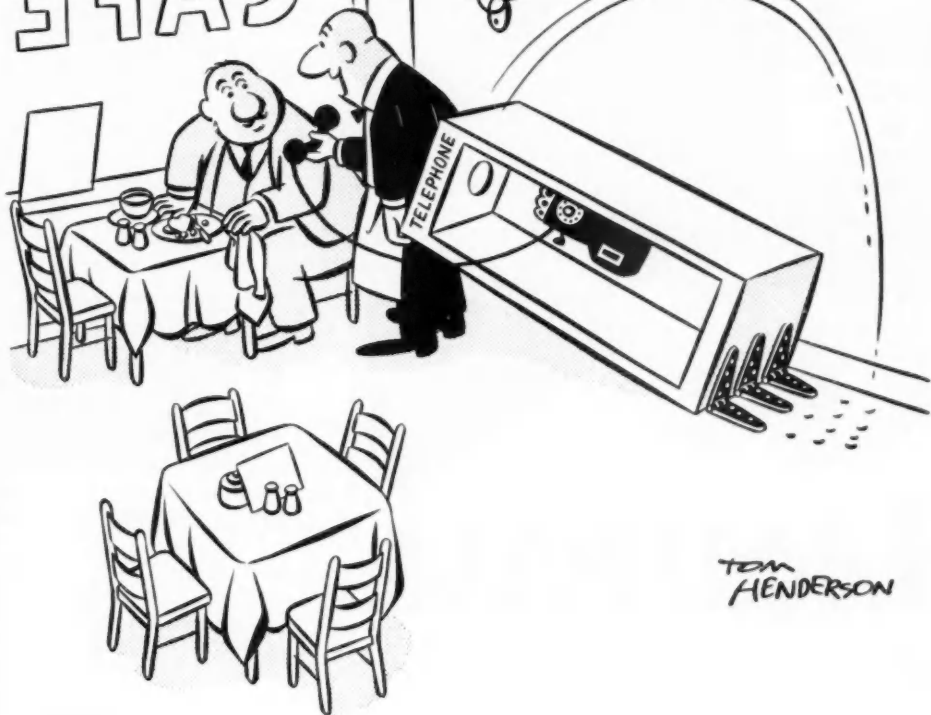


### SAW BLADE AB75236

With fewer teeth, combined with a heavier, more stable blade, the manufacturer claims this unit will result in smoother cuts with less power expended. The reduction in the number of teeth lowers the work load on the rim. It also corrects the tendency of some saws to go "wild" at high speeds. Many different types of arbor holes are made for any standard make of portable power saw. Henry Daston and Sons, Dept. AB, Philadelphia, Pa.

New Products continued on page 126

CAFE



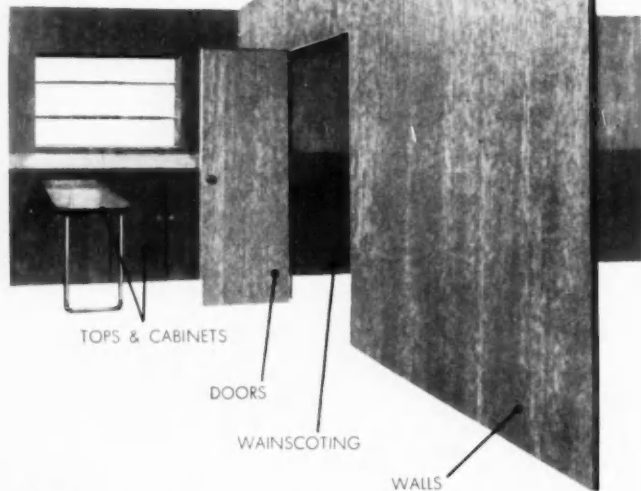
TOM  
HENDERSON

**"EVERYTHING HINGES ON HAGER!"\***

C. Hager & Sons Hinge Mfg. Co. • St. Louis, Mo.  
Founded 1849—Every Hager Hinge Swings on 100 Years of Experience



here's the genuine *plastic laminate*  
of TOP SURFACE QUALITY...  
low enough in cost to use for **WALLS!**



# LAMIDALL<sup>®</sup>

DECORATIVE PLASTIC LAMINATE

### Gives Walls New Lifetime Beauty!

Rich, natural wood grains, smart, decorative patterns and colors resist stains, heat, hard blows and abuse . . . maintenance-free wipes clean with a damp cloth . . . no polishing.

### Low Initial Cost—Low Application Cost!

Lamidall comes in structural panels up to 4' x 12',  $\frac{1}{8}$ " thick . . . easily worked on the job with ordinary carpenter's tools—quickly and simply applied to walls and top surfaces.

### Durable, Decorative and Economical!

Lamidall opens up many possibilities for uses in institutional, commercial and residential buildings . . . for walls, ceilings, counter tops, cabinets and furniture.

**Matching Mouldings for Beautiful, Continuous Walls!** Considered by Architects and Designers to be the ideal solution for "unbroken" wall installations . . . not possible with ordinary mouldings. Available in Lamidall wood grains and patterns.

**Send for Free Samples and New Full-color Folder!**

Prove it to yourself . . . see the beauty . . . test the durability.

LAMIDALL PLASTIC LAMINATE IS A PRODUCT OF

**WOODALL INDUSTRIES INC.**

3504 OAKTON STREET, SKOKIE, ILLINOIS

Other Plants in Cleveland • Detroit • Laurel, Miss. • Mineola, N. Y. • Monroe, Mich. • San Francisco

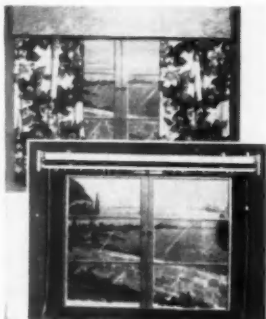
## NEW PRODUCTS

(Continued from page 124)



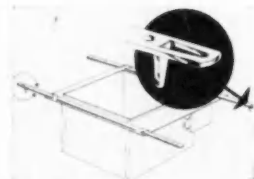
### PLASTIC BULLNOSE CAP AND OUTCORNER AB75211

Added to this firm's line of complete plastic tile installations are a bullnose cap and outcorner. Six additional colors have also been added to the manufacturer's complete line of plastics products: sunlight yellow, burgundy marble, olympic gray, foam blue, coral marble, and foam green. Tilemaster, A I Plastic Moulders, Inc., Dept. AB, 1415 Diversey Parkway, Chicago 14, Ill.



### ILLUMINATED VALANCES AB75210

Combining fluorescent lighting with a conventional valance this unit can be used over windows, across walls, over pictures, beds and tables, and in many other locations. Face boards are eight and 10-inch of  $\frac{1}{2}$ -inch plywood. Included also with the valance is a traverse rod, fluorescent fixture, radio and TV interference filters. Four standard lengths of 33, 48, 66, and 96 inches are available. Jaleco Corp., Dept. AB, 2513 Baldwin St., St. Louis 6, Mo.



### SIMPLIFIED MOUNTING AB75201

A mounting strap has been designed to overcome some of the problems in hanging recessed light fixtures. This feature makes it easier for one man to install the unit. After inserting the straps, all the workman has to do is tap each Redi-Set prong a couple of times and the housing is fixed firmly in position. Then the workman has both hands free to drive additional nails or screws. The mounts eliminate framing-in and allow the housing to be positioned exactly. Payne and Company, Dept. AB, Pomona, Calif.

New Products continued on page 128

AMERICAN BUILDER





"Here's the ultimate in  
year 'round conditioning...with  
independent humidity control"

says S. H. Baldwin,

S. H. Baldwin and Company, Lubbock, Texas

"Recommending all-weather conditioning to a homeowner is like selling a man a Cadillac. While thousands will buy, all have to be sold on the *extra* values. That's where the Bryant All-Weather Conditioner fits into the picture! Not only does it control the temperature, but *closely* controls the *humidity*, too . . . a brand new development in residential air conditioning. With the Bryant it's even possible to *remove excess moisture* from the air *without lowering room temperature*. Completely automatic, the All-Weather Conditioner heats, humidifies, cleans and gently circulates the air when warmth is needed; also cools, dehumidifies (then reheats, if necessary) the air for summer comfort. Independent, automatic humidity control takes the Bryant out of the "me too" class of year 'round conditioning. Naturally, many other features have made Bryant tops in the field. If you want the *ultimate* in year 'round conditioning, get acquainted with the Bryant All-Weather Conditioner. Your Bryant distributor has the facts, or write Bryant Heater Division, Dept. 186, Affiliated Gas Equipment, Inc., 17825 St. Clair Ave., Cleveland, O.



**BRYANT  
ALL-WEATHER  
CONDITIONER**

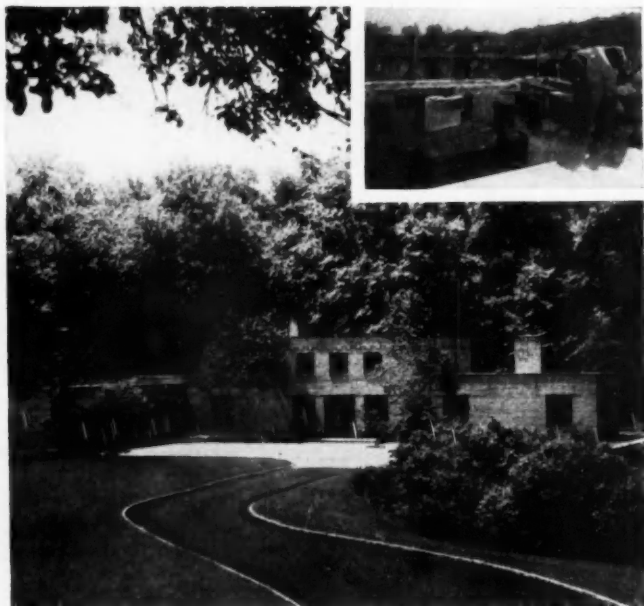
Sizes 3- and 5-ton cooling capacity. Total heating input 150,000 BTU/Hr. in the smaller model, 200,000 in the larger size. Units available for electrical power from 208 to 230 volts, 1 or 3 phase 50 to 60 cycles. AGA approved and Underwriters' listed.

**bryant**<sup>®</sup> *best buy*

**IN HEATING,**

**AIR CONDITIONING,**

**WATER HEATING**



Residence of Architect Perry M. Duncan, Greenwich, Conn.

## The beauty is more than skin deep

● Underneath that handsome exterior, you'll find the last word in construction, from the basement right up to the FOAMGLAS-insulated roof.

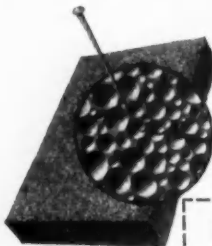
It's hard even to imagine an insulation that will give more trouble-free service than FOAMGLAS. Even without a protective finish, FOAMGLAS will not absorb water. It acts as a vapor seal all by itself. It will not harbor vermin or fungi. And, since FOAMGLAS contains no

binders or fillers of any kind, it has all the chemical resistance of a true, unadulterated glass.

You can build a better home, and sell it easier, if you include FOAMGLAS in your list of materials. For roofs, floor perimeters or under slabs, no other insulation will give your customers such lasting protection.

Send the coupon for a free sample of FOAMGLAS and our latest booklet.

PITTSBURGH CORNING CORPORATION • PITTSBURGH 22, PA.



The best glass insulation is cellular glass. The only cellular glass insulation is FOAMGLAS. This unique material is composed of still air, sealed in minute glass cells. It is light weight, incombustible, vermin-proof. It has unusually high resistance to moisture, chemicals and many other elements that cause insulation to deteriorate.



# FOAMGLAS®

*The cellular glass insulation*

Pittsburgh Corning Corporation  
Dept. A-72, 307 Fourth Avenue  
Pittsburgh 22, Pa.

Please send me, without obligation, a sample of FOAMGLAS and your FREE booklet on the use of FOAMGLAS for homes.

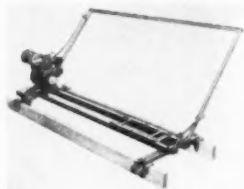
Name .....

Address .....

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

## NEW PRODUCTS

(Continued from page 126)



### SCREEDING MACHINE AB75239

Adaptable to slab floors, walks, driveways, narrow winding roads, bridges, approaches, shoulders, limited and inaccessible areas, the unit vibrates and puddles concrete throughout the depth of the area without the heavier aggregates settling to the bottom. Moisture is brought to the surface and the slab is screeded to level preparatory to floating and finishing. Whiteman Mfg. Co., Dept. AB, 3249 Casitas Ave., Los Angeles 39, Calif.



### TENSION SCREENS AB75234

Faster installation, convenience, and easier storage are the features of aluminum tension screens. They differ from the conventional wood screen in that there are no wood frames and they are put up from inside the house. Two side clamps lock the screen into place at the bottom. The clamp, which is on the screen itself, eliminates hardware on the window sill. New York Wire Cloth Co., Dept. AB, 445 Park Ave., New York, N.Y.



### BATHTUB PROTECTION AB75223

"You'll find it in the bathtub" is a statement heard all too often on construction jobs. Protek protects bathtubs against common damage after installed on jobs. It is a powdered material that is mixed with water to form a paste which is brushed on the bathtub surface. It remains tacky for a reasonable time allowing a plumber to cover a sizeable area with newspapers. As many layers as are desired can be applied. The material comes packaged in 1 1/2 pound bags sufficient to cover an average tub. Kohler Co., Dept. AB, 44 High St., Kohler, Wis.

New Products continued on page 130

AMERICAN BUILDER

# In Beautiful Colors that last

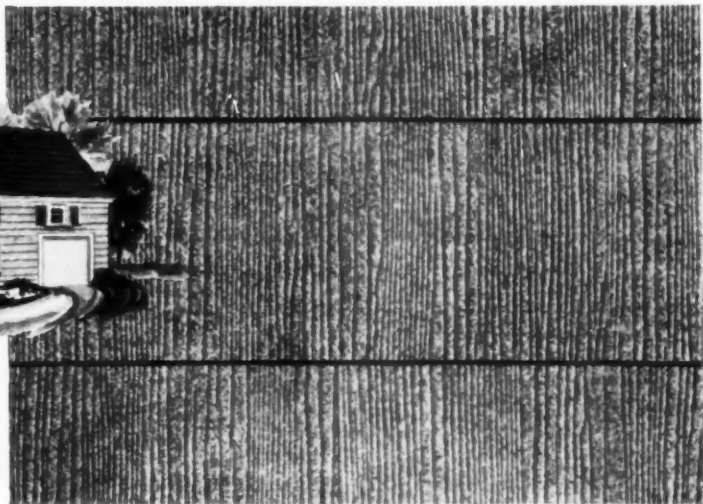
## Johns-Manville

# Smoothgrain!

The smooth-surfaced asbestos siding with deeply embedded ceramic granule texture and color



**J-M Smoothgrain  
Asbestos Siding is fire-  
proof, rotproof, weather-  
proof and never needs paint  
to preserve it.**



VIEWS FROM ANY ANGLE, J-M Smoothgrain Asbestos Siding has a strikingly "grained" texture, yet the surface is actually smooth.

This smooth surface resists soiling because it has no grooves to catch dirt. The rich "grained" texture and lasting colors are achieved by colored ceramic granules deeply embedded in the asbestos-cement. And this "graining" is so striking, it is hard for the eye to distinguish the vertical joints.

Smoothgrain Asbestos Siding has the same cross-section throughout. This makes it stronger, easier to cut sharp edges without chipping.

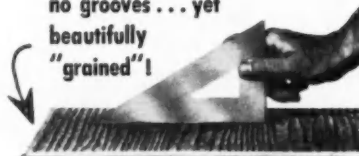
Send for the free full-color brochure that shows the outstanding variety of beautiful colors in which Smoothgrain Asbestos Siding is made. Write Johns-Manville, Box 60, New York 16, N. Y.



## Johns-Manville

JULY 1952

Smooth surface . . .  
no grooves . . . yet  
beautifully  
"grained"!



LINE YOUR LEVEL against the surface of the new J-M SMOOTHGRAIN Siding . . . you'll find it smooth and true. Look at its beauty from any angle . . . you'll see a rich texture of striking character!

*\*Ask about  
the new pastel colors that  
provide "Springtime beauty  
the year 'round" — Sunfan,  
Coral, Pastel Green!*

129

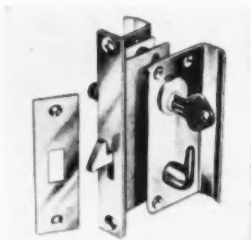
## NEW PRODUCTS

(Continued from page 128)



### AUTOMATIC DOOR OPERATOR AB75219

A new automatic door operator called the "Auto-Check" is a concealed type, completely silent, pneumatically operated and hydraulically controlled. The unit is competitively priced and factory adjusted for the weight of the door. Vern Manufacturing Co., Dept. AB, Spotswood, N. J.

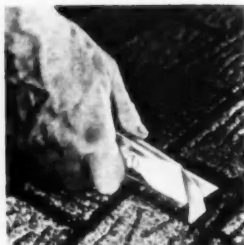


### NEW LOCK AB75207

Designed for use in sliding doors with narrow metal or wood stiles, this reversible lock can be operated by handles from one or both sides. It can be locked from the outside by a key and the inside by a slide button. Adams-Rite Manufacturing Co., Dept. AB, 540 W. Chevy Chase Dr., Glendale 4, Calif.

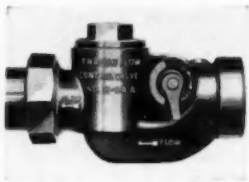
### LOW COST PREFAB AB75222

A prefabricated house that can be sold for \$7,000 including land in the majority of the nation's critical defense areas has been developed by Harnischfeger. Builders need only furnish land, foundation, erection, plumbing, electrical work, finish carpentry, and decorating. Harnischfeger Corp., Dept. AB, 4400 W. National Ave., Milwaukee 14, Wis.



### ROOFING KNIFE AB75235

The blade of this carbide-tipped roofing knife approaches diamond hardness for long-life cutting. It score-cuts mineral surfaced roofing and siding materials, asbestos cement flat sheets and shingles, corrugated asbestos cement roofing and siding, and other abrasive composition siding and roofing materials. The unit can combine a trimming blade and the carbide-tipped blade keeping the carbide blade sharp. Stanley Tools, Dept. AB, New Britain, Conn.



### FLOW CONTROL VALVE AB75214

On zoned heating installations a Thrush flow control valve with vent tube is used at the boiler. Then each zone has a horizontal flow valve located at any point in the building nearest the zone being supplied. Locating the valve near its respective zone saves piping and fittings. Available in three sizes 1, 1 1/4, and 1 1/2 inch, the units are made with a threaded inlet and a union outlet. H. A. Thrush and Company, Dept. AB, Peru, Ind.

### HARDBOARD AB75203

Available at local dealers is smooth on two sides, Masonite. The hardboard called Duolux comes in 1/4 and 3/16 inch thicknesses in standard or tempered types. The new material, states the manufacturer, is adaptable for curtain walls and partitions, drawer dividers and bottoms, kitchen cabinets, and other places where two smooth sides are needed. Masonite Corp., Dept. AB, 111 W. Washington St., Chicago 2, Ill.



### WIDE FLANGE CEILING TILE AB75224

Nu-wood wide flange tile is a companion product to the regular line, featuring applications with the Nu-Wood clip. The wide flange tile is available in 1/2-inch thicknesses in the Sto-lite finish in sizes of 12x12, 16x16, 12x24 cross scored, and 16x32 inches. The wide flange product can be stapled to the joists or to furring strips. Wood Conversion Co., Dept. AB, First National Bank Bldg., St. Paul, Minn.



### SUSPENDED FURNACE AB75215

With the addition of the new 75,000 BTU model, 5 sizes of suspended furnaces are now available from the manufacturer. The new unit is designed for the small home where space is at a premium. It can be installed in attics, basements, or crawl spaces. Quiet Automatic Burner Corp., Dept. AB, 33 Bloomfield Ave., Newark, N. J.

### CERAMIC TILE ADHESIVE AB75204

Lighter, more versatile, faster installation, and faster drying are claimed by the manufacturer for this product in setting ceramic tile. The new application method is suited to remodeling work. The material can be used in a floating or buttering operation. Minnesota Mining and Manufacturing Co., Adhesives and Coatings Division, Dept. AB, 411 Piquette Ave., Detroit 2, Mich.



### WOOD FOLDING DOOR AB75240

A new folding door is made up of a series of wood panels 3 3/4 inches wide by 3/4 inches thick with a T-shaped piece of wood between each panel. Concealed springs, acting as hinges, hold the door together and a metal track supports the door at the top. Suggested uses are ceiling to floor movable partitions, closet and wardrobe fronts between church and Sunday school rooms, in hospitals, and between classrooms and study halls. Available in heights up to 12 feet and widths up to 20 feet. The doors are assembled at the factory. Available in three standard paint colors, natural wood finish, unfinished, or with oak, birch, or mahogany veneers. Rolscreen Co., Pella, Iowa.

### 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

Name .....

Address .....

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

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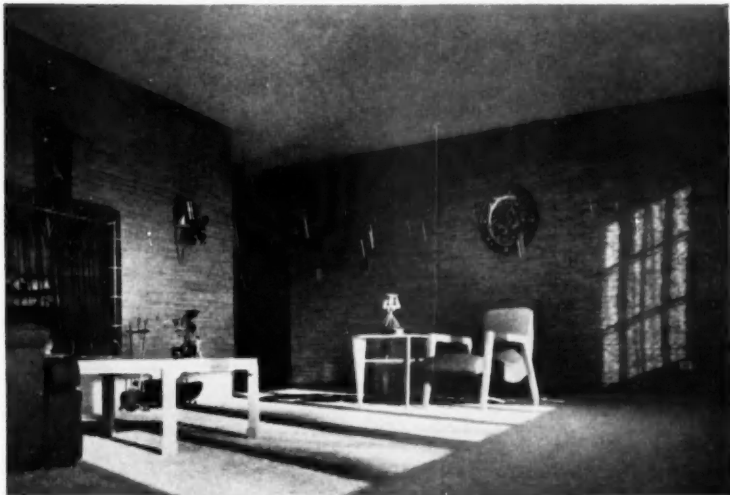
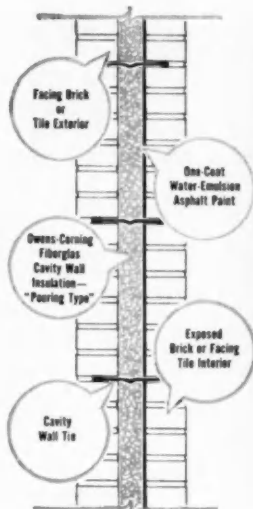
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When you address inquiries direct to manufacturers concerning a new product described here, please mention that you saw it described in American Builder

*For today's selective buyers*

## EXPOSED INTERIOR MASONRY



## *added beauty at lower cost with* **THE SCR<sup>\*</sup> INSULATED CAVITY WALL**

SCR Insulated Cavity Wall construction will give you all these advantages:

**Contemporary Beauty**—By leaving the inside surface of the wall exposed, you can take advantage of today's trend to natural finishes, capitalize on the natural beauty of brick and tile.

**Construction Economy**—Interior walls of brick or tile, left exposed, eliminate furring, lathing and plastering costs.

**Proved Performance**—Cavity walls of brick and tile are noted for their resistance to moisture penetra-

tion and heat loss—this wall involves no change in construction methods or code requirements.

**Added Insulation Value**—With the new Fiberglas\*\* Cavity Wall Insulation, Pouring Type, this wall has a tested U value of .12—excellent protection in the most severe climates. The insulation pours easily, resists settling and moisture absorption.

For technical data or “how-to-build it” information, please write us on your own letterhead. Address: Dept. AB-7.

\*Reg. Trade-mark, Structural Clay Products Institute

\*\*Reg. Trade-mark, Owens-Corning Fiberglas Corporation



**STRUCTURAL CLAY PRODUCTS INSTITUTE**

1520 18th Street, N. W., Washington 6, D. C.

# CONVERTIBLE MASONRY SAW

cuts



GLAZED TILE CONCRETE SLAB STONE SLABS



**Here's How...**

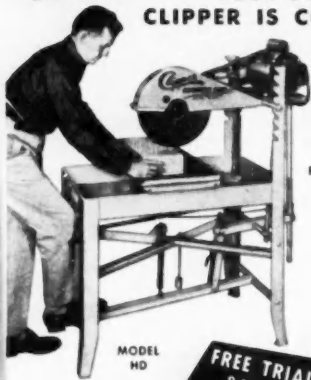
FIRST YOU BUY A CLIPPER MASONRY SAW

THEN YOU ADD... the "CONVERTIBLE" CART

THEN USE YOUR CLIPPER "4" WAYS

- 1 Use as a DUSTLESS Masonry Saw
- 2 Use as a DRY Masonry Saw
- 3 Slip the head from your Clipper Masonry Saw into the "CONVERTIBLE" CART and you have a Handy Concrete Saw.
- 4 Place it in tracks and you can cut large stone slabs or transite sheets.

## YOUR OWN Model HD CLIPPER IS CONVERTIBLE



MODEL HD

**FREE TRIAL**  
9 MODELS  
FROM \$265

Now use your HD or DHD Clipper to saw Concrete or Asphalt Floors, Walks, etc., plus Stone Slabs, Transite Sheets, etc. — in addition to the countless masonry materials you're now cutting. All you need is the CHD Convertible Cart and Tracks.

### PATENTED FEATURES



## SAVES MONEY ON ANY SIZE JOB!

With the Model HD you can cut — Glazed Tile, Concrete Block, Face Brick, Stone, Glass, etc., but in an instant you can "convert" to sawing patches, trenches in building floors, walks or drives by placing the cutting head on the "CONVERTIBLE" CART. No more fractures beyond removal lines—no more spalling.

But wait — if you have bulky stone slabs, Transite or large refractories to cut — just place the "CONVERTIBLE" CART on TRACKS and operate as a TRACK SAW!

**Clipper**  
KANSAS CITY 8, MISSOURI

ST. LOUIS PHILADELPHIA ATLANTA  
CLEVELAND PITTSBURGH WASHINGTON D.C.  
DETROIT SAN FRANCISCO BOSTON  
CINCINNATI LOS ANGELES BIRMINGHAM  
HOUSTON CHICAGO ST. PAUL  
DALLAS TEX. NEW YORK INDIANAPOLIS

### CLIPPER BLADES

The finest WET & DRY Abrasive, "B" (Break Resistant), and Bronze, Nickel and Steel Diamond Blades in over 100 specifications to answer any cutting problem.

### CLIPPER MANUFACTURING CO.

2808 N.E. WARWICK • KANSAS CITY 8, MO.

SEND FREE LITERATURE ON: 894

- CONVERTIBLE SAWS  CHD CART ONLY  
 TRACK SECTIONS  HEAVY DUTY CONCRETE SAWS

NAME \_\_\_\_\_  
STREET \_\_\_\_\_  
CITY \_\_\_\_\_ STATE \_\_\_\_\_

SERVING THE WORLD AS THE WORLD'S LARGEST MANUFACTURER OF MASONRY SAWS

SOLD DIRECT FROM FACTORY BRANCHES

# Catalogs —

and Manufacturers Literature

## 246—PLYWOOD DOORS—

A two color, 32 page booklet fully describes the company's plywood doors and allied products. Such items as hollow core doors, solid core doors, fancy plywood, garage doors, counter top material and insulation are included in the catalog. Roddis-Craft, Roddis Plywood Corp., Dept. AB, Marshfield, Wis.



## 247 — POWER DRILLS —

A catalog of Super-Duty power drills features photographs and specifications of the company's 1/4 inch drill line. Three models of standard, heavy and extra heavy duty models are available in three low, standard, and high speeds. The drills are in either pistol or saw-type grips. Pet Tools, Portable Electric Tools, Inc., Dept. AB, 320 W. 83rd St., Chicago 20, Ill.



## 248—CONVECTOR HEATING—

Dimensional and connection data are featured in this 28 page catalog. Tables of approved ratings and rough-in dimensions are included. The National Radiator Co., Dept. AB, 223 Central Ave., Johnstown, Pa.



## 249—LOCK CATALOG—

Released by the Schlage Lock Company is a new 2-color catalog describing the company's line. Also included in the new publication are details of the various lock installations. Schlage Lock Co., Dept. AB, 2201 Bay Shore Blvd., San Francisco 19, Calif.

## 250—MOBILIZED INTERIORS—

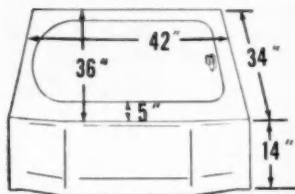
A 48-page catalog on Mills movable metal walls is available for architects and builders who require information on space requirements in offices, factories, schools, hospitals, and laboratories. Included are details on erection and fastening of these walls as well as suggestions on where such walls can be used effectively. The Mills Co., Dept. AB, Cleveland 10, Ohio.



(Continued on page 134)

# KOHLER STANDISH

New  
space-conserving  
shower bath



*Standish enameled iron recess shower bath, K-305-F,*

The compact, handsome Standish affords practical space-economy for homes, apartments, hotels, dormitories and motor courts, and for remodeling. Shorter and wider than the average bath, it is roomy and deep for showering—and suitable for bathing. The low front, 14" off floor, makes it especially useful for bathing small children.

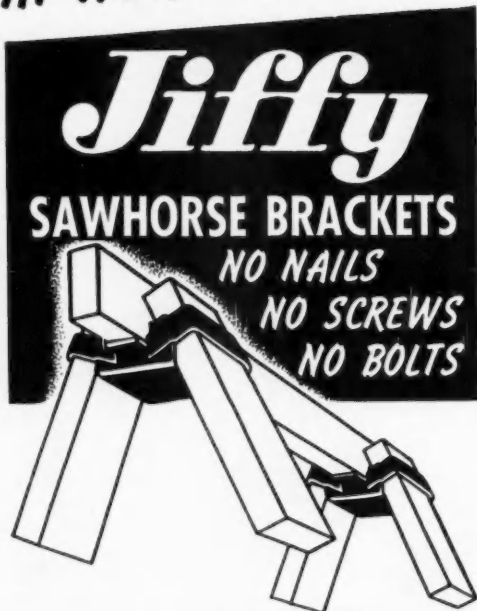
The bench rim is five inches wide at center. The lustrous Kohler enamel is fused to non-flexing iron, cast for strength and rigidity. The chromium-plated Niedecken mixer fitting simplifies control of water temperature.

Kohler Co., Kohler, Wisconsin. Established 1873

## KOHLER OF KOHLER

PLUMBING FIXTURES • HEATING EQUIPMENT • ELECTRIC PLANTS • AIR-COOLED ENGINES • PRECISION CONTROLS  
JULY 1932

For all who use sawhorses  
**AT WORK OR AT HOME**



## Set Up or Knocked Down in a Jiffy

Use 2 x 4's for legs, and a 2 x 4, 2 x 6, 2 x 8,  
 2 x 10, or 2 x 12 for the crossbar.

### Easy to Move from job to job

### Easy to Store between jobs

Now you can have a rugged, sturdy sawhorse whenever and wherever you need it. No longer is it necessary to carry a big, cumbersome sawhorse from place to place.

A set of Jiffy Brackets and five pieces of 2 x 4 make a sawhorse any time anywhere. Put together or knocked down in a jiffy.

For sale in hardware and building supply stores everywhere. Order direct if your dealer cannot supply you.



GRAND HAVEN STAMPED PRODUCTS CO., Grand Haven, Mich.

## Catalogs

(Continued from page 132)



**251 — BATHROOMS** — This booklet, designed for the consumer, suggests bathroom layouts and color combinations. Varied building materials have been used in the bath designs. The booklet presents the manufacturer's complete line of bath fixtures. Universal-Rundle Corp., Dept. AB, New Castle, Pa.

**252 — STEEL INFORMATION** — "This Is International Steel" is a booklet that gives the builder a quick and accurate picture of what the manufacturer can do for him. Included are photographs and descriptions of many construction jobs. International Steel, Dept. AB, Evansville, Ind.



**253 — CLAY TILE** — "The Modern Style Is Clay Tile," a 4-color booklet, has been prepared by the industry's association. Primarily intended for the consumer, this booklet can also give builders and architects many ideas in the use and color styling of clay tile. Included are suggestions for every room in the house. The Tile Council of America, Dept. AB, Room 3401, 10 E. 40th St., New York 16, N. Y.

**254 — CONCRETE FORM TIES** — A forming principle which embodies the use of break back form ties is described in this booklet. The ties make possible faster forming at less cost. Each tie has a slight indentation where it will break-off after the concrete has set. Ties break off  $\frac{3}{8}$  of an inch into the concrete, leaving small holes which paint will usually cover. Gates and Sons, Dept. AB, 80 So. Galapago, Denver, Colorado.



**255 — MASONRY WATER-PROOF** — This product is guaranteed to waterproof all masonry surfaces either interior or exterior in old or new construction for five years. The one-page informative sheet also explains how the product can be used as a mortar, methods of application, and colors. Protect-o Seal Corp., Dept. AB, 1715 Church St., Evanston, Ill.

(Continued on page 136)



Only the Dua-Laps\* process



gives you the  
hard, BAKED-ON  
SURFACE needed  
to withstand

color deterioration...

Hundreds of  
infra-red  
lamps bake  
on this durable  
protective  
coating.



\* 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

# 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.

## Catalogs

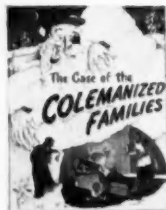
(Continued from page 134)

**256—FLUSH DOORS**—An eight page booklet covers solid and hollow core doors, fire resistant, and X-ray doors. Typical details and glazing specifications are included in the booklet. Diagrams on applied mouldings for flush doors can be of interest to the builder who wants something different. Roddiscraft Doors, Roddis Plywood Corp., Dept. AB, Marshfield, Wis.



**257—SCALE PLANNING BOARD**—A pamphlet describes the method and materials used in a 1/4-inch scale planning board. A model can be set up for study of planning, building, decorating, or architecture for a proposed structure. Hoyt Rust, Dept. AB, 173 Marion St., Denver 3, Colo.

**258—HEATING COMIC BOOK**—A 16 page comic book combines cartoons and jingles to inform readers that the manufacturer has a type and model of heating equipment for every home. The comic format is expected to have a longer life expectancy in the prospect's home. Entitled "The Case of The Colmanized Families" the book is published by the Coleman Company, Dept. AB, Second and St. Francis St., Wichita, Kans.



**259—FLEXIBLE DOORS**—A folder issued by the manufacturer describes the cost saving qualities and installations of the Ra-Tox flexible doors. Size and color information are also included in the folder. Hough Shade Corp., Dept. AB, Janesville, Wis.

**260—TACKLE BLOCKS**—The catalog lists the manufacturer's comprehensive line of tackle blocks. Information in the catalog is presented in five major divisions: ordering, service, design, mechanics, and size. Each description includes a photograph showing the block as it appears assembled. Upson-Walton Co., Dept. AB, 12500 Elmwood Ave., Cleveland 11, Ohio.



## SERVICE COUPON—CLIP and MAIL to CHICAGO

Readers Service Department  
American Builder  
79 W. Monroe St., Chicago 3, Ill.

July 1952

Please send me additional information on the following product items, or catalogs, listed in this department:

Numbers .....

Name .....

Street .....

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

OCCUPATION\* .....

\*Please note that occupation must be stated if full service is given.

AMERICAN BUILDER



But with cement, it's not that easy . . . and air-entraining cement . . . like a shirt . . . must fit **TWO WAYS!**

From size 14-30 to 17-36, shirts come ready-made to fit almost any man. But when you're using air entraining cement, remember—there's only *one* "size"—set by rigid Federal and ASTM specifications. And on many jobs it just won't "fit."

Naturally, you wouldn't buy a shirt that's right around the collar but has sleeves reaching down to your fingertips. And it works the same way when you're ordering cement. Before you'll get air entrained concrete that's perfect, you must make sure of the measure *two ways!* First, determine *how much* air entrainment is right for your particular job . . . and then, the air entraining *effect* of your aggregate, its gradation—and even the temperature of the mix . . . all factors that can change the amount of air actually entrained in your concrete.

You've got to be right on *both* counts—to be sure of "form-fitting" concrete!

You may find that air entraining cement measures up perfectly. But more likely you'll discover that it's safer . . . and smarter, to add the *required* amount of a well known air entraining agent with regular portland cement at the mixer. Just remember to use air entraining cement *only* when you're sure . . . and remember, too—you can't buy better regular portland or air entraining cement than Marquette.

\* \* \*

*If you have any problems or questions on the use and mixing of air-entrained concrete, the Marquette Service Engineer will be glad to help and advise you—contact any Marquette office.*



# Marquette Cement

**MANUFACTURING COMPANY**

SALES OFFICES: Chicago • St. Louis • Memphis • Jackson, Miss. • PLANTS: Oglesby, Ill.  
Des Moines, Ia. • Cape Girardeau, Mo. • Nashville, Tenn. • Cowan, Tenn. • Brandon, Miss.

**PORTLAND • HIGH EARLY STRENGTH • AIR ENTRAINING • MASONRY**



A  
PEASEWAY  
HOME

WHY DO SO MANY  
PREFABRICATORS  
RELY ON  
**PRE-STAINED  
CEDAR SHAKES**

?



## Experience proves they **BUILD BETTER...SELL FASTER**

Gentlemen:

PEASEWAY HOMES are now going into their 13th production year. Their success is based on wide public acceptance and no small measure of this can be attributed to the Stained Cedar Shakes that we have been using as a sidewall covering.

The reasons for the preponderant use of stained shakes are very obvious. They are economical compared competitively with other

types of siding; they are easy and inexpensive to apply; they are durable, yet if damaged can readily be replaced; they are easy and inexpensive to maintain, and last, but not least, the double coursing gives them a deep shadow line which adds character and attractiveness to the exterior wall.

Sincerely yours,  
PEASE WOODWORK COMPANY  
John W. Pease

**STAINED SHINGLE & SHAKE ASSOCIATION**

4403 WHITE BLDG., SEATTLE 1, WASH. • CANADIAN OFFICE, VANCOUVER, B. C.



# You'll build and sell faster with Westinghouse micarta<sup>®</sup> panels



Now you can install attractive MICARTA<sup>®</sup> Laminated Plastic work surfaces at a big saving in time, trouble and material. These convenient Westinghouse MICARTA panels are pre-bonded to Weldwood plywood panels—delivered to you ready to cut to size. You eliminate the bother of bonding, the need for special expensive tools. MICARTA can be sawed, drilled, trimmed and planed by any carpenter. It cuts with a minimum of waste, too.

Once you install MICARTA its warm colors and patterns will work to help you sell homes

faster. Women will appreciate the fact that it never requires maintenance. It stands up forever against food, alcohol, ink, oil—even boiling water! It resists denting, scratching, chipping, and burning. The super-smooth surface can be cleaned to a gleam with a wipe of a damp cloth.

The easily installed panels come in four sizes ... 24" x 96" ... 48" x 96" ... 30" x 60" ... 30" x 96" (all  $\frac{7}{8}$ " thick). Ask your lumber dealer about MICARTA. For further information on this modern material fill out the coupon below.

J-06464

Westinghouse  
  
**micarta<sup>®</sup>**

DISTRIBUTED BY UNITED STATES PLYWOOD CORP and U.S.-MENDEL PLYWOOD, INC.

.....  
 • UNITED STATES PLYWOOD CORPORATION  
 • 55 West 44th Street, New York 18, N. Y.

• Please send color guidebook and full application information on MICARTA.

• NAME \_\_\_\_\_

• ADDRESS \_\_\_\_\_

• CITY \_\_\_\_\_ ZONE \_\_\_\_\_ STATE \_\_\_\_\_



# Barcol OVERdoors

LOOK WELL...  
WORK WELL

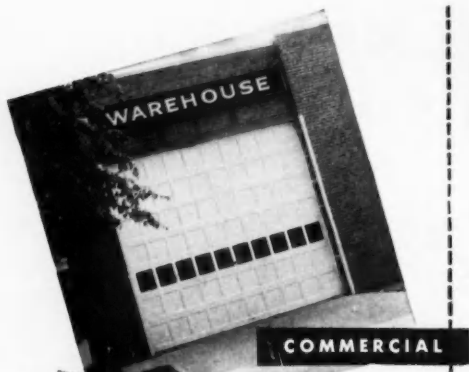
## IN MANY PLACES

The best feature of Barcol OVERdoors is that they can be used in so many different ways. They can be made to fit almost any size opening. You can get special design sections to match decorative ideas. You can get special hardware arrangements to take care of low headroom, high headroom, all-vertical and other situations. Yet you get the *same distinctive and outstanding features* for all these conditions. You get a cam closing action that insures weathertight closing *without sticking*. You get *easy working* doors, due to anti-friction rollers, tailored twin coil springs, straight-line cable connections. You get long life and low maintenance costs, due to good engineering and quality construction all the way through. You get, in the Barcol OVERdoor — and at reasonable cost — practically all the value you could hope for; and you get it in any size door for any type of building. *Standardize on Barcol OVERdoors* — others are doing it, with great satisfaction.

SALES AND SERVICE REPRESENTATIVES  
IN PRINCIPAL CITIES

## BARBER-COLMAN COMPANY

104 MILL STREET • ROCKFORD, ILLINOIS  
AMERICAN BUILDER



# Get more profitable remodeling jobs!

Speed the sales of *NEW Homes...*

with these two beautiful, easy-to-work products



## PLANKWELD® PANELS

You might be surprised at how many, *many* prospects you have for Plankweld remodeling jobs.

Plankweld has *tremendous* appeal in luxurious, lasting beauty, long-range economy and first cost. And builders who install one or more Plankweld-paneled rooms in *new homes* know how Plankweld helps sell houses.

Plankweld is top-quality Weldwood Plywood, pre-finished at the factory. No staining or other finishing is needed. It is available in birch, oak, and Philippine Mahogany — pre-cut to 6', 7' and 8' room heights in 16 1/4" panels, 1/4" thick.

There are so many places in a home where Plankweld can be used beautifully. For setting off fireplaces, for example. For framing picture windows... turning attics into extra bedrooms... for beautifying a foyer.

Plankweld panels can be easily and economically installed over old plaster walls without furring strips — used vertically or horizontally. They're edge-grooved to provide a neat lap joint, designed with a simple, concealed metal clip that holds Plankweld firmly to the wall... eliminating nailing through the face of the panel.

Go after those profitable Plankweld remodeling jobs! And if you are building new homes, plan to put in at least one Plankweld paneled wall!

## NOVOPLY\*

Just see how home owners and home buyers react to the magic appeal of Novoply!

Show a piece of this completely new and different wood paneling to someone with remodeling problems... and you've got yourself a job or two.

Use Novoply in the homes you build... as wall paneling, sliding doors, partitions, cabinet doors, distinctive built-ins... and your new houses are already half sold!

Yes, there's *magic* in Novoply!

It's the *flattest paneling ever produced*... virtually warp-free. It is light in weight... spectacularly beautiful. It's easily worked by ordinary woodworking tools. Can be sawed, screwed, planed... stained, painted, veneered... or left natural.

Take advantage of all that this beautiful, easy-to-work material offers you. Visit your Weldwood supplier for Novoply today.

\*Patented. Other patents pending. T.M. registered.



### UNITED STATES PLYWOOD CORPORATION

Largest Plywood Organization in the World  
55 West 44th Street, New York 36, N. Y.

Branches in Principal Cities • Warehouses in Chief Trading Areas • Dealers Everywhere



# A team you can trust

There's a Worthington Blue Brute team to lick every clay, rock or concrete breaking job.

These job-tested air tools give you more action for every cubic foot of air. They're as easy-handling as ever an air tool could be—and their rugged construction from special heat-treated metals gives you longest life.

Teamed up with the famous Worthington Blue Brute Air Compressor, they'll speed your work and cut your costs every time.

See your Worthington distributor who will point out the Worthington design features that guarantee more work for your money. As for bulletins, write Worthington Corporation, Construction Equipment Sales Division, Plainfield, New Jersey.

**BUY BLUE BRUTES**  
**WORTHINGTON**



M.T.B

**AMWELD**  
the Leader in  
"K-D" STEEL SLIDING  
CLOSET DOOR UNITS  
A low cost—complete  
—quality product

### Amweld Interior Steel Doors and Frames

The preference of builders and home owners everywhere because their attractive, modern flush design matches all types of architecture—they're easy to clean and keep clean—they require no maintenance, the cost is low and installation time is fast.



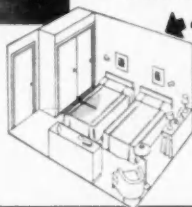
Panels, header, jambs, track and hardware—complete in plainly marked, sturdy corrugated carton.

★ AMWELD, the original knocked-down steel sliding closet door unit has been copied but never duplicated! There are more AMWELD "K-D" Units in use than any others. What makes AMWELD so popular? There are many reasons—here are a few:

- Low Original Cost
- Costs Less to Install than Wood
- A Screwdriver is the Only Tool Needed
- Won't Warp, Crack, Shrink or Burn
- Silent, Easy, Lifetime, Trouble-Free Operation
- Prime Coated—A Smooth Satin-Like Surface
- Will Take Any Desired Color, Finish or Wallpaper
- Quiet—Adjustable Guide Keepers Keep Doors Quiet and Prevent Derailing
- Available for 3, 4, 5 and 6-foot openings
- Available NOW

and look at all the space you save

... from 6 to 9 square feet of floor space (shaded area) required for a swing door. AMWELD Sliding Closet Doors permit use of all this space PLUS wall space and full access to closet contents.



DEALERS ask us to send you complete information on how to become an AMWELD dealer.

**BUILDING PRODUCTS DIVISION**

**THE AMERICAN WELDING & MANUFACTURING CO.**

310 DIETZ ROAD

WARREN, OHIO





## New! 4 closet combinations by RICHMOND

The actual appearance and features of these 4 new closet combinations are your best reasons for specifying and installing them. Their addition to the Richmond line of plumbing fixtures now makes it even more modern, even more complete than ever before.

Whether it's a vitreous china closet combination, lavatory, urinal or an enameled cast iron bathtub, lavatory, sink in "whiter white" or pastel colors, you'll find Richmond offers the widest possible selection in size and style, the finest quality in design, engineering, and manufacturing skill.



**PLYMOUTH G-212-14"** Close-coupled reverse trap. Round-front bowl, self-draining jet. Tank with fittings and shelf-type cover.

**LARCHMONT G-206-12"** Close-coupled syphon jet, round-front bowl. Tank with adjustable float valve, brass tank fittings, chrome operating lever and shelf-type cover.

**KENT G-218-14"** Close-coupled, washdown. Round-front bowl, self-draining jet. Tank with fittings and shelf-type cover.

**CORTLAND G-213-12"** Close-coupled reverse trap. Elongated bowl, self-draining jet. Tank with fittings and shelf-type cover.

See your wholesaler or Mail Coupon Today.

Richmond Radiator Company AR/7  
19 East 47th Street, New York 17, N. Y.

Please send me more information and literature on:  
 G-206-12"  G-212-14"  
 G-213-12"  G-218-14"

No obligation, of course.

NAME.....

COMPANY.....

ADDRESS.....

CITY.....ZONE.....STATE.....

We are  plumbing wholesalers  plumbing contractors  
 building contractors.

# Biggest SAW VALUE on the Market today—

## Milwaukee Power Saws



Model 650  
6½" Blade  
1¼ H.P. Motor

No other portable power saws have all these Milwaukee "Big Saw" features.



Model 825  
8¼" Blade  
1½ H.P. Motor

**\$6650**

**\$8950**

Steel carrying cases at slight additional cost

### "BIG-SAW" FEATURES

- 1— Deeper vertical and miter cuts than other saws of same dia. Blades. Model 650 mitters 2" dressed lumber at 45°.
- 2— Full-rated H.P. at cutting edge assures ample reserve for tough-job cutting—green lumber, hardwood, concrete, etc.
- 3— Exclusive spring-loaded blade drive — no back-lash . . . longer gear life . . . smooth stops.
- 4— Lifetime lubricated ball and roller bearings — double guarantee of longer service.
- 5— Rigid construction and lighter weight — perfect balance . . . greater safety . . . greater accuracy . . . greater ease of handling in ANY position.

### CALL YOUR DISTRIBUTOR OR WRITE US

With continuous rising costs, you'll profit immediately by the savings of time and labor now assured by these latest-design Milwaukee Power Saws. See your distributor or write us for free Bulletin SW-12.

### MILWAUKEE ELECTRIC TOOL CORP.

5356 WEST STATE STREET • MILWAUKEE 8, WISCONSIN

Canadian Distributor: MATTHEW MOODY & SONS CO., Montreal



PHOENIX CO. yard in Kingsford, Michigan. Firm takes full advantage of buildings and trucks to display name

### How a Dealer Merchandises in Small Farm Area

Although the farms it serves in the upper Michigan peninsula are small and scattered, the five-year Phoenix Lumber Co., with headquarters at Iron River, is nevertheless getting practically all the farm business it can handle.

The firm's secret, according to Earl Frechette, general manager, is designing a merchandising program to reach its unusual type of market. Much emphasis is placed on personal contact and "out-of-the-way services" which prompt word of mouth advertising; but this method is backed by a carefully planned combination of media to cover the scattered trade area.

As an example of the sales value of what one customer tells another, Frechette said Phoenix had made



INSULATING AGGREGATE is seemingly poured between joists and studs. Phoenix features Zonolite vermiculite products in farm trade

from 10 to 15 milk cooler installations as a result of one farmer's putting in a cooler and being satisfied. The firm also follows the premise that small sales grow to bigger ones. Frechette said that farmers, seeing the insulation value of the coolers, made with vermiculite concrete aggregate, have used the insulating product for their homes and other structures; the floors in hog houses for example.

Phoenix "preaches" the doctrine that well-constructed buildings and proper improvements will result in

(Continued on page 146)

AMERICAN BUILDER

# IT'S HERE!

Amazing new G-E Textolite\*  
**MONOTOP** plastics surfacing



**COUNTER, BACKSPLASH,  
EDGE-TRIM — IN  
ONE MOLDED PIECE!**

Monotop surfacing is the biggest news in kitchen equipment in years! It's a streamlined, super-sanitary beauty for the kitchen—from backsplash to curved front edge—in *one molded piece* of G-E Textolite plastics surfacing. Monotop is *easier to install*, too, because there's no fitting of pieces, no metal trim needed. Available in five

beautiful colors in the "Cross Current" pattern (exclusive with General Electric), Monotop surfacing is ideal for bathroom vanities! For full information on Monotop, and the full line of G-E Textolite plastics surfacing, contact your fabricator or write to *General Electric Company, Section 141-3B, Chemical Div., Pittsfield, Mass.*

\* Reg. U. S. Pat. Off.

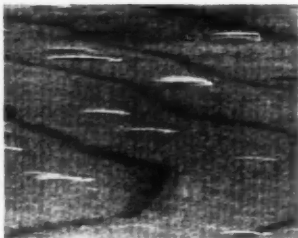
*You can put your confidence in—*

**GENERAL  ELECTRIC**

## Redwood in the News

The growing variety of uses of California redwood invites greater attention to machining practices which assure satisfactory results in surfacing and remanufacturing.

A concise listing of recommended practices in surfacing, resawing, trimming, and sanding operations has been published by the California Redwood Association. The causes and corrections of raised grain, sniping, machine burn, and other problems affecting quality are shown. For information, write 405 Montgomery St., San Francisco, 4, Calif.



The Redwood you can count on . . . .

# CRA REDWOOD

You can count on CRA Redwood for top performance on the job—for durability, stability and paintability. You can count on CRA Redwood for uniform quality—for accurate grading, uniform milling, proper seasoning. And you can count on CRA Redwood for sure, profitable sales. That's why it pays to feature only CRA Redwood—the grade-marked, trademarked Certified Dry Redwood, processed by the reputable member firms of the **CALIFORNIA REDWOOD ASSOCIATION**

ROCKPORT REDWOOD CO. • 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.

## Dealer in Farm Area

(Continued from page 144)

long-term savings and finds the farmers very receptive. Its field men not only talk about immediate sales but help the customer with his long range planning. In keeping with its belief that personal contacts mean more than all the advertising it can do, the company plans to add men in the field, assigned exclusively to the farm trade. "Farmers appreciate having someone stop," Frechette said. "They enjoy it and feel they are being honored."

The company is a firm believer in radio advertising. Its results from spot announcements are better than from any other medium, Frechette said. Three one-minute spots are carried each week for each of the



PHOENIX makes its own displays, emphasizes a variety of single items on low islands because they are more eye-catching than large quantities of one item

yards. Sports broadcasts are sponsored, especially basketball games in winter. Although people in the area are very sports-minded, the majority prefer radio accounts of the games to braving rough weather to see them first-hand, according to Frechette.

Radio is stressed during winter months, but from May to October emphasis is on newspaper advertising; one ad a week is carried, usually on the building page, of two dailies and two semi-weeklies in the area. Regular insertions, about three column by 10 inches, are preferred to alternation of very large and small ads. Manufacturers' mats are used about 50 per cent of the time, supplemented by additional information and a "plug" for local service.

Direct mail pieces are used about once every two months. Manufacturers' pamphlets are mailed with monthly statements.



## **MILCOR\*** *Lower Ventilators*

**... for low-cost, all weather ventilation**

A home that has Milcor Lower Ventilators is more comfortable to live in all year around. These ventilators draw off summer heat, help to prevent winter condensation—keep the house cooler in summer and drier in winter.

**Only Milcor offers all these advantages:**

- **Low Cost** — yet a valuable addition to any home
- **Complete range** of sizes and types for wood, concrete block, brick, stone or concrete construction
- **Easy installation** — for old or new construction
- **Durability** — heavy galvanized steel — reinforced louver blades.
- **Aluminum painted** — no exposed parts or edges
- **Framed, removable insect screen**

Don't compromise with quality—standardize on Milcor Lower Ventilators.

\*Reg. U. S. Pat. Off.

**INLAND STEEL PRODUCTS COMPANY**

4025 WEST BURNHAM STREET • MILWAUKEE 3, WISCONSIN  
 BALTIMORE 24, MD.—5300 Pulaski Highway • BUFFALO 11, N. Y.—64 Rapin St. • CHICAGO 9, ILL.—4301 S. Western Avenue Blvd. • CINCINNATI 25, OHIO—3240 Spring Ave. • CLEVELAND 14, OHIO — 1541 E. 38th St. • DETROIT 2, MICH. — 690 Amsterdam Ave. • KANSAS CITY 8, MO. — P. O. Box 918 • LOS ANGELES 58, CALIF. — 4807 E. 49th St. • NEW YORK 17, N. Y. — 230 Park Ave. • ST. LOUIS 10, MO. — 4215 Clayton Ave. B-507A

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

### Insulating Perimeter Heating Ducts with Perlite Aggregate

Maximum efficiency in a perimeter heating installation was obtained by use of a perlite concrete aggregate, according to the F. E. Schundler Co., manufacturers of the aggregate, "Coralux."

The building was a Catholic church in Marseilles, Ill. Here's a summary of the firm's report on the installation:

Materials: 600 bags of Coralux concrete aggregate; portland cement.

Mix: 6 cubic feet (two bags) of aggregate to one bag (1 cubic foot) of portland cement. Approximately 14 gallons of water to this mix.

Problem: In order to insure maximum insulation around the perimeter heat pipe, it was necessary to have a minimum of three inches of efficient, constant insulation that would retain continuous form around the pipe.



Perlite concrete is poured to 4-inch thickness over pipe in perimeter heating

Application: three to four inches of perlite concrete was poured first, over an economical vapor barrier laid on dirt, under the proposed pipe position. Material was curved up four inches on the wall.

No forming was necessary, it was reported, since the mix was sufficiently dry and plastic to be placed up on slants, cuts, curves or drops with hand tools.

The pipe was laid the next day. An outside form was then constructed and the insulation poured up to a 4-inch thickness over the pipe. Material was allowed to dry for two to three days, then surfaced with a 2-inch topping of regular concrete.

According to the report, the results were completely satisfactory, with no surface cracks, no shrinkage cracks and no expansion pressure.

#### 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.

AMERICAN BUILDER



# SOLD



## Skill of Volunteer Workmen Startles Experts in Novel "House Raising Bee"

### Upson Panels Applied In Record Time

As the result of a real old-fashioned "House Raising Bee" in which 700 volunteer workmen from seven states took part, 19 preacher students and their families occupy comfortable homes today while attending Clear Creek Mountain Preachers Bible School near Pineville, Kentucky.

Southern Baptists from seven states including experienced carpenters, electricians, and plumbers worked side by side with pastors, students, faculty members, business men and mountaineers.

Lumber and giant-size Upson Strong-Bilt Panels were hauled up Holly and Bear Mountains over slippery roads.

Use of Upson Strong-Bilt Panels in full wall sizes eliminated the task of taping or covering seams. Even in the hands of inexperienced workmen, panel application was accomplished quickly and smoothly. Immediate painting followed the installation and the houses were soon occupied.



UPSON HELPS—Volunteers from Upson Sales, Advertising, and Public Relations Department help unload Strong-Bilt Panels measuring 8 x 18 feet.

### Apologies to Art Ellis

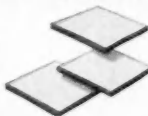
Some time ago, Ellis Lumber Company of Burlington, Iowa was publicized as having been an Upson Dealer for 27 years. Art Ellis now writes to correct this figure to 37 years. "During this period," he said, "we haven't had what we can call a single justifiable complaint on Upson Products. Upson Panels were installed on our office ceiling in 1920 and are still in good condition."

### One Way to Keep Mother-in-law Happy!

An Upson dealer in Akron, Ohio reports that one of his customers was recently faced with an age-old dilemma. His mother-in-law announced that she intended to move in with him and he had no room for her. He solved the problem rather neatly by letting his mother-in-law help build her own room in the attic with Upson Panels. Moral: Mothers-in-law prefer Upson Panels.



### Washable Features of Upson Ceiling Tiles Making Big Hit With Customers



"We underestimated the market," Upson sales executives frankly admit when discussing the new Washable Features of Upson Ceiling Tiles. Jobbers and dealers, clamoring for shipments, report customers enthusiastic, particularly over the washable surface. Application is very simple.

The new tiles are 12 inches square, made of 6 ply laminated board, with surface edges beautifully beveled. Pre-finished and waterproofed surface withstands repeated washings. Toughness of material used and application with matching color pins overcomes the complaint of loosening and sagging so prevalent in ordinary tiled ceilings.



### Stamping Feet Cause Plaster To Fall

Immediately after feet stamping patrons in a Union City, N. J. burlesque house demanded "Take It Off", 40 square feet of plaster fell on their heads.

—American Magazine

### Television Stations Offer New and Growing Market For Upson Panels

Many dealers report increasing demand for Upson Panels for use in building television sets and displays.

Construction usually must be hurried and of a movable type. The light weight and fine painting surface of Upson Panels are making them really outstanding favorites.



### NOW—They're Wadding Shotgun Shells With It!

In Geneva, Nebraska, the local gun club load their own shells and find Easy Curve ideal for wadding. A special die tool is employed. Easy Curve is preferred because of the smooth edge which can be achieved.

THE  
**UPSON**  
COMPANY

World's Largest Maker of Fibre Wall Panels

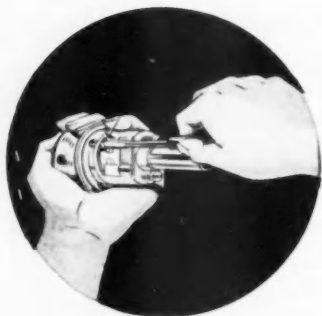
817 Upson Point, Lockport, New York

**superior features  
make the  
big difference  
in popular . . .**

**NATIONAL LOCKset**  
Patent Applied

**Quickly and easily adapted to  
any door thickness 1 $\frac{3}{8}$ " to 1 $\frac{3}{4}$ "**

NATIONAL LOCKsets normally used on interior doors are adjusted at the factory for standard 1-3/8" door thickness. Those normally used on exterior doors . . . for standard 1-3/4" door thickness. • Should it be desirable for you to change NATIONAL LOCKset for specific applications, this can easily be accomplished. Merely remove locking screw and turn escutcheon one complete cycle for each 1/16" increase or decrease in door thickness. Then replace and tighten escutcheon locking screw . . . quickly, easily.



**Mechanism made of selected  
cold rolled steel . . . no die cast**

The operating mechanism of NATIONAL LOCKset is rust-proofed, *selected* Cold Rolled Steel. Knobs are one-piece Wrought Brass. Bolt and face plate are Solid Brass. You'll find no zinc die cast parts in this skillfully-engineered product. With NATIONAL LOCKset you can count on years of troublefree performance.

**sold  
only  
through  
jobbers**



**America's Outstanding Lockset Value!  
Compare NATIONAL LOCKset with all others**

**distinctive hardware . . . all from 1 source**

**NATIONAL LOCK COMPANY**

Rockford, Illinois • Merchant Sales Division





**Helps you glorify the  
Nation's Kitchens!**

**Cabinet Hardware by...**

**NATIONAL LOCK**

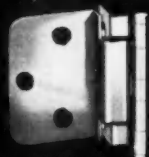


**No. 129 Board and Assortment**

**Glistening, Bright Chrome  
Hinges, Pulls, Catches and  
Knobs... a broad selection**

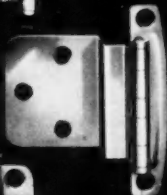
You'll find a steady demand for NATIONAL LOCK chrome plated cabinet hardware. It's smartly styled, easily installed, inexpensive for the consumer to buy. It's consistently advertised in several national magazines regularly read by your customers. You can stock the complete yet short line, No. 129 assortment including handsome display board or you can purchase on open stock your specific selection from a wide assortment of items. Ask your supplier. NATIONAL LOCK cabinet hardware is proven-popular and profitable to handle.

**All these items and more...  
Available from open stock**

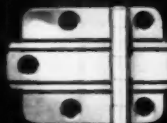


**N58-598E  
Hinge**

**N58-2390E  
Hinge**



**N58-032  
Hinge**



**N58-032B  
Hinge**



**N61-204T  
Friction Catch**



**N61-336 Friction Catch**



**N61-3327T Friction Catch**



**N61-225  
Catch**



**N61-200 Pull**



**N61-289 Pull**



**N61-209 Pull**



**A63X3016N Concave Knob**



**N61-048 Knob**

**attractively envelope packaged**

**sold only through jobbers**

*distinctive hardware ... all from 1 source*

**NATIONAL LOCK COMPANY**

Rockford, Illinois • Merchant Sales Division





Stop puttering with putty—READY HUNG DOORS eliminate putty putting labor.

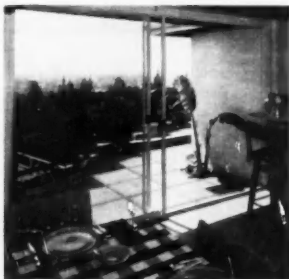


**THE NEW  
DOOR AND FRAME  
PACKAGED UNIT**

READY HUNG DOOR CORP., DEPT. A  
FORT WORTH, TEXAS

**Sliding Glass Doors  
Called Major Asset  
In Tract Selling**

Sliding glass doors in tract developments are a major asset in promoting unit sales, according to J. L. Eichler, president of Eichler Homes, whose subdivisions recently won the



Indoors and outdoors "come together" at this sliding glass door in a moderately priced California home

national "Award of Merit" presented by the architectural review board of the Housing Research Foundation. Eichler got the award for four developments in Palo Alto and Menlo Park, Calif.

The architects associated in the

prize-winning projects, Anshen and Allen, San Francisco, and Jones and Emmons, Los Angeles, were also honored at a special award luncheon in San Francisco.

In the Eichler homes, an entire wall of glass with sliding doors divides the living room and one of the bedrooms from the patio. This feature, along with other improvements, helped sell the homes in advance of construction, Eichler said.

Supplier of the doors was Arcadia Metal Products, Arcadia, Calif.

**Cites Need for 50,000  
More Apprentices in  
Construction Trades**

The number of apprentices now in training in the construction industry falls short by 56,630 of meeting long-range needs, according to director W. F. Patterson of the U. S. Department of Labor's Bureau of Apprenticeship.

Speaking at a recent apprenticeship completion ceremony in Eau Claire, Wis., Patterson said that fully 1,200,000 craftsmen will be required on the various construction projects this year.

"In order to maintain a skilled work force that size," he said, "at least 150,000 apprentices should be in training at all times. This is a conservative figure, for it allows for only one apprentice to every eight skilled workers.

"At the present time, according to our records of registered apprentices, only a little more than 93,270 are in training in the building trades. There should be 56,630 more, or an increase of around 30 per cent."

**How to Construct Forms  
for a  
Concrete Flagstone Walk**

A number of interesting designs can be worked out. Since the forms will be used several times, they should be assembled so that they may



Portland Cement Association

be taken apart easily. Oil them well before concreting. Recommended mixture for the concrete: 5 gallons of water per sack of portland cement, when sand and pebbles are in a wet condition. For a trial mixture, use one sack of cement, 2 1/4 cubic feet of sand, 3 cubic feet of pebbles.

**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. Tailor made for all heights

**The Bessler Disappearing Stairway Co.,** 1900 East Market Street, Akron 5, Ohio

# Go by these plain, hard Facts... and SAVE!

## CHEVROLET Advance-Design TRUCKS

### Fact No. 1

#### Saves you money on purchase

Check the price on a Chevrolet truck that's the right size, type and capacity to handle your work. You're going to find that this Chevrolet truck lists for less than any other make of truck capable of doing the job. Here's an immediate, cash saving.

### Fact No. 3

#### Gives you the right truck for the job

Chevrolet trucks are factory-matched to the job—tires, axles, frame, springs, engine, transmission, brakes. It's the Chevrolet idea to provide you with exactly as much truck as you need and no more. Chevrolet truck users know this idea pays off.

### Fact No. 2

#### Cuts operating costs

Day in, day out a Chevrolet truck works for rock-bottom "wages" on fuel and upkeep. It brings you the proved economy of Valve-in-Head engine, with 4-Way Lubrication to reduce engine wear. Extra-rugged features cut maintenance costs.

### Fact No. 4

#### Saves money on trade-in

It's right in the records that Chevrolet trucks traditionally bring more money on the used truck market—and that can mean more money for you when you trade or sell. There's another reason why more truck users choose Chevrolet than any other make.

### CHEVROLET ADVANCE-DESIGN TRUCK FEATURES

**TWO GREAT VALVE-IN-HEAD ENGINES**—Loadmaster or the Thriftmaster—to give you greater power per gallon, lower cost per load • **POWER-JET CARBURATOR**—for smooth, quick acceleration response • **DIAPHRAGM SPRING CLUTCH**—for easy-action engagement • **SYNCHROMESH TRANSMISSION**—for fast, smooth

shifting • **HYPOID REAR AXLE**—for dependability and long life • **TORQUE-ACTION BRAKES**—on light-duty models • **PROVED DEPENDABLE DOUBLE-ARTICULATED BRAKES**—on medium-duty models • **TWIN-ACTION REAR BRAKES**—on heavy-duty models • **DUAL-SHOE PARKING BRAKE**—for greater holding ability on heavy-

duty models • **CAB SEAT**—with double-duck springs for complete riding comfort • **VENTILATION PANES**—for improved cab ventilation • **WIDE-BASE WHEELS**—for increased tire mileage • **BALL-TYPE STEERING**—for easier handling • **UNIT-DESIGNED BODIES**—for greater load protection • **ADVANCE-DESIGN STYLING**—for increased comfort and modern appearance.

CHEVROLET DIVISION OF GENERAL MOTORS, DETROIT 2, MICHIGAN



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## "Biggest Bargain in the Building Field"

**First . . . there's this complete  
CROSLY KITCHEN . . .**



**You'll sell your homes faster  
with this "back-door" approach!**

**Instead of showing** prospects for your homes through the front door into a bare room . . . why not have them taken straight into the Crosley Kitchen . . . in through the *back door*!

**Mrs. Prospect** will be more than half-sold from the very moment she steps into your up-to-the-minute Crosley-equipped kitchen. She'll love everything about it . . . the way all the Crosley Kitchen units fit together so beautifully . . . the more than adequate Crosley Cabinet space . . . the efficient, reliable Crosley Kitchen Appliances!

**ATTENTION ARCHITECTS!**

When you are drawing up plans, specify and recommend Crosley products. Your clients will be *more than satisfied*.

**Mr. Prospect** will be pleased to learn that this marvelous Crosley Kitchen may be included as part of a package mortgage.

**And you'll appreciate** the fact that any of the many Crosley Kitchen units may be combined to fit perfectly into *your* home or apartment plans.

**INSTALL THESE FINE CROSLY PRODUCTS**

WALL CABINETS • RANGE PANTRIES • REFRIGERATOR PANTRIES  
UTILITY CABINETS • BASE CABINETS • ELECTRIC RANGES  
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**CROSLY**

DIVISION



1329 ARLINGTON STREET,  
CINCINNATI 25, OHIO

**BETTER PRODUCTS FOR HAPPIER LIVING**

**"I save \$115 per home**



**BILDRITE SHEATHING** goes up faster, easier. Cuts application time at least 25%. 4-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.

# with new Insulite Shingle-Backer system!"

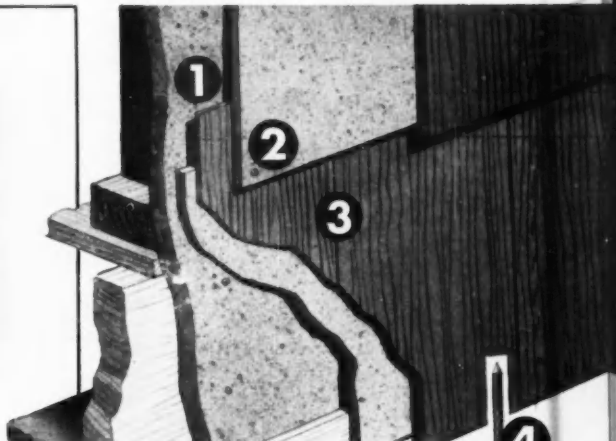


Application time cut in half; greater insulation and bracing strength; deep, modern shadow-lines; money saved on every home—that's why R. F. Metscher, Huntington, N.Y. contractor demands Insulite Shingle-Backer and Bildrite Sheathing.

R. F. METSCHER, *General Contractor, Huntington, New York*



**INSULITE SHINGLE-BACKER** speeds completions. Handy 4-foot panel applies far faster and easier than wood under-course shingles . . . cuts application time in half. Produces deep, modern shadow-line. Eliminates waste. Waterproofed throughout. In easy-to-handle packages.



**DEVELOPED BY INSULITE**, this combination makes a strong, tight exterior wall with more than twice the insulation value of wood sheathing, felt and double-course wood shingles: (1) Bildrite Sheathing (2) Shingle-Backer (3) Outer-course Shingles (4) Grooved Nail. Gives you a better wall for less money!

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**FREE KIT FOR BUILDERS.** This helpful Special Insulite Kit for Builders is yours for the asking. Contents include Insulite's Cost-Comparison Folder with which you can easily figure your actual savings with Shingle-Backer and Bildrite. For your free kit, write Insulite, Minneapolis 2, Minnesota. Or, for immediate information, contact your Insulite sales representative or Insulite dealer.

Build and insulate with double-duty

# INSULITE



Made of  
hardy Northern wood



INSULITE DIVISION, Minnesota and Ontario Paper Company, Minneapolis 2, Minnesota

# made to outlast



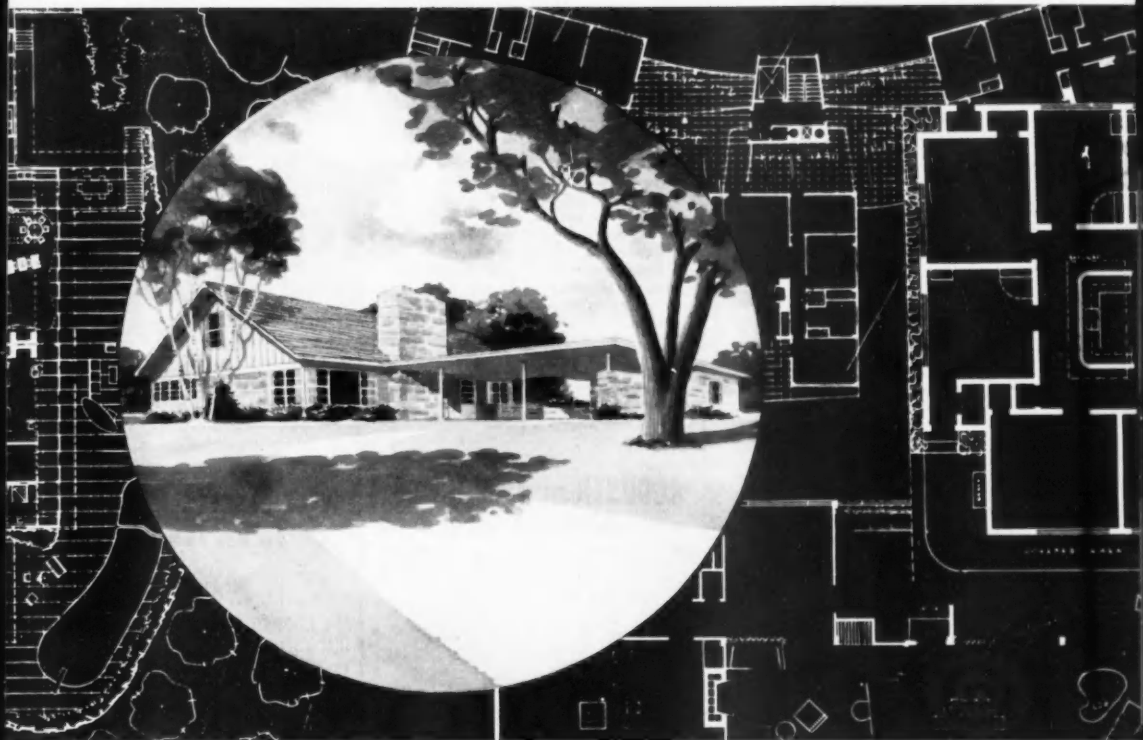
Here is Ceco-Sterling **Double-Hung** Aluminum Window, series 50-B for residences

**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*

"Well, blow me down!..."



Look at these  
**LOW PRICES for**  
**SIMONDS**  
**SI-CLONE**  
**SAWS"**

**RIP • CUT-OFF • EASY-CUT**  
**and COMBINATION**

6" .. \$1.75	9" . \$2.65
7" ... 2.00	10" .. 3.15
8" ... 2.15	12" .. 4.35

Supplied with round or special-shape center hole for portable electric hand-saw machines.

Simonds, sawmakers for woodworkers since 1832, now offers this complete new line of high quality saws at new popular prices... 13 types of blades up to 12" diameter (including Dado Heads and Carbide-Tipped Saws) ... all made of Simonds Steel and fully guaranteed. Get them at your hardware dealer or local saw shop.



**SIMONDS**  
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**It Still Pays to Modernize**

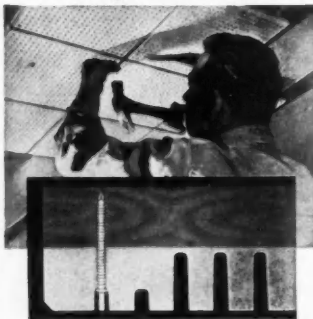


**ASBESTOS-CEMENT SHINGLES** for siding were responsible for the major item of transformation of this over-age farm house into a trim, attractive home. Breaking the roof with small dormers permitted the addition of second-story windows and a better use of living area. A new front entrance gives the final touch to this job of giving new life to an outmoded structure.

Plan NOW to participate in  
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Sept. 14-21

**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.



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**OUTMODDED**

**TELL**  
**'EM**  
**ABOUT...**



**Non-Freezing**  
**PRODUCTS**

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**OUTSIDE**  
**WALL FAUCETS**

- ✓ For New Homes!
- ✓ For Modernization!

**ALL COPPER AND BRASS** construction for long life.

**OPERATES VALVE** inside the building ... by handle located "outside." No winter shut-off!

**EASILY INSTALLED** in new homes or as replacement for old. Packed fully assembled, ready to install.

**REMOVABLE HANDLE** to prevent tampering.

**FLANGE NOTCHED** at sides for anchoring to frame dwellings.

**AVAILABLE** in any size: 8", 10", 12", 14", 16", and 24" lengths; in either 1/2" or 3/4" inlet size.

Write for prices, descriptive literature!  
**THE JAMES KNIGHTS CO.**  
MANUFACTURED PRODUCTS DIVISION

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refuses to compromise with

*Quality!*

**I**T'S A TIME of keen competition in the plumbing ware industry—with every manufacturer on the alert for ways and means to increase his sales. Naturally there is a temptation to accomplish this by cutting prices. But with costs on the rise, as they are today, this usually means reducing quality.

*THIS THE MAKERS OF BRIGGS BEAUTYWARE REFUSE TO DO!*

Briggs will *not* lower the traditional high quality of these fine plumbing fixtures to meet the current competitive trend. Briggs will *not* make an undersize bathtub or one without a rim seat. Briggs will *not* manufacture a second, cheaper grade of fixtures—all Briggs fixtures are acid-resistant; all Briggs colors are non-fading.

The modern porcelain enameled formed steel bathtubs and lavatories developed and perfected by Briggs are the finest obtainable. Briggs high-density vitreous china lavatories and closets are the very best we know how to produce. Briggs brass fittings are of excellent design engineered for long, dependable service.

Briggs is proud that over the years every modification in its plumbing ware design—every change in materials and manufacturing techniques—has been made to *improve* the product. This is the way Briggs will always do business.

*WHEN YOU ORDER BRIGGS BEAUTYWARE YOU BUY THE FINEST!*



## BRIGGS BEAUTYWARE

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JULY 1952

161

**more  
batches  
per  
day  
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## Jaeger "Speedline" Mixers

Seconds saved at both ends of every mixing cycle add up to more batches per day for Jaeger owners. Famous "Skip Shaker" loader speeds the batch into the drum in 5 to 7 seconds. Batch discharge is just as fast because bigger bucket and flight blades carry more concrete to discharge spoon. Free from break-down over many years; machined steel drum tracks, Timken bearing carwheel-type drum rollers, heavy-duty automotive transmission. Sizes 6, 11 and 16S. Ask for Catalog M-10.



*3 1/2 S Auto-Loader loads while a batch is mixing, then automatically shakes load into drum. Produces 12 to 15 more yards daily.*

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## for Busy Builders

### LADDER JACKS



- **ONE-MAN** Ladder Jacks adjust to any pitch on either side of the ladder. Takes weight on three rungs.

- **RAIL-TYPE** Jacks use side rails of ladder for extra safety.

Used by thousands of builders. Write for literature giving information on all money-saving "Trouble Saver" Scaffolding Accessories.

THESE SAFE, EASY-TO-USE  
SCAFFOLDING ACCESSORIES  
SPEED WORK AND SAVE MONEY

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- Erect and dismantle faster than you can build a make-shift wooden scaffold.
- Nail, studding and bolt-attached types—in 3' and 3 1/2' lengths—rail carbon steel.
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## Prefabricated Door Speeds Construction

A "Ready Hung" door and frame packaged unit for inside hinged doors, said to require only 20 minutes for installation, is now being produced by the Haskelite Manufacturing Co. of Grand Rapids, Mich.

The unit is adjustable for wall thicknesses from 4 1/4 to 5 1/2 inches and comes in all standard door sizes. The doors are either Hasko Arch-Kor or the lower-cost Hasko Mobile type. Both are flush models, made in a number of woods and finishes.



FIRST STEP is to uncrate completely packaged unit. All hardware, except the knobs, is installed



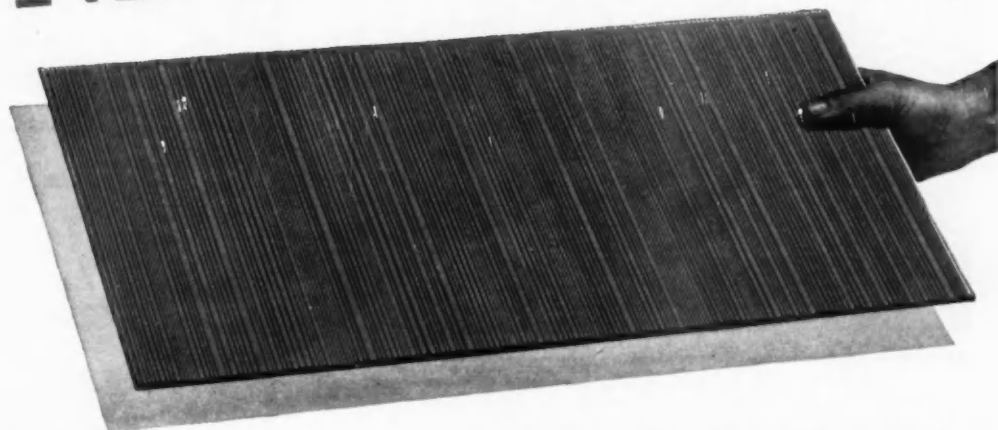
ABOUT SEVEN MINUTES LATER halves are being slipped into place. Unit should be tight and plumb

(Continued on page 164)



**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!**
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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

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

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

**ASBESTONE—Rugged as the rock it's made from**

Roofing & Siding Shingles

Wallboard

Corrugated Roofing & Siding

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## 20" THICKNESS PLANER

The Parks No. 20

A modernly designed, low-priced, high-speed 20" x 6" planer that meets the surfacing needs of every type of wood-working shop. Ruggedly built for vibrationless operation—assuring quality work, increased production and low operating costs. Provides two feed speeds—20 and 40 F. P. M. and 40 and 80 F. P. M. Four-knife cutterhead has speed at 3600 R. P. M. Complete descriptive literature on request.

Also Available  
12" THICKNESS PLANER

A compact, heavy-duty 12"x4" machine that offers precision and ruggedness at low price. Literature on request.



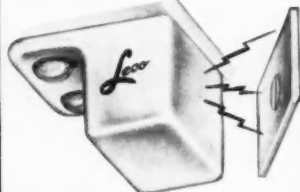
## The PARKS WOODWORKING MACHINE COMPANY

Manufacturers of Quality Woodworking Machines Since 1887

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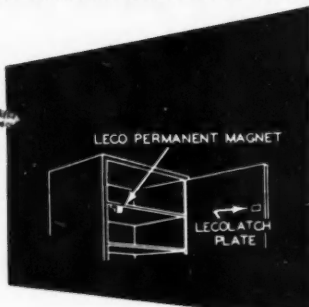
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*leco-latch* with the PERMANENT MAGNET!



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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

(Continued from page 162)



**HALVES ARE NAILED TO WALL.**  
Elapsed time at this stage is given as about 15 minutes



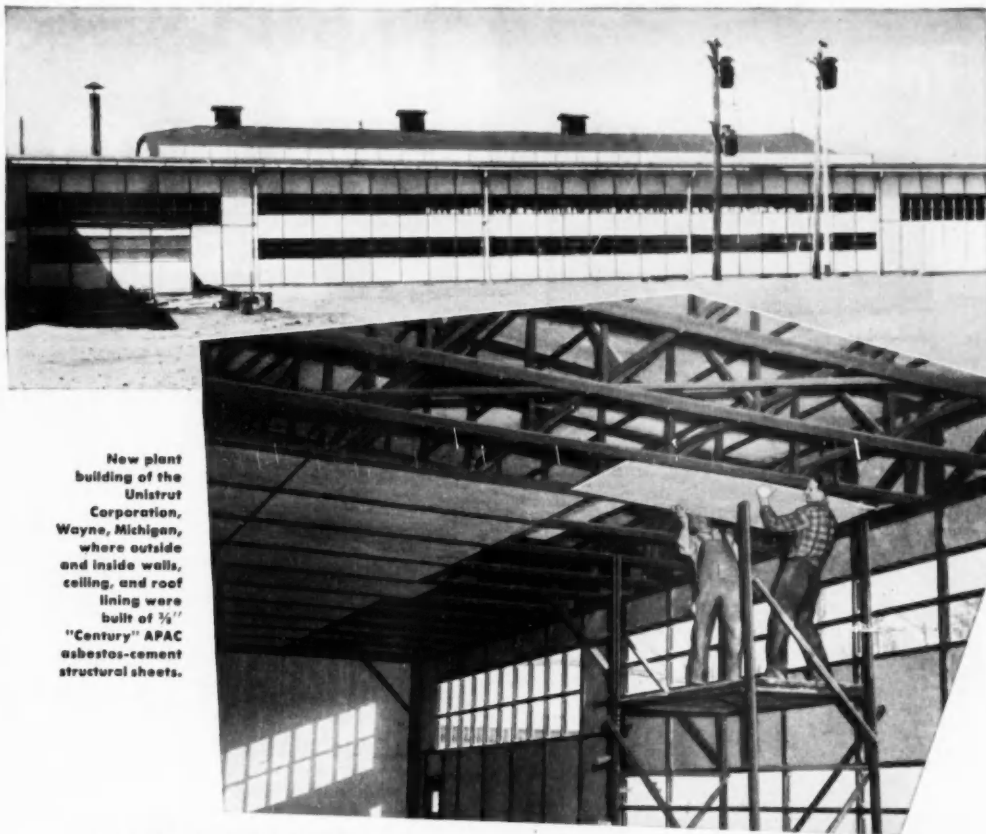
**KNOB'S ARE INSTALLED** and checked to see that lock operates smoothly. Par set for the course (rough opening to finished door); 20 minutes

**Building Trades Blueprint Reading and Sketching (Basic Course)**, Delmar Publishers, Inc., Albany, N.Y. 190 pages. Plastic Bound, \$5.25; Cloth Bound, \$4.75.

A joint development of the Connecticut State Education Department and the publishers, designed to meet specific teaching requirements, this book covers blueprints, trade sketches and specifications used by the mason, carpenter, plumber, electrician and other building tradesmen.

Material is divided into three major sections. Part I includes a series of instructional units on the principles of interpreting trade blueprints; Part II deals with trade sketching procedures and practices, and Part III makes practical applications of blueprint reading principles.

Review tests on the text are supplied in the appendix.



New plant building of the Unistrut Corporation, Wayne, Michigan, where outside and inside walls, ceiling, and roof lining were built of  $\frac{3}{4}$ " "Century" APAC asbestos-cement structural sheets.

## "CENTURY" APAC asbestos-cement sheets slide into channels quickly and give lasting, economical walls and lining

The men in the picture above are using a unique method of fabricating a ceiling with  $\frac{3}{4}$ " "Century" APAC: the strong, durable Asbestos-Cement Sheets are being secured in steel channels without the use of fasteners. As can be seen, the Unistrut Corporation building, inside and out, was erected this way, even to a lining under the built-up roof.

But, as you know, the conventional methods of applying economical "Century" APAC are also time- and labor-saving. The big sheets (standard 4' x 8') are easy to handle—go on any wall fast, and can be secured with screws or ring-fettered nails. Cutting and drilling on the job is a simple matter. And first cost is last, for "Century" APAC never needs painting though it takes standard paints well if plans call for decorative colors.

Add to these economy features the facts that "Century" APAC, a tough combination of mineral asbestos and

portland cement, is fire and weather resistant... and gives permanent protection against costly attacks by rats, termites and destructive insects.

"Century" APAC fits progressive design and construction like a glove! Your Keasbey & Mattison distributor can give you complete details on "Century" APAC and other "Century" Asbestos-Cement Sheets. Or write us direct.



Nature made Asbestos...  
Keasbey & Mattison has made  
it serve mankind since 1873

**KEASBEY & MATTISON**  
Company • Ambler • Pennsylvania

# Norman SOUTHERNER

horizontal gas furnace

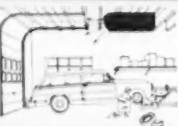
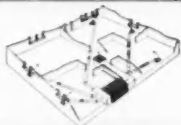


for natural, mfgd.,  
mixed or LP gas



*Hidden Comfort* means  
more home for the money

Adaptable to any type of installation or floor plan, The Norman Southerner is one of the most flexible forced-air gas furnaces on the market. Fits in any small unused space—saves on installation, chimney and piping costs. Four sizes: 40,000 to 100,000 BTU. Send for literature, specifications and name of nearest representative or distributor.



Made by the makers of the famous

*Norman Three Sixty*  
Unit Type Gas Heater



**Norman** products company  
1156 Chesapeake Ave.  
Columbus 12, Ohio



\*Trade Mark Registered Copyright 1952 by Norman Products Co.

"A  
FAST-MOVING  
MONEY-MAKER!"



# BERMICO®

The Modern Root-Proof Pipe for  
Outdoor, Underground, Non-Pressure Use

**"Moves Better!"** Bermico doesn't gather dust in slow-moving inventory. It turns over fast—returns you a profit quickly. Easy to stock and stack. Strong, cellulose fibre structure, pitch-impregnated, absorbs jars and jolts without damage.

**"Lays Better!"** Bermico is simple and easy to install. Convenient 8-foot lengths and a complete line of bends and couplings make it a sweetheart to handle. No cement, leading or joining compound needed. A few hammer taps seal joints tight.

**"Serves Better!"** Bermico seals out roots—puts an end to drainage problems—gives users a lifetime of dependable, trouble-free service. Non-corroding, resistant to acids, alkalis, sewage. Ideal for house-to-sewer connections, septic tank disposal, downspouting, farm drains.

Write Dept. HB-7 at our Boston office for information.

# BROWN



COMPANY, Berlin, New Hampshire  
CORPORATION, La Tuque, Quebec

General Sales Offices: 150 Causeway Street, Boston 14, Mass.  
Dominion Square Building, Montreal, Quebec

BOLXA & CELLULOSE PULPS • SOLKA-FLOC • NIBROC PAPERS • NIBROC TOWELS • NIBROC  
DOWN TOWELS • BERMICO SEWER PIPE, CONDUIT & COILES • ONCO INSULES • CHEMICALS

AMERICAN BUILDER



# 2 new BILT-WELL DOORS

FOR CONTEMPORARY AND RANCH TYPE HOMES

## OPEN UP...

NEW DOOR SALES POSSIBILITIES

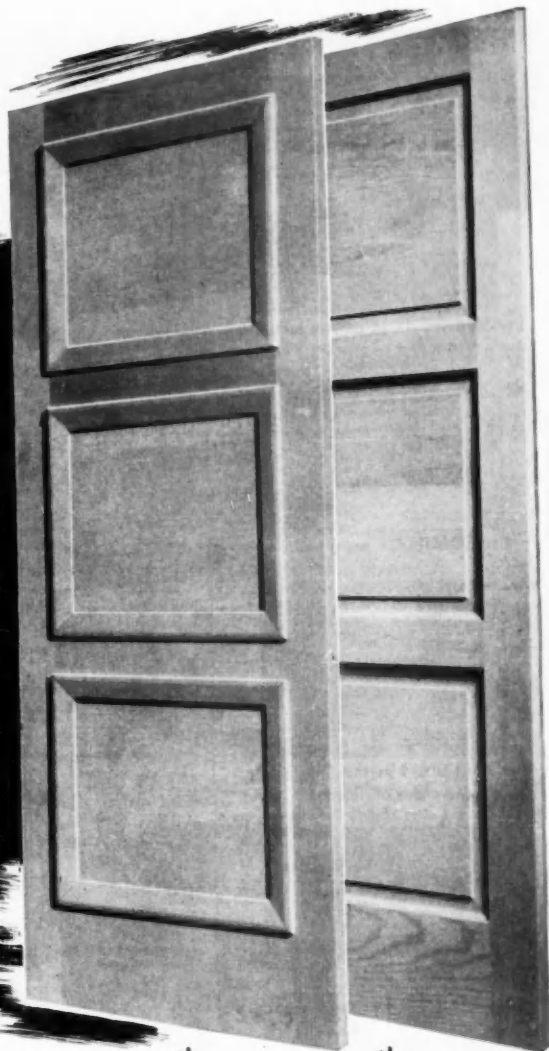
with these beautiful doors designed and built to meet the exacting demands of today's home owners for elegance and lasting, satisfying service.



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 machined and sturdily constructed.

Write us for literature and name of nearest supplier.



the Hacienda

the Rancho

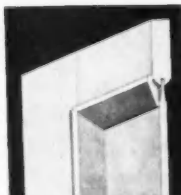
Build Well with

**BILT WELL**  
WOOD WORK

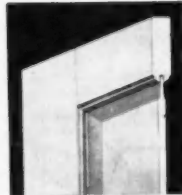
(GROSS)  
Ponderosa Pine Woodwork

**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-dur 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



Mitred 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 (1/4" thick) solid panels cast a shadow and accentuate the beautiful contour of the door.

with **SISALKRAFT**  
you'll do many jobs better



Use **SISALKRAFT** to protect materials  
Prevent weather-damage of costly supplies and  
equipment



Use **SISALKRAFT** under and over  
all concrete slabs

to assure tougher, harder, drier, non-dust concrete



Use **SISALKRAFT** as sheathing paper  
and under all flooring

stops drafts and entry of dust, dirt and moisture



Use **SISALATION**  
to insulate walls  
ceilings and floors

Effective insulation  
and vapor-barrier  
combined . . . at  
low cost.

MANY OTHER USES, TOO, FOR  
**SISALKRAFT PRODUCTS** • See your Lumber or  
Building Supply Dealer or

MAIL THIS COUPON FOR FREE SAMPLES—

THE SISALKRAFT CO., Dept. AB-7  
205 W. Wacker Drive, Chicago 6, Illinois  
Please send samples of SISALKRAFT and  
SISALATION, and data on their many uses.

Name \_\_\_\_\_

Address \_\_\_\_\_

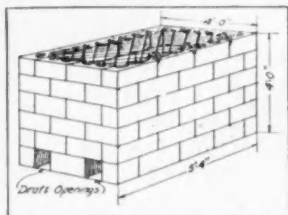
City & State \_\_\_\_\_



**THE SISALKRAFT CO.**

205 West Wacker Drive, Chicago 6, Illinois  
New York 17, N. Y. • San Francisco 5, Calif.

### Design for a Simple Concrete Masonry Refuse Burner



Portland Cement Association

Concrete block used for the walls may be secured from a local dealer. Mortar used in laying up the block should be of the following mixture: one sack of portland cement, 0- $\frac{1}{4}$  cubic feet of hydrated lime, 2-3 cubic feet of mortar sand in damp, loose condition. Enough water should be added to produce a plastic, workable mix. The bottom course is laid with half units at the corners, leaving draft holes as indicated. The succeeding courses are placed spreading a bed of mortar  $\frac{1}{2}$ -inch thick on each preceding course. Butter each unit on the ends. Allow the mortar to harden for two weeks before using the burner.



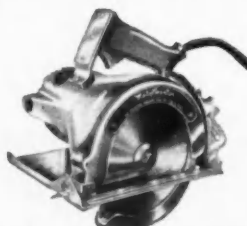
Save 3 1/2 days of running out on the job—  
With **READY HUNG DOORS** 4 days work  
is done in 1/2 a day.



THE NEW  
DOOR AND FRAME  
PACKAGED UNIT

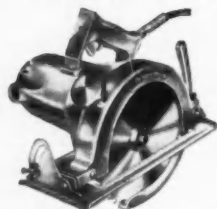
READY HUNG DOOR CORP., DEPT. A  
FORT WORTH, TEXAS

## BRADFORD ELECTRIC SAWS



**Model 160—6" Saw**

Vertical depth of cut 2"  
Bevel cut at 45°: 1 $\frac{1}{4}$ "  
Net weight 10 lbs. 8 oz.



**Model 180—8" Saw**

Vertical depth of cut 2 29/32"  
Bevel cut at 45°: 2 $\frac{1}{16}$ "  
Net weight 17 lbs. 8 oz.

These new 6" and 8" Bradford Portable Electric Saws are ruggedly constructed and fully powered to take on the toughest sawing jobs! They're better designed—inside and out—for easier handling, smoother sawing, more accurate work. You can feel the difference in the Bradford design!

And Bradford Saws are built to last. Ball bearings with permanent lubrication are used throughout. Gears are helical cut to give maximum driving power. A powerful 110 volt AC/DC motor drives the blade with quiet, cool-running efficiency.

Own a new Bradford Portable Electric Saw—they're the choice of craftsmen everywhere. See your Bradford dealer for a demonstration. Write for bulletins giving specifications and prices.

**THE BRADFORD  
MACHINE TOOL CO.**

654 Evans Street Cincinnati, Ohio  
Precision since 1840

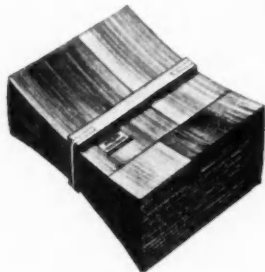
AMERICAN BUILDER

# How to drive a

# HARD BARGAIN



**SPACED SHEATHING**—Cedar shingles add strength to the roof! They can be applied on spaced roof boards. Save half the sheathing cost. Save nails. Save labor.



## Get the plus value of CEDAR Shingles at no extra cost . . .

THERE'S an old saying, "If you go looking for a bargain, you'll get the worst end of it." This is especially true when you buy roofing material that *seems* inexpensive, but proves to be *just plain cheap* in the long run.

Builders who want to drive a *really* hard bargain are using Certigrade Cedar Shingles for roofs. They know that the *applied cost* of a cedar shingle roof is mighty low because cedar shingles require only half the sheathing lumber needed for ordinary roofing materials.

Yes, for long life, low applied cost, and minimum up-keep expense, Certigrade Red Cedar Shingles are the best true bargain in the roofing field.

Always identify the shingles you buy. Look for the Certigrade label of inspection . . . your *guarantee* of quality . . . on every bundle.

### RED CEDAR SHINGLE BUREAU

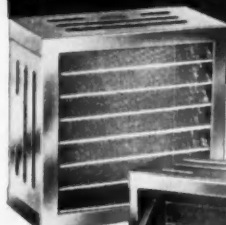
5510 WHITE BUILDING, SEATTLE 1, WASH. • METROPOLITAN BUILDING, VANCOUVER 1, B. C.

# WEATHER-BLOC

Trade Mark

The Original

## Single Unit VENTILATOR FOR GLASS BLOCK PANELS



OUTSIDE

### 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.

INSIDE

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.

# WEATHER-BLOC

3734 NORTH SOUTHPORT AVENUE • CHICAGO 13, ILLINOIS



more meshes per sheet with *Bostwick*  
Diamond Mesh Metal Lath

### Call a *Bostwick* Dealer

• When you get down to details, check with your dealer on Bostwick metal lath, corner bead, casings and accessories. They have, as you would expect, been used on the nation's finest structures... large and small. Send for data—we will answer quickly. There are no better metal lath products made.

## Bostwick

103 HEATON AVE.  
NILES, OHIO

### THE BOSTWICK STEEL LATH COMPANY

### Separate Billing of Labor and Material May Save Sales Taxes

By Francis George

The Ohio Supreme Court has decided that dealers erecting prefabs must pay all sales taxes on the sale and erection of a packaged housing unit. De Witt-Jerking Realty, a dealer in Gummison Homes, brought the test case.

Gummison Home dealers erect each unit, furnish all labor, erecting materials and equipment, foundation, steps, plumbing, and electrical appliances, site improvements and landscaping. The customer deals only with the local dealer and Gummison has no responsibility in the contract except to guarantee the materials. The price is a matter between the buyer and the dealer. Gummison prices its unit but there are so many variables in each job that final pricing, in reality, is an individual and local thing.

When the sale is made, financing is arranged with a bank and the order sent to the Gummison plant at New Albany, Indiana. The contractor puts in the foundation while the order is being shipped. The shipment is consigned to Gummison Homes, Inc., attention of the dealer and can be unloaded only after the bank forwards the full price to the factory. The dealer never sees this money. His profit is based on a 15 per cent discount between the list price and the price he pays. When the job is done he gets any money left in the bank after all bills are paid.

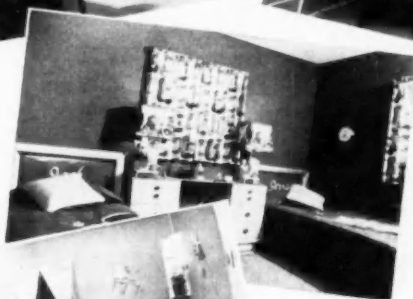
Ohio decided that the house was sold to the dealer, even though the dealer never owned the house and never saw the money used to pay for it! Ordinarily, a merchant does not pay a tax on goods he buys to resell. Sales taxes are aimed at consumers, not distributors. However, the judge decided that a building contractor is a consumer and not a merchant when he erects a building even though he resells the building or does not own it while he is working on it.

There is a way out of this for the dealer. If he bills his customer separately for labor, so that materials are on one bill as a sale and labor is on another bill he would be a merchant selling material and a contractor installing it. As a merchant he would pass the tax on and, as to the labor, there would be no tax. That would require some basic changes in business custom in the prefab industry and mean the end of the "packaged

(Continued on page 172)

*INSIDE as well as Outside*

# NATIONALS LEAD in SALES APPEAL!



National's attractively-designed exteriors and carefully-planned interiors, including such appealing features for comfortable living as spacious living rooms . . . step-saving kitchens . . . roomy closets, thrill home hunters and sell more houses for National Homes dealers. Dealer franchises are available for certain areas. Write today — your locality may still be open.

*"National Homes prefabricated panels and structural parts are commended by Parents' Magazine as advertised therein." And recommended by 38,000 delighted owners.*

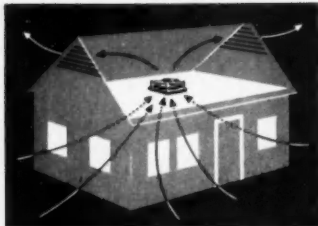


*National*  
**HOMES**

NATIONAL HOMES CORPORATION  
LAFAYETTE, INDIANA • HORSEHEADS, NEW YORK

**NATION'S LARGEST PRODUCERS OF  
QUALITY HOMES AT THRIFT PRICES**

## 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

(Continued from page 170)

unit" with a single list price. The dealer would have to act as a building supply house with an erection department. Such a split contract would shift the sales tax directly onto the buyer. There might be some psychological advantage in this, because as things now stand dealers are forced to raise their quoted prices to include a pretty stiff chunk of taxes. Under a system whereby the buyer was billed separately for his taxes he would be more conscious of how much money the government was taking, although the total amount taken for taxes would be less than it is under the present system, as only the materials would be taxed, while now everything is taxed.

### Building Pattern Book Is Dealer Sales Tool

A counter display book of "Build It Yourself" patterns has been announced by the Easi-Bild Pattern Co. of Pleasantville, N.Y. The book, designed for dealer promotion of over-the-counter material sales to the home owner trade, illustrates more than 150 patterns, from lawn ranges to seven-room houses.



Hand chisellers may end up with a mortician instead of a mortice. **READY HUNG DOORS** eliminate chisellers.



THE NEW  
DOOR AND FRAME  
PACKAGED UNIT

READY HUNG DOOR CORP., DEPT. A  
FORT WORTH, TEXAS



## BEHR-MANNING Products for the Builder!

### SANDING BELTS, DISCS & SHEETS



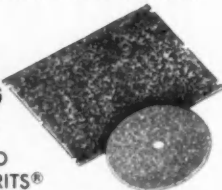
A complete line of coated abrasive products for all machine and hand sanding needs.



### SHARPENING STONES

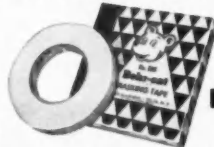
Best quality **INDIA®** & **WASHITA®** Bench stones, slips and files, also abrasive cut-off wheels for metals and ceramics.

### FLOOR SANDING PAPERS



### RESINIZED SPEED-GRITS®

Papers in rolls, discs and drum covers to fit all standard machines.



### BEHR-CAT® TAPE

For masking, sealing, holding, etc. Sticks at the touch, peels off clean.

\*® Trade Marks

## BEHR-MANNING

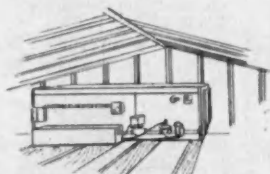
CORPORATION  
Division of NORTON Co. Troy, N. Y.



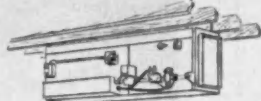
COATED ABRASIVES  
SHARPENING STONES  
PRESSURE SENSITIVE TAPES

AMERICAN BUILDER

**Here's a new gas-fired horizontal-type heating unit designed to save floor space...**

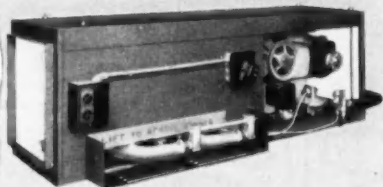


... installed in the attic

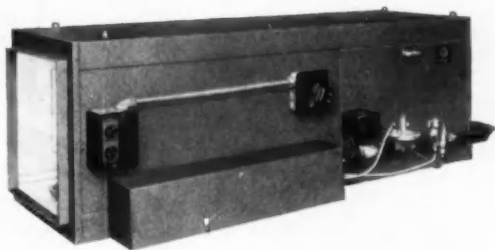


... or suspended under the floor

HERE'S THE PAWNEE with access panel removed. The heart of this new horizontal unit is its heavy steel heating element and efficient slotted port-type burner which is especially designed to provide correct amount of heating surface without hot or cold spots. The burner, made with rugged cast iron body, is easily removed for servicing, if necessary. Inside of the Pawnee's jacket is protected by corrosion-resistant reflective high temperature aluminum paint. Flue outlet is designed for maximum flexibility of installation. Draft hood prevents excessive drafts from affecting combustion. Individual controls are the finest available.



## The PAWNEE Winter Air Conditioner



● The new horizontal Pawnee winter air conditioner saves valuable floor space in one-story houses. It can be installed in an attic, suspended under the floor in crawl space, or overhead in a hallway, closet, utility room or similar out of the way place.

In an attic installation the Pawnee may be used as a ventilator to circulate cooler air in summer. No change is necessary, other than a simple by-pass to discharge the air drawn from the living zone into the attic space where it will flow outside.

Installed in the crawl space under a basementless house, the Pawnee allows complete freedom of duct layout . . . any type of system may be used. The warm air registers may be located on either inside or outside walls. This horizontal unit can be easily installed in perimeter heating jobs, too.

The compact Pawnee winter air conditioner is made in four sizes and burns manufactured, natural, mixed and liquefied petroleum gas. With its smart Forge Red jacket and trim lines, the Pawnee makes a neat, attractive installation. **American Radiator & Standard Sanitary Corporation**, P. O. Box 1226, Pittsburgh 30, Pennsylvania.



# AMERICAN-Standard

## HEATING

*Serving home and industry*

AMERICAN-STANDARD · AMERICAN BLOWER · ACME CABINETS · CHURCH SEATS · DETROIT LUBRICATOR · KEWANEE BOILERS · ROSS HEATER · TONAWANDA IRON

## Do the BIG JOBS *Faster* with this Rugged *Mall Drill*

Here's power aplenty for any operation within its working capacity. "Centerized" balance makes this heavy-duty power tool easy to hold and maneuver in any position. Trigger switch for instant power control at finger pressure. Equipped with Jacobs geared chuck. Capacity  $\frac{3}{8}$ " in metal,  $\frac{3}{4}$ " in wood. Universal motor operates on 115 V. Many practical attachments available.

Ask for latest Mall Drill Catalog.  
40 Factory-Owned Service Warehouses,  
Coast to Coast, To Serve Our Customers  
and Thousands of Dealers.

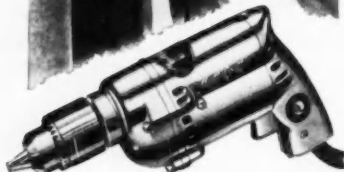


Model 145T Mall Drill

Cap.  $\frac{1}{4}$ " in metal —  $\frac{1}{2}$ " in wood. Equipped  
with Jacobs geared chuck & key. 115V. AC-DC



Model 381  
 $\frac{3}{8}$ " Capacity

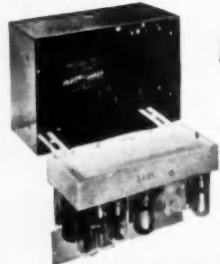
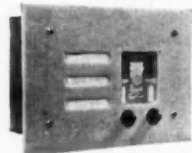


**Mall**  
TOOL COMPANY

7737 S. Chicago Avenue  
Chicago 19, Illinois



## 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**

Dept. AL, 1012 Cleveland Street, Clearwater, Florida



## Harry Kendall Dies; Held High Posts in Lumber Industry

Harry T. Kendall, 69, chairman of the board of Weyerhaeuser Sales Co., died May 2 of a heart attack in White Sulphur Springs, W. Va. Mr. Kendall was attending a meeting of the U.S. Chamber of Commerce, of which he was a director.

A leader in the lumber field for many years, Mr. Kendall had served both the industry and government as an advisor on natural resources problems. He first entered the lum-



Harry T. Kendall

ber business in 1913 with the Kirby Lumber Co., Houston, Texas, serving as general sales manager until 1926.

Mr. Kendall joined Weyerhaeuser Sales Co. in 1934 as general manager and was named chairman of the board in 1950. He was also president and director of the Globe Box Co., Houston; a director of Allied Building Credits, Inc., Los Angeles; and chairman of the board of Timber Engineering Co., Washington, D.C.

His advisory posts with the government included special consultant to the Munitions Board, and chairman of the Lumber Manufacturing Industries National Industry Advisory Committee.

He was a director of the National Lumber Manufacturers Association, a member of Hoo-Hoo, and held high posts in a number of civic organizations.

Mr. Kendall was born in Clay Center, Kansas, May 26, 1882. He leaves his widow, Mrs. Rubey Kendall, three sons, Harry T., Jr., George P., and Robert A., and a daughter, Mrs. Donald G. McNeely.

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**How to Install  
Hardwood Floors**

The important steps and necessary precautions in laying hardwood floors are outlined in a new booklet published by the Maple Flooring Manufacturers Association.

The booklet, called "How to Lay Lifetime Floors of the Northern Hardwoods," is available without charge in single copies from the association, 548 Pure Oil Building, Chicago 1, Ill. Here are some of its suggestions and illustrations:

**Over Wood Joists**

When hardwood floors are laid over wood joists, the subflooring should be of softwood, surfaced on one or both sides, 25/32-inch thick, not over 8 inches wide, and well-seasoned (preferably kiln-dried); green or wet boards are sure to shrink and open cracks between finish flooring strips. Subfloor boards should be laid diagonally (see Figure 1), with at least two 10d nails at each joist and each board end. Firmness of top floor depends on this.

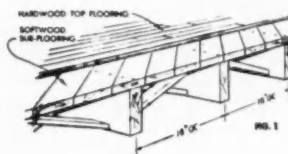


Figure 1

Pine, Douglas fir, spruce or hemlock are satisfactory. Subfloor of 3/4-inch plywood (Figure 2) is also highly recommended. Its strength factor is very high. Floor joists should be spaced on 16-inch centers and bridged at least every eight feet. If subfloor is omitted (this is not recommended) 25/32-inch flooring or thicker must be used, with joists spaced 12 inches O.C., bridged every four feet.

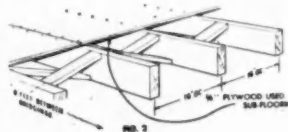


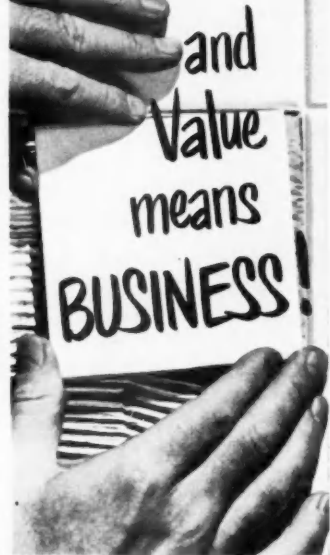
Figure 2

**Over Concrete Slab**

If concrete is laid on grade, an underfill of cinder, washed gravel or the like is usually essential. To bar out ground moisture, waterproofing membrane (two layers of 15-pound asphalt felt) should be used above the floor, under the screeds (see Figure 3). Butt the joints of both

(Continued on page 178)

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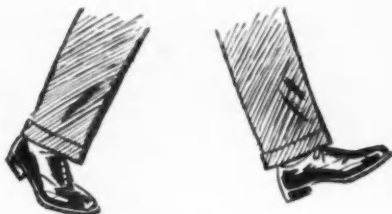
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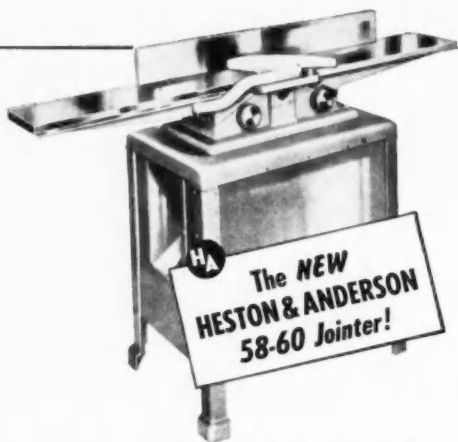
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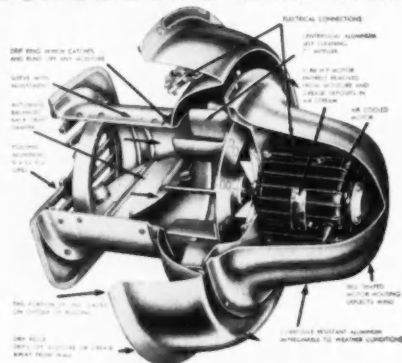
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(Continued from page 176)

layers tightly and stagger all joints. Mop layers with hot asphalt pitch and carry membrane at least six inches up walls behind baseboard.

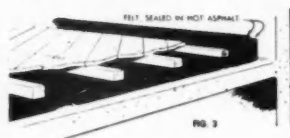


Figure 3

### General Recommendations

Sleepers or screeds should be treated with preservative to retard deterioration. Dimensions may be 2x2, 2x3 or 2x4, 16 inches O.C. (12-inch centers if subfloor is omitted). Good results may be had if sleepers or screeds are laid in mastic (Figure 4). Air circulation should be provided, especially if there is no basement (Figure 5).

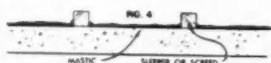


Figure 4

A good quality flooring paper should be applied between subfloor and finish floor to help protect finish flooring from moisture that may arise from concrete slab (see Figure 5). Tarpaper and ordinary building papers are not recommended, as they sometimes absorb moisture and pass it slowly to the wood floor above. Sealed-in dampness should be avoided. Proper waterproofing and good air circulation are essentials.

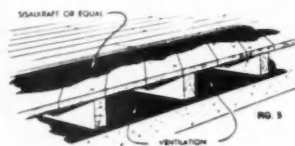


Figure 5

### Laying the Top Floor

Laying finish floors should be the *last operation* in building. Never lay floors in a cold, damp building. Heat it for 10 days to at least 70 degrees regardless of the season, and store flooring, piled loosely, in the building at least three days before laying.

After all plastering is done, and all woodwork except base shoeing or quarter-round is installed, the finish flooring may be laid. If it is done earlier, the clean wood is almost sure to be scarred or soiled. Start laying flooring at one sidewall, square with the room, face-nailing the first piece

(Continued on page 180)



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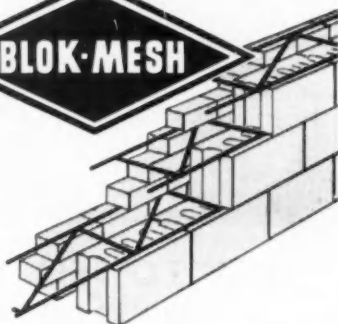
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(Continued from page 178)  
(base shoe will conceal nails). Leave not less than  $\frac{1}{2}$ -inch horizontal expansion space at all walls (see Figure 6).

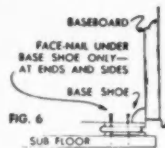


Figure 6

Continue flooring through from room to room (Figure 7). Usual practice is to plan flooring so strips run lengthwise through halls or narrow spaces and extend from one adjoining room to another with direction unchanged.

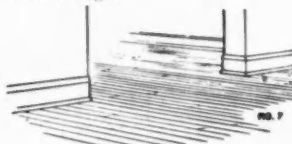


Figure 7

Each lot of flooring contains a certain proportion of shorter pieces, depending on the grade. These are useful in closets and for finishing out courses near end walls. When it is necessary to cut a short length to finish out a course, it is well to cut it from a piece long enough to permit the remaining part to be used to start a new course.

Always use a waste scrap of flooring as a block when tapping home the edge or end of a strip (Figure 8), to avoid marring.



Figure 8

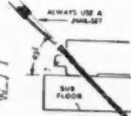


Figure 9

### Nailing

Smooth, squeak-free floors require special nails. The average carpenter finds the screw-type nail more satisfactory because it minimizes splitting. Recommended types and sizes are shown in Figure 10.



Figure 10

(Continued on page 184)



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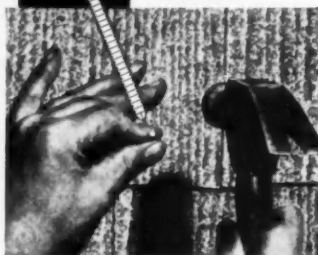
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(Continued from page 180)

Drive the nails through the side tongue at an angle of 45 to 55 degrees. Don't drive them home, but sink them with a nail-set (Figure 9) to avoid marring the flooring edges. The first nail or two in each piece should be "toenailed" (Figure 11) toward the preceding piece to which it end-joins, to insure tight joints. Always break, or stagger, end joints in adjoining strips.

To avoid floor squeaks, use plenty of nails in both subfloor and finish floor. Loose sleepers often cause squeaks, so nail them tightly and use bridging generously.

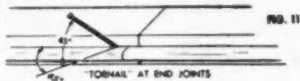


Figure 11

### Sanding

A really smooth sanding job is the most important part of any good floor finishing job. Scrape and sand with grain, lengthwise (see Figure 12), using either a cushioned hand sanding block or a power sander, of the familiar belt type or oscillating type—never one of the disc type.



Figure 12

No. 2 or 2½ sandpaper is suggested for leveling off high spots and joints, and No. 1 for the second cut. The final step—most important of all—is the finish sanding with No. 0 or 00 paper (or both, if necessary). Sanding should be very meticulous; the finest finish can never make a poorly sanded floor look like anything but a poorly sanded floor.

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All hardwood floors require some kind of finish; proper finish, correctly applied, beautifies the floor, brings out the grain pattern, makes scrubbing unnecessary and adds to the life of the wood.

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(Continued on page 186)

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Architectural Editor, House & Garden  
and  
Thomas H. Creighton,  
Editor, Progressive Architecture

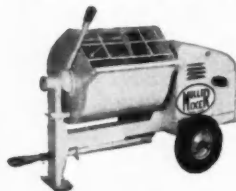
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\$330 (with air-cooled engine)

FOE 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

From Coast to Coast the reports roll in:

"OFFERS MORE VALUE"

"REAL SELLING FEATURES"

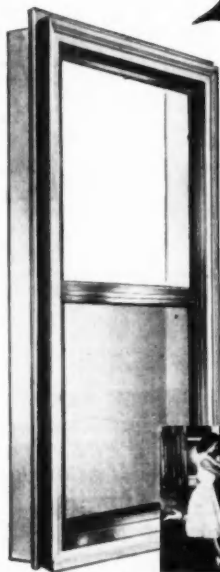
"CHEAPER TO INSTALL"

## RUSCO Fully Pre-Assembled Hot-Dipped Galvanized PRIME WINDOW

(VERTICAL SLIDE)  
Comes Factory-Painted, Hardware Attached — All Ready to Place in Window Opening!

GLASS • SCREEN  
BUILT-IN WEATHERSTRIPPING  
INSULATING SASH\*  
WOOD OR METAL CASING  
—OR STEEL FINIS

**ALL IN ONE UNIT!**



\*Optional

### GIVES YOU MORE VALUE—MORE SELLING FEATURES

The Rusco Prime Window provides the most *complete* window protection money can buy. There's nothing else like it on the market. Precision-built of finest hot-dipped galvanized steel, bonderized and finished with baked-on outdoor enamel.

And *plus* selling features galore! Year 'round rainproof, draft-free ventilation. Most efficient insulation against heat and cold. Smooth, effortless operation. No screen or storm window problem. Big savings in fuel consumption—and many more.

### SAVES YOU CONSTRUCTION TIME AND MONEY

This unique, ready-to-install window makes truly remarkable savings in installation time and costs. It can be fully installed on many types of construction in *as little as five minutes*. No glazing, no fitting of hardware, no field painting, no call-backs for adjustments and re-fitting. This all means *speedy* construction and *profitable* construction. Many builders report that the installed cost of the Rusco Prime Window is even less than that of the *cheapest* wood window they can buy!

For illustrated literature and specifications, write or wire

## The F. C. Russell Company

DEPT. AB72, CLEVELAND 1, OHIO • IN CANADA: TORONTO 13, ONTARIO

Glass and Screen Inserts  
Easily Removed from Inside for  
Convenience in Cleaning.  
The Rusco removable sash feature  
has tremendous appeal as a  
convenience and safety feature.

## BEST for BUILDERS

**NEW IMPROVED  
TRI-SAW**  
All-Purpose Portable Power Hacksaw  
**only \$37.50**



Zips through wood, sheet metal, lath, plaster, pipe, nails, etc. in seconds! Attaches to any heavy duty 1/4" or 5/16" drill.

Use this sensational time and work-saving tool. You'll say it is the best portable, all-purpose saw on the market. Write for circular.

### ATTENTION! JOBBERS AND DEALERS

Profitable possibilities for aggressive distributors. Wire, write or phone.

### TRI-SAW CORPORATION

6611 Clayton Road - St. Louis 17, Mo.



Hold the heads of axes, hammers, sledges, mallets, hatchets, and other handle-type tools. Available in a complete range of sizes.

## Red Devil GRADY WEDGES



**Red Devil GRADY WEDGES**  
"Barbed to stay wedged!"

Counter-salesman holds 36 No. 5 and 24 No. 10 Wedges for fast service and impulse sales.

Rust-resistant, chip-proof—pound these patented steel wedges into the head of any handle-type tool—they'll never come out.

8008

A PRODUCT OF  
**Red Devil Tools**  
IRVINGTON 11, N. J., U.S.A.



(Continued from page 184)



FIG. 13

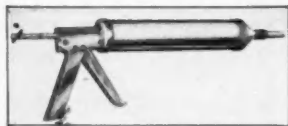
Figure 13

pouring it directly onto the floor (Figure 13), then "squeeze" it with a rubber applicator and, after a few minutes, "burnishing" it with a motor-driven device faced with fine steel wool.

### Offers Precut Porches

A group of pre-cut, ready-to-assemble porches, suitable for addition to any dwelling, is being introduced by Paragon Builders of Mineola, L.L., N.Y. Smallest unit is 14x9 feet and includes either shed or gable roof, wood ceiling, screens, hardware, nails and plans.

## 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 8.17 cents.
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IMMEDIATE DELIVERY

**WESTERN RESERVE MFG. CO.**

3710 E. 93rd St.

Cleveland 5, Ohio

## SOLVAY Calcium Chloride

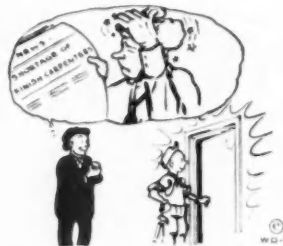
The Clean, Odorless Way to

## END DUST on Earth, Gravel and other Unpaved Surfaces

SOLVAY CALCIUM CHLORIDE is the easy, low-cost effective way to eliminate dust. Anyone can use it without any special tools or equipment. And it's safe—clean, odorless, colorless. Start now to end your dust problem—order SOLVAY CALCIUM CHLORIDE today.

Dealers! If you are not now handling SOLVAY CALCIUM CHLORIDE, write for details and complete advertising and promotion material.

THE SOLVAY PROCESS DIVISION  
Allied Chemical & Dye Corporation  
61 BROADWAY, NEW YORK 6, N. Y.



Eliminate your worst headache. One man installing **READY HUNG DOORS** does the work of 8 to 10 men.



THE NEW  
DOOR AND FRAME  
PACKAGED UNIT

READY HUNG DOOR CORP., DEPT. A  
FORT WORTH, TEXAS

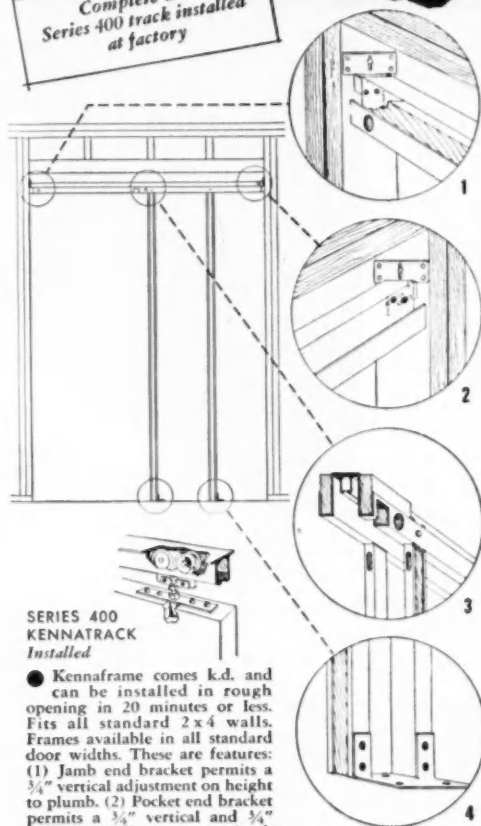
AMERICAN BUILDER

# Warp Proof!

## KENNAFRAME

SERIES 800 PREFABRICATED  
METAL PASSAGE DOOR FRAME

Complete with  
Series 400 track installed  
at factory



SERIES 400  
KENNATRACK  
Installed

● Kennaframe comes k.d. and can be installed in rough opening in 20 minutes or less. Fits all standard 2 x 4 walls. Frames available in all standard door widths. These are features: (1) Jamb end bracket permits a  $\frac{3}{4}$ " vertical adjustment on height to plumb. (2) Pocket end bracket permits a  $\frac{3}{8}$ " vertical and  $\frac{3}{4}$ " horizontal adjustment to plumb and fit opening. (3) All split jambs provide a  $1\frac{1}{8}$ " adjustment for height to fit uneven concrete or double wood floors. Slot in header provides access to hangers for door adjustment. (4) Wood filler strips allow plaster grounds, trim and stops to be nailed or screwed in usual manner. Base brackets assure proper spacing of split jambs and anchorage to floor.

See your Kennatrack dealer or jobber, or write Dept. 00

**JAY G. McKENNA, Inc.**

ELKHART, INDIANA

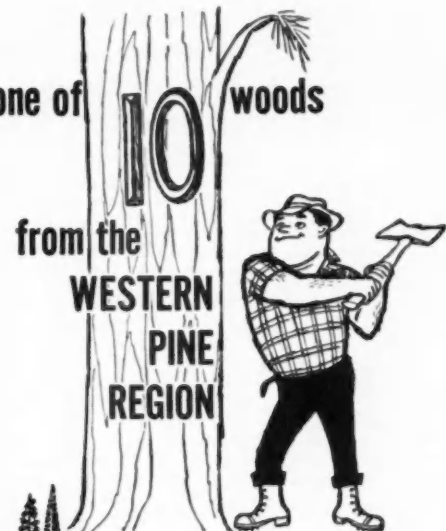
JAY G. McKENNA (Canada) Ltd., 104 Jarvis St., Toronto, Canada

Specializing Exclusively in the  
Manufacture of Sliding Door Hardware

## INLAND RED CEDAR

one of **10** woods

from the  
**WESTERN  
PINE  
REGION**



From shingles to sheathing, this strong, decay-resistant, even-textured, aromatic wood is advantageously used wherever durability and non-warping are important. Entirely resin-free, it takes and holds glue, paint and stains. One of the finest wood insulators.

This is but one of ten fine softwoods from member mills of the Western Pine Association. All are manufactured, seasoned and graded to exacting Association standards. Lumber dealers, builders, architects and wood users have found them dependable and best for many construction uses.

### THESE ARE THE WESTERN PINES

IDAHO WHITE PINE  
PONDEROSA PINE • SUGAR PINE

### THESE ARE THE ASSOCIATED WOODS

LARCH • DOUGLAS FIR  
WHITE FIR • ENGELMANN SPRUCE  
INCENSE CEDAR • RED CEDAR  
LOGPOLE PINE



Write for free illustrated  
Facts Folder  
about Red Cedar.  
Address:  
Western Pine Association,  
Yeon Building,  
Portland 4, Oregon.

# Announcing a great new building book!

# RICHEY'S REFERENCE HANDBOOK

for BUILDERS, CONTRACTORS,  
ARCHITECTS, BUILDING MATERIALS  
DEALERS, CARPENTERS, and  
BUILDING CONSTRUCTION FOREMEN

By H. G. RICHEY

DISTRICT ENGINEER (RETIRED), CONSTRUCTION OF  
PUBLIC BUILDINGS, U. S. TREASURY DEPARTMENT

Here's the book you've been wanting—a working tool and ready reference written specifically to assist the man engaged in building and construction work.

Look at the Complete Contents!

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Personality and Duties, Payments to Contractors, Progress Chart and Report, Care of Drawings, Indexing Drawings and Specifications, Establishing Lines, Levels, etc.

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Selection of Stone, Granite, Sandstone, Limestone, Marble, Miscellaneous Stones, Testing Stones for Building Purposes.

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Lime, Natural Cement, Portland Cement, Puzzolan Cement, Other Cements, Tests, etc. of Cement.

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Mortar, Concrete, Sand and Aggregates, Mixing Concrete, Composition of Concrete, Strength of Concrete, Handling and Using Concrete, Finishing Concrete Surfaces, Notes on Cement and Concrete.

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Concrete Construction, Reinforced Concrete, Strength of Concrete Floors, Beams, etc. Systems of Concrete Reinforcement, Superintending Concrete Construction, Sidewalk and Floor Construction, Concrete Pavements and Roads, Curbs and Copings, Concrete Masonry, Estimating Concrete Work.

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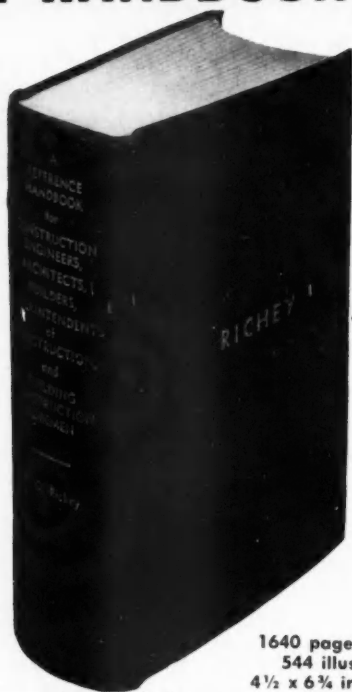
Plumbing, Sewers and Drains, Soil, Waste and Vent Pipes, Pipe and Fittings, Gas Piping, Sewage Ejectors, Sewer Flush Tanks, Septic Tanks and Disposal Beds, Water Ejectors and Cellar Drainers.

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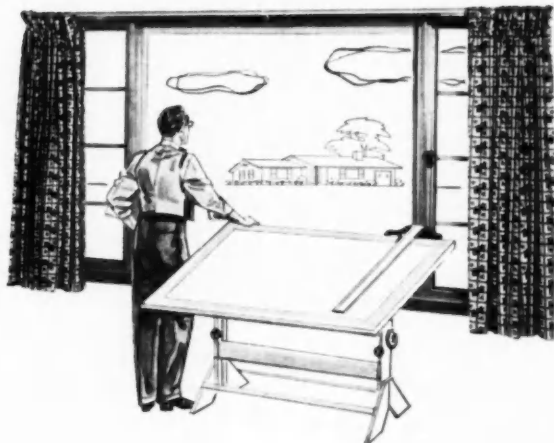
Name .....

Street .....

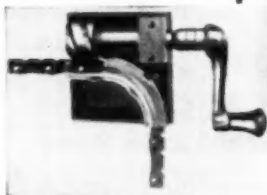
City, State .....

**THE WINDOW THAT LOOKS**

*to the future*

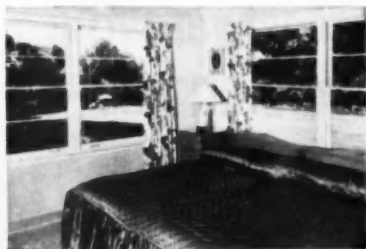


There is one type of window that has never stood still in offering important improvements and advantages to you and your clients. It is Curtis Silentite—the window that is constantly being studied and tested to improve still further its ease of operation, weather-tightness and other features that provide increased value. At the right are some reasons why:

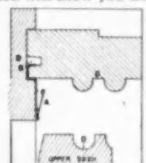


Silentite casement adjuster.

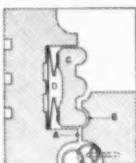
Curtis makes a complete line of architectural woodwork and kitchen cabinets for the modern home. Make your next house "all Curtis."



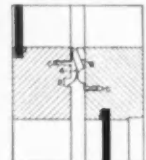
These are the famous Silentite windows—which we believe are the most weather-tight double-hung windows made. A glance at their construction will show you why.



Head weather-strip



Side weather-strip



Meeting rail weather-strip



Sill weather-strip

These details show the built-in weather-stripping of the Silentite double-hung wood window. The sliding bars are supported by double "Z" spring leaf-type weather-strip, providing uniform pressure on both sides of the window, yet permitting unusual ease of operation. The Silentite spring suspension eliminates weights and cords. Spring leaf weather-strips are used at head, meeting rail and sill to provide complete protection.



Silentite wood casements can cut total heating cost in the home as much as 16%. Silentite casements are supplied with insulating glass and screens. Operation is exceptionally easy—the adjuster provides 15 times greater opening pressure than the lever type. No inside projecting hardware—no hardware visible outside when sash is closed. Several sash styles are available. These are one-light casements.

Curtis Companies Service Bureau  
 447 Curtis Building, Clinton, Iowa  
 Gentlemen:

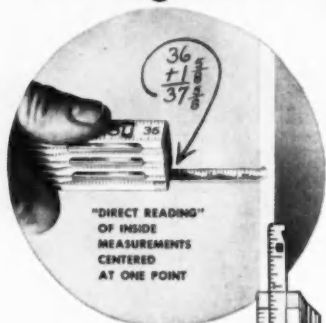
I want to know more about Curtis Silentite Windows. Please send me your free window booklet. I am ( ) architect, ( ) contractor ( ) prospective home builder, ( ) student. (Please check above)

Name.....

Address.....

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

# 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 on even measurements in 4" multiples—4", 8", 12", 16", etc. And as a marking gauge on end-to-end measurements in 6" multiples as each leg opens.

#### CHECK THESE "100 PLUS" RULE FEATURES:

- Easy to read Big Black Numbers on White Sticks
- New Plastic Finish Wears Four Times Longer
- Removable 8-Inch Brass Slide, Graduated Both Sides—Extends 6 Inches
- Nickel Silver Ball-Lock Joints
- Extra Thick Rock Maple Sticks Graduated Both Sides

For real rule value ask for the X-226 at your hardware dealer's.

#### Stanley Tools, New Britain, Conn.

THE TOOL BOX OF THE WORLD



Reg. U.S. Pat. Off.  
HARDWARE • TOOLS • ELECTRIC TOOLS  
STEEL STRAPPING • STEEL

## Association News, cont'd

### Home Show Exhibitors Laud One-Way Traffic Layout

Both exhibitors and sponsors expressed high enthusiasm for a controlled one-way traffic layout used at the recent Buffalo (N.Y.) Better Homes Exposition. A survey of paid customers and exhibitors indicated that 83 per cent of the persons attending the show passed each one of the 190 booths.

Exhibitors also credited the "guided tour" plan with affording a better opportunity to display products and to discuss them with prospective customers without blocking traffic.

Approximately 85,000 persons visited the show during the first seven days of its nine-day run, according to G. L. Mitchell, exposition president. Annual sponsors of the event are the Buffalo Real Estate Board and the Niagara Frontier Builders Association.

### Hoo-Hoo Snark Gets 'Passport' to Texas



**HOO-HOO'S TOP MAN**, Snark of the Universe Robert J. Stalker (right) of Quincy, Mass., gets some traditional Texas "trimmings" on recent visit to Houston Hoo-Hoo Club No. 23. Presenting Stalker the cowboy hat and "Texas Passport" is W. A. Russell, president of the Houston Club.

### Buyer's Service Policy Adopted at Des Moines

With the recent adoption of a "Home Owner's Service Policy," the Home Builders Association of Des Moines became one of the first local chapters to participate in the buyer's protective program launched by the National Association of Home Builders at its annual convention in January.

Persons buying homes from Des Moines association members will receive an embossed certificate containing details of the services covered, along with

(Continued on page 192)

**Dorflo**  
floating action door hangers

for RECESSED DOORS

the *Modern* way

DORFLO is a new concept of door function and design . . . a simple, fool-proof, actuator-like mechanism, cantilevered from within the wall.

DORFLO makes sliding doors literally float in and out of their pockets with just a gentle pressure of the finger-tips . . . so easy even a child can operate it.

- No complicated overhead tracks
- No noisy floor runners to clog and jam
- Simple installation
- Available in:
  - R-D wall sections
  - Packaged hardware
  - Ready-Unit sections—completely assembled wall sections including all hardware, finished split jamb with built in steel stiffeners.

Write for name of Nearest distributor

**EZ-WAY SALES, INC.**  
Dept. 5, Box 300 St. Paul Park, Minn.



Lost hardware parts means wasted time and profit. Eliminate lost hardware with **READY HUNG DOORS**.



### THE NEW DOOR AND FRAME PACKAGED UNIT

READY HUNG DOOR CORP., DEPT. A FORT WORTH, TEXAS

AMERICAN BUILDER





# HOW TO CUT DOOR And FRAME COSTS

## WAY DOWN!



Use VMP flush steel doors between garage and house. Fireproof!



Use VMP flush steel doors for utility heating rooms. Fireproof!

VMP all-in-one piece steel frames require no on-the-site assembly

Pre-welded into complete one-piece assembly with butt hinges welded into the frame. Tack welded spreader channels maintain shape during shipment. Buck shapes for all wall construction.

Use VMP flush steel doors throughout house. Never warp, sag or crack! No customer complaints. No costly call-backs to repair doors or frames.

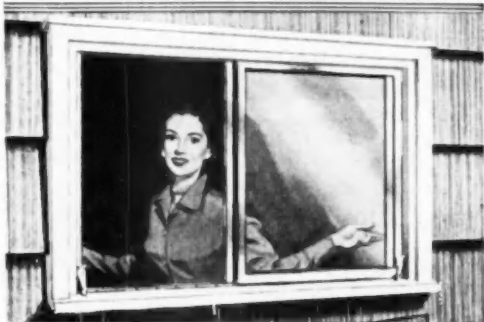
**FREE:** Architect's and builder's manual illustrated with two-color isometric drawings gives valuable door and frames cost cutting data. Send for your personal copy—yours without charge. Just write "VMP Steel Doors and Frames" on your letterhead or card, and mail today to Dept. 67



**VIRGINIA METAL PRODUCTS CORPORATION**

60 Hudson Street, New York 13, New York

another **HOMASOTE FIRST**  
—designed to reduce the cost of building



Introducing the

## Nova-Vita horizontal-sliding window



For every room in the house

The panes of these windows—framed in satin-finish aluminum sash—ride on nylon shoes over fiberglass tracks!

In these few words, you have the primary reasons why the new Nova-Vita Window provides beauty, efficient performance and lifetime money savings—in a way other types of windows cannot.

When fully closed, the two panes lock automatically and are tamper-proof from the outside. Opened, each pane is quickly removable from inside the house. For full ventilation, on a warm day—or for washing—both panes can be removed entirely, in a matter of seconds.

Standard equipment with each window: an aluminum tension screen; wood window frame, sill and drip cap—all assembled, toxic treated, primed, ready to install in opening.

Accept the fact that a Nova-Vita Window is built to outlast the house itself. Then add these facts...*there are no sash balances or counterweights, no operating cranks, no projecting hinges. And a Vinyl gasket has eliminated all puttying, forever!* The Nova-Vita Window is not only more attractive and more convenient in every way; it is lastingly trouble-free.

Let us send you fully illustrated and detailed literature.

**NOVA SALES Co.** TOWSON, M.D.

NOVA SALES CO., Dept. 92A  
Trenton 3, N. J.

Send details on NOVA WINDOWS

Name.....

Address.....

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

My lumber dealer is.....



A wholly owned subsidiary of Homasote Company—manufacturers of the oldest and strongest insulating—building board—wood-featured and colored panels.



## 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.

### FIREPLACE DAMPERS

cast iron



Cast Iron

- Clean-out Doors
- Ash Dumps

Fireplace Fixtures

Cast Iron Garden Furniture

Famous Hitching Posts

Prompt Delivery and Fair Prices — "Since 1866"

### HART PRODUCTS

A division of  
**STRATTON & TERSTEGGE CO.**  
Box 311 — New Albany, Ind.

Mention Dept. AB

## Association News, cont'd

(Continued from page 190)

the group's code of ethics.

Coverage is for a six-month period from date of "delivery of title" of a new home.

Within that period, upon written request to the builder's office, he will inspect the house as promptly as possible. On any problems found to be the result of "defects in workmanship or material" he will have "reasonable and necessary repairs or adjustments" made without cost to the buyer.

In addition, each home buyer will be given a manual designed to help him understand the minor adjustments needed in most new homes. The manual will also give instructions on proper maintenance.

### Johnstown, Pa., Builders Form NAHB Affiliate



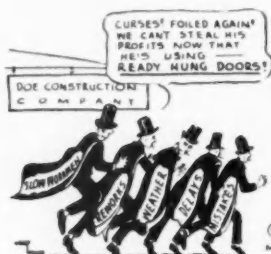
A NEW CHAPTER joined the National Association of Home Builders recently when E. M. Spiegel (seated, center), NAHB first vice president, presented a charter to the Great Johnstown, Pa., Home Builders Association. Others examining document are (seated, from left) Jacob Hoffman, president of the new Johnstown group; S. E. Kovach, president, Pennsylvania Home Builders Association; (standing) James Custer, Johnstown secretary; John Lammert, director, Home Builders Association of Metropolitan Pittsburgh; and W. S. Tussey, Pittsburgh, NAHB regional vice president.

### Virginia Dealers Organize Shenandoah Valley Group

Several members of the Virginia Building Materials Association have joined with other dealers in the Shenandoah Valley area to organize the Shenandoah Valley Materials Association. It will sponsor quarterly conference meetings to discuss district problems.

C. T. Riddell of Bridgewater, Va., was elected president; Kay Monger of Harrisonburg, Va., vice president, and D. R. Flory of Elkton, Va., secretary and treasurer.

(More Association News, Page 208)



Foil Profit Stealing variables with READY HUNG DOORS.



THE NEW  
DOOR AND FRAME  
PACKAGED UNIT

READY HUNG DOOR CORP., DEPT. A  
FORT WORTH, TEXAS

The Only Guaranteed -  
Nationally Advertised

### RED CEDAR CLOSET LINING

BROWN'S

**SUPERCEDAR**

SEAL-PACKAGED  
ALL WIDTHS 40"  
TO PKG.



GUARANTEED 90% RED HEART — 100% OIL CONTENT

Our national advertising is currently producing thousands of customer inquiries which are turned over to our dealers for follow-up. This interest in cedar closet lining represents a growing and active market. Brown's Super-Cedar is a fast-moving, profitable item as produced by the largest and oldest experts in the business. Sold only through leading jobbers and millwork distributors.

Write for Builders Folder and Consumer Booklet

PRODUCT OF  
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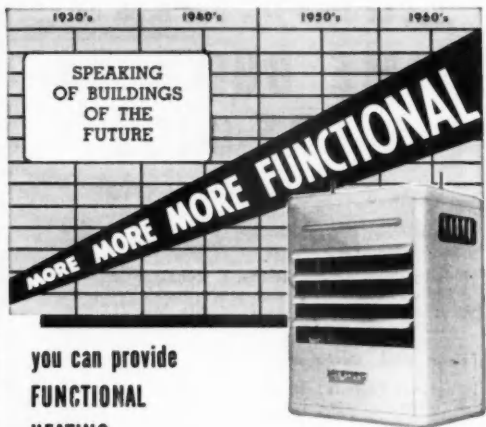
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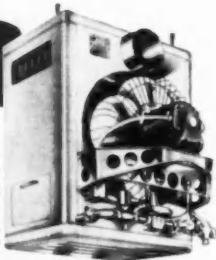
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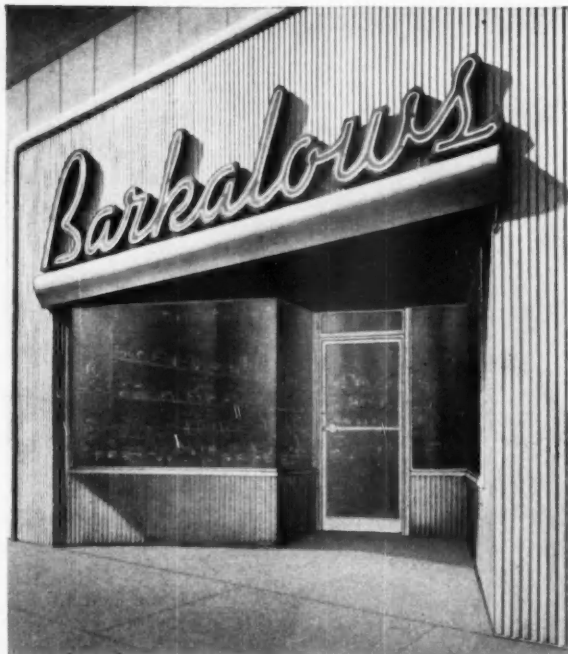
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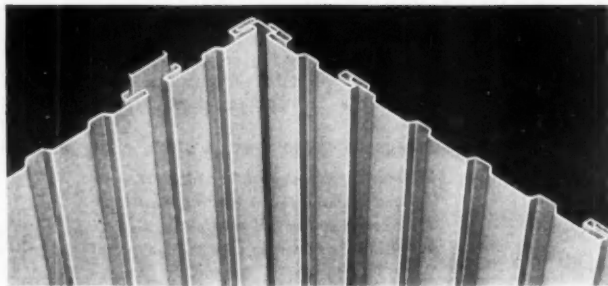
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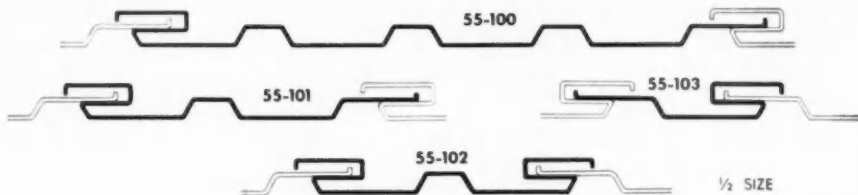
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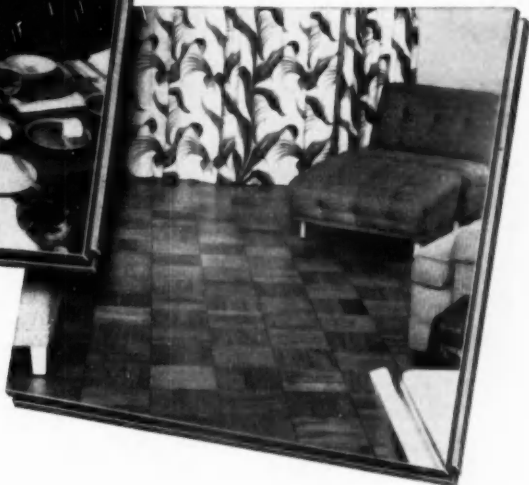


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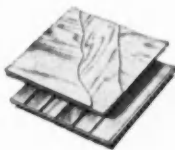
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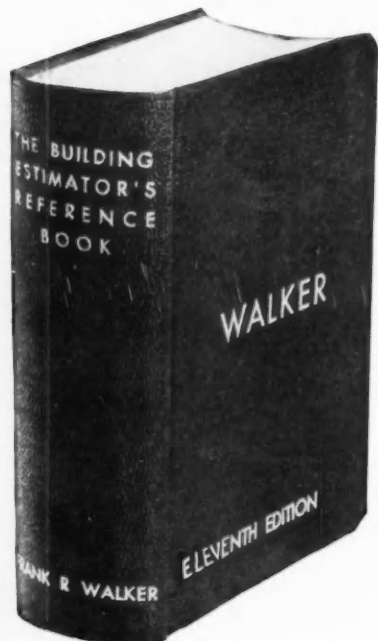
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**C. George Dandrow of J-M Elected to Head N.Y. Building Congress**

For the first time in its 31-year existence, the New York Building Congress has selected someone outside of the architectural profession to be its president.

C. George Dandrow, vice president of the Johns-Manville Sales Corporation, was elected to head the organization at its annual meeting May 21 in the Hotel Astor. He succeeded Louis Skidmore of the New York and Chicago architectural firm of Skidmore, Owings & Merrill.



C. George Dandrow

Other officers elected were Robert Allan Jacobs of Kahn & Jacobs, A. E. McKenzie of the Detroit Steel Products Co., Howard McSpeldon, president of the Building and Construction Trades Council, Harold R. Sleeper, former president of the American Institute of Architects New York chapter, and H. C. Turner Jr., president of the Turner Construction Co., vice-presidents; Otto L. Nelson, vice president of the New York Life Insurance Co., treasurer, and Vernon Jarboe of Gens-Jarboe, Inc., secretary.

More than 700 attended the luncheon meeting, at which Rear Admiral Joseph P. Jelley, chief of the Navy's Construction Engineering Corps (Seabees), discussed the long delays involved in getting Navy construction done overseas. He was introduced by Bill Henry, radio newscaster.

**Home Builders Can Vie for Awards in National Contest**

Parents' Magazine has announced its Third Annual Builders' Competition for the best homes for families with children. The contest covers houses built and sold between January 1, 1951 and July 1, 1952.

Participation is open to all builders of homes for sale who have sold

more than one house during the period.

Entries will be divided into five regional groups. Two price classifications will be judged—houses with an actual selling price of not more than \$15,999, and those in the \$16,000 to \$25,000 range. Both include land.

Ten entries will be selected for merit awards, one in each price group for each of the five geographical regions. From the possible ten awards, two houses (one from each price class) will be selected for top national honors. Awards may also be given for special features.

Scheduled to serve on the jury for the competition are Alan E. Brockbank, president of the National Association of Home Builders; Richard Bennett, A.I.A., Loebl, Schlossman and Bennett; William H. Scheick, A.I.A., executive director, Building Research Advisory Board; Mrs. Maxine Livingston, family home editor, Parents' Magazine; and five regional advisors to be announced later.

The contest closes August 1, 1952. Complete details can be obtained from: Builders' Competition for Merit Awards, Parents' Magazine, 52 Vanderbilt Ave., New York 17.

# Three Big Weeks for Selling!



**Sixth Annual Chicagoland Home and Home Furnishings Festival Sept. 14—Oct. 5**

Again you can share in the extra sales and profits of your industry's most successful Fall promotion!

And again on September 14, the Chicago Tribune will provide the ideal background for your selling message in a special Festival supplement to be read by more than 1,000,000 home-minded families in Chicago and suburbs.

Make your plans now to cash in on this timely opportunity to sell the huge audience that accounts for the bulk of the home spending in America's most intensively pre-sold market for homes and home merchandise.

Forms for the Festival supplement will close Friday, September 5. Early planning

will help you take fullest advantage of this outstanding home-maker promotion. For full details, consult your advertising counsel today, or get in touch with your nearest Tribune office.

**Biggest Event in the Trade!**

The following 16 trade groups representing more than 11,000 members of your industry sponsor the Chicagoland Home and Home Furnishings Festival, in cooperation with the Chicago Tribune:

- The American Furniture Mart
- Chicago Floor Covering Association
- Chicago Furniture Manufacturers Association
- Chicago Metropolitan Home Builders Association
- Chicago Retail Furniture Association
- Chicago Retail Merchants Association
- Electric Association
- Furniture Fabric Men's Association
- Lamp Manufacturers Association
- Manufacturers Agents Club
- The Merchandise Mart
- National Association of Bedding Manufacturers
- National Association of Music Merchants
- National Retail Furniture Association
- Peoples Gas Light & Coke Company
- State Street Council

## CHICAGO TRIBUNE

The World's Greatest Newspaper

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# HOME BUILDERS

# ARE USING *DRIVE-IT*



Home builders have taken a cue from heavy construction using Drive-It powder power fastening tools. They find Drive-It is money, time and effort saving when fastening to concrete or steel. Sleepers are anchored by driving hardened steel pins into the concrete slab. This is only one of the many fastening jobs Drive-It does efficiently and economically.

## *split-second fastening to* **concrete steel**

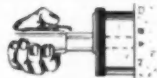
Drive-It uses a small powder load to drive hardened steel pins into concrete or steel. No power lines! No drilling!



**DRIVE-IT** is the only powder-actuated tool approved by Underwriters' Laboratory.



**DRIVE-IT** cannot be discharged accidentally due to the push and turn sequence. This, plus the large safety pad makes **DRIVE-IT** triple safe.



Exclusive Automatic Barrel Extension for fastenings inside junction boxes or other recesses.



**DRIVE-IT** is the only powder-actuated tool which requires but one standard power load regardless of penetration desired.



Exclusive Swivel Safety Pad easily rotated for getting into close quarter work.

**DRIVE-IT** "300", lowest cost fastening tool. Low original cost and low operating cost.



**MAIL THIS COUPON TODAY!**

**POWDER POWER TOOL CORP.**

0719 S. W. Woods St., Portland 1, Oregon  
Canada: Ammo Power Tool Co., Ltd.  
735 Broadway, Vancouver, B. C.

- Please send FREE catalogue and literature.  
 I want a FREE demonstration of **DRIVE-IT**.

Name \_\_\_\_\_

Street \_\_\_\_\_

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



*a drive-pin for every job*

**OVER 50 TYPES AND SIZES**

# G-E Light Conditioning makes a big difference in this room...



## and a big difference in your sales!

**B**Y giving the kind of light that's best for seeing comfort and home beauty, Light Conditioning shows off the rooms in your houses at their best, makes the most of colors and layout.

Light conditioning . . . using the right lamp bulb in the right fixture in the right locations . . . is easy to include in your plans. For example, the addition of only 4 fixtures placed according to a G-E light conditioning recipe makes all the difference in the kitchen shown above. The little extra cost pays off in the improved appearance of the room, adds greatly to the sales value of the house, means faster sales for you!

General Electric engineers have created light conditioning recipes for every type of room. The recipe shown above calls for:

1. Center ceiling fixture with three 20-watt or two 25-watt fluorescent tubes.
2. Two 25-watt fluorescent tubes over sink, mounted behind shielding boards.

3. 20-watt fluorescent tubes under cabinets.

4. Shielded wall fixture over range lights up whole range top. Use 25-watt fluorescent tubes.

### INCLUDE LIGHT CONDITIONING IN YOUR PLANS FOR NATIONAL HOME WEEK!

Light conditioning is a sure-fire way to boost attendance at your demonstration homes. Records of last year's Home Week show that light conditioned homes often drew 3 times as many people as regularly lighted homes. Light conditioning is particularly effective at night, lets you keep homes open when most people can visit them.

**FREE BOOKLET!** "How to See Your Houses in a New Light" is a brand new booklet written specifically for builders. It contains the G-E lighting recipes, tells you how to wire, what types of fixtures to use and gives you tips on how best to use light conditioning to sell prospects. Write to Lamp Division, General Electric Company, Nela Park, AB-7-166, Cleveland 12, Ohio.

GENERAL  ELECTRIC



DOUBLE HUNG ALUMINUM WINDOWS ARE BETTER

**PER-FIT** DOUBLE HUNG ALUMINUM WINDOWS ARE



*Air Circulation*, especially in sleeping quarters, is vital to health and comfort. **A must in good construction.**

Only double hung windows can be lowered at the top and raised at the bottom to insure proper ventilation. Install double hung aluminum windows in your homes.

*Install* **PER-FIT** double hung aluminum windows. They are best because in addition to these five strong features:

**MATCHLESS BEAUTY**—Graceful lines. Satin finish. Artistic design.

**POSITIVE WEATHER PROTECTION** due to zinc weather stripping and interlocking sill, head and center rails.

**FINGER TIP OPERATION** due to concealed sash balancers.

**DURABILITY**—Ruggedly constructed of heavy aluminum alloy that resists rust and dry rot.

**ECONOMY** due to inexpensive installation and zero maintenance. Never needs paint.

**PER-FIT WINDOWS HAVE**

*Koroseal Lifetime Glazing*

Glass virtually floats in Koroseal. No putty! No paint! No leakage! Maintenance is eliminated! Koroseal can be re-used when replacing glass.

Per-Fit screens and storm sash, especially designed for Per-Fit windows, afford more comfort and save money.

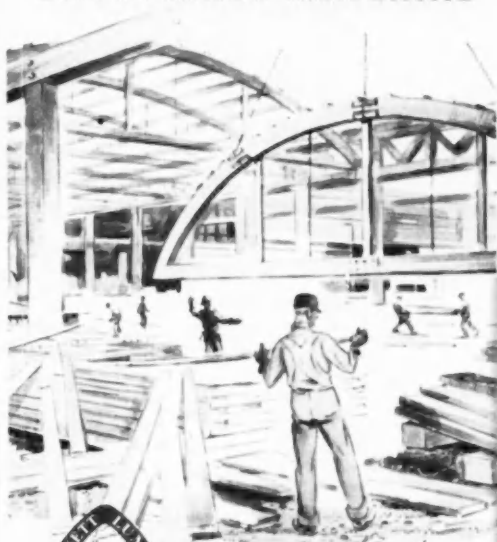
CALL YOUR DEALER TODAY He's listed under the Per-Fit trade-mark in the classified section of your telephone directory. **MR. BUILDER**—You may buy direct from the factory if we have no dealer in your area. Write for prices and literature today.



1200 E. 52ND ST. INDIANAPOLIS 20, IND.

JULY 1952

**CROSSETT  
TIMBERS ARE  
ENGINEERED MATERIAL**



Under the pressure of "guns and butter" restrictions, structural timbers are meeting the crucial need for heavy and light construction, promptly.

Timber construction is dependable, flexible, resists combustion, saves erection time, costs less. Augmented with Teco ring connectors and grids, residential roof trusses and commercial structure load bearings provide excess safety factors.

Crossett timbers of dense structural, as well as lighter classifications, are engineered to specified stress values for timbered or laminated truss and arch designs. Available in untreated, Wolmanized\* treated and Creosoted stock, they qualify under Southern Pine Inspection Bureau standards and Federal Specifications MM-L-751b.

\* Reg. U. S. Pat. Office.

For data and information address:

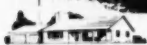
**CROSSETT LUMBER COMPANY**  
CROSSETT, ARKANSAS

207



**Monarch  
Quality  
IN-A-SLIDES**  
are Right on  
the Line when  
it comes to...

**Better  
Basement  
Windows**



Progressive contractors and dealers know by comparison that the many advantages found in New Monarch's Genuine All-Steel In-A-Slide basement windows put them at the head of the line for convenient, longer lasting and more practical windows. In-A-Slides are always found in the better homes, apartments and smaller commercial buildings.



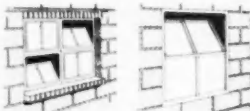
#### MULLION WINDOW UNITS

Using Monarch Weather-Tight Mullions, In-A-Slide Basement Windows may be combined into units of from 2 to 6 to a section. This makes an ideal utility type window for use in small factories, warehouses, etc. Makes possible ventilation through every window.



#### UTILITY WINDOWS

This window, made especially for farm and smaller commercial buildings, has been designed with economy in mind. Only upper section opens. Screen and storm sash available for all Monarch windows.



Sell all three—Monarch In-A-Slides, Mullions and Utility Windows

You'll have a quality line that gives you a practical and versatile combination—a line that will build up your sales and pyramid your profits.



**Sell the Best—Sell Monarch In-A-Slides  
SOLD BY ALL PROGRESSIVE DEALERS**

When you think of Basement Windows... think of  
**NEW MONARCH MACHINE & STAMPING COMPANY**  
406 S. NINTH STREET DES MOINES 5, IOWA

## Association News, cont'd

### Bodine New NLMA Executive Officer

Leo V. Bodine has been appointed executive vice president of the National Lumber Manufacturers Association, the group's board of directors announced recently. Prior to taking the new post he was vice president of Weyerhaeuser Sales Co.

Bodine, a veteran of 23 years in the industry, has been very active in lumber organizations. Since 1950 he has served as chairman of NLMA's public relations committee. He is a member of the national advisory committee of the American Forest Products Industries, the Society of American Foresters, and Hoo-Hoo.

Also active in Chamber of Commerce work, he is a member of the national chamber's natural resources and social legislation committees and a past president of the Idaho State Junior chamber.

### Plan LP-Gas Strategy



**TELEPHONE HUDDLE** is held by three new officers of Liquefied Petroleum Gas Association at recent annual convention in Chicago. They are (from left) Foster N. Mahe, Denver, newly elected president; Frank T. Carpenter, Minneapolis, second vice president; and Frances L. Holliday, Burnside, Ky., first woman to become a director of the association. Other officers named were C. M. Ambrose, Jr., Seattle, first vice president; Walter H. Miller, treasurer; Howard D. White, executive vice president, and Arthur C. Kreutzer, secretary and vice president, all of Chicago. The meeting drew a record attendance of 2,500.

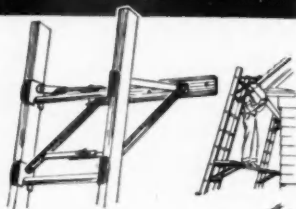
### Hoo-Hoo to Meet in Denver

The 1952 convention of the International Concatenated Order of Hoo-Hoo has been scheduled for September 7-10 in Denver. Headquarters will be the Brown Palace Hotel.

Host for the national meeting—the group's 61st annual—will be Denver Hoo-Hoo Club No. 74. Clark Gittings is general chairman of the convention committee.

National Home Week, Sept. 14-21

**SPEEDY—STURDY**  
The ONLY COMBINATION  
OFFSET LADDER BRACKET  
SCAFFOLD BRACKET



This multiple purpose ladder bracket slips on any standard ladder in seconds. Change-over time is cut to minimum. Contractors carry only one set of equipment for offset work and scaffolding support.

Safe! Rigid steel construction with extended flanges for added steadiness. Secures itself on roof slope or vertical wall. Mechanics can lean toward instead of away from their work. Tested! Widely used by efficiency-minded contractors. Write for specifications. Some top dealer territories open.



**STEADFAST**  
EQUIPMENT CO.

874 Franklin Ave., Thornwood, N. Y.

Builders!  
Carpenters!  
Contractors!

Now!  
**a 78" LEVEL**  
ONLY \$13<sup>85</sup>  
post paid

The only 78" Level—there's no other like it. Use for setting door jambs and window frames.

**6 VIAL—ALUMINUM  
PRECISION-BUILT**

Use either end or edge up. 4 plumbs, 2 levels. Light, strong aluminum alloy. 7/8" x 2 1/4" x 78". I-beam construction, far stronger than a casting. Non-warp. Weight only 4 1/2 lbs.

### No Factory Repairs Needed

Equipped with EZ set glass holders. Replaceable in a minute with an ordinary screw driver. Extra spirit tube holders mailed—only 50 cents each.

72" size \$12.50. Sent express prepaid cash with order.  
PATENTS PENDING

**SIMPLEX LEVEL CO.**

6834 E. Warren Ave.  
DETROIT 7 MICHIGAN



AMERICAN BUILDER

# Announcing

## THE NEW WAY TO VENTILATE GLASS BLOCK PANELS

AT LAST there is a *new* way to ventilate Insulux Glass Block® panels without disrupting the symmetry of panel design.

Want more information? Our new folder gives complete details. Write for your copy and be ready with the answer when your customers ask how to combine the beauty and practicality of Insulux Glass Block with concealed ventilation. Address: Insulux Glass Block Division, Kimble Glass Company, Department AB-7, Box 1035, Toledo 1, Ohio.

### INSULUX GLASS BLOCK

#### KIMBLE GLASS

COMPANY

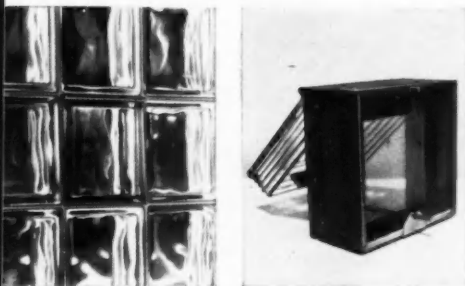
Toledo 1, Ohio

Subsidiary of Owens-Illinois Glass Company



### INSULUX PANEL-VENT and how it works

The *new* Insulux PANEL-VENT is a hinged, aluminum-framed half section of an eight-inch Insulux Glass Block. It is mortared into a panel in much the same manner as glass block.



Because the PANEL-VENT uses an actual half Insulux Glass Block, it fits and matches the panel into which it is set perfectly. Half blocks in any of six face designs are available. No special installation tools are needed.

PANEL-VENT is operated from within by a stainless steel rod. When closed, it is completely weathertight. An aluminum screen keeps out insects.



Use PANEL-VENT in existing block panels. Build it into new panel construction. Or, use it alone with concrete, brick or other materials.



## Here's a **QUALITY FEATURE** that costs **Nothing Extra...**



Floors of...

## WRIGHT RUBBER TILE

Many builders have found that Wright Rubber Tile actually costs less—when used in both kitchen and bath—than the floors they have been using.

More important, they have found that buyers quickly recognize floors of Wright Rubber Tile as a "quality feature" that makes any house more desirable.

The result is more profit and quicker sales. Why continue to install floors that your prospects are "fed up" with? Get on the bandwagon—use Wright Rubber Tile in the next houses you build! See for yourself how much quicker they sell. We are not kidding—try it!

**WRIGHT MANUFACTURING CO.**  
5203 Post Oak Road                      Houston 5, Texas



FLOORS OF DISTINCTION

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

## Association News, cont'd

### Mineral Wool Institute Names New Executive

Harry E. Lewis has been appointed executive director of the Industrial Mineral Wool Institute. Glen J. Christner, president, has announced. The association is made up of 18 manufacturers of mineral wool insulation in the United States and Canada.

Lewis' most recent post was as general manager of the industrial sales department of Great Lakes Carbon Corp.'s Perlite Division. Prior con-



Harry E. Lewis

nections were with Eagle-Picher Sales Co. and Owens-Corning Fiberglas Corp.

A registered engineer with a B.S. degree in mechanical engineering from Purdue University, he is affiliated with the American Society of Heating and Ventilating Engineers, the American Society of Refrigerating Engineers, American Society for Testing Metals and other technical groups interested in thermal insulation.

### Fan Manufacturers Name New Officers

R. A. Wasson was named president of the National Association of Fan Manufacturers at its 35th annual convention at Detroit in May. Wasson is vice president and general manager of the Clarage Fan Co., Kalamazoo, Mich.

The group's new vice president is J. M. Frank, president of the Electric Ventilating Co. L. O. Monroe, Detroit, was reelected secretary-treasurer.

### Savings and Loan Officers

Raleigh W. Greene of St. Petersburg, Fla., was named president of the National Savings and Loan League at the league's annual convention in Washington, D. C., May 13.

Other officers elected were Clifford P. Allen III, Philadelphia, first vice president; Alfred G. Peterson, Greenwich, Conn., second vice president; and Miss Mary C. Kelly, Fort Smith, Ark., secretary.

Renew your Subscription

AMERICAN BUILDER

**WHEN A SALE  
IS IN THE BALANCE...**

**CUSTOMERS DON'T  
WEIGH THE  
STICKS 'N STONES**



**They Weigh Quality Features They Know**

# American Kitchens

**SELL HOMES FASTER!**

Customers are not experts in the fine points of building construction... they don't judge your houses in terms of "sticks 'n stones." They judge the value of a house in terms of things they *know*—and they know a good kitchen from a cheap one.

That's why so many builders today are including American Kitchens in their plans. For American Kitchens spell high-quality... easily recognized... and prospects use it as a sort of measuring stick to judge the quality of hidden construction as well.

**These Features Sell Homes!**

Point out to your customers the famous exclusive American Kitchens selling points shown at right—plus the handsome design that has made it recognized as the most beautiful kitchen in America, the body-contour line that gives plenty of knee and toe room for greatest working comfort. Show how American Kitchens use superior steel for the famed die-formed construction, the finest insulation materials, the sturdiest hinges and drawer slide construction.

**Pays To Feature American Kitchens**

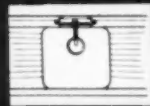
Sales move faster with American Kitchens. They are economical, easy to install. Builders find it pays to feature American Kitchens. Mail coupon today.



**American Kitchens'** one piece rounded drawers—no seams, easy to clean!



**Other kitchens** have dirt and rust-catching seamed drawers with square corners!



**American Kitchens'** 15% larger sink bowl than other make sinks—no ledge!



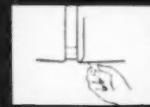
**Other kitchen** sinks have old-fashioned ledges that use up important bowl space!



**American Kitchens'** nylon glides, drawers pull out noiselessly... on the level!



**Other kitchens'** metal or soft brass drawer guides that screech, bend under strain!



**American Kitchens'** concealed door and handles of all designs, drawer pulls eliminate catch dirt, make clean-dirt-catching handles!



**Other kitchens,** with catch dirt, make cleaning difficult!

**American  
KITCHENS**

**SELL HOMES FASTER**

American Kitchens Division  
AVCO Manufacturing Corp., Dept. AB-7  
Connersville, Ind.

Please send me full information on special discount to builders and your new Architects' and Builders' File.

Name \_\_\_\_\_  
Address \_\_\_\_\_ Zone \_\_\_\_\_ State \_\_\_\_\_  
City \_\_\_\_\_

AMERICAN KITCHENS  
DIVISION



CONNERSVILLE  
INDIANA



General contractor and technical supervisor of Standard Dry Wall Products, Inc., plan correction of an extreme condition existing in bleacher seats at Braves Field, Boston, Massachusetts.

# THOROSEAL

SCORES ANOTHER

# HOME RUN

at the  
Braves Field



Right photograph shows soffits of concrete seats where concrete has blistered away from reinforcing rods. Rods were sand-blasted and sealed with THORITE Patching Mortar and entire undersurface sealed with THOROSEAL.



Above photograph shows THOROSEAL FOUNDATION COATING being grouted into upper, or wearing, surface of bleacher seats.

General contractor, Henry Gironi, Allston, Massachusetts, an expert, with long experience in masonry maintenance, rehabilitation and surface protection, performs correction task on Braves Field, with satisfaction to all concerned. Waterproofing Products, Inc., Allston, Massachusetts, furnished the materials.

THORITE Patching Mortar was used for sealing rods and patching cracks and blisters in concrete. THOROSEAL FOUNDATION COATING was used for grouting wearing surfaces.

Standard Dry **40th** Wall Products

NEW EAGLE, PENNSYLVANIA

"HOW TO DO IT."

Get our new 20-PAGE BROCHURE, with designer's guide. Pictorially described, in detail



Wood Walls that  
**WON'T**  
**BLISTER!**



## SHAKERTOWN SIDEWALLS eliminate the peeling problem

YOU NEED NEVER have a customer complaint about blistering walls if you recommend pre-stained Shakertown Sidewalls. This wonderful rough wood wall material is treated with permeating stains that *do not* form a blistering vapor seal.

This remarkable absence of peeling, coupled with the obvious beauty, the recognized insulation properties and low maintenance cost of No. 1 cedar Shakertowns, is making history in the building material field. Top professional builders, architects and retail lumber dealers are increasing the use of cedar shakes so fast that we had to quadruple capacity to produce them during the last three years!

With the increasing importance of the remodelling field during the current restrictions on new construction, you should take advantage of the increasing preference for Shakertown Sidewalls. They are quick and easy to apply over almost any other sidewall material. For full details and color samples, write the address below.



The **PERMA**  
PRODUCTS Company



5455 BROADWAY AVE. CLEVELAND 27, OHIO

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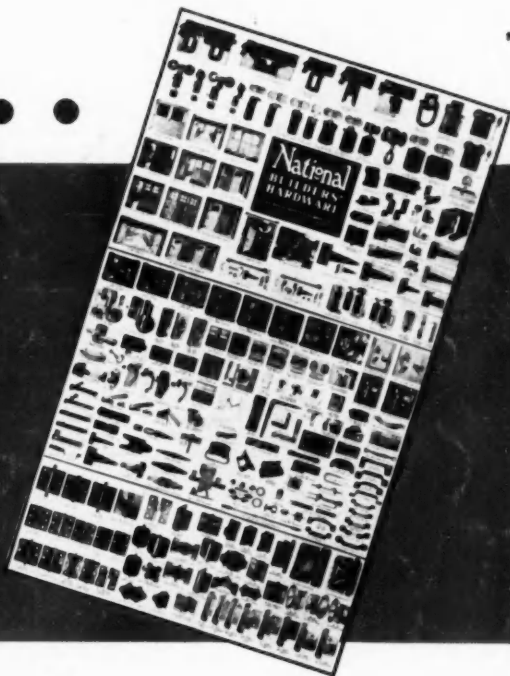
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