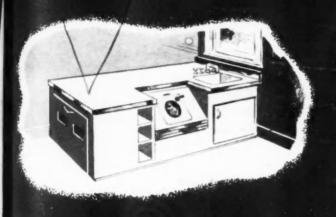
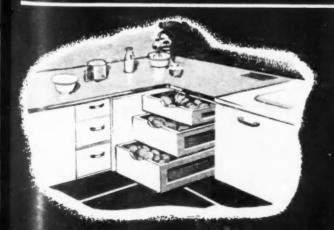
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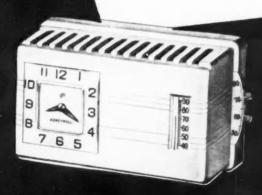
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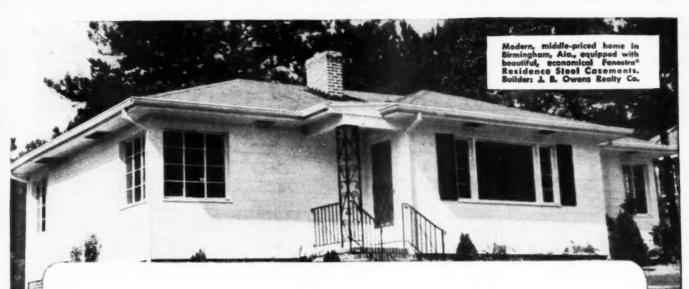
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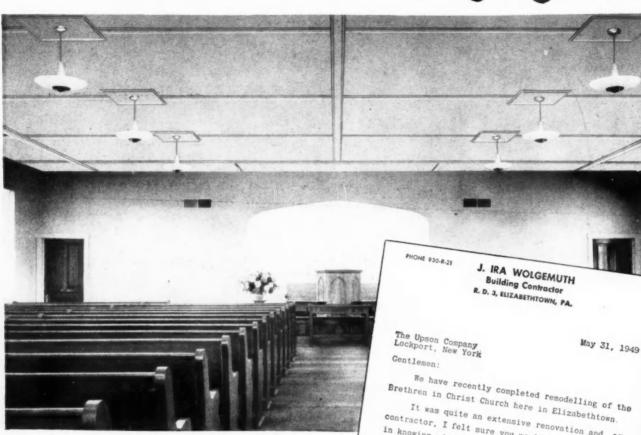
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Publisher's Page



Middle Class Can Still Dominate

HAT has occurred in the 81st Congress has proved that the liquidation of the middle class by socialistic policies can be stopped and indicated that it probably will be. The Truman branch of the Democratic party credited the labor unions with its success at the last election. Truman in his campaign promised the labor union leaders for their support the repeal of the Taft-Hartley Act, socialized housing, socialized medicine and numerous other socialistic policies which would have had the purpose and effect of "robbing selected Peter (the middle class) to pay for collective Paul" (manual workers).

The issue presented by the Taft-Hartley Act was especially important because, first, its repeal would have shown that the labor union leaders were dominant in the federal government, and, second, it would have restored to the labor union leaders the power to intimidate and coerce business and the people that they had under the Wagner Act which the Taft-Hartley Act repealed. And the nation had reason to fear not only the labor union vote and the socialistic legislation that might be adopted by politicians elected by it, but also the nation-wide strikes and violence to which labor union leaders had shown that, unless restrained by law, they would resort to destroy efficient business management and business profits. And every means of whatever kind used to destroy efficient private management of business and to prevent the earning of the profits necessary to financing the expansion of private enterprise is a promoter of socialism.

N

Well, the drive of the labor union leaders and the Truman branch of the Democratic party to repeal the Taft-Hartley Act has proved a complete failure. It has been defeated by a coalition in Congress of Republicans and conservative (principally Southern) Democrats. But why has such a coalition been formed and made effective? Because those who have formed and made it effective have been hearing from the great middle class back home. The labor unions have perhaps 16 million members. This gives them and their leaders great organized driving force. But there are about 60 million gainfully employed (or employable) persons in this country. Hence, the membership of labor unions is a minority of only about one-fourth of those who work, whether with hands or brains. And many members of labor unions are middle class in their ambitions, principles and ownership of property, and hence unsympathetic toward the desire of their union leaders to dominate the government and substitute socialism for private enterprise and private property.

The three-fourths of the nation's workers with hand or brain who do not belong to unions plus many members of unions have shown so plainly that they do not want the "welfare (i.e., charity) state" offered them by the Truman socialist-democrats that virtually without organization they have beaten most of the socialistic legislation promoted by the organized power of the Truman Democrats and the well-organized labor unions.

A good illustration of the re-

action of middle class Americans to socialistic proposals when they really understand them is afforded by recent action of the American Farm Bureau Federation, the nation's most powerful farm organization. Secretary of Agriculture Brannan has proposed a plan designed to buy the votes of both farmers and manual workers. Under it the government would let farm prices decline to their natural level, thus reducing the cost of living of urban labor, but would at the same time subsidize farmers by guaran-teeing them a "fair income" at the expense of the taxpayers. The farmers are not falling for this project to subsidize them and buy their votes. Directors of the American Farm Bureau Federation recently issued a statement denouncing the scheme, because, among other things, "its cost would be stagger-ing," "there is no reason why the government should pay part of the grocery bill of every citizen," and price goals of the program are so high as to make for certain continuous and rigid controls over production and marketing of agricultural commodities."

Some parts of the Truman "fair deal" socialistic program have been adopted, but most have been defeated. If the middle class, with virtually no organization, can exert so much more influence in Washington than the highly organized bloc promoting socialistic policies, what could not the middle class accomplish in protecting itself if it were as well organized for economic and political action under aggressive leadership as are those who are striving to liquidate it?

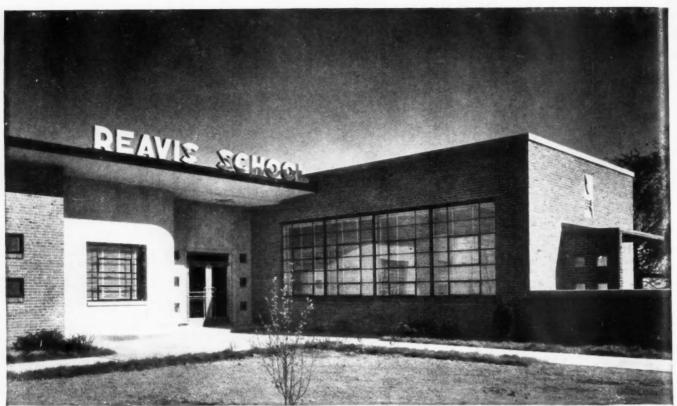
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The above article appeared as an editorial on June 2 in Railway Age, of which Mr. Dunn is also publisher.

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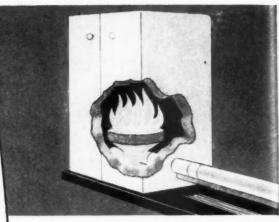
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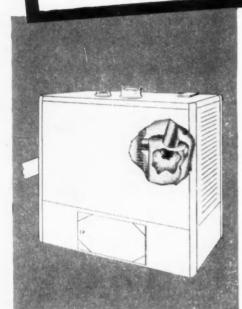
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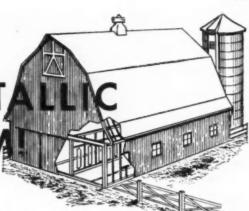
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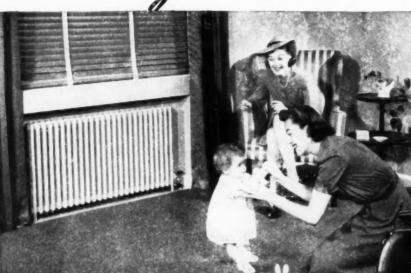
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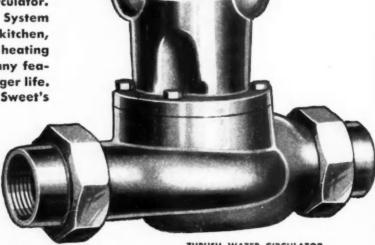
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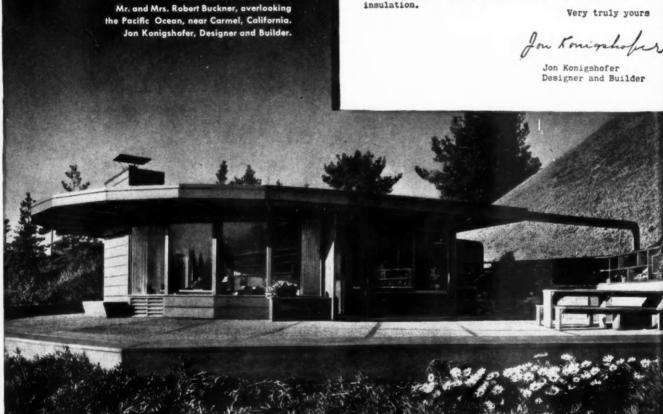
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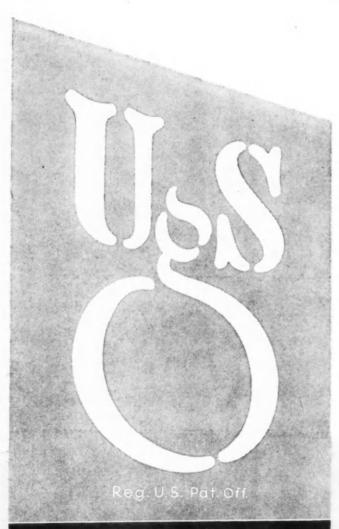
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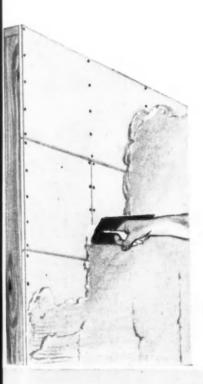
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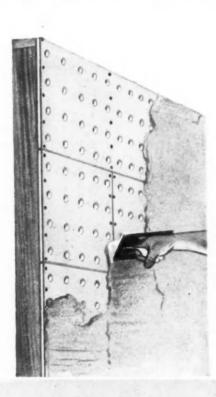
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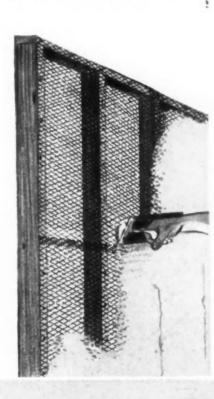
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titions pictured here, U.S.G. produces many specialized systems for particular job requirements.







Plain ROCKLATH* plaster base and RED TOP* Plaster form one of the most widely used partitions. For exterior walls and top floor ceilings Insulating ROCKLATH—with aluminum foil backing—provides low cost effective insulation and vapor barrier.

RED TOP Plaster "riveted and welded" to Perforated Rocklath plaster base produces a partition preferred by thousands of builders for its unusual strength and fire resistance. Economical—ideal for big housing developments.

USG Metal Lath and RED Top Plaster form an accepted standard throughout the industry for high strength, enduring, fireresistant partitions. The recognized flexibility of metal lath makes it adaptable to any architectural design.



... another perfect spot for LUMITE rustproof screening!

FACTS FOR ARCHITECTS AND BUILDERS

Effects of acids, alkalies and solvents— Essentially none.

Non-inflammable—LUMITE will not support combustion . . . is self-extinguishing. Softening point 240°F.

Tensile strength, ultimate (of filament)—Up to 40,000 lbs. per square inch.

Impact strength—Greater than conventional screening.

Installation—Cut with ordinary scissors. Fold cut edges under ½". Tack or staple the screening smoothly and evenly every 1½". Because of inherent characteristics, LUMITE will gradually draw itself into a snug, firm fit.

For further information consult Sweet's File or write Dept. AB-4,

HOTEL DEL CORONADO solves screening problem with Lumite!

Yes, in California, as on countless other installations, LUMITE is proving its all-around efficiency and resistance to the severest weather conditions.

That's why architects are specifying LUMITE. Woven of durable saran plastic, it's rustproof, corrosionproof and stainproof. Neither high humidity, salt air nor acid smoke affects it! It requires no painting to prevent rust! It will never sag or bulge! Yet, LUMITE costs only 11½ to 12¢ per square foot, retail. Now give clients maximum screening efficiency at a saving. Ask about LUMITE today!



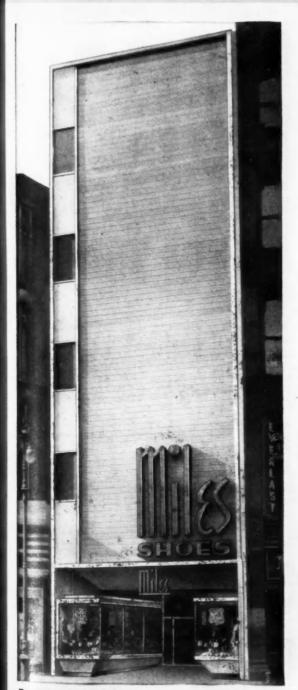
Registered Trade-mark

LUMITE DIVISION, CHICOPEE MANUFACTURING CORPORATION OF GEORGIA
47 Worth Street, New York 13, N. Y.

ALUMINUM

Zourite

the Modern Material for all facing jobs



lt e! w

Zourite used horizontally by Vincent Furno, Architect, New York City.



In alumilite finish or in green, brown, and black porcelain ename!

Handsome, durable Zourite is the outstanding modern material for facing facades, walls, ceilings, trim areas, and other exterior and interior surfaces. It is ideal for new construction or remodeling, for commercial, institutional, and industrial buildings.

Made of easy-to-handle aluminum, Zourite can be applied to masonry, wood, and metal surfaces, and it can be fitted around corners, angles, and curves. Shipped complete with attachment clips, strips, and trim members, it comes in $8\frac{1}{2}$ -inch and $4\frac{1}{4}$ -inch widths. Remodeling with Zourite requires practically no job preparation—it can be applied to existing surfaces.

In natural alumilite finish or in porcelain enamel, Zourite does not chip or scale. It is washed clean with water. Write for information. 263 North Front St., Niles, Mich.; 2563 8th St., Berkeley, Cal.; 817 East Third St., Lexington, Ky.

Kawneer

Store Front Metals • Modern Entrances • Facing Materials
Aluminum Louvered Ceilings • Aluminum Roll-Type Awnings



An interior application of Zourite by Pearson and Tittle, Architects, Montgomery, Ala.



Bigger Value for Every Job CHEVROLET ADVANCE-DESIGN TRUCKS

CHEVROLET It takes a truck operator to really evaluate a truck. Yes, the man behind the wheel is the one who can best appreciate the worth of powerful yet economical performance . . . extraordinary load capacity . . . lasting quality, ruggedness and handling ease. He's the one who recognizes the advantages of new, improved features-of greater comfort and convenience for the driver. And these men in the drivers' seats-these experienced truck operators across America-know that Chevrolet trucks deliver more of the value factors they want. They know that Chevrolet trucks cost less to operate, less to maintain, and have the lowest list prices in the entire truck field. That's why they use more Chevrolet trucks than any other make! Your Chevrolet dealer will give you the facts in detail!

CHEVROLET MOTOR DIVISION, General Motors Corporation, DETROIT 2, MICHIGAN

TOP-VOLUME PRODUCTION BRINGS YOU TOP-VALUE FEATURES!

Chevrolet's new 4-SPEED SYNCHRO-MESH TRANSMISSION offers quicker, quieter and easier operation. Double clutching is eliminated because the gears are always in mesh. Faster shifting maintains speed and momentum on grades. Available in series 3800 and heavier duty models.

Chevrolet's power-packed VALVE-IN-HEAD ENGINES provide improved durability and efficiency as well as the world's greatest economy for their size!

Chevrolet trucks have the famous CAB THAT "BREATHES"*! Outside air is drawn in and used air forced out! Heated in cold weather.

Chevrolet Advance-Design brings you the FLEXI-MOUNTED CAB, cushioned on rubber against road shocks, torsion and vibration.

Chevrolet's exclusive SPLINED REAR AXLE HUB CONNECTION adds greater strength and durability to heavy-duty models.

Uniweld, All-Steel Cab Construction • Large, Durable, Fully-Adjustable Seat • All-Round Visibility with Rear-Corner Windows* • Heavier Springs • Super-Strength Frames • Full-Floating Hypoid Rear Axles in the 3600 Series and Heavier Duty Models • Double-Articulated Brake Shoe Linkage • Hydrovac Power Brakes in Series 5000 and 6000 Models • Multiple Color Options.

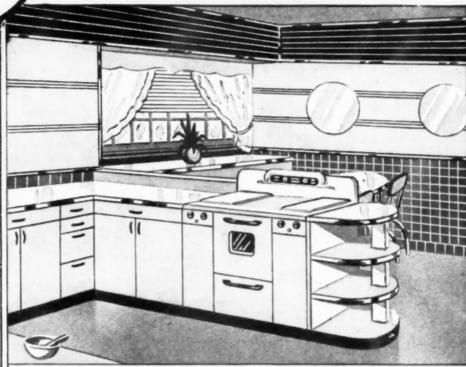
*Heating and ventilating system and rear-corner windows with de luxe equipment optional at extra cost.

CHOOSE CHEVROLET TRUCKS FOR TRANSPORTATION UNLIMITED!

Miracle Walls

Walls Extra Profit Makers Because they Build

MORE SALES



Our wholesalers tell us that the New, High-baked Plastic Enamel Surface, Miracle Walls by TYLAC are increasing wall board sales for their dealers. Yes, that's what they tell us — with ever increasing orders for more and more TYLAC.

And, no wonder!

The High-baked plastic enamel finish provides a lustrous, mirrorsmooth surface that does not crack, craze or chip. Eighteen beautiful colors and four modern patterns offer numberless varieties of decorative schemes to please every taste and suit every need.

TYLAC walls are easily installed on ceilings, flat or curved walls, recesses, arches, etc. Once installed they last a lifetime and never

need repainting or varnishing.

Tylac is a composite of every superior feature in pre-fabricated wall board manufacture. That's why eager buyer demand offers an established and extra profitable market — and that's why wholesalers and dealers everywhere are switching to Miracle Walls by TYLAC.

Stock this full line of Tylac, Tylac metal and presdwood mouldings. Tylac super cement, Tylac calk, Tylac wax-base Polish and Tylachrome Bathroom accessories — the Beauty-Spot line.

Write us today for our liberal sales plan and many advertising and dealer helps.

TYLAR COMPANY MONTICELLO, ILLINOIS

PIONEERS IN THE PREFABRICATED WALL PANEL INDUSTRY

THEY stood in line to BUY



The sellers' market had switched to a buyers' market. Yet in just three days last March, 3,000 veterans, who had seen only a model, lined up to buy Levitt's new style \$7,990 homes before they were built in Levittown, Long Island. Buyers really "went for" the floor-to-ceiling Thermopane window wall in the living room, a window 8 feet high, 16 feet long.



4,000 low-cost houses!

How Builders are beating the 1949 Buyers' Market

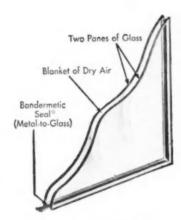
Foreseeing a buyers' market for houses in 1949, Levitt & Sons redesigned its 1948 low-cost house to make it more exciting and livable. A leading feature they added was a *Thermopane** window wall like the one that had made a big hit in their higher priced homes.

When Levitt opened the 1949 model house, home hunters stormed the office to buy one. Those people, like most, feel that living in a small-windowed house is as boring as standing in a corner. They like big windows that open up a home, give it "big house" feel.

And the practicality of Thermopane assures continuing home-owner satisfaction, lasting comfort, economy and livability. The insulating shield of dry, clean air, sealed between Thermopane's two panes of glass, keeps the home warmer in winter, saves fuel. Keeps it cooler in summer. Also, it minimizes condensation. That's why each Levitt home also has a kitchen window of Thermopane.

Levittown is dramatic proof that Thermopane is an economical way to build new sales appeal into a low-cost house. Having seen how it attracts buyers, many other builders are now using *Thermopane* in their small homes.

Thermopane units are available in more than 70 standard sizes and in stock sash of all kinds. Write today for our Thermopane book and list of sizes. Libbey Owens Ford Glass Company, 489 Nicholas Building, Toledo 3, Ohio.



Cutaway view of Thermopane

FOR BETTER VISION, SPECIFY THERMOPANE
MADE WITH POLISHED PLATE GLASS



Thermopane

MADE ONLY BY LIBBEY-OWENS-FORD GLASS COMPANY

"ATLAS MORTAR CEMENT.

has proven itself in every respect,"

says Mr. Charles Taylor, President **Taylor Construction Company** South Bend, Indiana

June 23, 1949

Universal Atlas Coment Company Chrysler Building New York 17, N.Y.

As you know, we have used Atlas Mortar Cement on many jobs during the past four years including the Fruehauf Trailer Building in South Bend, Indiana and it has proven itself in every respect. Gentlemen:

Our masons are well pleased with the increased worksbility obtained with Atlas Mortar and the way in which it spreads under the trowel. It carries the sand well and always gives a very good yield. Since Atlas Worter is fat and plastic, we are able to make true tight joints.

Increasingly, masons and contractors, like Mr. Taylor, report similar satisfaction with Atlas Mortar Cement. Masons prefer its buttery plasticity and the easy way it responds to the trowel. And contractors appreciate its satisfactory yield, its strength and color. Its outstanding durability is proved by rigid laboratory tests.

Backed by years of research, Atlas Mortar Cement complies with ASTM and Federal specifications for masonry cement. For further information, write to Universal Atlas Cement Company (United States Steel Corporation Subsidiary), Chrysler Building, New York 17, N. Y.

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



Fruehauf Trailer Company Building, South Bend, Indiana General Contractors: Collins Construction Company, Kansas City, Mo.; Sub-contractors: Taylor Construction Company, South Bend, Indiana

UNIVERSAL ATLAS ATTN OF MASONRY CEMENTS

NBC SUMMER SYMPHONY CONCERTS-Sponsored by U. S. Steel Subsidiaries-Sunday Evenings-June to September

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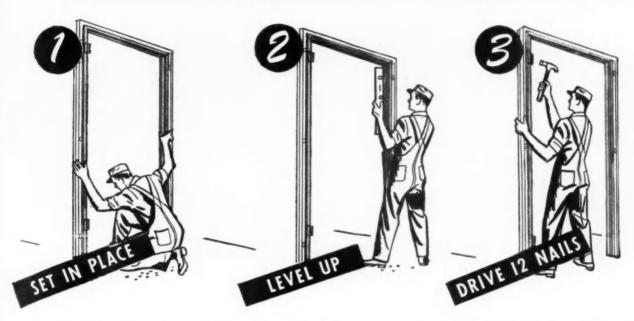
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York

NOW! Take 3 Steps to Amazing New Door Frame Economy with

STEELCRAFT STEEL DOOR FRAMES



Yes, simple as 1-2-3! So efficient is the use of Steel-craft Steel Door Frames in home and building construction... that door frame erection is actually cut to 1/10th usual time! Almost a DOZEN Steelcraft one-piece door frames can be set up in the time previously required to completely install one multiple unit frame and trim. Imagine the great economy, the amazing reduction in installation costs!

CHECK THESE STEELCRAFT-EXCLUSIVE POINTS:

- Finished in aluminum paint applied by patented electro-static process and baked on!
- 2. Aluminum finish provides better surface for final painting
 . . . eliminates one field coat of paint!
- 3. Screen door hinges applied at factory when required!
- 4. 6½" wide standard frame eliminates interference of door and screen door knobs!
- Welded spreader bar gives added protection during shipment and handling!

Steelcraft One Piece Steel Door Frames can be used in dry wall construction. A complete line of door frames . . . in various sizes, for interior or exterior use . . . is offered by Steelcraft, makers of famous Steelcraft Steel Casements and Steelcraft Metal Buildings.

*Applies to Wood Stud Construction. Clips used in Masonry Construction.

SENSATIONAL STEELCRAFT DOOR FRAME ADVANTAGES

- Door Frame Erection Now Takes
 1/10th the Time!
- One-Piece All-Welded Combination
 Door Frame and Trim!
- Won't Crack, Warp, Change Size
 . . . Reinforced Mitred Corners Will
 Not Open!
- Hinges Spot-Welded to Frame!
- Completely enclosed dust box welded to frame; brass adjustable strike plate furnished!

Write today! . . . for Complete Information and Specifications on Steelcraft One-Piece Steel Door Frames.

STEELCRAFT

MANUFACTURING COMPANY
ROSSMOYNE, OHIO (IN GREATER CINCINNATI)

STEELCRAFT MANUFACTURING COMPANY 9176 Blue Ash Road, Rossmoyne, Ohio (in Greater Cincinnati)

I am very interested in amazing Steelcraft Steel Door Frames. Please send me complete information.

BUSINESS ADDRESS

BUSINESS ADDRESS

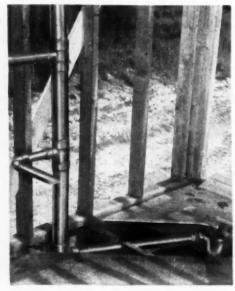
TITY_____STATE

POSITION TYPE OF BUSINESS



WHAT'S HOLDING YOU UP?





Drainage installation of Chase Copper Tube in one of the 280 homes built by Levitt & Sons, Strathmore at Roslyn; L. I. Distributor: Gar Supply Corporation, Long Island City, N. Y.

CHASE COPPER TUBE for soil, waste and vent lines is IMMEDIATELY AVAILABLE!

Is YOUR building program bogging down, because pipe for drainage lines is hard to get? Then do as other builders all over the country are doing—switch to Chase Copper Tube. You can get it right away—in all the sizes used for soil, waste and vent lines.

You can *install* Chase Copper Tube quickly, too. Fewer joints are needed because it comes in 20-foot lengths. The joints you *do* need are made in a jiffy with solder-type fit-

tings. Pre-assemble if you like—the assemblies are sturdy units that will stand plenty of rough handling.

And... Chase Copper Tube does a better drainage job. Its smooth inner surface offers no obstruction to the flow of wastes—the soldertype fittings eliminate pockets.

Want more details? Write for literature on Chase Copper Tube for drainage lines. Address Dept. AB 89.



Chase,

the Nation's Headquarters for BRASS & COPPER

SUBSIDIARY OF KENNECOTT COPPER CORPORATION

THIS IS THE CHASE NETWORK . . . handlest way to buy brass

ALBANY: ATLANTA BALTIMORE BOSTON-CHICAGO CINCINNATI CLEVELAND DALLAS DETROIT HOUSTON: INDIANAPOLIS KANSASCITY, MO. LOS ANGELES MILWAUKEE
MINNEAPOLIS NEWARK NEW ORLEANS NEW YORK PHILADELPHIA PITTSBURGH PROVIDENCE ROCHESTER; ST. LOUIS SAN FRANCISCO SEATTLE WATERBURY (†Soles Office Only)

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ALBAN

for domestic hot water, with quick recovery, on a year 'round basis at low cost.

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Now... A New Kind of Automatic Heating The New AUTOMATIC'blue coal' BURNER

The Lowest-Priced Automatic Hard Coal Boiler-Burner Unit on the Market ... Costs Even Less to Operate Than a Hand-Fired Furnace



AMERICA'S TRADE-MARKED ANTHRACITE

Easily removed for service or replacement.

The Delaware, Lackawanna & Western Coal Company · 120 Broadway · New York, N.Y. SALES OFFICES LOCATED AT:

ALBANY . BOSTON . BUFFALO . CHICAGO . HARTFORD . UTICA : NEWARK . PHILADELPHIA . MILWAUKEE . WILKES-BARRE . SCRANTON . SYRACUSE D. L. & W. COAL COMPANY OF CANADA, LTD. SALES OFFICES: MONTREAL, QUEBEC . TORONTO, ONTARIO





You can plainly see savings of time—labor—costs—in using K&M right for handy, swift application, with only two nails per unit. Punched and notched to line up true, almost automatically, these K&M shingles guard your profits by leaving out lost motion.

You sell good work and build your business when you sell the home owner on K&M "Century" No. 5 shingles. Years of rain, snow, sleet and sun will scarcely affect the original rich appearance of K&M "Century" shingles. That's because the mineral color pigments are made an integral part of the shingles, available in either white, black, Spanish red or surf green colors.

Thoroughly satisfactory and economical in use . . . thoroughly satisfactory and economical to apply . . . K&M "Century" No. 5 Roofing Shingles mean better roofs-and growing business for you.

Each 24" K&M shingle unit (above) lines up for that clean "custom" effect.

Original manufacturers of Asbestos-Cement Shingles in this country.

You can apply K&M "Century" shingles over wood-shingled or composition roofs. See your K&M Dealer for further particulars, or write us direct.



New Way To Put "Quality" Automatic Heating Into Your Low-Cost Homes:

Coleman GAS WALL-HEATER



Let These Specifications Help You Plan:

Heating Capacity: 25,000 BTU per hour input. Width: Only 14-inches . . . fits between 16-inch Standard Studs.

Depth: Fits into stud space 35%-inches deep . . . extends into room 33/8-inches.

Height: 615/8-inches overall.

Gas Connection At Heater: 1/2-inch. Cu. Ft. Air Flow Per Hour: 8,000.

Vent Pipe Opening: Oval transite or metalbestos . . .

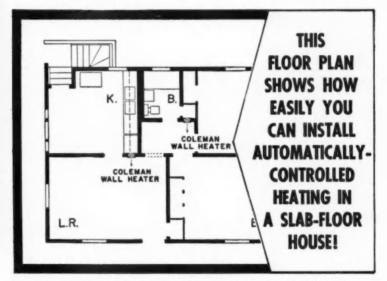
4-inch round equivalent.

Wall Heater That Spreads Warm Air

Not A Mere Radiant—A Powerful

Set it right in the wall of the room you want to heat. Needs no basement, no utility-room space, no floor installation. These 25,000 BTU automatic gas heaters fit between 16" O. C. studs. AGA approved burner gives amazing fuel efficiency, and Coleman design moves heat for real

"warm-floor" comfort that buyers want. Low price, plus low plumbing and installation costs, gives you the savings you're looking for. So-see your Coleman distributor about this NEW Coleman heating-equipment that gives you clean automatic gas heating with lower building costs.



Yes, This Is The Wall-Heater With Automatic Controls! You have no pits to dig; no duct expense with Coleman Wall Heaters. You have the easiest kind of installing job, with no complicated plumbing. You can install these Coleman Wall-heaters with full automatic controls. Utterly clean - and completely carefree. And note how it saves utility-room space; helps you give more "livable" house for the money.

Write Today...THE COLEMAN COMPANY, INC., Wichita, Kansas

Automatic Gas WALL-HEATER Oleman



The Coleman Company, Inc., Builders' Contract Dept. AB-680, Wichita 1, Kansas

Please send me data and specifications on the Coleman Gas Wall Heaters, with details of your Builders Cooperation Plan.

Address

State

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AND A

constructi anti-splas

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Plan your advertising NOW for America's biggest home and home furnishings promotion . . .

THIRD ANNUAL

Chicagoland Home and Home Furnishings Festival

SEPTEMBER 11—OCTOBER 10

 $\mathbf{I}^{ ext{r's NOT}}$ a dream—not an experiment. It's the third year of an industry-wide promotion which has proved itself as a volume and profit producer in America's most intensively pre-sold market for homes and everything that goes into

Nearly 1,000,000 home-minded consumers sent attendance records soaring at last year's Festival, sponsored by the Home and Home Furnishings Council of Chicagoland in cooperation with the Chicago Tribune. Now comes the third big event, planned by the industry for greater attendance, sales and profits.

Here's What the Festival Is

Scores of Festival homes demonstrating the latest designs and equipment are now being rushed to completion thruout Chicago and suburbs. When finished, many of them will be completely furnished and decorated to show 1949's newest appliances, furniture, building materials and equipment, and other products typical of modern home interior and exterior fashions.

Again the Chicago Tribune will launch the promotion with a supplement on Sunday, September 11, announcing the Festival to more than 1,000,000 Sunday Tribune families in Chicago and suburbs and inviting their attendance.

Here will be an ideal setting in which to make a strong bid for your full share of the sales volume to be developed during this community-wide event. You will not be experimenting with your advertising funds. As shown by the chart, the Tribune is Chicago's foremost mover of home merchandise.

A Proved Promotiona Proved Medium

Every day of the week, the Tribune is read by the people who account for the bulk of the home merchandise sold in Chicago and suburbs. The Tribune's Prize Home and Better Rooms competitions produced designs which, month in and month out, during the past three years have been kept before Tribune readers, making them highly receptive to buying ideas for homes and everything that goes into homes.

Get Ready to Cash In!

Forms for the Festival supplement will close on Wednesday, August 31. Consult with your advertising counsel today, or ask a Tribune representative to give you complete information about the job Chicago's foremost home and home furnishings medium can help you do in the months ahead. Phone SUperior 7-0100-or address your nearest Chicago Tribune representative.

The Industry's Own Promotion!

The Chicagoland Home and Home Furnishings Festival is sponsored by the following 15 trade organizations representing more than 11,000 manufacturers, builders and retailers in every branch of the industry, in cooperation with the Chicago

American Furniture Mart

Chicago Floor-Covering Association

Chicago Furniture Manufacturers

Chicago Retail Furniture Association

Chicago Retail Merchants Association

Electric Association

Furniture Fabric Men's Association

Lamp Manufacturers Association

Manufacturers Agents Club

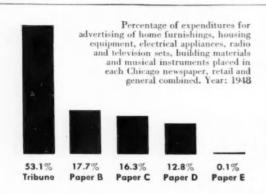
Merchandise Mart

Metropolitan Home Builders Association

National Association of Bedding Manufacturers

National Retail Furniture Associ-

Peoples Gas Light & Coke Co. State Street Council



To advertise home merchandise, retailers and manufacturers placed in the Chicago Tribune \$5,321,567, or 53.1%, of their total 1948 promotion funds in Chicago newspapers. This was \$3,545,000 more -199.6% more—than they placed in any other Chicago newspaperand far more than they placed in all other Chiago newspapers combined.

hicago Tribur

June average net paid total circulation-Daily, Over 940,000 Sunday, Over 1,500,000

A. W. Dreier, 810 Tribune Tower, Chicago 11
E. P. Struhsacker, 220 East 42nd St., New York City 17
W. E. Bates, Penobscot Bldg., Detroit 26
Fitzpatrick and Chamberlin, 155 Montgomery St.,
San Francisco 4; also, 448 S. Hill St., Los Angeles 13
MEMBER: AMERICAN NEWSPAPER ADVERTISING
NETWORK, INC., FIRST 3 MARKETS GROUP,
AND METROPOLITAN SUNDAY NEWSPAPERS, INC.



Add a lot more Quality ...in a few square feet

THE POWDER ROOM PEOPLE WANT WITH A CASE CAMEL WATER-SAVER. This is an expertly engineered, free-standing combination with an efficient and quiet flushing action that uses far less water than ordinary closets. Owners praise its continuing economy wherever water meters are in use. AND A CASE LAVATORY, famous for clean styling and fine construction. The Aqua-Chrome has the popular square basin with anti-plash rin and overflow drain. The Willard (above) is a brand new Case design with supply fittings on a beveled panel. Concealed front overflow, adjustable legs. With or without towel bars.

Powder rooms have a glamor for the home-seeker and home-owner that over-balances by far the few square feet they occupy. They deserve your most serious consideration not only in the better class of homes but in more modest ones too, for they add to the entire house a convenience and privacy obtainable in no other way. By making sure of Case plumbing fixtures you make sure of advanced design and engineering. Here is the bright, lustrous finish associated for generations with Case vitreous china. Also

Vitreous China Plumbing

Fixtures

Fixtures

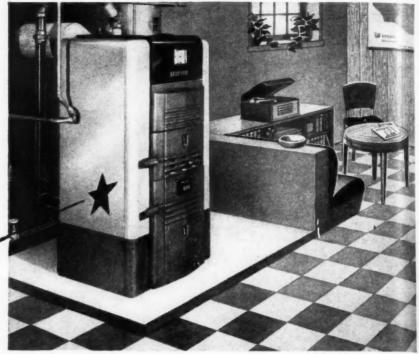
are styled to remain in the best of taste throughout the life of their mechanical parts.

These fixtures are economical to install, adaptable for unusual layouts. Consult the Classified Telephone Directory for the name of your

Case Distributor. W. A. Case & Son Mfg. Co., Buffalo 3, N. Y. Founded 1853.

The Spencer "21" **All-Purpose Boiler** Offers Your Clients -

The easier way to way to happier living



Spencer "21" Heater and proposed game room in the beautiful new home of the Zeverino family, Valley Stream, Long Island. Owner and builder: Mr. V. Zeverino. Heating Contractor: Mr. Stephen H. Martin, Rosedale, Long Island.

For the finest in home heating and domestic hot water service, you'll make more clients happy by installing a Spencer "21" All-Purpose Boiler. It means clean, effortless operation all year round, at a surprisingly low cost. If you're not already familiar with the Spencer "21," drop us a line. We'll be glad to send you our illustrated booklet that tells about the features listed below -and many others, too-

- Available in sizes ranging from 340 to 1000 square feet (steam)
- Designed to burn any type of fuel oil, gas, or coal whether stoker or hand-fired
- Quickly and easily installed—all section beadings precisionground to eliminate caulking
- Handsome, colorful jacket, with Pyrex glass observation port
- Available with built-in instantaneous or tank type service-water
- Easily accessible firebox and gas passages for instant cleaning



ASME require

- Backed by over fifty years of heating
- Manufactured under ASME and IBR Precision-engineered—to meet rated
- Individually tested and inspected Installed only by the heating trade
- Clean—Quiet—Economical—Effort-less—Safe



THERE IS A SPENCER for every building . . . for every fuel

COMMERCIAL SERIES:

"A" (steel) - for industry, schools, apartments

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

"C" and "R" (steel) - for homes and small buildings

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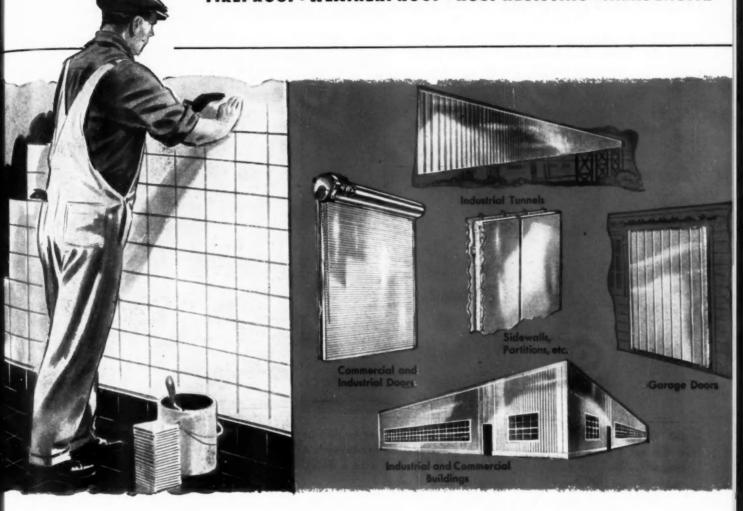
lea

Or

(cast iron, magazine feed)-for small homes

Walls of Steel

FIREPROOF . WEATHERPROOF . RUST RESISTING . INEXPENSIVE



for faster, easier, lower cost, better construction

inside or out!

Where low cost, sturdy, enduring walls, are desirable, more and more leading architects and designers are specifying and planning in terms of STEEL.

One of the big reasons for this trend

is *GALVANITE, a rust and corrosion resisting, high quality, zinc coated steel.

Wall tile, doors and door frames, decking, exterior walls—in fact, entire buildings are being fabricated of this inexpensive steel.

See for yourself the many advantages found in products made of Galvanite.

*GALVANITE—inexpensive, rust resistant, zinc coated steel manufactured by the SHARON STEEL CORPORATION.



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Send for the latest GALVANITE handbook.

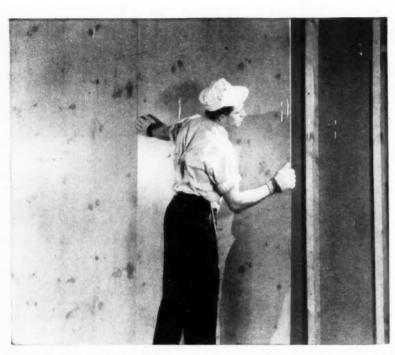
SHARON STEEL CORPORATION . SHARON, PENNSYLVANIA

PRODUCTS OF SHARON STEEL CORPORATION AND SUBSIDIARIES: THE NILES ROLLING MILL COMPANY, NILES, OHIO; DETROIT TUBE AND STEEL DIVISION, DETROIT, MICHIGAN; BRAINARD STEEL COMPANY, WARREN, OHIO; SHARON-STEEL PRODUCTS COMPANY, DETROIT, MICHIGAN, AND FARRELL, PENNSYLVANIA; FAIRMONT COKE WORKS, FAIRMONT, WEST VIRGINIA; MORGANTOWN COKE WORKS, MORGANTOWN, WEST VIRGINIA; JOANNE COAL COMPANY, RACHEL, W. VA.

HOT AND COLD ROLLED STAINLESS STRIP STEEL —ALLOY STRIP STEEL—HIGH CARBON STRIP STEEL—GALVANITE SPECIAL COATED PRODUCTS—COOPERAGE MOOP—ELECTRICAL STEEL SHEETS—HOT ROLLED ANNEALED AND DEOXIDIZED SHEETS—GALVANIZED SHEETS—ENAMELING GRADE STEEL—WELDED TUBING—GALVANIZED AND FABRICATED STEEL STRIP — STEEL STRAPPING, TOOLS AND ACCESSORIES.

DISTRICT SALES OFFICES: Chicago, Illineis, Cincinneti, Ohie, Cleveland, Ohie, Dayton, Ohie, Detreit, Michigan, Indianapella, Indianapella, Milwaukes, Wisconsin, New York, N. Y., Philadelphia, Pennsylvania, Rochester, New York, Los Angeles, California, San Francisco, California, S. Louis, Missouri, Montreel, Quebec, Ferento, Onterior

The Beauty of Fine Wood Paneling...



BIG, STURDY PANELS of Gold Bond Grainboard are easy to nail to the wood framing or right over the old material. Made with a protective lacquer finish, they can easily be cleaned with a damp cloth. No further decorative treatment is necessary.

AT LOW COST WITH GOLD BOND GYPSUM GRAINBOARD

WANT to do a smart, expensive-looking remodeling job . . . at rock bottom cost? Then use Gold Bond Gypsum Grain Board. It gives you the warmth and beauty of fine wood paneling at wallboard prices! It's standard gypsum wallboard with simulated wood grain surface. You can't tell it from real wood without close, careful inspection. Saws like lumber, can be nailed without splitting. Will not expand, contract, warp or peel. Installations made years ago show not the slightest tendency toward fading. Ideal for homes, recreation rooms, summer homes, offices, restaurants, stores and window backgrounds. In bleached walnut, dark walnut or knotty pine finish. Every job that you do serves as an advertisement that will bring you more jobs!

Bleached Walnut



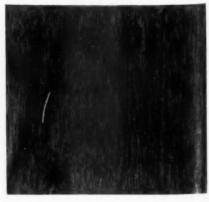
You'll build or remodel better with



Knotty Pine



Dark Walnut



NATIONAL GYPSUM COMPANY, BUFFALO 2, N. Y.

Over 150 Gold Bond Products, including gypsum lath, plaster, lime, wallboards, gypsum sheathing, rock wool insulation, metal lath products and partition systems, wall paint and acoustical materials.

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more and more builders tell this "profit story"

Quality Approved You've probably been hearing this story yourself . . .

More and more builders are saying that these windows help them build better—sell faster. They say the Quality-Approved Seal means windows with minimum air infiltration, strong sections, good construction and quality materials. They say they can install these aluminum windows in less time and at lower cost. And they're right!

Home-buyers go for these good-looking windows that always operate easily and never rust or need painting. Prospects figure that Quality-Approved windows are a good sign that the whole house is well built.

Use Quality-Approved aluminum windows on your next job and you'll soon be telling a "profit story" yourself. Available in all standard types, double-hung, casement and projected. For the names of Quality-Approved manufacturers, write Dept. A.

build houses better, sell them faster!

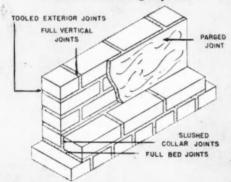


Aluminum Window Manufacturers Association

209 CEDAR AVENUE, TAKOMA PARK, WASHINGTON 12, D. C.

Builders say Brick ranks first FOR RE-SALE VALUE

TIPS ON GOOD MASONRY PRACTICE How to build tight joints



Good masonry depends upon quality materials and craftsmanship. Here we show 5 types of masonry joints that are strong, durable and highly resistant to rain penetration. To make sure you get the desired results we recommend the following good practice:

- Wet high absorption brick before laying. Sprinkling the pile is not sufficient.
- Mix mortar with as much water as possible and do not oversand.
- 3. Use quality materials.

Whatever you build, your work will have the greatest lasting value when it's brick!

That, in effect, is what you builders said in a recent nation-wide survey.

You chose brick "first for re-sale value" in all types of building. More often than all other materials combined!

You can count on brick to increase original sales values, tooto bring quicker sales at better prices.

That also is what you builders said. "Brick first" for customer preference, for beauty, for permanence, for fire safety and low cost maintenance. First ten times on a list of 12 such qualities!

Remember "brick first"! It's that simple to build for top values—today, or many years from today.

CUT COSTS, SAVE LABOR WITH THIS NEW HOME PLANBOOK!

You'll find a wealth of valuable builder's information in MODERN BRICK HOMES, our new 56-page planbook. Economy engineered plans for 20 houses are included. Also interesting discussions to help you with location of site, selection of plans, financing, exterior beautification, interior arrangements. Just send 50¢ with your name and address to the address below, Dept. AB-8.

STRUCTURAL CLAY PRODUCTS INSTITUTE
1520 18th Street, N. W. Washington 6, D. C.

149



GLEN OAKS VILLAGE

.......

... 576 families kept comfortable with

B&G Hydro-Flo HEATING

Here is a striking example of modern, large-scale housing. Glen Oaks Village, at 149th Street and Union Turnpike, Queens, New York, houses 576 families and is the forerunner of an even larger development.

The heating system is a B & G Hydro-Flo System with single main piping equipped with B & G Monoflo Fittings. 24-hour circulation is provided by quiet operating B & G Universal Pumps, controlled by indoor-outdoor bulbs. Sixteen boilers, located in eight boiler rooms are required to handle the 95,000 sq. ft. of cast iron, free-standing radiation.

Hot water for domestic use is furnished by B & G Unitem Heaters in semitankless type installations, equipped with bronze-bodied B & G Boosters to assure temperature control and proper circulation of hot water to the fixtures.

Equipped throughout with B & G Hydro-Flo Products

The following B & G Hydro-Flo products were required to make the heating installation in Glen Oaks Village:

35 Universal Pumps • 2850 Monoflo Fittings • 32 Compression Tanks • 32 Airtrol Tank Fittings • 8 Airtrol Boller Fittings • 16 No. 12 Reducing Valves • 16 Relief Valves • 80 Automatic Air Vents • 14 Bronze-bodied Boosters • 28 Flo-Control Valves • 32 Unitem Water Heaters.





You can depend on





VITRIFIED Clay Pipe Fittings handle your complete sewerage and drainage pipe requirements. Clay Pipe's wide variety of fittings—"Y" and "T" branches, curves, elbows, slants, saddles, traps—handle your toughest "twist and turn" installation problems, save money on installations. Clay Pipe Fittings, like all Clay Products, are absolutely resistant to the deteriorating action of acids, alkalies, chemicals, rust and other corrosive elements—insure long life that protects builder and owner.

It will pay you to use Clay Pipe and Clay Pipe Fittings for your complete building requirements.

See your local building supplies dealer, or send your specific questions to the office nearest you.

NATIONAL CLAY PIPE MANUFACTURERS, INC.

100 N. LaSalle St., Rm. 2100, Chicago 2, Ill. 522 First National Bank Bldg., Atlanta 3, Ga. 703 Ninth and Hill Bldg., Los Angeles 15, Calif. 1105 Huntington Bank Bldg., Columbus 15, Ohio



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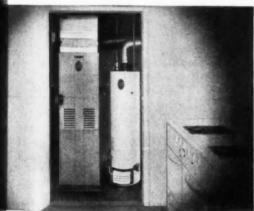
CLAY BUILDING PRODUCTS: VITRIFIED CLAY PIPE, FITTINGS, CHIMNEY TOPS, FLUE LINING, WALL COPING, SEPTIC TANKS, PERFORATED PIPE, THIMBLES, STOVE PIPE, WELL LINING





View of Drexelbrook, Drexel Hill, Pa. Architect: James G. Ludwig, West Chester, Pa. Builders: Daniel G. Kelly and Fred P. Meagher, both of Upper Darby, Pa.

with 1,223 <u>Personalized</u> heating systems



223 APARTMENTS at Drexelbrook are equipped with Bryant ronalized Heating. Shown are the Bryant Model VS-304 inter Air Conditioner and Bryant Red Seal Automatic Gas ter Heater in closet installation. 50 community laundries to are equipped with Bryant Water Heaters.

New evidence of the ever-increasing acceptance of *Personalized* Heating for apartments comes from *Drexel-brook*, where the Bryant name plate appears more than two thousand times.

This 137-acre wonderland of garden-style apartments is one of the largest and most modern developments of its kind in the world. It is a product of far-sighted planning that provides unsurpassed comforts and conveniences for its occupants.

Bryant Personalized Heating stands high on the list of tenant advantages at Drexelbrook. Each family enjoys independent, automatic control of all heating in its own home. Living areas are never overheated, never underheated. There is always plenty of hot water on tap—at the temperature desired by the user; for each family has

its own individual hot water service.

Aside from its advantages for occupants of multi-family housing, Bryant Personalized Heating also provides these advantages for management:

these advantages for management:

Personalized Heating is maintained at low cost; large staffs of janitor-firemen or heating maintenance men are unnecessary and, in most cases, a single custodian is master of all equipment. Service or repair, if necessary, is entirely local, handled within a period of minutes and at minimum cost. Waste heat is virtually eliminated, and there are few, if any, tenant complaints.

These advantages of Bryant Personalized Heating benefit all who finance, invest in, build or manage multi-family housing. Ask the Bryant Distributor nearest you to tell you the complete story.

Let the pup be furnace man ... and water boy, fool

AUTOMATIC HEATING

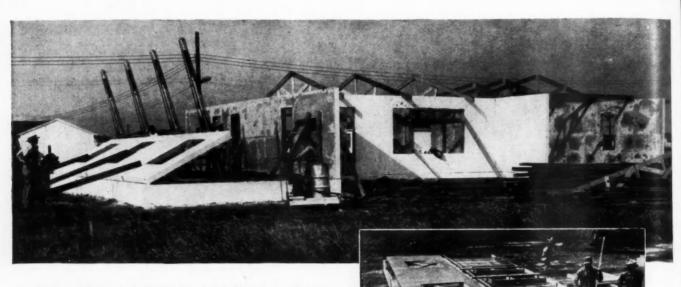
BRYANT HEATER DIVISION
AFFILIATED GAS EQUIPMENT, INC.
Cleveland, Ohio Tyler, Texas

"AN AID TO CONSTRUCTION"

says the Drexellbrook construction team, DANIEL G. KELLY, Realtor, and FRED P. MEAGHER, Builder

"Bryant Personalized Heating aids construction by affording tremendous space savings. This outstanding equipment provides the same advantages in heating for apartment dwellers as those enjoyed by occupants of individual homes."





CONCRETE BUILDING KNOW-HOW MEANS INCREASED VALUE

WELL-DESIGNED concrete homes, monolithic or masonry, sell faster because they give owners the best value ... help pay for themselves out of upkeep they save . . . assure the peace of mind that comes from living in a house that can't burn or decay.

A little ingenuity means a lot of economy. In this application of the tilt-up principle, Brauer Engineering Company, of Corpus Christi, Texas, casts wall sections in forms laid flat on the floor, then jacks the wall into position. Steel tie-plates join the wall sections, all joints are grouted. The Builder says this 3-bedroom, 2-bathroom house, 1,800 sq. ft. area, built in reasonable quantity, can be sold at a profit for \$8,000.

In this house Lone Star Cement was used. For a number of houses, similar in design, use 'Incor'* 24-Hour Cement to cut form costs through 24-hour stripping and faster re-use. For masonry construction, use Lone Star Masonry Cement . . . makes a rich, smooth-spreading mortar that helps assure moisture-proof, weather-resistant walls. Remember, there's a Lone Star Cement for every construction need ... quality for best results at low cost.



KANSAS CITY, MO. - NEW ORLEANS - NEW YORK - NORFOLK - PHILADELPHIA - ST. LOUIS -

LONE STAR CEMENT, WITH ITS SUBSIDIARIES, IS ONE OF THE WORLD'S LARGEST CEMENT PRODUCERS: 15 MODERN MILLS, 27,000,000 BARRELS ANNUAL CAPACITY

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BUILDING MATERIAL - EQUIPMENT - APPLIANCES

How Public Housing Will Affect Your Business

THE PUBLIC housing program enacted by Congress last month is more of a menace as a reaffirmation of a public policy begun in the 1930's than it is a menace to the operations of individual builders. Building material dealers by and large should benefit.

The principal provision will enable the 670 local housing authorities in the country, and any more that may be set up, to build 810,000 public housing units over a six year period. That's an average of 135,000 units per year. These will be rented to families with incomes below limits established by local authorities at an average rent of under \$30 a month. Local agencies will build and operate the projects and get an estimated \$6.9 billion to \$8.3 billion in Federal subsidies in the next 30 years.

The reason that the Act is not a serious threat to builders is that these low income families would not be in the market for new homes anyway. The average income of families living in existing public housing units is about \$1,800. The 135,000 units expected to be started annually represent about 15 per cent of the total of 930,000 units started by builders last year. The Federal program could cause a shortage of building labor in some communities if private starts continue at the high level of this year and last year. There is probably a sufficient supply of materials for private activity at a peak level plus the Federal program.

A drastic decline in starts by private builders could be the signal for the enactment of a far reaching bill aimed at two or three times the number of units provided for in the present Act. It will be recalled that from a peak of 937,000 residential starts in 1925 the industry produced only 93,000 units in 1933. This is believed by many government officials to be one of the major causes of the depression, and something that the Administration will avoid at all costs. Thus the present Act is alleged to be the entering wedge

TY

of a program to counteract an overall depression.

The best insurance that a builder can have against this kind of government competition is the production of houses that the average manufacturing worker can buy for about \$54.00 per month. That is the present average weekly wage of manufacturing workers. An industrious worker will not be attracted to these government rental units when he considers that he is making an investment as well as enjoying modern living quarters in a new house built by private industry.

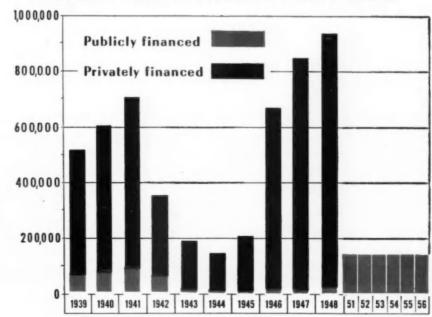
Easier financing, one of the present big hurdles of the building industry, is to be provided for private projects under the new legislation. Mortgage insurance is to be increased for many classes of loans. More liberal rules are to be written governing loans for improvements and major alterations. A better secondary market for loans on veterans' houses and FHA insured mortgages on rentals are assured.

Builders who operate in farm areas can benefit through that part of the new housing program which provides aid for farmers. The Department of Agriculture is being given \$250 million for loans to farmers unable to get other credit who want to improve a house or barn or other building. These loans bear four per cent interest and run for as long as 33 years.

Building material dealers will benefit if the Act is successful in stabilizing new construction to some extent. The ups and downs of the building cycle have often been disastrous to dealers.

The healthy condition of the building industry at this time should have operated to prevent enactment of the public housing provisions of the bill. There was great apprehension early in the year of a drastic decrease in housing starts. The decline has been only moderate. Builders started 95,000 units in May, within five per cent of the record 103,000 units put under construction in May, 1948, according to the Bureau of Labor Statistics. Complete reports for February boosted the figure for that month to 50,400, a gain of 4,000 over the Bureau's original estimate.

PERMANENT DWELLING UNITS STARTED BY TYPE OF FINANCING



10

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Aetna Frames help cut the cost and construction time of every room for any type of house, large or small. The more houses built, the more impressive the savings because:

Aetna Frames come completely-built, in a one piece, all-welded steel unit. Field tests show 7 times as many of these frames can be set up in the same time required to erect one Multiple Unit Frame. Aetna consequently saves you as much as \$5.00 per "inside opening".

Aetna Frames are tough-lasting! Won't warp or crack! No chance of their mitres ever opening. Weather-resistant, too-their size can't change because they will not absorb moisture or swell.

Ask your materials dealer for the quantity and standard sizes you require. Or write for the name of your nearest representative.



EXECUTIVE OFFICES: 61 BROADWAY, NEW YORK 6, N. Y.

MANUFACTURERS OF STANDARDIZED STEEL DOORS AND FRAMES FOR HOUSING UNITS





JOE LOUIS—The retired heavy-weight champion is entering a new field of free enterprise and rugged competition. With Truman K. Gibson, Jr., and Theodore A. Jones of Chicago, and Paul W. Trousdale, Charles H. Church and Lewis W. Stunston of Los Angeles, the former champ has filed articles of incorporation to establish "Joe Louis Homes, Inc." to cover all phases of real estate and home construction. Head offices will be in Los Angeles.

FRANKLIN L. BURNS—This well known and progressive Denver builder has just issued a pamphlet entitled "Buckboards and Bungalows." It traces the development of Denver—its industry, commerce, transportation and homes during the half century the company Burns heads has been in business. It is an excellent public relations piece.

BETTER HOUSING—Consistent with its editorial policy of promoting better housing, American Builder, itself, went in for better housing early in June. After more than 20 years at 105 W. Adams St., American Builder and other Simmons-Boardman properties based in Chicago, moved to 79 W. Monroe St. where they occupy the entire 13th floor and part of the floor above.

INVITATION—Stop in and see us at the new location. The move was made to permit higher efficiency in operation, and it is working. With less square foot area, both the business and editorial staffs of *American Builder* actually have more working space.

YOUR RECORDS—Incidentally, if one of our change-of-address cards has not reached you, please change your records so that mail will reach us promptly. Make it American Builder 79 West Monroe St., Chicago 3, Ill.

SENATOR WHERRY—Speaking against socialization, regimenta-

tion, cheap money, deficit spending and the myth of free government services, the Nebraska champion of freedom and opportunity for the individual recently told the National Retail Lumber Dealers Association, "I plead with you and I beg of you, see to it that those who are in your employ, your neighbors across the street, and those with whom you associate in your civic organizations, in your churches and wherever you go, get the story that there is a real battle on here in the United States, and it is as to whether socialism will take over free enterprise or whether free enterprise will continue to operate as it has for more than 160 years." The fact that socialized housing is here should signal the real beginning of the battle, and not the end of it.

REPAIRS AND REMODELING

-In the rush to catch up with housing shortages, an enormous backlog of repair and remodeling work has accumulated. Indicative of the market is the condition of the heating systems of the nation's homes. According to National Warm Air Heating and Air Conditioning Association, the odds are 7 to 10 that the average heating system five or more years old is costing its owner at least 10 per cent more to operate than necessary. This is because the heating systems are in need of cleaning and repairs.

20-YEAR-OLDS—What about the bulk of the nation's homes which are more than 20 years old? Practically all of them are in need of major repairs or remodeling, long deferred during the war years and post-war years because of labor and material shortages.

NO BUILDING RECESSION-

With new building going ahead at near the 1948 volume, and enough repair and remodeling work to keep everyone busy for several years, nothing short of general economic collapse can cause a recession in the market for building materials.



FULLY AUTOMATIC
EXTRA LARGE FAN
SPECIAL HEAT EXCHANGER
STRONGER CONSTRUCTION
MORE ECONOMICAL
LOW COST INSTALLATION
ALUMINIZED STEEL
INTERIOR UNIT

Gas Heaters Since 1888

REZNOR MANUFACTURING CO.
17 UNION ST. - MERCER, PENNA.



BE PROUD AS A PEACOCK!



... of course, it's Electric!

You can really be "proud as a peacock" of the houses you design and build—and so will the customers who buy them—if you include the kind of cooking equipment more people want—modern Electric Ranges!

The trend to Electric Cooking is proved by the fact that another million American families switched to it last year. Conservative estimates indicate that the same thing will happen again this year.

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

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

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

Follow the trend... YOUR HOUSES FOR ELECTRIC RANGES

Another 1,000,000 American families switched to Electric Cooking last year

W. L. submi to Bu which the Ju ticle c extens State "Acce agrict tank two o volun ply w this : tank than place suffic ing u requi have satis due t to o rura imur grea galle quir

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Round Table

W. L. DODDS of Star City, Ark., submitted a short article on "How to Build a Concrete Septic tank." which was published on page 130 of the June issue. In reply to the article came a letter from E. W. Foss, extension agricultural engineer, State of Maine. Says Mr. Dodds, "According to the opinions of most agricultural engineers this septic tank would be unsatisfactory on two counts. In the first place the volume is not sufficient to comply with many state regulations. In this state, for instance, no septic tank is satisfactory that holds less than 400 gallons. In the second place, the depth of the tank is not sufficient to prevent sludge building up quickly to the inlet pipe and requiring frequent cleaning. We have had a great many cases of unsatisfactory septic tank operation due to insufficient size of tank come to our attention. In many cases rural builders do get by with a minimum for purchased tanks sold as grease traps and holding only 200 gallons, but these frequently require cleaning every six months. Builders not familiar with the rural sewage problem should be encouraged to use tanks of a sufficient size." Sounds reasonable. Are there any other comments?

ANOTHER COMPLAINT about an article in the May issue referred to "Wood Flooring Developed to Use with Radiant Heat," which appeared on pages 106 and 107. It came from R. L. Maher, Chase Brass & Copper Co., Waterbury, Conn. Says Mr. Maher, "The article contains a description of a type of floor construction which is not good practice. Paragraph four says in part that radiant copper tubing is installed in a 41/2-inch concrete block slab placed over a 4-inch fill of sand or cinders. The use of cinders in such construction is hazardous because of its corrosive effect upon metals, and hence its use is seldom recommended. Proper fill is, of course, sand or gravel as you have indicated in the cut which shows the floor slab in section."

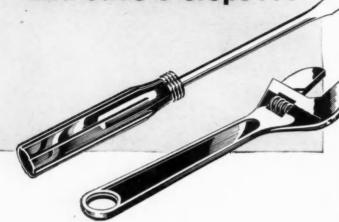
THE MAY ISSUE apparently was read with a fine-tooth comb. Lawrance M. Gilman, vice president of The Gilman Brothers Company, Gilman, Conn., found an error in (Continued on page 49)



SEND COUPON TODAY

SO SIMPLE TO INSTALL

You use just 2 tools and save 9 steps...





- 1: Bolt the strong steel frame together:
- 2: Attach frame to floor and anchor to walls:
- 3: Screw on template locks and hinges:
- 4: Hang the door:

Avoid this:

- 1. Cut and fit jambs.
- 2. Cut and fit stops.
- 3: Cut and fit trims:
- 4. Mortise frame and door for hinges.
- 5: Mortise frame and door for locks and strikes.
- 6. Cut and fit door.
- 7. Countersink holes.
- 8. Putty holes.
- 9. Prime paint.



Complete Fenestra Door Unit

When you buy a suit you don't have to cut out the buttonholes. Or trim the cuffs. Why should you have to fiddle with the doors you buy-using your time and your money?

Fenestra* Stock Hollow Metal Doors come complete with frames and hardware machined to fit. Mortising, drilling, tapping, prime-painting are all done at the factory.

These low-cost, high-quality doors are packed with insulation and individually wrapped to protect their good looks. Doors, including those with the Underwriters' B Label, are immediately available from local stocks.

Call the nearest Fenestra office or write Detroit Steel Products Company, Dept. AB-8, 2260 East Grand Boulevard, Detroit 11, Michigan.

Fenestra STOCK HOLLOW METAL SWING AND SLIDE DOORS

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EDITORS'

Round Table

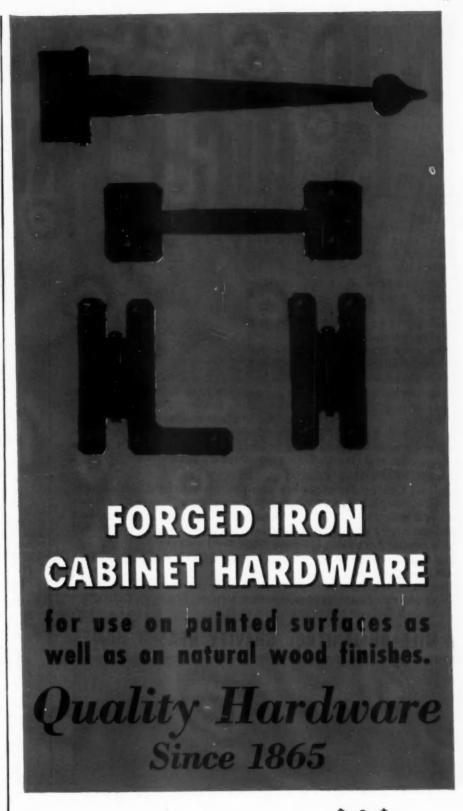
(Continued from page 47)

the story about the Del Webb operation in Arizona. The story said that wool batts were used for insulation. Mr. Gilman says definitely no. Reflective cotton insulation was used. He says he knows because the insulation was the product of his own company. We are glad to make the correction, but we have to take issue with Mr. Gilman when he says we "missed the boat" on this particlar project. We didn't. It was a pretty good story, even though our correspondent did slip up on the insulation. He knows better now, however.

WRONG ADDRESS of W. A. Wollander was given in a June story about Albert Balch's Parkwood Addition. C. J. Kramer of the Wollander organization wrote about it. "On pages 74 and 75." says Mr. Kramer, "you have Mr. Wollander listed as being from Seattle. Although we do quite a bit of our business in Seattle, Mr. Wollander is from Tacoma, and all of his business interests are here." We are glad to give Tacoma proper credit for Mr. Wollander. It is enough for Seattle to have its Al. Balch, and if Seattle will continue to produce more like Al, and Tacoma to produce more like Wollander, and all of them continue working together, home building in Washington will maintain its high standards.

ONE MORE PROTEST anent the May issue. It came from Sigfred Bech of Paterson, N.J. Says Mr. Bech, "I read the item on page 61 about underpaid doctors. I want to comment on that. Recently I had an operation in one of our local hospitals, and the doctor who performed the same charged me \$750, for just his services. Everything else was extra. Do you call that underpaid? I call it robbery—1½ hours work. I have been informed that this surgeon performs three and four of this type each day."

WITHOUT condoning or condemning Mr. Bech's surgeon, we do know a case in which a man was charged \$2,000 for an operation, while a second paid \$500 and a third, \$50 for the same operation by the same surgeon. Most surgeons try to strike an average, charging (Continued on page 51)



MCKINNEY



WHO SAYS JANITROL IS HIGH PRICED?

We hate to admit it, but it's true that many misinformed builders think Janitrol is a high priced line.

Our competition can't criticize Janitrol's advanced designs, our thorough workmanship and our established reputation for proven, quality products. But, the words have gone around, "Sure, Janitrol is fine equipment but their prices are high."



You may have been told this ... you may have believed it without actually checking not only list prices but installed costs.

We believe it is important to you, for you to know the real facts ... that you should know how other builders are capitalizing on the great sales appeal of gas heating with the nationally known and advertised Janitrol Gravity Furnace ... without paying a price premium.

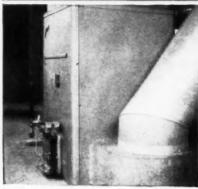
Janitrol Gravity Furnaces are competitively priced, installation work is simplified, so that your "ready-to-heat" costs are in line ... you gain the advantage of offering a famous name product and assurance of customer satisfaction, which as you know full well is your best asset for your continued success.

Ask your Janitrol dealer for new, revised Gravity Furnace prices and typical costs of installation work, or if you prefer write us direct and we'll see that you get full information promptly.

SURFACE COMBUSTION CORPORATION, TOLEDO, OHIO.

A MILE OF JANITROL GRAVITY HEATED HOMES





These homes, built on Bernhardt Drive, Snyder, N. Y., under the Veterans Housing program, are typical of the many projects using Janitrol Gravity Furnaces exclusively to provide automatic low-cost heating comfort.

Typical economy installation in recent building project. Note Control Cover (optional equipment) is not used in these installations to further reduce costs.



PLENUM AND TOP FRAME ASSEMBLY— Offers simplified means for attaching warm air outlets. Designed to fit S-hook assembly connections. (Optional equipment)

QUALITY FEATURES

FLUE COLLAR, DRAFT HOOD—Assures proper draft control for safe and efficient operation.

ALL WELDED COMBUSTION CHAMBER— 18 gauge, steel design assures high heat transfer, gas-tight joints, and positive, even heat distribution.

RADIATOR ASSEMBLY—Seam-welded construction. Internal baffling insures maximum gas travel for economical operation.

FRONT CASING PANEL WITH CONTROL COVER SUPPORT BRACKET—Positions over burner duct. Interlocking design speeds correct assembly, no bolts or screws are used.

CONTROL COVER ASSEMBLY — Provides attractive, easily removable, tamper-proof housing for controls and burner. (Optional)

FAMOUS JANITROL FLAME RETENTION BURNER AND CONTROL MANIFOLD—Quiet, efficient, with wide adjustment range. Completely automatic—maintains even temperatures. Interlocking Pilot Support Bracket correctly positions pilot for proper ignition,

WINTER AIR CONDITIONERS .
UNIT HEATERS . BOILERS .
GRAVITY FURNACES .
CONVERSION BURNERS

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Round Table

(Continued on page 49)

a maximum fee to those who can afford to pay, and a minimum fee to those who cannot. It's a better system for everyone than socialized medicine. At least, there is incentive for a surgeon to do his best, and you can get him when you want him, not when the government says you can have his services.

THAT TAKES CARE of all of the complaints, or at least it gets them answered until the counter-complaints arrive. We are thankful that the roses outnumbered the thorns. And while none of the pat-on-the-back letters are commented upon here, we got them, and hope that they continue to arrive in large numbers. It would be a little depressing if the mail contained nothing but objections, particularly during a summer as hot and oppressive as this one.

INCREASING encroachment upon the business of the contractor by the "owner-builder" calls for some fast and positive action, says J. Shelton Gordon, builder of Pasadena, Calif. The trouble, he says, has been caused by the contractor failing to realize his own value, and the owner-builder buying at the same or lesser prices than the contractor,

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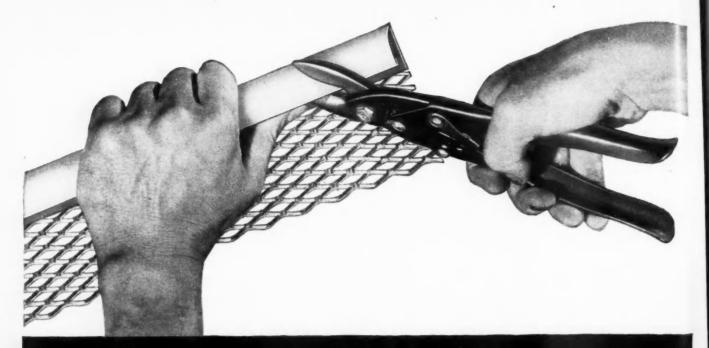
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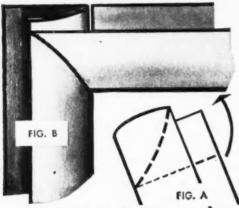
TO STOP the practice, says Gordon, the contractor must, in some way, obtain a preferential discount on all materials of at least 15 to 20 per cent, and a 10 per cent discount on all sub-contracts. The general contractor organizations, he continues, are strong enough to form their own buyer's guilds, and have the knowledge to hire direct and leave the sub-contractor out of the picture if necessary. He says, however, that this procedure will not be necessary if the material dealers will cooperate.

HE URGES that beneficial results to everyone, including home buyers, can be obtained if contractors will advertise the value of their services to the owner, and if material dealers will cooperate to the end that contractors can buy at a right price and thus sell at a price the public can afford to pay.





Time-Saving Construction Tip — with Milcor Steel Casing (for doors and windows)



How to make this time-saving cope-joint

Cut one length of Milcor Steel Casing with lathers' snips as indicated by dotted line in Figure A. Cut the other length square. Slip the first length over the second as shown in Figure B. That forms a perfect, permanent, tight joint,

Milcor Steel Casings (for doors and windows)







No. 60 hort Flange Casing

Easy way to make a better, tighter steel-casing joint — faster

Here's a simplified cope-joint for Milcor Steel Casing. It saves expensive construction time on every job — because it's easier, faster — and permanently tight. (See the diagram illustration at the left.)

Milcor Steel Casing offers additional savings on overall building costs. It cuts time and costs amazingly on erection, plastering, and finishing. And that's just the initial saving. The permanence of Milcor Steel Casing keeps on saving — on maintenance, refinishing, and decorating — for years and years.

Why not give every job the extra appeal of these outstanding advantages? Build a reputation for the finest modern construction with Milcor Steel Casing — and the other steel building products in the complete Milcor line. See the Milcor Catalog in your Sweets File for complete details.

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Send Steel	me a c	opy of the	Milcor Ma	nual ((no ob	ligation)	giving or Met	full details	du	Milcor

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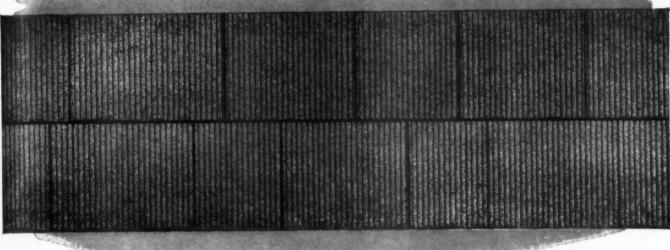
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TAPERTEX.

An <u>entirely new kind</u> of insulated siding!

New Design...New Manufacturing Methods give you the ultimate in this popular sidewall material



Turn the conversation to insulated sidings, and your Flintkote Representative is likely to use the expression, "You ain't seen nothin' yet!"

Then he'll tell you the Tapertex story. And quite a story it is. For the first time in years, you're able to offer customers something really new in insulated sidings.

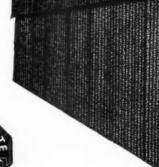
Tapertex Sidings are a massive, heavy weight, heavy duty exclusive product. The heavier tapered coating assures a realistic tapered effect similar to the famous Flintkote Tapered Strip Asphalt Shingles.

Appearance is greatly improved, too. Tapertex Sidings, with their modern embossing and narrow courses, make a truly beautiful sidewall. And the Base Board lies flat against the sidewall so that any possibility of sagging is completely eliminated.

Like all Flintkote Insulated Sidings, Tapertex enables you to offer bonus value in reduced fuel, painting and maintenance expense.

Next time your Flintkote Sales Representative calls, he'll tell you all about Tapertex. Or why not get in touch with us. We'll rush full details to you. Write today. THE FLINT-KOTE COMPANY, Building Materials Division, 30 Rockefeller Plaza, New York 20, N. Y.

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the extra years of service cost no more!



See How It Tapers!

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ELEVEN THOUSAND SQUARES



JOSEPH E. MERRION
J. E. Merrion and Co., Chicago

Mr. Merrion has been in the building and real estate business in the Chicago area for 25 years. His firm has built several thousand housing units. Associated with him in planning Merrionette Manor were Earl Minx, architect, and William A. Dean, landscape architect. Mr. Merrion is a former president of the National Association of Home Builders.



J. E. Merrion Chooses Asphalt Shingles for His 542 Home Merrionette Manor

The fact that J. E. Merrion and Co. *know* that exactly 11,382 squares of asphalt shingles were used in roofing their homes in Merrionette Manor indicates how carefully they operate. The fact that they chose asphalt shingles indicates how carefully they plan. Because asphalt roofing *is* construction's biggest dollar's worth.

In deciding upon asphalt roofing, Merrion measured each basic advantage—one of which is the ability of asphalt shingles to provide a harmonious variety of roof colors and patterns. Colorful, cleanlined, fire-resistant asphalt shingles fitted perfectly into the plan to create a community of homes with individuality, yet in complete harmony with each other.

Match your requirements against the advantages of asphalt shingles—beauty, low cost application, weather resistance, fire resistance, durability—and you'll find they're your best buy.

WRITE FOR THIS NEW FREE BOOKLET

"Good Application Makes a Good Roof Better" is the message of the 24-page booklet now available. For everyone interested in roofing, it's a helpful guide . . . or a reminder. Contains step-by-step information about good application practices —with diagrams. Get free copy from a member company or write direct.



8

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SKIL Saw . . . the better buy at any price . . . is today's best buy at these new low prices. You get famous SKIL Saw features! Famous SKIL Saw quality! Famous SKIL Saw power and performance ... stamina and speed ... at prices you'd expect to pay for ordinary saws. Order SKIL Saw from your SKIL Tools Distributor today!

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Oversize motors supply extra power to handle every job quicker-easier!

SKIL SAW IS EASY TO HANDLE!

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Extra strong shafts, smooth-running gears, ball bearing construction and die-cast housings mean lasting dependability, unusual ability to take any shock load.

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Quickly adjusts for bevel and depth of cut. Cross-cuts, rips, miters. Handles every sawing job from cellar to roof in far less time.

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Beautiful Oak Flooring as Seen with Contemporary.

How to make home-owners sell your services

We all know that a satisfied customer is your best salesman. But home-owners, happy with the oak floors you advised, can be made into a special kind of salesmen—and here's how to do it:

Point out to them one quality of oak possessed by no other flooring material and one they will come to appreciate as their home decoration progresses: the versatility of oak grain.

Then as they discover how perfectly oak grain

combines with other materials—with other woods, glass, metals and fabrics—and with any motif from Provincial to Modern, they will gratefully remember your advice.

The realization that you have given them not only the utmost in beauty, durability, and economy, but also flooring that blends with and enhances any decorative scheme they may *ever* choose—that realization turns happy home-owners into salesmen for you.

MEMO TO: Builders and Contractors

SUBJECT: Flooring FOR LOW COST HOUSING

You can now overcome the increasing sales resistance
You can now overcome the increasing sales resistance
The substitute flooring materials in low cost of created by substitute flooring materials in low cost of created by substitute flooring materials in low cost of created by statements in low substitute flooring materials in low cost flooring materials in lower-prized, tive homes-owners, is now available in lower-prized, tive homes-owners, is now available in lower-prized, toommon grades.

Give the low cost homes you build the plus values of oak, and, at the same time, keep building costs downood, and, at the same time, keep building costs.

To help home-owners visualize the style and color adaptability possessed only by oak flooring, show them the new free 16-page booklet, "Planning and Decorating the most important side of a room." Send for your copies today.



NATIONAL OAK FLOORING MANUFACTURERS' ASSOCIATION

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*Amazing New Asphalt-Asbestos Shingle that Defies Fire

First and Only Shingle of any kind ever given

Highest Fire-Protective Rating-listed as CLASSA

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Up to 108 times more fire-safe than ordinary Class C shingles—that's the amazing story of Carey Fire-Chex—proved in grueling flame torture tests!

Not requiring underlayment.

FIRE-CHEX ARE BEAUTIFUL, TOO!

The pleasing new deep shadow blend roof design, achieved by Carey Fire-Chex shingles, has been copyrighted as a work of art by the Philip Carey Mfg. Co. Available in red, green, blue or gray, this new shadow blend design cannot be duplicated by any other shingle!

Now you can offer your customers a shingle giving unequalled protection from roof fires. Carey Fire-Chex! These amazing new shingles—developed and manufactured only by Carey—contain a new miracle asbestos-bitumen compound that resists fire, guards against the hazards of flying sparks, embers and flaming wood brands. Carey Fire-Chex are extra-heavy, too, for extra weather protection. They weigh 325 pounds per square; provide a lasting barrier against the elements.

Make more sales, more profits . . . put yourself ahead of competition with Carey Fire-Chex. No other shingle offers so much in protection, durability and distinctive beauty! It's new! It's different! It's exclusive!

REMEMBER! It's easier to sell fire-chex than any other shingle!

WRITE-WIRE

for complete profit-making information! Carey

THE PHILIP CAREY MANUFACTURING CO., LOCKLAND, OHIO A.B. 8

3 REASONS WHY



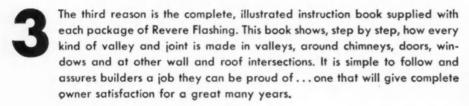
THIS PACKAGED REVERE
HOME FLASHING SYSTEM
IS YOUR BEST BET
FOR LOW-COST HOME
VALLEY AND FLASHING

You may have wondered why Revere went to the expense and trouble of developing a special valley and flashing package with special size copper sheets. There are 3 very sound reasons:

Each of the 10 sheets contained in the Revere Home Flashing Package is 18" wide by 48" long. This width is the ideal size for valleys, while the flat lengths of 48" not only are more convenient to handle and use, but are just the right length for flashing doors and windows. In addition, when the 4 ft. flats are properly installed buckling of valleys can be avoided.

This size is also more economical as it makes it possible to cut the smallerdimension pieces, used for chimney and shingle flashing, with the least amount of scrap. Sheets are of a special gauge and temper best suited to the valley and flashing requirements of low-cost homes.

The second reason is the nails used. Each package contains 200 bronze Strong-Hold Nails. These nails are made with annular barbs so that they get an extra strong grip in the wood which prevents their working loose. Builders who have used them consider them the best holding nail on the market. And, being bronze they will last as long as the copper. This in itself is a great protection for builders because if iron nails were used the presence of moisture would set up a galvanic action, causing the nails to rust away in a few years.







No wonder builders are enthusiastic about Revere Home Flashing. Being copper, it adds an important selling point to the house, because it is visible proof that the builder uses quality materials. See your building supply dealer today about Revere "Packaged" Home Flashing. He'll either supply you from stock or get it for you promptly.

REVERE

COPPER AND BRASS INCORPORATED

Founded by Paul Revere in 1801 230 Park Avenue, New York 17, New York

Mills: Baltimore, Md.; Chicago, Ill.; Detroit, Mich.; Los Angeles and Riverside, Calif.; New Bedford, Mass.; Rome, N. Y.—Sales Offices in Principal Cities, Distributors Everywhere.

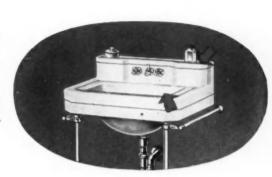
WHEN YOU CHOOSE ELJER PLUMBING FIXTURES

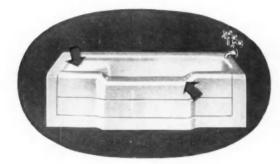
your Home Buyers receive these

Extra Values

GREATER BEAUTY

Eljer Fixtures have a satin-smooth finish with just the right amount of *modern* in the styling. Vitreous China Lavatories, for example, feature a smooth, unbroken back surface, because the overflow outlet is hidden under the front, antisplash rim. Practical ledge shelf lends beauty to the lavatory design.



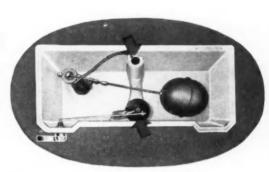


BETTER DESIGN

The Legation Bathtub features a low, wide, front rim-seat...easy to step in or out. An end-seat is ideal for bathing children, foot bathing or a sitting shower. The bottom is flat, for safety's sake. The entire tub area is within easy reach for cleaning.

ADVANCED ENGINEERING

In Eljer's Closet Tanks the integral overflow and ground-in valve seat are a part of the china tank itself...eliminating the need for thin metal parts that are vulnerable to the corrosive action of water. Syphonic jet-action bowls with "Elvortex" whirlpool jet, are quiet and efficient.



Plus:

A wide variety of related, yet distinctive, styles in snowy white or harmoniously matching colors, provides a full choice of fixtures, in Vitreous China or Enameled Cast Iron.

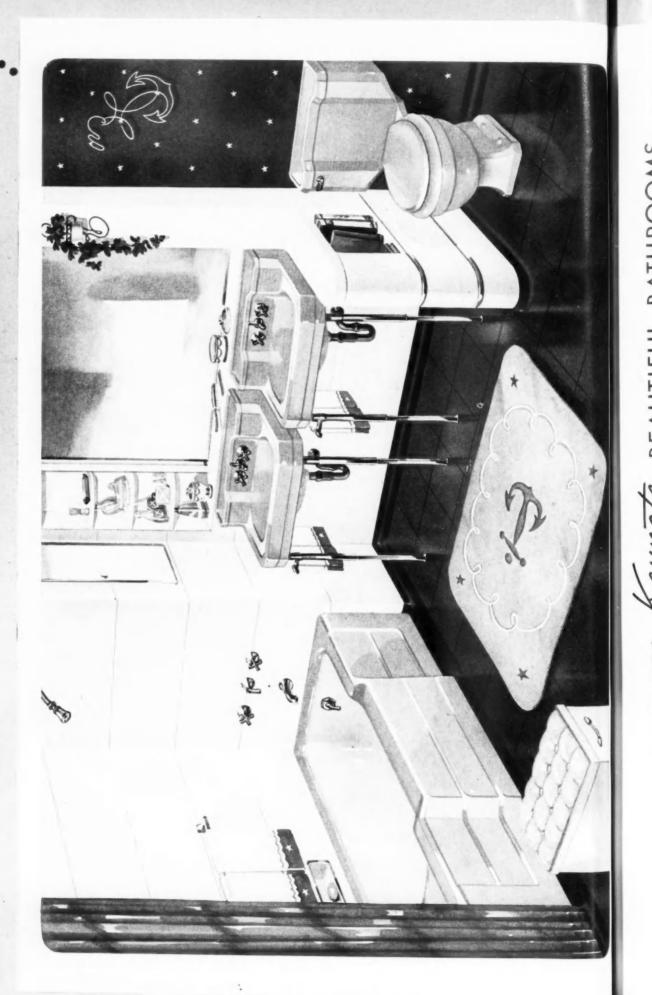
Plus:

Eljer's Brass Goods ... a precision line, standardized and simplified. All working parts are easily renewable. Two units, for exposed and concealed fittings, have interchangeable parts . . . a new achievement in brass goods engineering.

As advertised in the Post:

In 1949, Eljer advertising in consumer magazines like THE SATURDAY EVENING POST will reach 115,000,000 people, many of whom will want Eljer Fixtures. Some of them will be Your clients.

ELJER EQUIPPED HOMES DO SELL FASTER BECAUSE



ELJER FIXTURES Keynole BEAUTIFUL BATHROOMS

Fixtures will provide a smartly modern note in your new bathroom. Furnished in soft, matching colors or immaculate white, these beautiful fixtures will make it easy for you to achieve whatever decorative scheme you want.

The bright, lustrous finish of Eljer Fixtures reflects their superb quality. Eljer Vitreous Lavatories and Closet Combinations are real china... they resist stains and are impervious to all ordinary acids. Eljer Bathtubs have a rugged, rigid, cast-iron base that makes possible an extra-thick coating of glass-like enamel that is easy to

keep sparkling clean and new-looking. Chrome-plated Eljer Faucets operate smoothly and assure long, trouble-free service. All wearing parts are easily renewable.

For bathroom, powder room, kitchen or laundry, you'll be proud of Eljer Fixtures. Ask your plumbing contractor or builder to help you select the combination you would like and write for our new, free booklet, "Designed for Living". Eljer Co., Box 192, Ford City, Pennsylvania.

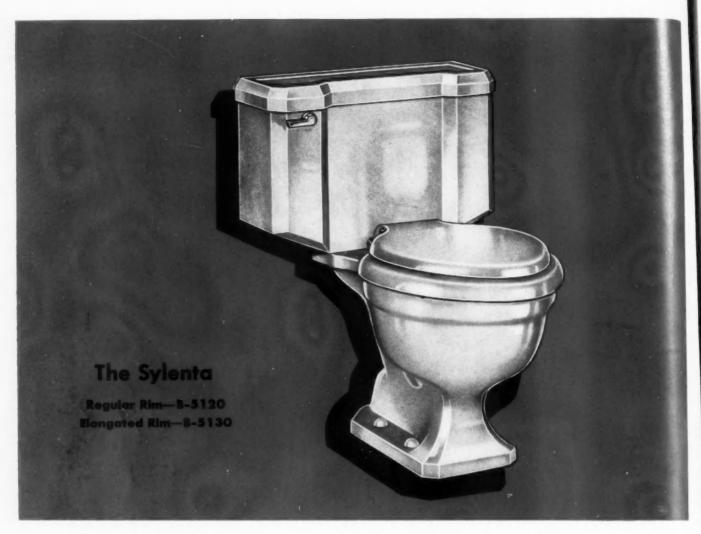
Over 10,000,000 in Use. The superb craftsmanship so evident in Eljer Fixtures is the result of almost a half century of experience in designing and manufacturing plumbing fixtures exclusively.



MANUFACTURERS OF FINE PLUMBING FIXTURES SINCE 1904

There are over Ten M

more and more people are asking for the Extra Features available Only in Eljer's Fine Line of Plumbing Fixtures and Brass Trim



Quality Features...that Cultivate Customers

The Eljer Sylenta Closet Combination combines quality features that every homeowner would prefer to have.

This vitreous china combination is easy to keep spotlessly clean because the hard, glasslike finish resists stains and is impervious to all ordinary acids.

Other features are: syphonic jet-action bowl with "Elvortex" whirlpool jet; overflow and ground-in valve seat of *china*—a part of the tank itself . . . eliminating the need for

thin metal parts that are vulnerable to the corrosive action of water; ball cock, adjustable to variations in water pressure... means longer service.

The Eljer Line is complete . . . to meet the requirements of every purse and purpose. See your Eljer Distributor for fine plumbing fixtures, in Vitreous China and Enameled Cast Iron . . . available in white or popular pastel colors, or write Eljer Co., General Offices, Ford City, Pennsylvania.

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





MONTHLY REVIEW

NEWS OF THE NATIONAL ASSOCIATION OF HOME BUILDERS AND AFFILIATED ASSOCIATIONS

Start Planning Early for NAHB Record Breaker 1950 Convention

Paul S. Van Auken, convention director, and E. M. Spiegel, convention committee chairman, began preliminary discussion for the 1950 NAHB Convention to be held in Chicago, February 19 to 23, when they prepared an outline to present to the committee in July.



EMANUEL SPIEGEL

The first meeting of the committee was slated for July 11, too late to permit an account of the meeting to appear in this issue. It had been decided before the meeting, however, that more exhibit space would be available next year than at any NAHB meeting ever held.

In addition to the space in the main exhibit hall of the Stevens Hotel, convention headquarters, and the Normandy Lounge in that hotel, Van Auken will add the exhibit hall of the Congress Hotel, located one block north of the Stevens on Michigan Avenue,



PAUL S. VAN AUKEN

"The reason for this," says Van Auken, "is that demand for space makes the additional facilities necessary. Two years ago the Congress Hotel, but not the Normandy Lounge was used. Last year the Congress was dropped, and the Normandy Lounge added. Many prospective exhibitors had to be turned down last year. We want to make sure that we can accommodate everyone in 1950."

To match the increased interest in, and use of, exhibit space expected next February, the convention committee will make special plans to establish new attendance records. A special attendance promotion program will be developed, probably including awards to the chapters with the heaviest mile-member attendance. All plans are aimed at securing the largest assembly of builders ever held.

The convention exhibit prospectus is being prepared, and will be mailed to exhibitors shortly after Labor Day.

'Nights' for Adjacent Cities Portland Home Show Feature

Nine cities in the Portland, Ore, trading area were honored with special "nights" during the annual Home Show June 18-26 sponsored by the Portland Home Builders Association, Inc., at the Portland Ice Arena. Estimates of attendance at the event ran between 60,000 and 75,000, and there were more than 100 exhibits.

The cities given special recognition were Salem, Beaverton, Vancouver, Oregon City, McMinnville, Hillsboro, Kelso-Longview and Gresham. Mayors and other officials participated in special programs on the nights set aside for their cities.

One of the outstanding attractions at the show was a five-room model house, built in five days and valued at \$17,000. The house was attractively furnished and drew large numbers of visitors.

One of the opening night speeches was made by Lawson McCall, administrative assistant to Oregon's Governor Douglas McKay. McCall lauded the Portland group on their efforts in arranging the Home Show.

Other speakers included City Commissioner Fred L. Peterson, representing the mayor and city council; County Commissioner Frank L. Shull; Vern Elliot, FHA; Al Bauer, president of the Portland Chamber of Commerce; Herman A. Schmitt, president of the Portland Association; Edwin Sandberg, Home Show committee chairman; H. P. Davidson, president of the Oregon Building Congress; and W. G. McDonald, managing director of the Show.

San Francisco Builders Name Popovich President

Earl Popovich was elected president of the Associated Home Builders of San Francisco at the group's annual meeting June 10. Popovich, secretary of Hansen Homes, Inc., succeeds Carl Gellert and will serve through the 1949-50 fiscal year.

Henry Doelger was named vice president and Boyd C. Lindsay, secretary.



EARL POPOVICH

Eugene Vignati was re-elected treasurer. Milton W. Morris, executive secretary, was re-appointed.

The San Francisco association's board of directors includes the following: Popovich, Doelger, Lindsay, Vignati, George Belcher, Andrew Berwick, Joseph Filippo, Peter MacArthur, Theodore G. Meyer, Howard Mohr, A. F. Oddstad, Jr., Oliver M. Rousseau and Morton Rude.

Washington Group Makes Home Week Plans

Appointment of Carl M. Freeman, Prince Georges County builder, as chairman of the Home Builders Association of Metropolitan Washington's 1949 National Home Week committee has been announced by William S. Banks, association president.

Freeman, developer of the "California Cottage" and a leading Washington builder, was formerly sales manager for Fritz Burns in California.

More than 40 houses were exhibited last year by the Washington group, attracting thousands of visitors. It is anticipated that an equally large number of homes will be exhibited during the Home Week period this year.

Lee B. Miller Dies

Less B. Miller, executive secretary of the San Antonio, Texas, Home Builders Association, died May 5 in San Antonio.

Molnar Honored at Cleveland Banquet



NICHOLAS F. MOLNAR (second from left), NAHB secretary, receives a plaque naming him the man who did the most for the home building industry in 1948 from Maurice Fishman, president of the Home Builders Association of Greater Cleveland, at the Cleveland group's sixth annual banquet, June 4. At left is Rodney M. Lockwood, NAHB president, who was the principal speaker at the banquet, and at right, Jerry Madigan, acting executive director of the Cleveland association. The meeting was attended by approximately 400 builders and guests.

California Group Names New Officers

Richard Delucchi of San Bruno was elected president of the Peninsula (Calif.) General Contractors and Builders Association at the group's recent annual meeting in the auditorium of its recently completed building on El Camino Real, San Mateo. More than 60 members were present.

The outgoing president, Ed B. Standish, gave a report on the association's activities during the past year, including legislative work at both federal and state levels, labor relations, apprenticeship training, an economy home program and an increase in chapter membership. Standish was presented a plaque by the association in recognition of his work as president.

Appoint Home Week Chairmen For Columbus Association

Russell Fling and Howard Day have been appointed National Home Week chairman and assistant chairman, respectively, of the Columbus, Ohio, Home Builders Association and are making plans for local observance of the national event.

Another activity of the Columbus group is a picnic, scheduled for August 18 at Harbor Hills, Buckeye Lake. J. Alfred Shuman is chairman of the picnic committee, which met June 8 to make arrangements. One of the entertainment features will be a polo exhibition; there will also be music, a nail contest, bingo, horseshoes and other games. A number of prizes will be awarded.

Other members elected to office were: Perry A. Bygdnes, San Mateo, vice president; and James H. Arthur, San Mateo, secretary-treasurer. The directors are: W. A. Gould, San Carlos; P. J. Murphy, Redwood City; William A. Lawson, Menlo Park; and E. B. Standish, San Carlos.

Installation Dinner Held For Chicago Officers

Speaking at the installation dinner June 23 for the 1949 officers of the Chicago Metropolitan Home Builders Association, A. O. Aldrich, new president, told members that continued emphasis would be placed on the association's role of "Champions of the Home Seeker."

He said that the organization's physical equipment, territorial coverage and loyalty and enthusiasm of members was now geared to render maximum helpfulness to home seekers, the industry at large and to its own particular mem-

Aldrich succeeds Nathan Manilow, NAHB treasurer. Installed as vice presidents of the Chicago chapter were V. Arthur Olson, E. C. Mahoney, Joseph B. Ford and J. T. Schless. C. E. Blomgren is the new secretary and Morton H. Robbins, treasurer.

An entertainment program followed the installation ceremonies. Edward G. Gavin, American Builder editor, acted as toastmaster.

Lockwood, Cortright to **Attend Utah Convention**

The 1949 convention of the Utah Home Builders Association has tentatively been set for December 3 at the Hotel Utah, Salt Lake City. It will be attended by Rodney M. Lockwood, NAHB president, and Frank Cortright, executive vice president, who will be featured speakers.

A special women's program for the convention is being arranged by the Association's ladies auxiliary.



OFFICERS of the Peninsula General Contractors and Builders Association, with headquarters at San Mateo, Calif., include (left to right, seated): James A. Arthur, secretarytreasurer; Richard Delucchi, president; Perry A. Bygdnes, vice president; (standing) Ed B. Standish, retiring president, William A. Lawson and W. A. Goul, all directors.

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Minneapolis Builders Complete Yearly Meeting Program With Social Evening

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Following an established custom, the Minneapolis Home Builders Association completed its annual series of ten monthly night meetings by devoting the last evening, June 7, entirely to social activity. The association reserved a large cafe and bowling alley and sponsored a program of music, singing and other entertainment. Approximately 250 members attended.

Prizes at the party included 21 for bowling, with the award for high game going to the only woman builder-member, Mrs. Alice Johnson. In addition, 14 prizes were given for early reservations.

The Minneapolis group's annual picnic was held August 2 at the Excelsior Amusement Park. Expenses for the picnic are paid on alternate years by the association and by the builders individually. The 1949 affair was financed by the builders. Picnic arrangements were made by a committee of 15, headed by Mrs. Johnson. The crowd was estimated at about 400.

Hurd Named Secretary Of Rhode Island Group

Franklin A. Hurd was recently appointed full-time executive secretary of the Home Builders Association of Rhode Island, succeeding Roy W. Worrell who has served on a part time basis for the past two years. Hurd, a Providence advertising and public relations man, has been closely associated in recent years with builders and building supply firms. For several years prior to 1947 he specialized in builder advertising for the Providence Journal Co.

The Rhode Island association opened its own offices in the new Pitney-Bowes building in Providence on July 5. An expanded program of activities has been planned, which will include services to builders and to the home-buying public.

The association's second Home Builders Show will be held September 12-17 at the Rhode Island auditorium in Providence. Hurd said that the number of requests for exhibit space indicate a sellout.

New Local Groups Join NAHB

Two new local associations became NAHB affiliates in May following approval by the national board of directors. They are the Home Builders Association of Schenectady, N.Y., and the Tri-Cities Builders Association, Grand Haven, Mich.

At the same board meeting a charter was approved for the Michigan State Association, which has been organized and acting as an affiliate for over a year.

NAHB now has a total of 124 affiliates.

Cortright's Column

By Frank W. Cortright

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



Now that the Federal government has decided it must play an immense role in housing the people of this nation, it will be interesting to see how it performs.

After more than a hundred years of carrying the mail, the best it can do is to move a penny postal card for $2\frac{1}{2}$ c. It over-spends its budget at staggering annual figures running into the billions. In the past the best it could do as a home builder was to construct housing at approximately 30 per cent higher cost than the private builder.

As it embarks upon a \$15 billion Federal housing joy-ride, it apparently has resolved to start by appearing to be a little more efficient. Just today it was reported that the PHA (formerly Federal Public Housing Authority) is putting the squeeze on the AIA (American Institute of Architects). One would think that PHA would be more considerate of the architects who supported them in perpetuating their jobs and securing such a bonanza. However, it appears that this is not the case since PHA, now having what it wants, turns on AIA and demands that architects work for less than a straight 5 per cent commission because of the "repetitive design" of public projects.

It may be that those money lenders who testified in support of socialized public housing, because of the profitable business it will bring them, will one day be equally unhappy. As more and more direct Federal lending comes about through the passage of such legislation as the Sparkman bill, presently urged by Liberal Democrats and Fair Deal Republicans, more and more bankers will gradually be driven from the mortgage finance field.

Last but not least, the gravy train eagerly expected by those large contractors who specialize in construction of public housing projects may stop rolling one day. As we parallel the progress of socialized public housing in England, these firms will probably find construction being gradually done directly by the local housing authorities.

This is what has happened there. They call it building by "Direct Labour." In the process the contractor is completely eliminated as the Housing Council's staff employs architects, engineers, superintendents and foremen. From there on the Authority negotiates with and employs labor, purchases building materials and does the entire job. What of the contractor? His best alternative is to end up as an underpaid superintendent on these jobs.

This reporter listened with astonishment to the London County Council officials as they described with great pride the elimination of profits by this method. Of course, the costs were absurdly high. As we climbed over the jobs we saw four men doing the work of two. All in all, it was apparent that it was an extremely costly and sluggish operation from start to finish.

The primary reasons for inefficiency and high cost in governmental operations are (1) lack of incentive and (2) assurance of continued employment regardless of efficiency or production. In the Utopian communist state each individual contributes a small share according to his particular assignment and, theoretically, benefits by an exchange of services and products with other inefficient and inadequate producers. Theoretically, it is heaven. In practice, it is poverty and degradation.... Organized Scarcity and Equalized Misery!

What an ironical thing it will be if those segments of our industry who fought for socialized housing in this country because of immediate selfish benefits, and those who failed to oppose it, eventually end up by finding themselves driven from their proper field of activity and employed as creatures of a vast governmental housing machine.

Home Week Plans Discussed by Texans



PLANS for state-wide participation in National Home Week was one of the leading topics at a meeting of the Texas Home Builders Association at Amarillo. Among other subjects discussed were the return of keen competition in the industry and reports from most of the large Texas cities indicating that the rental housing market had been satisfied to a large extent. More than 40 delegates attended the session. Shown here are (left to right, standing): Charles Greef, Amarillo, president, Texas Panhandle Home Builders Association; R. G. "Dick" Hughes, Pampa, regional vice president, NAHB; Fred M. Seale, NAHB director at large; Samuel Lemons, Lubbock; Grover Godfrey, Dallas, executive secretary, Texas Association; (seated) Mrs. E. P. Lamberth, Dallas; E. P. Lamberth, Dallas, president Texas Association; G. W. Maguire, Amarillo, president, Texas Panhandle Association; Dow Zabolio, Houston; and A. H. Brown, Amarillo, vice president, Texas Panhandle group.

Chicago Festival to Mark National Home Week

A feature of the third annual Chicagoland Home and Home Furnishings Festival, to be held from September 10 to October 11, will be the public display of



MARTIN C. HUGGETT, executive vice president of CMHBA, will direct Association's participation in Chicago Festival.

between 50 and 70 homes in the Chicago area, many of them completely furnished by participating agencies.

The annual event is sponsored by the Home and Home Furnishings Council of Chicagoland, composed of 14 groups in industries related to the home, in cooperation with the Chicago Tribune. The Chicago Metropolitan Home Builders Association is taking an active part.

The Festival will coincide with National Home Week, September 11-17, and with other events publicized by allied industries. The slogan will be "Enjoy Living . . . at Home."

To Hold Home Show During National Home Week The Greater Fort Worth Home Spansored by the Home Puilders

Fort Worth Association

The Greater Fort Worth Home Show, sponsored by the Home Builders Association of Fort Worth, will be held September 10-18, coinciding with the dates of National Home Week. Exhibits will be at Will Rogers Memorial Grounds.

The 1949 show, in which all components of the industry are participating, will be larger and more comprehensive than last year's show, according to plans which are nearing completion. A greater promotional program for exhibitors is being arranged, and display spaces are being more completely equipped and decorated. An outstanding entertainment program has been scheduled.

An important phase of the event will be the assembling in one place, for the convenience of visitors, of all components of the home industry—building ideas, materials, furnishings and equipment.

Members of the Fort Worth home show committee include C. Allen True, president of the Fort Worth Association; John Owen, National Home Shows, Inc., director of the show; Mayor Edgar Deen of Fort Worth; Henry L. Geddie, Fort Worth Association executive secretary; Leonard Davis, Texas Electric Service Co.; and Bernard Lunt of the Fort Worth National Bank.

Erie Builders Hear Talk By Gavin

In a speech before members of the Erie, Pa., Home Builders Association June 30, Edward G. Gavin, American Builder editor, expressed strong disapproval of the recently passed Public Housing Bill, terming it an "Economic Dunkerque."

Approximately 50 members of the association attended the meeting, the last official session of the 1948-49 year.

Stating that his main objection to public housing was that "it has consistently cost the public more than homes built by private enterprise," Gavin described the results of a similar plan launched under Great Britain's socialistic government in 1919 and indicated that it had led only to "the distribution of increasing poverty."

Gavin praised the city of Erie for preventing the development of a central slûm district by timely rebuilding. He said that there was no sure-fire way of alleviating local housing problems, but that large government projects were not the answer.

The meeting was held in the Blue Room of Erie's Moose Club and was preceded by a dinner. Gavin was introduced by Cyril S. Sullivan.



SHOWN at Erie meeting are (from left): Association President Floyd Andrus; Cyril S. Sullivan, program chairman; Edward G. Gavin, American Builder editor; and H. E. Thompson, Erie secretary.



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THE NEW, LOW-COST



PORTABLE SAW-SHOP

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

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Fishman Uses Appliances To Stimulate Sales



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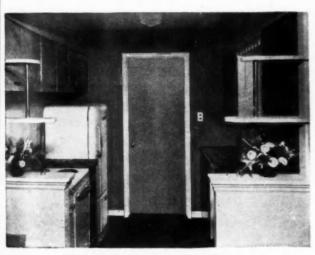
M. J. Fishman, President, Precision Housing Corporation

Revere Quality House Institute selected M. J. Fishman of Precision Housing Corporation of Cleveland, Ohio, to undertake the first Midwest development under institute approval. A huge 800-home project was launched last October. Many of the houses have since been completed and sold. Interest has been tremendous right from the start.

"We have put Westinghouse Appliances in many of our houses," says Builder Fishman. "It pays. They add sales appeal and the Westinghouse name is familiar to everyone. It helps

sell prospects on the quality of our houses since the trademarks of so many of the quality building materials we use are covered over with paint or plaster."

Appliances offered and included in the package mortgage include the Westinghouse Laundromat Automatic Washer, Dryer, Kitchen Ventilating Fan, Refrigerator and Range.



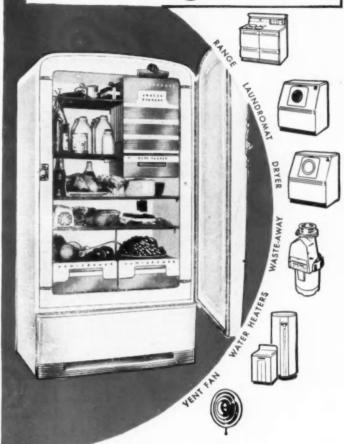
Typical Fishman Economy Kitchen

OFFERS FREE BOOKLET

Westinghouse Electric Appliances can help builders of both large and small house projects to move their properties faster. Reasons are pointed out in a booklet entitled, "Mr. Builder." A copy can be obtained free of charge by filling in and mailing the coupon below to the Westinghouse Electric Corporation, Electric Appliance Division, Mansfield, Ohio.

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SHOPPER STOPPER! Turns House Hunters into Buyers

Nine times out of ten it's the "little woman" who gives the nod in a house purchase. You can best influence her by making your kitchens desirable. To accomplish this, install Westinghouse Appliances. Take the refrigerator pictured above—or any one of the many sizes and models Westinghouse makes—it has eye appeal and prestige value. When you explain that on a "package mortgage" these famous appliances add little to the monthly installments—Mister, just show them where to sign. Proof? Read how Builder Fishman uses Westinghouse Appliances to stimulate sales.

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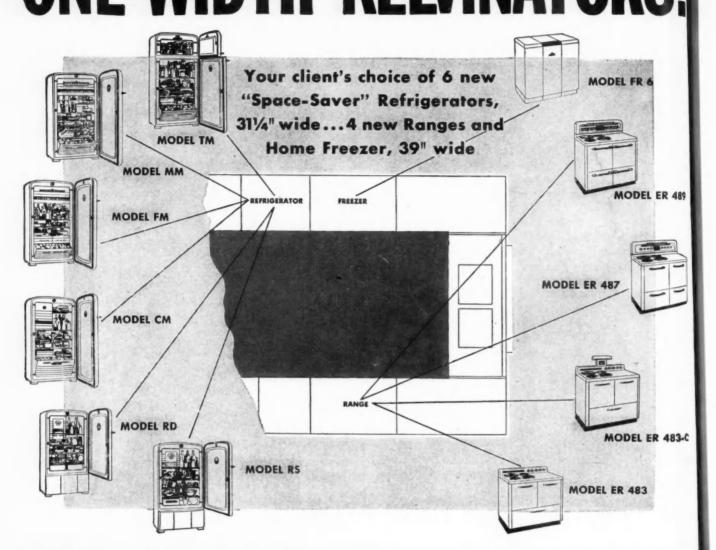
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Here's the way to insure yourself against changes in kitchen plans. Your client can choose any Kelvinator model—to suit his budget—and it will fit your floor-plan! This big advantage of designing around one-width Kelvinators is now favored by architects and builders everywhere.

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



During National Home Week, September 11-17, 1949, Kelvinators can be seen in model homes throughout the country.

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

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Selling and Price Cutting

N a recent letter addressed to all of the company's dealers, J. J. Nance, president of Hotpoint, Inc., advanced a number of sound reasons why the public should be encouraged to purchase appliances now. After pointing out that appliance prices have advanced beyond the 1939 level far less than prices of automobiles or the cost of living in general, Mr. Nance stated that substantial reductions in appliance prices already have been made. They were made by manufacturers anticipating savings in costs of materials, effecting reductions in gross margins, and increasing efficiency in production. Two of the large factors in cost, sheet steel and labor, have not been reduced in price, and probably will not be.

"The point of all this is," continues Mr. Nance, "that today topgrade appliance manufacturers are offering excellent dollar values in their products. With the battle for sales in full swing for all—dealers, distributors and manufacturers—each of us is laying plans, not only for survival, but to establish himself for leadership and to secure profits over the long term. Sound dealers know that cut prices do not build leadership. Kitchen and laundry appliances are built to last a long time. Even though people dream of owning them, appliances will always require good selling."

Nearly everything Mr. Nance said about appliances applies to builders and their products—houses. The era of distress buying and premium payments is over. An era of building soundly for a selective buyer attitude is here. It is well known that at the end of 1948 there were many unsold houses, and that it was not uncommon for builders to offer their unsold inventories at distress prices in the early months of 1949. Now, a stable cost level has been reached. Builders have assembled new crews of building mechanics and sub-contractors. It has taken time to train and co-ordinate these forces into efficient production teams. There is high efficiency on almost every home building operation today. Few, if any, material or appliance prices are likely to decline, nor are labor wage scales likely to decrease. The two major factors in the increase of home building costs over 1939 levels are an inflated dollar and high taxes to support the cost of vastly broadened functions of Federal government. There is nothing to indicate that the purchasing power of the dollar will or should increase noticeably or that taxes will be reduced.

Home building costs, therefore, are about as low as they can be expected to go in the predictable future. The only way to effect great reductions in home building costs is to cheapen the product. That is no better business for builders than it is for appliance manufacturers.

Mr. Nance concluded his letter by saying that his company proposed to continue the production of the highest quality of products of which it is capable, and keep its prices competitive but profitable. That is a sound long run policy for builders. Build soundly, price at a reasonable profit, and sell the value of the product at the determined price. There is neither profit, leadership, nor respect in price cutting as a substitute for good merchandising.

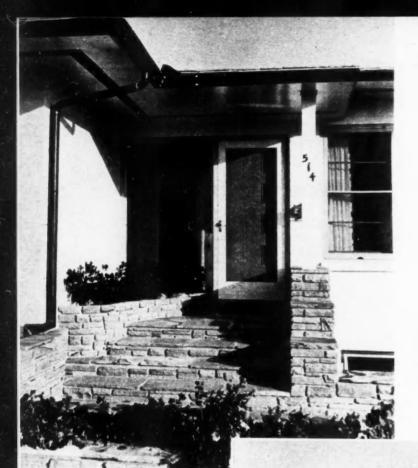
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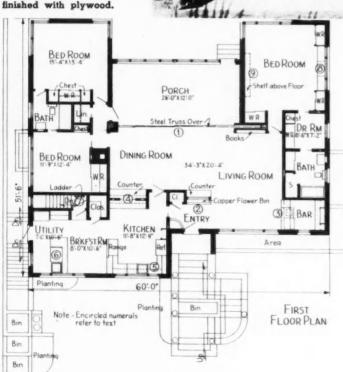
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A House Full of IDEAS

Florida builder incorporates in his new home a large number of conveniences that simplify house care and promote comfortable living

DETAILED and over-all view of entrance and front of house. Crab Orchard stone is generously used on the lower level of front and in the construction of stairs leading to entrance. Joints of stone are deeply raked causing a play of light and shade on the surface. Walls are painted stone tile, soffit finished with plywood.



Numbers on first floor plan indicate the location of various ideas

WHEN Oscar Clarholm, builder, Daytona Beach, Fla., got ready to build, he wanted a home that in addition to its livable qualities would also serve as a base of operations for his business. In this home he wanted all the labor-saving equipment that would be practical, and many convenience ideas that he had observed and developed in his broad experience as a home builder. The result is a surprisingly successful home in which he and his wife, who is also his partner in business, live, work, receive clients, and entertain.

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Clarholm, who is a distributor for Crab Orchard stone, used this material for the entrance steps and rails and the exterior walls up to the first floor line. This stone was also used in the floor and walls of the large screened porch. The stone was carefully selected for its color and size. Joints raked out to a depth of ¾ inch create a play of light and shade on the surface of the stone. The rails adjoining the steps were pulled down and rebuilt a number of times before Clarholm was satisfied with the result.

The exposed exterior walls of the home are constructed of 4 by 8 by 16 inch stone tile laid up with flush joints. These walls are laid up so smoothly that at first glance the surface appears



SCREENED porch is made part of living room by sliding doors

to be a smooth finished stucco. Exterior blocks are painted three coats of waterproof paint. Walls are capped with a continuous 8x12 inch concrete tie beam reinforced with rods 45% inches round. A foundation wall 12 inches thick placed on reinforced spread footings provides a shell well able to withstand the ravages of tropical storms. A bright blue concrete shingle tile roof is supported by trussed roof rafters and ceiling joists except over the porch where 4 by 6 inch exposed cypress beams 24 inches on centers are used.

Core of the house is a spacious combination livingdining room and porch, 34 feet by 33 feet. Sleeping quarters are placed on both sides of the core with the service units toward the street front. The bar which adjoins the living room is concealed by a panel which is a part of the wall. This panel is brought flush with the wall through an ingenious track arrangement. The outside is actually brought inside by the use of planting areas submerged in the floor construction and on counter, forming a separation between entry and living room. Copper pans are removable for cleaning. The kitchen and utility rooms are veritable treasure chests of features. The exhaust vent for stove is placed just above the cooking surface to capture odors at their source. Cabinets were designed



SIX glass doors slide out of sight into pocket behind bookcase

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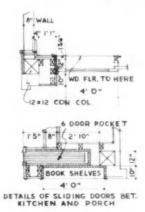
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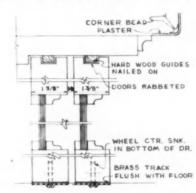
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A simple and effective method is used in sliding the glass doors across opening that separates porch from living room. Doors are 1% inch thick with double strength glass in each panel. Glass is used to reduce weight of door. Each door slides on two brass sheaves mortised into the bottom stile, one at each end. The sheaves are guided by a heavy brass track which is rabetted flush into oak floor. Track and sheaves are manufactured by the Knapp-Vogt Co. The top of each door is rabetted for the hardwood guide which is applied to the head frame. The head is "step cut" to stop each door at the end of its run. When shut, the doors overlap each other $1\frac{1}{2}$ inches with a one-eighth inch clearance to avoid rubbing. This minimizes air leakage.





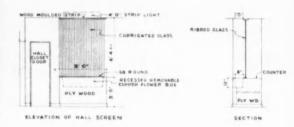
HEAD AND SILL DETAILS OF SLIDING



VIEW of living room. Walls are plaster and knotty pine

IDEA NUMBER 2

Removable copper planting box is recessed into floor construction with a border of Crab Orchard stone extending above finished floor. Drain placed in center of box is connected to sewer. Flower box on cabinet is built in the same manner. Mirror on side wall reflects the planting



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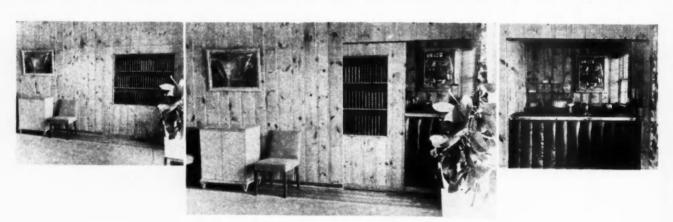
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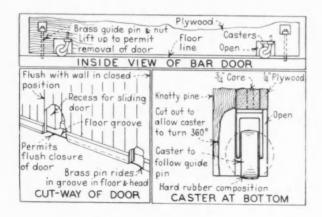
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ENTRANCE vestibule is separated from living room by built-in counter

A HOUSE FULL OF IDEAS





IDEA NUMBER 3

An ingenious method is used in concealing the bar in an area adjoining the living room. The three photographs above (reading from left to right) show the door to bar closed, the door partially open, and the bar completely exposed. An imitation bookcase is recessed into sliding door. Door is 11/2 inches thick with onefourth inch plywood back. Shelves, casing around opening, and imitation books are placed within the thickness of door. Books are held to face of plywood with 3's inch brass screws applied from back of plywood. Imitation doors are cut in under shelves. Hardware is applied at proper places. Bottom stile of door is cut out on back side to receive two rubber stem casters. Cutout must be sufficient to allow casters to swing 360 degrees when a reverse in direction is desired. The oak floor is notched out under the center of the bookcase core and a brass pin is inserted at each end in bottom stile of door to guide the panel. Sufficient room is allowed for pin to be removed. Nut is placed at top of pins. Brass pins are placed in top of door and installed in same manner 19.19

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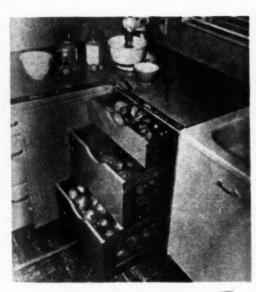
SECTION OF KITCHEN

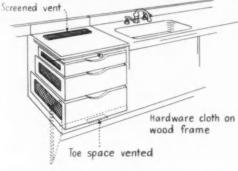
IDEA NUMBER 4

The large combination sideboard and cabinet shown in the two photos above and at right form a dividing wall between the kitchen and dining room. The top wall cabinets have two-way arrangements so dishes and glassware from the electric dishwasher may be put in on the kitchen side and taken out on the dining room side. Part of the drawer area on dining room side below the counter is divided into compartments for the storage of various pieces of silver. These compartments are lined with green felt cemented to wood. A group of trays that pull out are provided in the cupboard space below the drawers for linens



A HOUSE FULL OF IDEAS







IDEA NUMBER 5

The built-in sliding drawer vegetable bin at left can be closed by a plywood door when not in use. Air circulates through it when closed by means of vents placed in the toe kick and counter top. Wood frame of bins is enclosed with small mesh wire on three sides and bottom. In the kitchen, shown above, the exhaust vent for the electric range is placed on the stub wall not more than 13 inches above the cooking surface of the stove and a motor sucks the air down instead of up. The cabinet above the refrigerator, shown at upper right, has vents on the underside and also in the doors. Heat rising from the refrigerator circulates through cabinet and keeps cereals, etc., crisp and dry. The pan cover storage drawer shown at right is next to stove for step saving





A HOUSE FULL OF IDEAS



A metal duct attached to the blower extends to the outside wall where it is capped with a copper louver. A container placed over louver receives the lint from the dryer. Counter adjoining dryer can be used for arranging flowers or folding clothes, while cabinets above allow space for vases, holders, etc.

An additional item of interest in the kitchen includes step shelves that are placed in cabinets devoted to small items such as spices, etc. They are removable for cleaning.

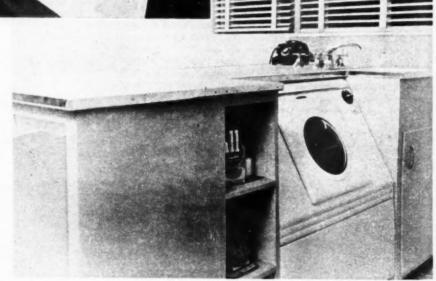
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with the warm and humid climate of Florida in mind. Ventilating grilles are placed in toe space of cupboards and on counters to provide proper circulation of air in these areas when cupboard doors are closed. Grilles are placed in the bottom of cupboards over refrigerator to take advantage of its heat. All cabinets terminate 13 inches below ceiling line. Fluorescent lights are placed on top of cabinets behind heavy cap crown mould.

The laundry island in the utility room is unique. It provides for every condition involved in the washing and storing of clothes. Dryer and storage cabinet are placed on opposite wall.



Concealed water service rubber hoses to washer Shell-Pli top -. Air vents Sorting hampers (3-sections Switch removable box 4" plywood) Connected to waste line -Laundromat Vented toe space Shelves Vents in bottom

IDEA NUMBER 6

The laundry island shown above separates the utility room from the breakfast nook. On the breakfast nook side shelves are built-in for china. Backs of shelves are vented for the Laundromat motor. At one end of island is the three section sorting hamper. The divisions are of plywood and removable for cleaning. The front, bottom and back of hamper is ventilated. Soiled clothes are placed on the counter and sorted into hamper. Handy shelves are placed between it and the Laundromat for detergents, scales, iron, etc. The Laundremat is built into the counter. Unsightly hose are hidden from view. These pass through a cutout in the bulkhead under the counter and are connected to the supplies and waste that serve the adjacent sink. A telephone jack at end of counter completes the laundry island. 1949

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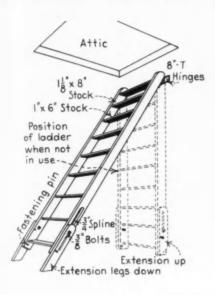
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A warm air grille is combined with the center ceiling fixture in bedrooms and baths. In other rooms they occur in their normal position. Extensive use of mirrors are employed throughout the house both for deco-

rative purposes and utility.

Barbecue in rear yard is constructed so that grate over fire can be moved close or away from fire depending on the type of food being prepared. This is done by laying brick in a 34 inch mortar joint and then raking out joints about an inch on two sides of the fire bed. Grate is held in place by inserting it in joints.

Basement contains a two-car garage, heater and maid's room, and a large office and adjoining toilet directly under the living room. Ample light is provided for this room by windows on two sides. A yard implement storage room is located under the front steps which is accessible to the garage drive.

A great deal of finishing work, such as cabinets, millwork, etc., was done by Clarholm. By acting as his own contractor he saved on fees and was able to cut construction costs. It gave him time to figure out new methods and ways in which to do this job.

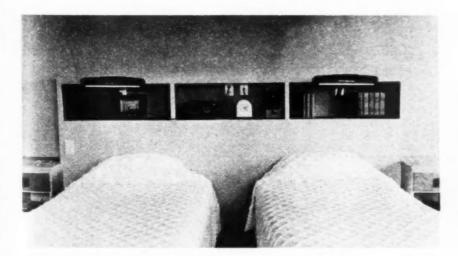
IDEA NUMBER 7

The attic stairway is simple and sturdy. The top of ladder is secured to wall with hinges. The ladder is short enough so that it will clear the floor. When brought out into climbing position the sides are extended and pegged into position. The two side extensions slide up and down against the outside face of the side rails. Steps are placed at an angle so that they are level when in climbing position. When not in use ladder hangs flat against wall.



Shown in photograph at left is the outside wall of the master bedroom. Adjoining the dressing table is a hanging closet with blanket storage above. The opened vanity top reveals a make-up mirror and light. Underneath the vanity are drawers concealed by semi-circular doors. On either side of the vanity is a group of drawers for miscellaneous storage. The door to the right opens into a dressing room and the bathroom beyond. The mirror on the right permits full length view for dressing.



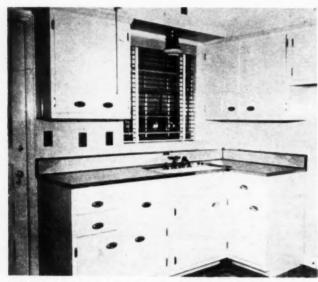


IDEA NUMBER 9

Forming a back rest for the twin Hollywood beds is a wall cabinet shown at left. It contains place for a radio, telephone, bed lamps, clock, inter-room telephone and books for night reading. At each end of the cabinet are built-in bed tables, each with a drawer and shelves for magazines. The outside of the cabinet is painted to conform to the finish of the room; the inside is painted a dark contrasting color. Beds are 18 inches apart.



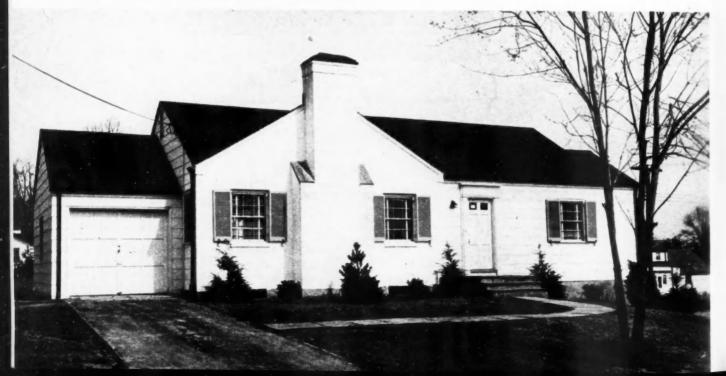
NEW Hickory Hill project of 155 houses to sell for \$18,000 to \$20,000



TYPICAL kitchen includes top quality cabinets, ventilating fan. Below is one of the Wilmot Woods houses which sold for \$25.500

Reputation for Good Community Planning Makes Sales Easy

Builder of luxury houses in New York area has minimum selling expense because of 25-year record for quality and fair dealing with buyers



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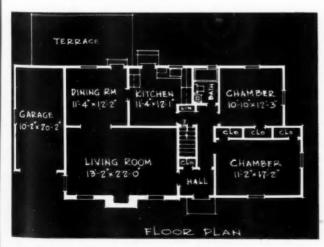
ONE of the higher priced houses in Wilmot Woods on a one-third acre lot, which sold for \$32.500, including the landscaping

WENTY-FIVE years as community developers and TWENTY-FIVE years as community home builders with strict attention to quality, fair pricing and good public relations have established such a good reputation for Haring & Grant of Eastchester, N.Y., that sales costs on their latest 155-house project are at a minimum. Charles F. Haring, vice president and secretary of the company, makes the statement that, "We seldom have a house for sale. Our houses are usually committed to purchasers before they are completed.

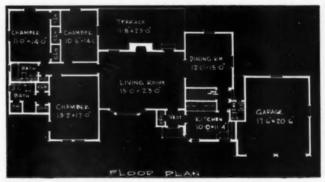
949

Haring's realty and building companies have developed several communities involving the erection of more than 2,000 private homes and apartments. Recent projects are Oakridge Gardens-96 one-family dwellings; Wilmot Woods-134 single-family dwellings, and Hickory Hill-155 houses.

Oakridge Gardens was completed in 1948. Work is still being done in Wilmot Woods although it is well along toward completion with only about 30 houses to complete. The newest project-Hickory Hill-was started this spring and 31 of the 155 houses are now being completed.



FLOOR plan for house illustrated at the left. This is one of the smallest houses erected in Wilmot Woods, a scientifically platted park-like community of 134 homes located on large lots reached by attractive wooded and landscaped curvilinear streets. More of the Haring & Grant houses in Wilmot Woods and in other projects will be shown in future issues of the American Builder. Prices on houses built by this firm range from \$18,000 to \$35,000



PLAN for house illustrated above. Purchaser had a choice of interior decoration covered by a maximum allowance included in the sale price. Windows are double-hung aluminum sash

Prices on Haring & Grant houses range from \$18,000 to \$35,000. Although some standard plans are used, there is wide variety in styling and finishes used, both inside as well as outside. On the higher priced houses buyers have a choice of interior decoration and color schemes in conformity with a maximum allowance included in the purchase price.

In addition to building many high-priced houses speculatively, Haring & Grant offer a wide variety of plans and elevations for prospective buyers to choose from for houses to be built on contract in their subdivisions. Well-known specialists in Colonial and New England architecture are employed to do the designing. At present practically all designing is done by

(Continued on page 160)

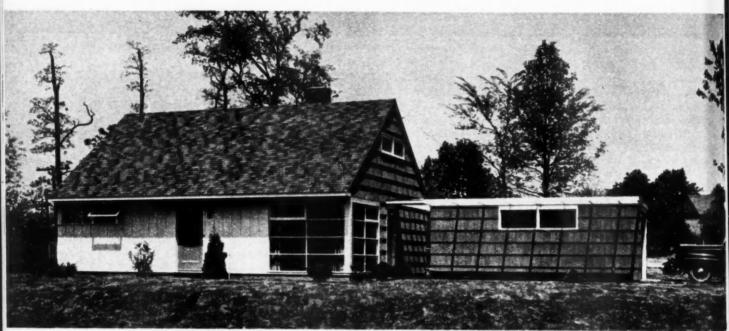
AN unusual feature of these houses is a floating basement floor. Before the floor is poured, a drainage system is laid in gravel. When the floor is poured, forms keep the concrete about four inches from the concrete block foundation. The channel around the floor is then filled with gravel so that when condensation forms on the walls and runs down, moisture disappears into the gravel channel and is carried off by the drainage system



New Economies -



In design, construction and distribution inaugurated by Builder Cy Williams make it possible to deliver good partially prefabricated fully-equipped houses to public at lower prices. Plan is to work with other builders in developing subdivisions or communities



FRONT view of the basic model of the 1949 Cy Williams Sun Ranch home. Six other models are available



HOUSES are delivered to sites in three separate loads to keep handling at a minimum. Compact, rugged design of the house parts make loading and hauling fast and simple operations

A NEW APPROACH to the manufacture and sale of prefabricated houses has been inaugurated by Cy Williams, well-known home builder of Port Washington on Long Island, N. Y. Under the firm name of Cy Williams Fabricators he has developed a low-cost, small unit which is 40 per cent factory fabricated yet goes together much the same as a conventionally-built home. It embodies many refinements of much more expensive homes. These features make it possible for Williams to work with small conventional builders in developing subdivisions within a 200-mile radius of his plant.

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Williams points out that the entire approach to the sale of prefabricated houses has been almost universally predicated on sales of single units in widely scattered locations. He is signing contracts for his houses only with builders who will erect at leat 20 or more in a subdivision where production line techniques can be applied to erection work.

Titled the 1949 Cy Williams Sun Ranch home, the basic unit has two bedrooms, bath, living room and kitchen with dining area on the first floor. A built-in stairway leads to an unfinished attic which can be completed later to add two more bedrooms and a bath. There are seven models ranging in price from \$10,000 to \$12,000, all with garages because Williams believes every house should have one.

ared liver uses ther

THIS new Cy Williams house is the culmination of many years of experience and research on every phase of home building

Truss roof construction transfers the entire load of the roof and expansion attic to outside walls permitting the use of storage walls and light drywall partitions. The two finished bedrooms contain built-in dressers, with mirrors

above, sliding storage wall closets and Air-Flo windows to give maximum privacy and wall space. The built-in-

dressers, storage walls and china closet are all precision

precut in the mill and assembled on the site. Lack of the need for bearing partitions permit latitude in placement of these units to not only vary room sizes but to also vary

The bath is finished in ceramic tile and includes a built-in

DINETTE

16'-0"X8'-10

LIVING ROOM

FIRST FLOOR PLAN NON-BEARING partitions and storage walls permit a wide vari-

ety of arrangements in interior layout and room sizes in the house

clothes hamper. The well-planned U-shaped kitchen is

completely equipped with all appliances including a vent-

32'-8"

2"X8"Ridge

2°X4° Collar Beam 4'0.C.

2½" Conc. Slab

81

Building Felt 4"Hollow Tile Warm, Air Heating Ducts Cinders—

HALF CROSS SECTION

3/2" Plywood Sheathing

2'x6' Rafters 16'0C

16"0.C

Wall Board

I 23.0* Over icture Window

4"X 12" Base

Finish Floor 4

CONSTRUCTION details of the new house. Wall and roof sheath-

ing is plywood. Interior walls are finished with gypsum board

2/32 Insulation Bd

12°Conc. Foundation

Asphalt

1-3

Stud Line

18 X 4 % Bar

18"x 5%" Sill

Grade

2"X 4" Creosoted Sill

36 X8" Anchor Bolts

Shingles

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floor layout.

BED ROOM

BED ROOM 13: 4" x 10: 6"

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AT LEFT is a front view of the Cy Williams \$18,000 Sun Ranch home from which the new low-cost model was adapted. Photo below shows window in rear of the large 1948 model Sun Ranch house

ilating fan. Picture windows in both the kitchen and living room can be placed to best orient the exposure for sunlight and ventilation. A woodburning fireplace is a feature in the living room.

A special combination forced warm air and radiant heating system was designed by John Dillon, noted heating engineer, for this new house. Under the slab floor a complete duct system is laid with 12x12x4-inch terra cotta wall tile. A steel Auto-Heat furnace, oil-fired, forces warm air through this system of ducts and also out through a register placed on one wall of the living room. The living room duct provides needed circulation of air through the living area of the house in winter and at the same time supplements the radiant heat emanating from the duct system under the slab. Another factor involved is the fast reaction to changes in temperature possible with the combination radiant and forced warm air system. The plant is designed to heat

the two additional rooms in the expansion attic after they are completed.

Floors in the house are finished with asphalt tile. Sidewalls and ceilings are insulated and the attached garage has fire-resistant walls and ceiling. Exteriors are finished with sidewall shingles, siding or combinations of both.

The Cy Williams Fabricators are now selling this house to builders in the New York area, who lay the foundations, assemble, erect, landscape and sell the completed houses. One of the economies effected by this system is in lowered handling costs. No complete house is ever shipped in one truckload. There are three separate deliveries at different times. The first consists of sills and basic structural materials. The second consists of panels and structural materials to go with them. The third load is made up of trim and finishing materials, including paint.

Williams is optimistic over his new development because he can gear his operation to fit any price bracket or



INTERIOR of living room in \$18,000 Sun Ranch home looking through large window onto terrace. Note open ceiling with exposed rafters. Walls are gypsum board



PARTIAL view of roof truss arrangement in the new low-cost Sun Ranch home

large Sun smaller or hallway s walls in th in the ne

AT RIGHT

THIS

AT RIGHT is portion of the kitchen in the large Sun Ranch home from which the smaller one was adapted. Below is the hallway showing sliding doors on storage walls in the large house. They are similar in the new low-cost expandable house

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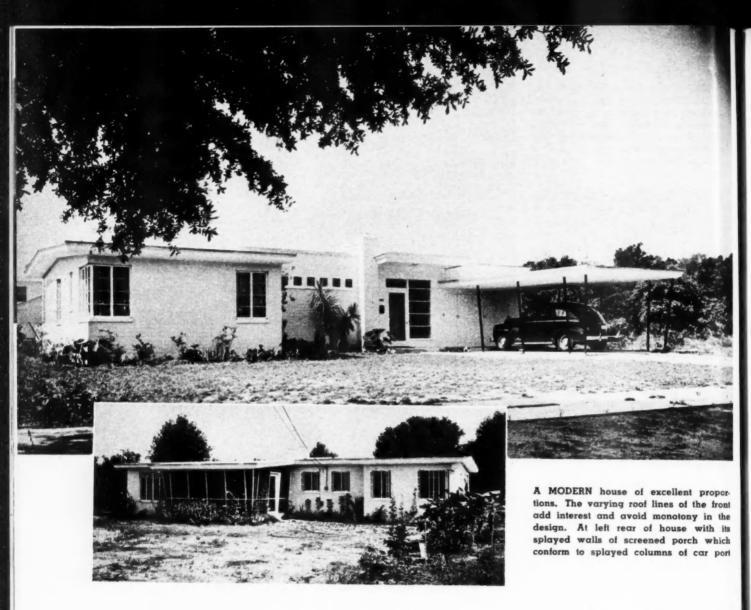
THIS large Sun Ranch house can be tabricated for builders and delivered for erection

market condition. That the house has met approval by the public is apparent by the fact that more than 80 units were sold before the model home was opened to the public in May.

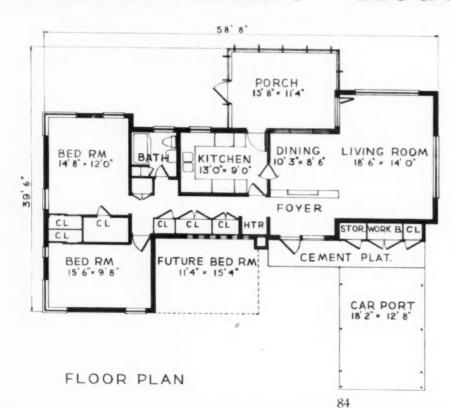
The new Sun Ranch home is an adaptation of the larger and more elaborate home of similar design developed by Williams after the war and marketed on Long Island for around \$18,000.

BRANDED PRODUCTS USED IN 1949 MODEL SUN RANCH HOME

Auto-Heat forced warm air furnace Bendix washer Bradford 30-gallon hot water heater Fasco kitchen ventilating fan Gilmore aluminum foiled cotton insulation Kelvinator electric range Kelvinator refrigerator Ketcham built-in clothes hamper Ketcham bathroom cabinet Kohler plumbing fixtures Lightolier fixtures Minneapolis-Honeywell thermostat Reynolds Type B foil insulation Schlage hardware Standard plumbing fixtures USG gypsum board White-Rogers furnace controls Youngstown kitchen cabinets



Custom-Built - Moderate Cost



THE Florida home of Mr. and Mrs. Clarence A. Petersen of Orlando is the sum total of a group of ideas that could not find proper expression except in a custom-built house. F. Earl DeLoe, A.I.A., has embodied these ideas into a well-planned modern house of generous proportions, at a reasonable cost.

Up until recently the building of custom-built homes has been confined to a relatively small group of builders. The bulk of home building has been carried on by large operators using techniques designed to establish economies on a wide scale. Many of these economies are being introduced into the custom-built home field today, thereby reducing the over-all cost of this type of dwelling.

The home shown has distinct Florida characteristics and yet is adaptable to any climate. Unusual among its features are the car port at front and screened porch at rear with their splayed columns and walls. These are securely imbedded in the

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The present more erly s wool ample type under finish Th built

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concrete slab and beams above. The splayed position of the vertical supports of both car port and porch adds greater rigidity to the structure.

Another interesting feature is the curved stucco cornice capped with a metal drip and a 1x3 wood strip. This is used around entire house except at entrance. This feature has been used successfully on some of DeLoe's current residential work.

The slightly pitched roof does not present any problem in this area any more than it would in a more northerly section. Three inches of mineral wool placed between rafters provides ample barrier from the heat. This type of roof pitch also permits the underside of the rafters to act as the finished ceiling in the various rooms.

The exterior walls of the house are built up of four by eight by sixteen inch concrete blocks except around the entrance. All masonry walls are left exposed in the rooms in which they occur, except bathroom and kitchen. Separating partitions for rooms are lathed and plastered. Entire house is placed upon a concrete mat with exterior walls extending into ground and placed on reinforced concrete footings.

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This house containing 1182 square feet exclusive of screened porch and car port was built for \$11,000. Work was completed in the spring of 1949. Rooms are all generous in size. The living, dining room and front hall are literally one large room being separated only by a storage cabinet between hall and dining room. The kitchen is a model of efficiency with "Kitchen Maid" cabinets used throughout. An abundance of storage closets are provided both inside and out. An innovation is the storage closets and built-in work bench on the closed wall of the car port.

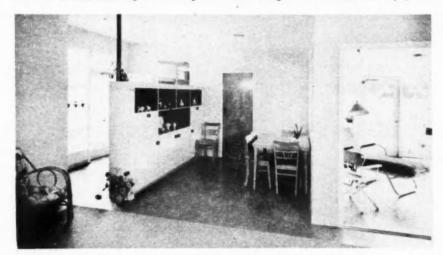
MATERIALS AND EQUIPMENT USED

USG Rocklath plaster base
Barrett 20 year bonded built-up roof
Devoe and Raynolds oil paints
Standard plumbing fixtures
Briggs kitchen sink
Westinghouse hot water heater
Grote medicine cabinet
Kitchen Maid cabinets
Ceramic tile window stools and bathroom floor
Formica counter tops and backsplash
Duo-Therm hot air space heater
Sisalkraft aluminum foil insulation

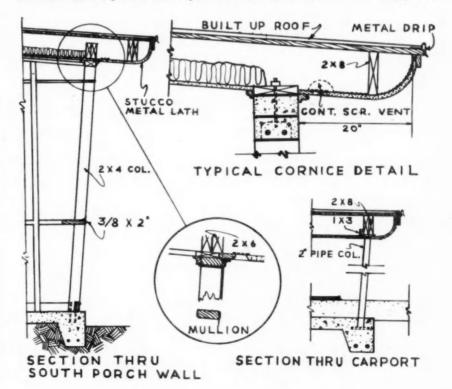
Libby-Owens-Ford glass block



VIEW in kitchen showing the orderly and efficient layout of cabinets and equipment



STORAGE cabinets provide room separation. Walls are of concrete blocks and plaster.



AMERICAN BUILDER

Blueprint House

Number 32

McEnary & Krafft, Architects



A ONE-STORY impression is given to this house by the long, low roof lines and cornice directly above head of windows

Split-Level Offers Economies



N designing Penn Village in Minne-apolis, Minn., of which this house is a part, the architects McEnary & Krafft realized that if the project was to achieve success that economy had to be considered in all phases of its planning.

The split-level or tri-level house appeared to be the answer. In this type of arrangement the greatest amount of livable space in a given square foot area can be obtained. It is the answer to the owner who does not want to sleep on the ground floor and yet does not want a full twostory house. It does away with an excess amount of basement area over and above normal requirements. In addition to providing ideal light and ventilation, it permits greater latitude for the designer in the plan layout.

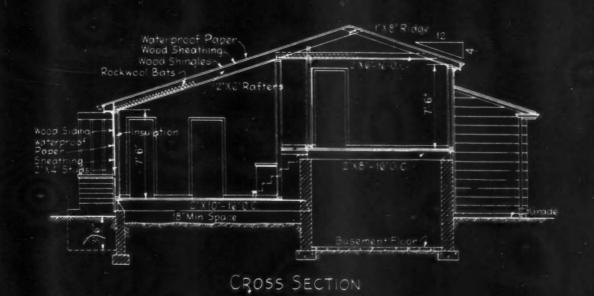
The exterior lines of this house are extremely simple. Its interest lies in the effective fenestration of the front wall in addition to the low, sweeping roof lines. No attempt was made to treat the sides and rear of the house in any other than a practical manner. The concrete wall extends up to the underside of the bedroom floor with wood shakes laid in irregular pattern covering the balance of frame walls.

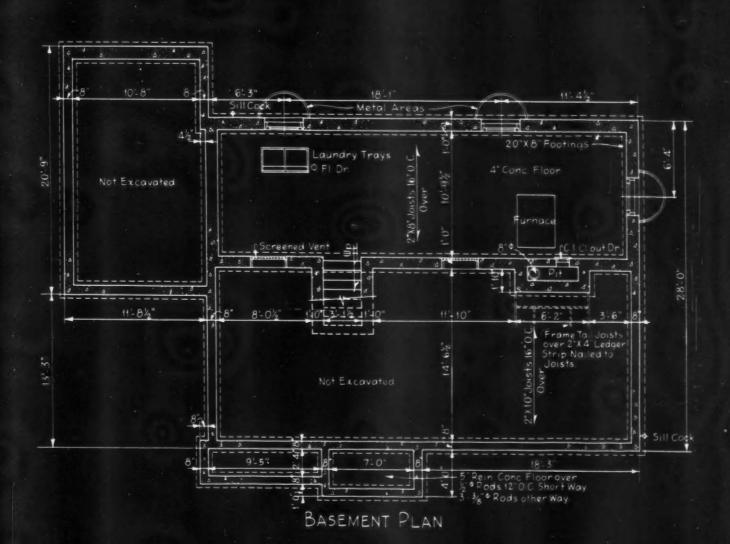
The blueprint drawings indicate a trellis extending from the front entrance door over to the end of living room windows, and also a built-in planting box extending up to the kitchen windows. These items were purposely omitted from the subject house for economy sake. If included they would add greatly to the general appearance of the house.

This house consists of four rooms with a basement over half the area. Two bedrooms and bath are located across the rear at the upper level.



LIVING room ceiling follows slope of roof. Recessed shelves are under bedroom floor





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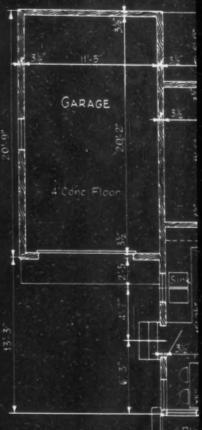
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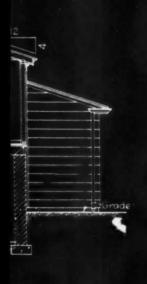
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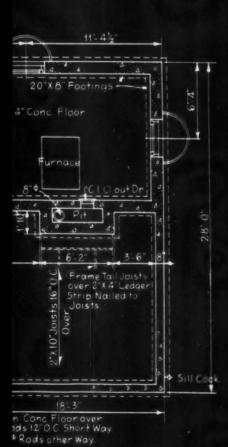
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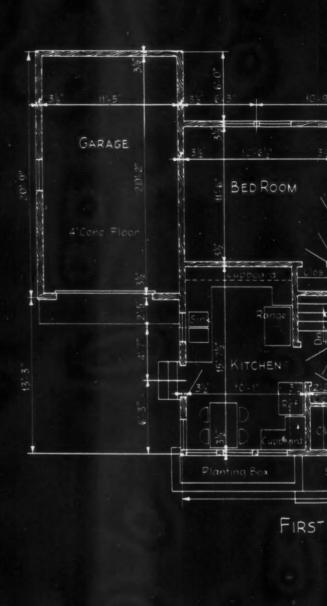
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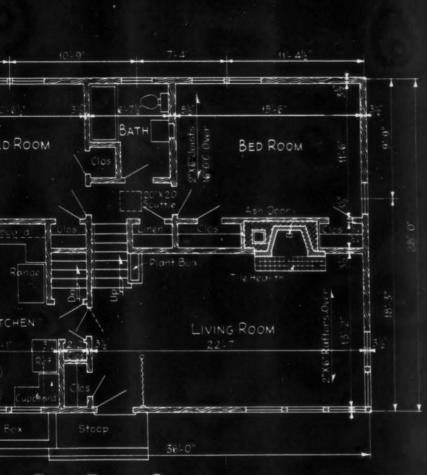








SCALEIN



FIRST FLOOR PLAN



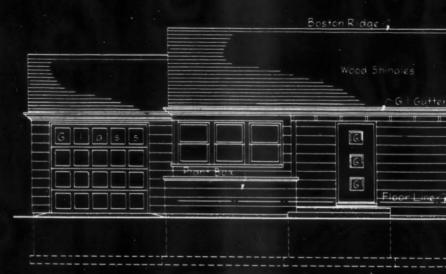
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AMERICAN BUILDER BLUE PRINT SERIES
Designed By

Mc ENARY & KRAFFT

ARCHITECTS,

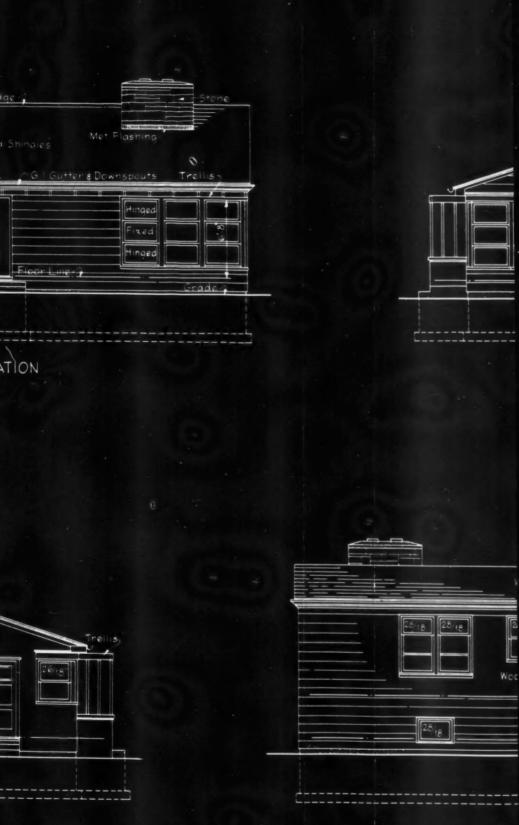
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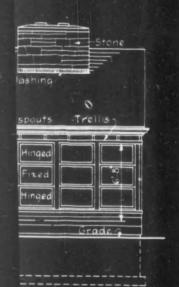
FRONT ELEVATION

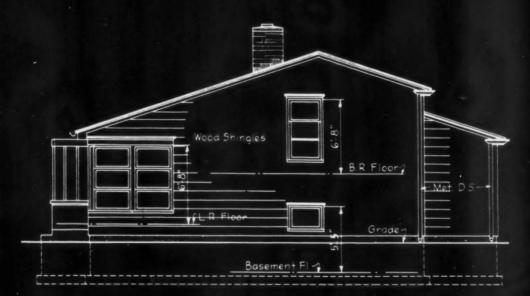


LEFT SIDE ELEVATION

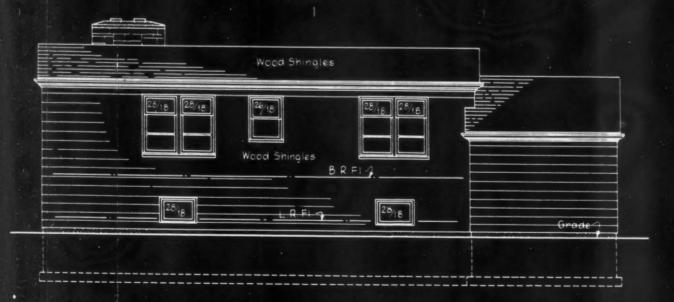


RE





RIGHT SIDE ELEVATION



REAR ELEVATION

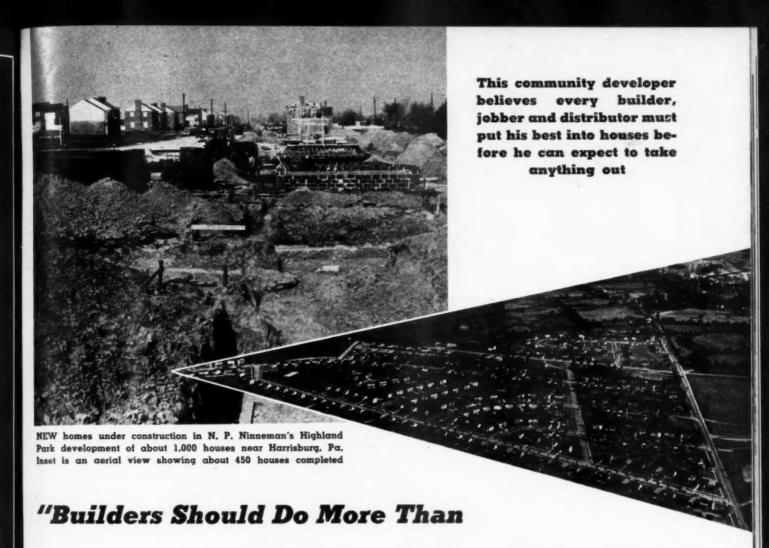
NEW Park Inset

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Produce to Fill an Emergency"

HOME builder has a bigger job A than just producing something to fill an emergency, is the belief of N. P. Ninneman, home builder and developer of Harrisburg, Pa. "I strive to build good, wholesome houses for everyone I can-something the owner can be proud of the day the purchase is made and for many years to come," says Ninneman, who also insists on a minimum down payment of \$1,000, "because anything less than that is dangerous psychologically for the buyer." A good mortgage never hurt anyone, Ninneman believes, but when the equity in a home is too small, the owner is more apt to become discouraged when "rainy days come."

That Ninneman is doing the kind of a job he expresses a desire to accomplish is evidenced by the fact that he lives with his customers in his well-planned, beautifully landscaped Highland Park subdivision on the edge of Harrisburg. At the present time about 450 homes have been completed here and he has land subdivided and improved for about 400 more. Practically all the houses in this development are in

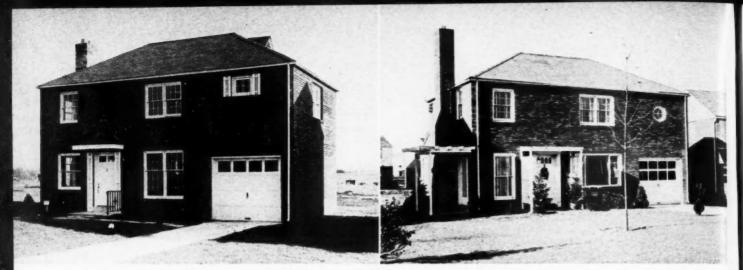
the \$9,450 to \$12,000 price range.

Land was platted by Carl Wild, State College, Pa., an outstanding land planner. Carlton A. Bealor, architect, working with Ninneman, has done most of the designing on the homes. Within a few months plans call for construction work to start on a commercial and recreational center to include a super market, restaurant, drug store, service stores, theatre, bowling alley, library, all surrounded with adequate off-street parking space.

Majority of the houses in this development are two-story square brick veneers leaning toward colonial in design. Because Ninneman believes in bringing as much of the outdoors inside a house as possible, he has varied many of the typical twostory square houses with large window areas, especially on the first floor. Large rooms are also a feature of this builder's houses. Many plus items are included because Ninneman believes in putting as much livability inside as possible. "A builder, as well as the jobber and distributor must put something into a house if he is to take anything out," is the thought expressed by him. Small recessed nooks for whatnots and telephones, deep closets, door chimes, and individual attention to the interior decoration of each house are some of the little things "that go to make a livable house." Ninneman retains a qualified professional interior decorator who consults with him on the decoration of every room in each house. For this reason housewives who look at Ninneman houses know they are quarreling with professionals when they dispute



N. P. NINNEMAN, developer and builder



TWO variations of the large houses in Highland Park subdivision. Different window and entrance treatment are major changes

choices of wallpaper and color schemes.

The first 450 houses in Highland Park are basically brick veneer over concrete blocks for exterior walls. Interiors are furred out and plastered over gypsum board. All floors are hardwood except kitchens and bathrooms where linoleum is used. Bathroom walls are finished with ceramic tile or structural colored glass. Heating systems are gas- or oil-fired forced warm air. Using what is basically one floor plan on most of the two-story houses, good variety in appearance is achieved by clever window treatment plus interesting combinations of brick. stone and siding on the front elevations. There are 34 different types of brick in the houses in Highland Park. Because the builder plans all landscaping and sells the houses with basic shrubs and lawns seeded, more variety can be added to exterior appearance in this manner. Lots vary in size from 55x120 to 75x160.

Ninneman runs his own carpenter, plumbing, masonry, heating, painting, and roofing crews. Gutter work and plastering are sublet. He also operates a power shovel, bull-dozer, two heavy trucks and a precutting shop where much of the dimension lumber is cut to size before it is hauled to the building site. Carpenter crews use powered hand saws to cut material on the site.

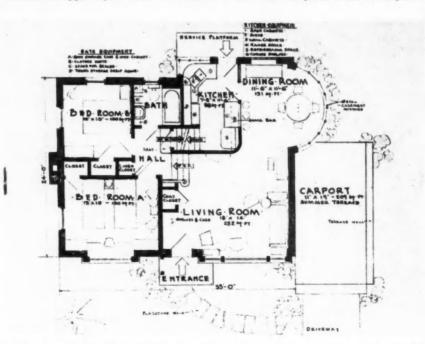
Ninneman is promotion minded and aggressive. He has organized a Highland Park Community Development Club through which he sponsors civic pride, interest in home ownership and good maintenance of property. Each Christmas he stages a Christmas party for children and each summer sponsors a circus. During winter months he supervises style shows for the women and usually has one masquerade for residents of his subdivision.



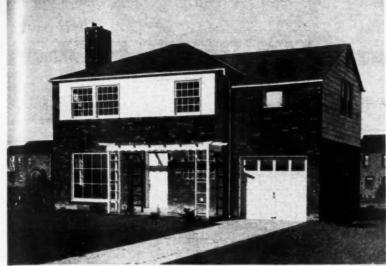
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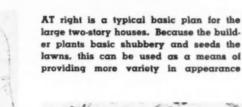
SMALLER staggered plan brick veneer house is one of newest plans in the development

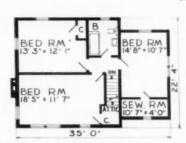


CIRCULAR dining room window is made in masonry wall by using $1\frac{1}{2}$ -inch pipe between regular 18-inch metal casement windows, welded to the pipe to form tight joint

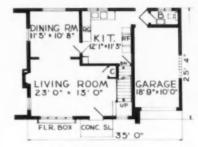


ANOTHER variation in the large two-story house built from a single basic floor plan

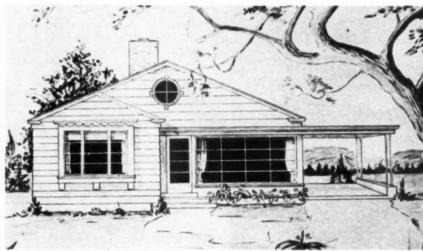




SECOND FLOOR PLAN



FIRST FLOOR PLAN



TYPICAL elevation of the new small house on which Ninneman will now concentrate





SOME floor plans of the new small house. To make it easy for women to visualize placement of furniture in his houses, Ninneman prepared attractive block floor plans with suggested layouts in color

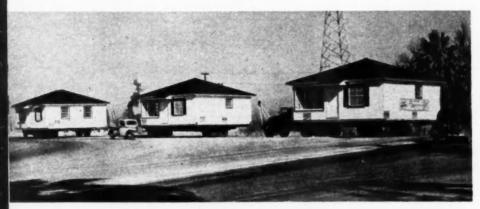
BRANDED PRODUCTS USED IN NINNEMAN HOUSES

Lightolier fixtures

Andersen pressure-seal wood sash Armstrong floor tile in basements Armstrong linoleum Asam's wallpaper Carrara in bathrooms Corbin hardware Congoleum-Nairn linoleum Crawford garage doors Colonial kitchen cabinets Curtis millwork Donley area walls Flintkote asphalt shingles Farboil paint Glen-Gery brick G. E. door chimes Keystone kitchen cabinets Knape & Vogt metal clothes closet bars Lennox forced warm air furnaces

Lucas paint Morrison forced warm air furnaces Morgan millwork Mosaic ceramic tile National ceramic tile NuTone door chimes Pittsburgh glass block Pratt & Lambert paint Standard plumbing fixtures Truscon metal casements USG asphalt shingles Varlar wallpaper Vulcanite asphalt shingles Waldorf 30-gallon automatic hot water heaters Yale hardware York-Shipley forced warm air furnaces

Conventionally Built Homes



STRONGLY framed and braced, these Mobilhomes will arrive at their new sites undamaged. Floor joists are 2x12's, ceiling joists are 2x6 throughout

One home a day is completed by this Calif. firm which is employing new techniques to mass produce factory-made homes



HOUSE is lowered by jacks to foundation



FRONT elevations and roofs are varied

MOMES completed by this Bakersfield, Calif., firm are produced on a 600-foot assembly line at the rate of one per day. There are ten "positions" on the line, and ten houses are under construction at the same time. Beginning with the first step, that of placing and nailing the floor joists, the various positions include all the stages of construction up to the final swish of the painter's brush.

When the tenth house is completely finished it is towed to its destination and set upon a previously prepared foundation. In a few hours the utilities are connected and the house is ready for occupancy. The time consumed—from start to finish—is only ten days. The houses so completed are not prefabricated or different in any way from the conventionally built houses of most tract builders.

At the present time there are in operation or under construction, factories for producing similar houses in San Jose, Palo Alto, Sacramento, Oxnard and San Diego, Calif., one in Phoenix, Ariz., Reno and Las Vegas, Nev., and one in Milwaukee, Wis.

All of these factories are licensees of the Mobilhome Corp. of America whose headquarters and parent plant are in Bakersfield.

Hugh Curran, energetic president of the company, believes that the sheer economics of the procedure will bring about its adoption by hundreds of builders, who, realizing that the industry has switched from a seller's to a buyer's market, are no longer anxious to make a preliminary investment of hundreds of thousands of dollars in land and building operations.

"The average operator gets the cart before the horse," Curran says. "He builds his homes and then puts out his flags, blows his trumpets and hopes he can sell them at a profit. Our procedure is the reverse. We sell them first, and then build them."

The economic picture is this, according to Curran:

A \$500 deposit is taken from the buyer at the time his contract is signed. The house is completed in ten days and as soon as it is placed on the foundation, 80 per cent of the



NATIONALLY advertised appliances are included in well-arranged Mobilhome kitchens. Vertical siding at the entrance enhances appearance of the home, right



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--- From an Assembly Line



"We get two turnovers per month, or 24 per year, or 240 houses per year," says Curran. Because the Mobilhome plant is simplicity itself, the cost of building it, including land and a starting inventory, is seldom as much as \$100,000.

The assembly line consists of two ribbons of concrete placed 18 feet apart on top of which are attached small rollers. Houses are moved on the rollers from one position to another. The line is 600 feet long, leaving room for four-foot platforms between the houses so the workers can get at them. On both sides of the line are platforms for the workers and on one side are storage bins containing the various materials needed.

The first part of the line in Bakersfield is indoors, protected from the weather. Here the men lay inverted steel U-bars over the rollers. Over these bars the foundation timbers, 2x12's, 16 inches on center, are laid. As the joists are being nailed together and braced with steel strapping, the rough plumbing assembly, which has been prefabricated in the plumbers' shed on the property, is put in place. Select 13/16x1½-inch flooring is laid. The last step in position one is the sanding of the floor.

The houses are then pulled by a motor-powered cable to the next position, and the tenth house is ready to be delivered. The superintendent of

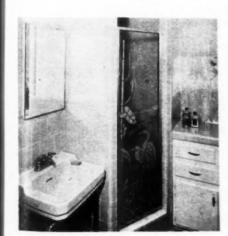


ONE of basic plans used in Mobilhomes

the plant, Jim Bird, says that it requires eternal vigilance to keep all ten positions on schedule, but that he has very little trouble. If someone falls behind he gets more men to that spot in a hurry.

In position two the walls go into place. Alongside of the assembly line, in the covered portion, are jig tables and power saws. As the studs are cut to size they are put into the jigs and nailed together; siding is nailed to the exterior walls while they are flat

(Continued on page 164)



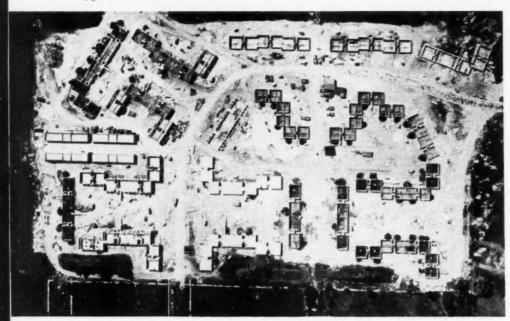


Photo by Suburban Camera Shop, La Grange, Ill.

PROGRESSIVE stages of work are shown in aerial view of Homestead apartment project

O achieve good quality apartments that can be leased at moderate rentals is a significant problem to most builders of multiple dwelling units. The expense involved in the completion of apartments cannot be out of line with future rental returns, yet must represent an amount sufficient to build attractive units with maximum appeal to tenants. It is desirable, too, that enough money be invested to insure site improvement where the buildings are located, and that the project represent adequate land utilization without overcrowding. It is necessary to achieve thisand still make a reasonable profit.

The Homestead Gardens apartments in La Grange Park, Ill., a suburb west of Chicago, represent a model of how one building firm solved these problems.

The \$3,500,000 project nearing completion by William Joern & Sons, consists of 19 two- and three-story buildings, containing 366 four- and five-room units and 176 garages. The buildings occupy 17½ acres and are located in the heart of the small suburb. Designed by Edwin H. Mittlebusher and Howard T. Fisher and Associates, Inc., of Chicago, attractiveness is achieved in the structures through limiting them to simple lines, with emphasis on the entrance motif.

Entranceways of formed concrete extend about 24 inches from the face of the outside wall, and add a pleasing break in what otherwise would be

Apartments for Tomorrow's Town

Quality units for moderate rentals are result of good planning and the "Joern System" of construction

a plain, unbroken wall surface. These entrances are reinforced with steel rods that extend into the main wall. A modern touch is achieved with a splayed surface inside the top and side portions of the extended entrance walls. This modern theme is carried out by the application of glass block above the entranceways.

Apartments are arranged so that large picture windows in living rooms overlook one of five courts around which the 19 buildings are grouped. Each apartment has abundant cross ventilation and sunlight. Four playgrounds are provided. Large parking areas are reached from curvilinear streets. Stoves, refrigerators and steel kitchen cabinets are furnished, and bathrooms are attractively tiled with



FLOOR lath is placed over 8-inch junior beams before a 2½-inch concrete slab is poured. Beams are spaced 2 feet on center

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decorative glass. Rents range from \$75 to \$115 per month. In addition, garages are charged for at the rate of \$8 per month.

Floor construction is of 8-inch steel I-beams supported by $3\frac{1}{2}$ to 5-inch Lally columns resting on piers. All steel is welded. Over the beams, reinforcing wire mesh is laid, which becomes a part of a $2\frac{1}{2}$ -inch concrete slab. Floor covering is linoleum, asphalt or rubber tile laid in mastic.

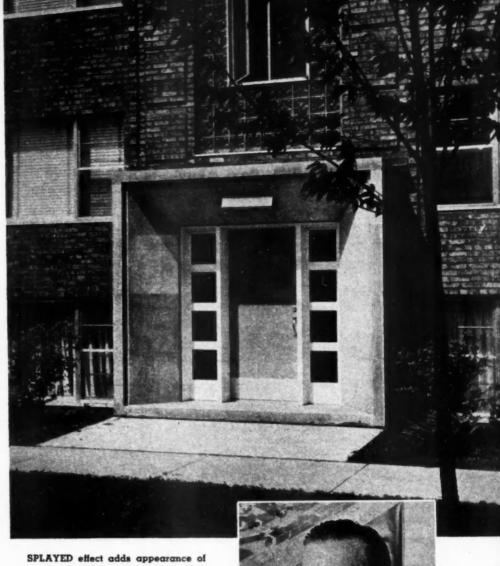
Heat is supplied by four boilers with capacities of 100,000 to 150,000 B.T.U's. Wall convectors provided in each room may be manually regulated by tenants.

Exterior walls of brick backed up with lightweight aggregate concrete blocks, are 12 inches thick up to the second floor levels, and 8 inches thick for floors above that. Interior walls are of a sound-resistant 3-inch gypsum partition tile, furred out and finished with three coats of plaster and painted. Ceilings are perforated gypsum lath and plaster, secured to the I-beams by special clips and channels.

Some apartments and storage rooms are semi-basement. To make sure of adequate drainage for these sections of the buildings, a power lift station with two large pumps is installed. Eight-inch tile delivers waste from the semi-basement apartments to the lift station, where pumps raise it to 21-inch sewer pipes. This is in addition to a conventional system of drainage for the entire project.

The apartments are an example of good land utilization. Since the buildings occupy about one-fifth of the area, the result is a ratio of about 20 families per acre.

This project began when Charles



greater width to entranceways. Hall and recessed entrance lights, automatically controlled, accent an effective use of glass block above entrances

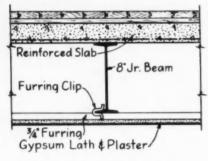
CHARLES JOERN, president of William Joern & Sons, La Grange Park, Ill., whose firm is completing 366-unit apartment development which will cost over \$3,500,000



ONE of the five courts around which the 19 buildings are located. Arrangement permits light and air on both sides of each apartment



JUNIOR I-beams hold lath and plaster by means of furring clips, as shown below



E. Joern, president of the building firm, conducted an extensive land use survey in the Chicago suburb. His survey revealed that more than half of the subdivided parcels zoned for multiple family use in La Grange Park were vacant and tax delinquent. It also showed the need for rental housing for families of average incomes. Before necessary amendments were made to zoning ordinances to permit construction of the apartments, a study was made as to how the best possible utilization of the land could be accomplished. Seward





Mott of the Urban Land Institute in Washington acted as consultant.

Referred to as the "rehabilitation of a shop-worn community," the project has caused local businessmen to believe strongly in the future of the village, now referred to as "Tomorrow's Town." Local business has greatly increased, and Charles Joern expects the population to double. With this in mind, he has completed plans for a shopping center adjacent to Homestead Gardens, and work is scheduled to begin on this project in the near future.

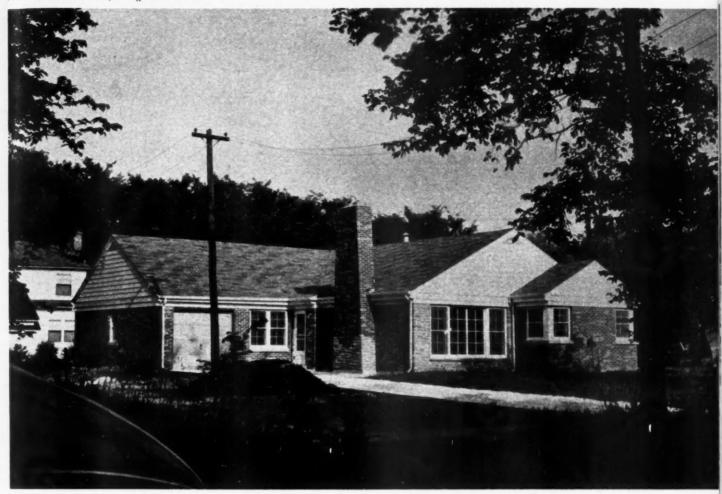




TYPICAL floor plans of Homestead apartments. Partition walls are not load-bearing

BRANDED PRODUCTS USED

Amtico rubber tile Armstrong linoleum Carey treated brick Carrara structural glass Crane bathroom fixtures Cupples A-200 Series windows Cyclotherm boilers Detroit jewel stoves Frigidaire refrigerators Haydite building blocks Jones & Laughlin Junior beams Miami-Carey medicine cabinets St. Charles kitchen cabinets Pittsburgh Corning glass blocks Pratt & Lambert paint Steeltex wire lath Tile-Tex asphalt tile Tuttle & Bailey convectors Van Esso light fixtures Johns-Manville asphalt shingles



COMBINATION of brick and siding accents horizontal lines of this conventionally built home. Price, \$16,000, without lot.

Quality Homes-

Ready for Occupancy in 60 Days



From the time building permit is given until completion, firm keeps daily running cost and work analysis on each house

WELL-BUILT conventional homes, which have established a good reputation for the 35-year-old Kronenberg construction firm of Hinsdale, Ill., are regularly completed within 60 days after issuance of a building permit. Though increased speed has been added in recent years to meet demand, the quality of the homes has not been sacrificed. A substantial list of people are always waiting to buy the homes—though the firm does not advertise.

Speed is the result of close co-ordination of trades, and not the result of a change of building methods. The Kronenberg firm co-ordinates work through a running cost and work analysis which acts as a progress indicator. The analysis consists of a simplified card file system. Each foreman has a card for every workman responsible to him, and he turns his cards over to the office at the end of the week. The number of hours worked per day on a job is kept on the card. By cross-checking work progress on the homes with the number of hours worked, it can quickly be determined whether or not the work is progressing accord-



KRONENBERG firm seldom builds more than six speculative homes on adjacent lots, such as these which sold for about \$16.000.

ing to a well planned work schedule.

A similar card system is kept for all materials purchased. Without thumbing through stacks of invoices, the office can check costs on a given home in a few seconds by using the file. If either work progress or materials costs get out of line, the firm knows it immediately, and adjustments are just as quickly made.

BRANDED PRODUCTS USED

Bird 210-pound thick butt asphalt shingles

Chromite tile in bathrooms Crane plumbing fixtures

Kohler of Kohler plumbing fixtures

National hardware

Paine Rezo doors

Pratt & Lambert paints

Sager metal weather stripping and

sash balances

Schlage hardware

Sherwin-Williams paints

Tile-Tex asphalt tile

Triad boilers and baseboard radiation

USG Sheetrock and Gyplap

Yale & Towne Hardware

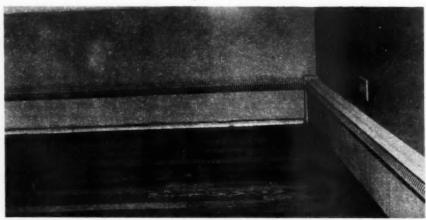
The father-son Kronenberg team prefers to have about 12 to 15 homes under construction at once: half contract jobs, half speculative. This way it is possible to keep regular crews more steadily employed. Last year, they completed 83 homes, and expect to equal that number this year.

Homes built speculatively range in price from \$12,000 to \$16,000. Footings, 10x20 inches, are placed four feet below grade. One-half inch rigid insulation is placed between 4-inch concrete slab floors and foundation walls. Thirty-pound felt is laid between the slab and a 24-inch layer of mill slag.

Two by four sleepers, 16 inches on

center, are secured to the slab with metal anchors to provide air space between the slab and subflooring. Subflooring is diagonal.

Conventional 2x4 stud and rafter construction is used in all the homes. Exterior walls of speculative houses are pressed brick veneer; two layers of 3/8-inch dry wall are used on interiors. The first layer is placed horizontally and nailed, and the second layer is secured to the first with mastic. This leaves a clean inside surface free of nail holes. Aluminum foil backing on the first layer of dry wall provides both a vapor barrier and insulation for the walls. Ceilings are insulated with 4 inches of mineral



OAK floors, and baseboard heating systems are standard in Kronenberg homes

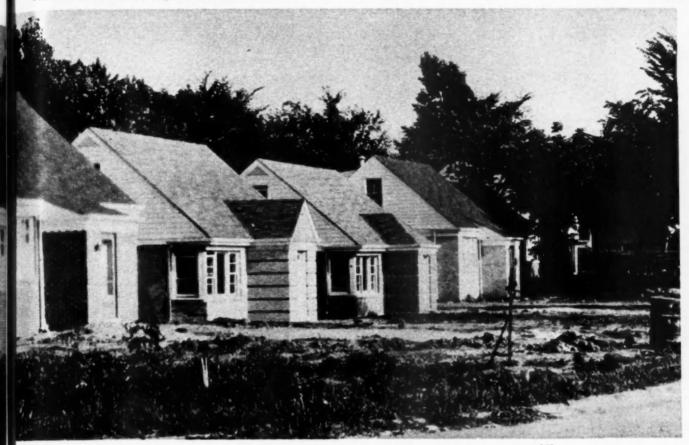
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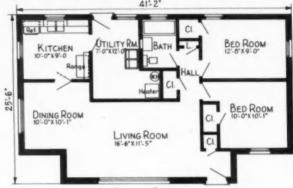
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er gs wool. Attractive, continuous baseboard hot water convectors are provided in all the rooms, and heat is supplied by 95,000 to 120,000 B.T.U. gas- or oil-fired hot water units.

The Kronenberg builders attempt to place clients in homes where the environment is best suited to them, and where they are likely to be the most contented. It is partially for this reason that they buy lots, whenever possible, in a radius of 20 miles around Hinsdale. "We feel that we can do much to control the future of a home owner, and that we have a personal obligation to him," Robert Kronenberg states. "And for that reason we give a lot of thought to each family who seeks to buy one of our homes."

Satisfied customers, who are enthusiastic salesmen for Kronenberg homes, prove the value of their policy. Because of their enthusiasm and despite a highly accelerated work program, the Kronenberg firm finds the demand for their homes exceeds the supply.



FLOOR PLAN

BASIC floor plan used in Kronenberg homes built on speculation. Lot sizes vary from 50x125 to 75x260 feet for this type of dwelling and for houses built on contract. Asphalt tile in kitchens and baths, 210-pound asphalt shingles for roof coverings, double hung sash, kitchen cabinets made in firm's shop, and double compartment sinks are part of the standard specifications for the speculative homes







PRESENT building containing office and warehouse has been extended as need arises

Small Town Dealer Develops Profitable Farm Trade

Year 'round market created by high farm income assures retail lumber dealer steady cash-and-carry business

Henry J. Munnerlyn, Bennettsville, S.C.

HENRY J. MUNNERLYN of the Munnerlyn Lumber Co., Bennettsville, S. C., who classifies himself as a small town lumber dealer, has developed farm trade in his area to the point where 50 per cent of his business is done through or with the farmer.

This dealer has found farm trade not only profitable but also easy to service with assurance of a minimum of complaints. The farmer as a rule drives into the lumber yard, orders and picks up his material in a truck and drives away. Contrast this with other types of service where material has to be delivered to the site. Business with the farmer is continuous because of his constant need for materials for the many repair jobs requiring his attention. The demand on the lumber dealer is greatest after the harvest when much of the repair work is done. There is no need for the dealer to give special discounts to discourage delinquent accounts because with the farmer it is an "over-thecounter" cash deal.

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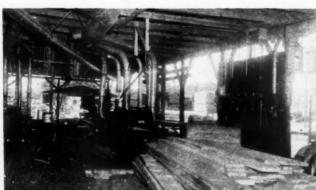
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In discussing the status of the farmer, Munnerlyn said that it takes a smaller amount of the farmer's produce today to obtain the goods and services that he needs than it did in prewar days. He sells fewer pounds of cotton to obtain a new barn; it takes less corn to make the payments



LUMBER is prepared through a series of planing operations



DISPLAY room exhibits all building materials and equipment

on his mortgage, and one steer will pay for more building material than it would have done in 1940. Agriculture today has gross assets of one hundred and twenty-two billion dollars, making it America's number-one industry. The farmers have over twenty-two billion dollars in ready cash, bank deposits, currency, government bonds, and like investments. They can spend this without touching current income. They can well afford to build and remodel.

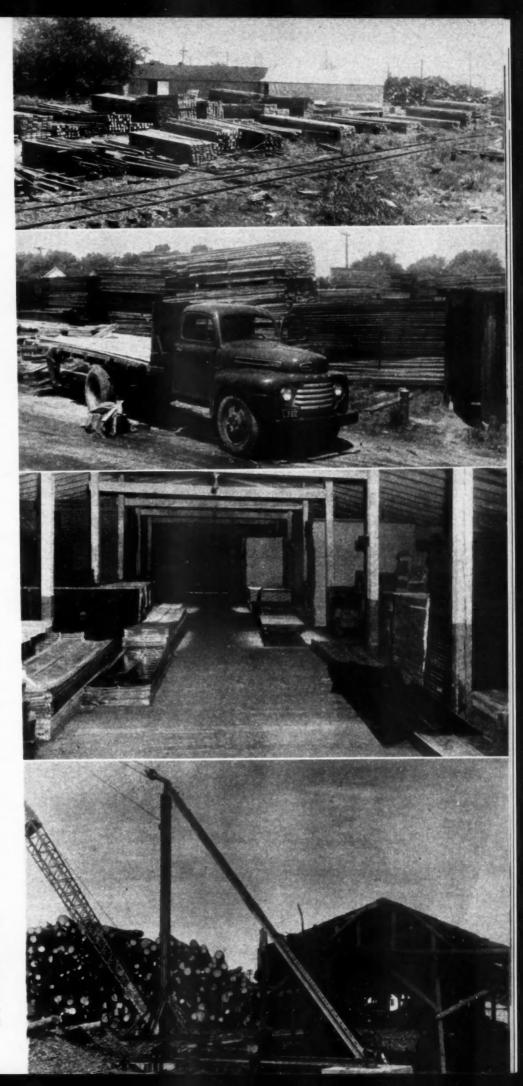
Munnerlyn operates within a 30 mile radius. This includes the town of Bennettsville. He has a potential market which touches approximately 30,000 people, the town of Bennettsville having only 7,000 people. To keep in touch with the market this dealer carries on five minute news broadcasts through the local radio station. Reflector road signs are maintained on the highways and a column in the local newspaper called Timely News, give information about building activities in the area.

In addition to being a lumber dealer, Munnerlyn carries on a good sized building business. Houses are built for sale or are custom-built according to the buyer's plans. Munnerlyn got into building because there were no general contractors in Bennettsville. A one-stop service has been developed as a result. The prospective home owner can make arrangements for the site, plans, financing and building all in one place, and by the same company. Masons, carpenters and plasterers are carried on the payroll; the other trades are sublet. Houses built for sale are kept under \$10,000. The demand is concentrated in this bracket.

A reroofing and siding crew of five men are maintained regularly. The bulk of the work is done for the farmer and it constitutes a profitable part of the lumber dealer's business.

A ninety day inventory of materials is kept on hand at all times. This includes everything for the building from cement, steel angles and beams, through to finished millwork. Weatherboarding, flooring and sheathing are arranged in packaged units of 1000 foot lots for easy handling. These are moved from stack to truck in one operation by use of an autoloader.

A LARGE part of ten acres that comprise the material yard is devoted to the storage of rough and finished lumber. Delivery trucks kept in immaculate condition are a "must" with Munnerlyn. One of the numerous storage sheds where large supply of Sheetrock, siding, etc., are kept. Logs fresh from forests are stored prior to being run through company sawmill





BUILT for comfort, this home offers the convenience of outdoor living in warm months and even-heated rooms when it's cold

Demonstration Home

Features Radiant Heat

Basementless ranch style home incorporates practical construction and design features that make it widely acceptable

LOW, graceful lines of roof makes ranch style highly adaptable to many landscaping treatments. Roof covering is wood shingles



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THIS home combines certain features including design that are popular and adaptable to any climate in the United States.

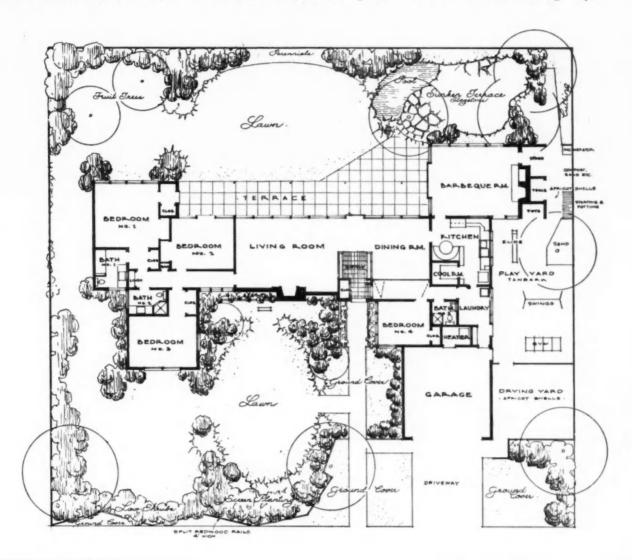
Designed and built as a demonstration home by Architect Leslie I. Nichols and the Pasetta Construction Co., San Jose, Calif., the house is well-insulated and incorporates a radiant heating system that would well suffice in severe cold weather. The home was sold before it was completed, but for a while the buyer kept it open to demonstrate to Californians the advantages of a modern radiant heating system and other conveniences

available in ranch style dwellings.

Pasetta, who is very enthusiastic about radiant heating, said that in November they made temperature readings in the afternoon when it was 68 degrees F. outside and 70 inside. Later at night, he said, the temperature dropped to 38 degrees outside but the inside temperature did not vary more than two degrees from 70. The heating system installed provides three degrees of hot water: hot for the radiant heating; hotter for the bathroom water supply, and hottest for the laundry.

Eight inches of crushed rock were laid first in constructing the concrete slab floor. A mesh was placed over the rock, then the first portion of concrete was poured. Two layers of membrane, the top layer painted with two coats of aluminum paint, were used above the first thickness of concrete. Copper tubes were installed, then the final portion of the slab was poured. Ceiling of the home was insulated with mineral wool.

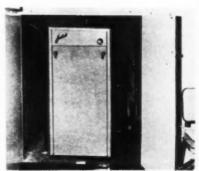
The widely popular ranch style design offers simple, graceful lines that make many landscaping treatments possible. Large window areas, plus the spacious patio in the rear makes outdoor living easy.

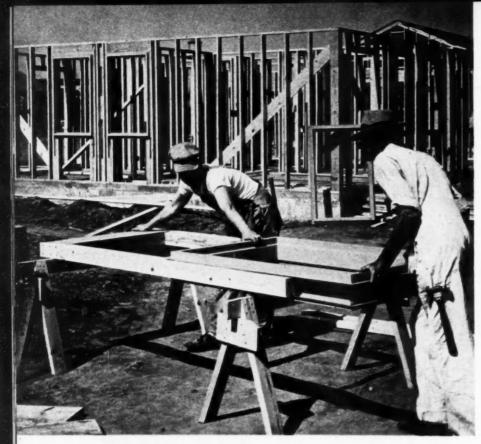


BRANDED PRODUCTS USED

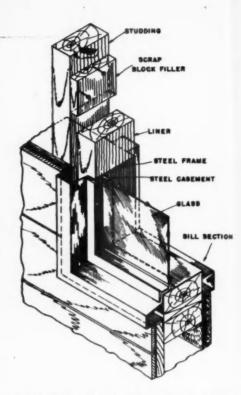
Bendix laundry equipment
Crane bathroom fixtures
Day & Night hot water heater
Deep freeze home freezer
Frigidaire refrigerator
Frigidaire range
General Electric dishwasher and disposall
Janitrol radiant heating system
Johns-Manville Rock wool insulation
Libby-Owens-Ford glass and mirrors
Permutit water softener
Pryne & Co. fan

FLOOR plan above shows well integrated service area, and an achievement of spaciousness in the living-dining room combination. Right, Janitrol radiant heating unit used in home









PARTIAL isometric drawing of frame in wall

New Metal Window Frame Helps Hold

With the use of new ideas and latest building techniques, private builders make possible proper housing for low income group



JETCRETE operator applying final stucco over base of Steeltex reinforcing mesh

PRODUCING a housing unit that will rent for an amount consistent with the individual's income, regardless of whether he is in the low income bracket or otherwise, is a problem. This situation has been studied by builders at great length and much progress made.

It remained for Sam E. Russell, a realtor-builder of Birmingham, Ala. and his building superintendent, M. R. Christian, to put on the cap stone with a well thought out and executed contribution to low-cost housing. This is in the form of a new type metal window surround called One-Der-Window.

These windows are being used extensively in the construction of a 608 duplex rental project for negroes. This development of 82 buildings (164 living units) called Hudson Park is in the heart of Birmingham. The base rental for each unit, without refrigerator, is \$35.00 per month. The sale price of the individual building containing two rental units is \$7,850 exclusive of stove or refrigerator. Each building is situated on a

lot 60 feet wide by 120 feet deep.

In this project One-Der-Windows are used exclusively in frame walls. They are especially designed to slide into standard stud framing before erection. The rough framing for a window opening can be set up on several saw horses and the metal unit slid into place. The whole unit can be placed in the wall assembly in a matter of minutes. The steel sash window is then quickly fastened in position against the reveal of the metal surround. This metal surround or One-Der-Window, as it is called, eliminates the need of a finished wood frame, stops, sill and casings both inside and out, thus saving from \$5.00 to \$9.50 per opening. The saving of erection time with this unit more than offsets its additional cost. It is painted at the time of manufacture and will withstand rough handling.

Another economy feature was employed in the exterior wall construction of these units. Steel-Tex reinforcing mesh was applied directly to the studs on the outside with rock lath on inside. Two coats of Jetcrete

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Costs Down

stucco 1/8 inch thick are applied to the exterior with a pressure gun. One coat of 1/4 inch thick Jetcrete is applied to the Rocklath.

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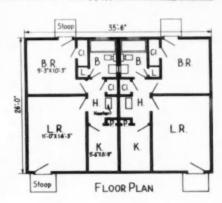
Houses are placed on a 4 inch thick concrete slab, reinforced around the perimeter and under bearing partitions. The 12 inch high basement wall is placed upon a 16x18 inch concrete footing. Exterior walls are framed on the ground and tilted in position. Roof is conventional framing.

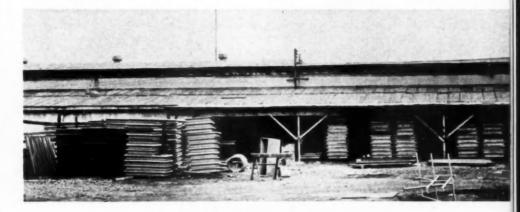
While the houses were produced for a minimum cost, there was no skimping in the character of the materials used. Nationally advertised products such as Carey asphalt shingles, Standard plumbing fixtures, Rheems hot water heaters and 50,000 B.T.U. console space heaters, together with Fenestra steel sash and Lawson steel medicine cabinets are included. The concrete floor slab is exposed and the top surface is finished with Truscon floor sealer.

The plan of a rental unit contains living room, bedroom, bathroom and kitchen, together with three closets and a small pantry.

A STREET of completed homes shown above. Variations in the houses occur in the color of stucco and roof shingles. Construction of concrete mat in foreground. Plumbing assembly is in a direct line with fixtures of each unit placed back-to-back

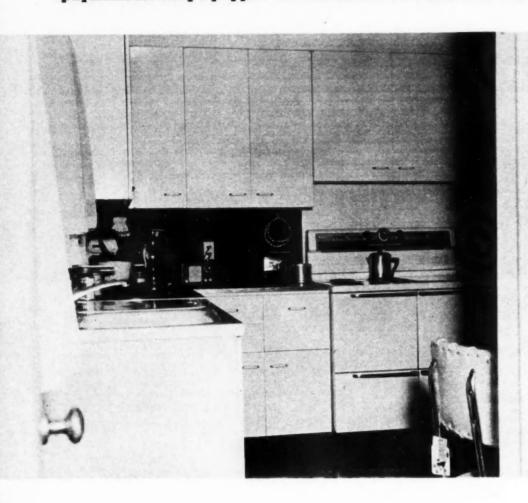
FLOOR plan of two unit duplex shown at right. Warehouse below shows large stock pile of new metal "One-Der-Window" frames ready for national distribution





Homes find ready sale when builder offers good design, sound construction and the inducement of easy payments for fully equipped

payments for fully equipped PACKAGED KITCHENS



PACKAGED kitchen equipment in the Russell Stapp homes, South Bend, Ind., includes ranges, refrigerators, dishwashers, waste disposers, and exhaust fans. Stapp reports enthusiastic home buyer acceptance of the plan which permits payment of appliances to be spread over long period

WITH all due credit to male home buyers, it is an established truism that most homes are actually purchased or rejected by the housewife. Her discerning inspection tabulates the appointments of each room when she visits a home for sale; she weighs all the points, and delivers a final ultimatum that usually means sale or no sale.

It is also true that a well-arranged kitchen with much eye-appeal can more quickly add up the score in favor of a home sale than any other room in the house. And for this reason, many builders, sensing a growing buyer's market, are placing increasing emphasis on the kitchen to make it as attractive as possible.

Currently, one of the more popular ways to accent this room is through equipping it with nationally known appliances, as this firm in South Bend, Ind., is doing. The firm, The Russell Stapp Co., first offers good design and sound construction in their homes in all price ranges. Then they make the kitchen the focal point of interest by including a dishwasher, garbage disposer, kitchen exhaust fan, range, refrigerator, steel kitchen cabinets—all offered on a plan which enables home buyers to spread payments for the appliances over a period of several years. The total cost, which

amounts to no more than a few cents a day to the home buyer, is included with the regular mortgage. The kitchens, as well as all other rooms in the Stapp homes, are painted according to colors selected by the owner.

H. Russell Stapp, architect, and president of the firm, together with his son-in-law, Wilbur M. Allison, secretary, build about 25 large and four small homes a year. All are equipped with packaged kitchens, and Allison reports that they are one of the outstanding selling features of the dwellings. The homes range in price from \$14,000 to \$25,000.

Other attractive features included in the price of the homes are electric water heaters, built-in bathroom heaters and fans, and service on the completed home for one year after occupancy. All one and one-half story houses have expandable attics and full basements with seven feet six inches headroom.

Foundations (10-inch for masonry or 8-inch for frame walls) are poured reinforced concrete. Conventional framing, 16 inches on center, is used throughout. Roof covering is 210-pound thick butt asphalt shingles and 15-pound felt.

No two homes are alike, and exterior materials as well as design vary. Walls on most Stapp houses are 19.

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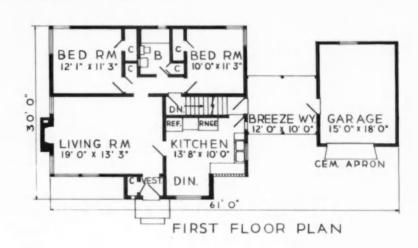


LOWER priced Stapp home has expandable attic, full basement GARAGE of \$16,000 home has extra storage space





FIRST FLOOR PLAN





FRONT elevations and roof lines are changed so that no two Stapp higher cost homes are alike. All have packaged kitchens



GLASS block is effectively used at entrance of this Stapp low-cost home to provide natural lighting in vestibule Amer

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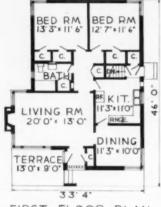
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COMPARATIVELY low roof with enough overhang to protect picture window from sun adds charm to well-built small home. Large Stapp home built on contract is shown below

FIRST FLOOR PLAN

insulated with double foil insulation and a vaporized sheathing. Three-inch cotton batts are used in the ceilings. Interior walls and ceilings are given three coats of plaster. Heat is supplied by oil-fired, forced warm air units. Exhaust fans are provided in attics as well as in kitchens.

Stapp started taking advantage of the packaged kitchen plan more than two years ago. Last year, according to Allison, the firm's Blanding's Dream House incorporating the packaged kitchen plan proved to be their largest promotion.



BRANDED PRODUCTS USED

Armstrong rubber tile
Celotex vaporized sheath-

Electromode bathroom heaters

General Electric forced warm air heating units General Electric water

heaters
General Electric heating

equipment

Hope windows Infra reflective insulation

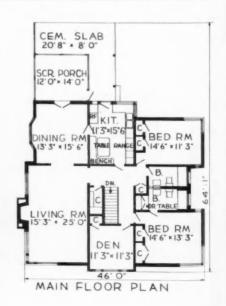
Mailo built-in mail boxes

Mirro-glo medicine

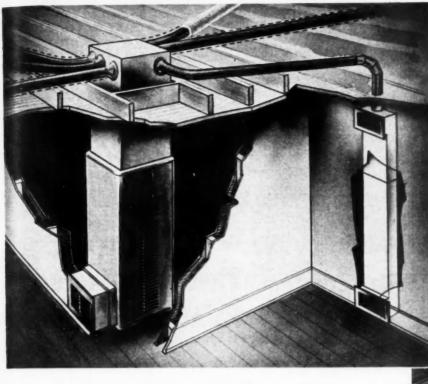
cabinets Speakman shower heads

St. Charles kitchen cabinets

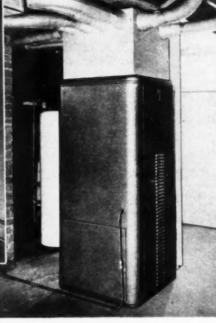




vide



WARM air from furnace and air from the room is blended in chamber before entering living area. System is offered by The Coleman Co., Inc.



NEW SYSTEM

Of Forced Warm Air Heating

A COMPACT forced warm air heating unit just placed on the market supplies "blended" heat in each room by mixing room air with incoming warm air from the furnace.

Fan driven warm air, supplied at high velocity through 3½-inch, round pipes, passes into air chambers installed vertically in the walls. The larger chambers, 51 to 86 inches long and about 12 inches wide, have one grille located just above the baseboard and one about two feet below the ceiling level. As warm air is forced into the chamber, it passes behind the first grille, drawing in air from the room. Warm air from the furnace and air from the room are mixed and then forced into the room through the outlet grille. The same principle applies for smaller blenders.

One blender unit, 28 inches high, can be recessed in a wall. Another, designed for use in existing homes, is in an all-metal cabinet 32 inches in height. It sets against the wall. No wall cutting is required. Each blender unit may be adjusted to control the amount of mixed air entering the room, and adjustments will not unbalance the system, which is operated by automatic room temperature controls.

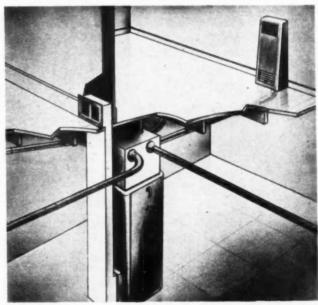
Heated air from the furnace is forced through the pipes at temperatures up to 195 degrees. Blended air has a temperature of 135 degrees and a velocity of 300 feet per minute. Each hot air run will deliver up to 10,000 B.T.U.'s per hour.

In a house where the furnace is on the first floor, the blender is installed upside-down. In this case the small pipes run above the ceiling, then down through the wall to the blender. Room air is taken from around the ceiling level, forced down and discharged at the floor level. Blenders are concealed in the wall. Where the furnace is installed in the basement, air pipes run

through the wall between the studs to the blender.

Each of the heating systems incorporates a return air duct to the furnace. Normally the location of the return air grille is in the hallway. It may be installed in any inconspicuous and readily accessible place in the house, however, providing there is a free flow of air to it from most of the rooms.

Location of the blenders depends upon the shape of the room, total heat loss, exposed wall with greatest heat loss, and doors swinging into the room.



SUPPLY ducts of new Coleman heating system are 3½ inches in diameter. Compact furnace occupies little floor space



Engineered House Construction

Part VIII There Is a Correct Paint for the Job

A growing recognition of the seriousness of surface protection has led to specialization and the development of a wide variety of paints designed to meet every condition on a job

THE past quarter century has marked continuous advances in the paint field — advances which have completely changed the thinking of both the industrialist and the home owner. A growing recognition of the seriousness of surface protection has led to specialization and an awareness that it is good economy to use "the correct paint for the job."

As everyone knows, there are only two reasons for painting any kind of surface, whether indoors or out.

Those two reasons are: To provide protection and beauty. Only to the degree that any paint satisfies both these requirements can it be called good, bad, or indifferent—expensive or economical. Good paint and good application always pay for themselves. For people judge by what they see, and what they see first on most structures is paint—a thin covering perhaps one one-hundredth of an inch thick.

Selecting the proper paint is always a matter of compromise. There is no best paint for all purposes but there is a best type of paint for each set of conditions. Cost, exposure, required durability, frequency of cleaning and of repainting, all influence the selection of the paint to be used. Only an expert can gauge the precise formula

to meet the requirements of varying combinations of these factors; and even then final results depend upon the skill of the painter.

That is why an understanding of paints and their uses is so difficult. Reputable manufacturers can do no more than guarantee the composition of the paints they sell, the purity of the materials they offer, and give recommendations or instructions for their use. They cannot guarantee results. Only a master painter is qualified to weigh all factors and to change his formulas and procedure to meet them.

Good quality paints are those containing pigments and vehicles which are adapted to the conditions of a particular job and which leave a surface that can be readily repainted. For some jobs these paints may cost little; for others, they may be expensive.

Poor quality paints contain pigment and vehicles which are not adapted to the conditions of the job, or which leave a surface that requires costly preparation for repainting. A poor paint contains useless fillers as substitutes for pigments of effective hiding power, with water, cheap mineral spirits and low grade oils used instead of a durable binder, turpentine and acceptable driers. No matter what is

paid for such paints, they are extravagantly expensive. Their use on a project may have dire effects on a builder's reputation.

As a case in point, during the competitive days of the 1930's, a development company built several hundred homes, practically all of them of wood construction, using millions of feet of lumber. Only beautiful homes of colonial and modern designs were erected. Great care was taken to make the community homes attractive. However, paint on the homes began to fail within nine months after application. Immediately sales stopped and were not resumed until after the developing company spent thousands of dollars removing the old paint and repainting the homes with a quality product. In this case the impression had been created that the lumber in the homes was of a poor grade, and the homes themselves of shoddy construction.

Initial cost must be balanced against durability, appearance, cost of repainting and similar factors. In leased or rented buildings, exteriors and public interior surfaces must look their best and the expense and annoyance of frequent repainting must be avoided. Here, long life paints are required. A durable, washable finish

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American Builder, August 1949.

is also usually more desirable in tenant space and apartments, because a long life paint is less expensive in the long run than a paint which must be frequently re-applied. If frequent redecoration is to be required, a lowcost paint will serve the purpose. However, a durable paint should be used as a priming coat so that the expense of surface preparation for repaints will be minimized. In the choice of paint, preparation for repaint is an essential factor. If a paint leaves a surface that can be readily repainted, heavy preparation costs will be saved. If it fails by cracking, scaling, or peeling, so that it must be scraped or burned off before repainting, it will prove excessively high in cost, regardless of its price. In general, the labor cost in painting is two to three times the cost of materials. Thus a 10 per cent variation in the price of materials will change the total cost of a job by only a small percentage.

Today, the paint business has become a chemical business, and many of the problems which faced the early paint industry are rapidly being resolved in the laboratory. The development of zinc oxide, titanium dioxide and other titanium pigments and the development of alkyd resins, dehydrated castor oil and the myriad of new synthetic vehicles have made it possible to produce paints of superior durability, hideability, and colorholding qualities. In contrast to the early paints that were a combination of a single pigment (white lead) in a single vehicle (raw linseed oil), the 1949 formula involves a number of materials, each selected to contribute some feature to the final paint just as the different foods for each meal combine to make up a balanced diet.

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Thus, there are paints available that are fume-resistant (will not discolor where sulphurous gases are present); that contain a fungicide that definitely resists mildew; that include DDT as a protection against insects. There are coatings with high rubber content for application over masonry, concrete and metal surfaces. An all purpose varnish has been developed that is applicable to exteriors as well as to floors and furniture of all kinds, and is practically immune to ammonia, soap, mild alkali, ink, iodine, fruit stains, and the like. There are two-coat paints systems, and, only recently put on the market, a one coat paint for exteriors. This latter paint, however, is designed primarily for use over old painted surfaces and is not recommended for application to new wood.

The two-coat system of painting new wood was originated by old time painters to meet competition. DeSheathing Paper
Sheathing Ploater
Ploater
Ploater

Vapor

Vapor

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Blister
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Inside
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LEFT, conventional frame wall without vapor barrier. Vapor from interior penetrates wall, condenses on cold back of siding and works way behind paint to cause blistering. Conventional frame wall with moisture barrier shown at right

spite the superiority of the three coat system, the practice of two coat painting is becoming more popular. To be successful, however, a two-coat job must: (1) Keep most of the oil in the paint film instead of allowing it to penetrate into the wood. (2) Keep the film thicker than in three coat work by more moderate brushing out.

To achieve these objectives, special attention must be paid to the prime coat. Primers for two-coat work on new wood require four distinct properties:

1. Controlled Penetration-To pre-

vent most of the oil in the paint from sinking into the bare wood. Excessive penetration robs the paint film of too much oil and leaves it weak and thin.

 Pigment Concentration — The ratio of the pigment to the nonvolatile parts of the vehicle should be high if the paint is to wear satisfactorily.

 Quick Drying—The first coat must dry rapidly to help check penetration and secure a thick film. Also, to insure thorough drying of the unusually thick coat.

 Rate of Spread—The paint must be applied with more moderate brushing out to obtain the proper thickness for durability and good hiding.

While other features might be added, these are the essential ones.

How Paint Holds to Wood

To understand how paint holds to wood, the structure of the wood itself must be understood. Wood consists of millions of tiny cells, or hollow tubes (about 10,000,000 to the cubic inch in soft wood). When wood is sawed into lumber and planed, the surface cells are partly opened up. This provides anchorage for the priming coat of the paint. Summerwood is about three times as dense as springwood, and paint has more difficulty in penetrating its smaller pores. This accounts for the fact that paint wears off summerwood more rapidly than springwood.

It also accounts for the uneven expansion and contraction of wood under moist conditions. Just as other

(Continued on page 170)



THIS cinder block test house finished with two coats of grout and two coats of rubber base paint showed no evidence of leakage after six years of service. Tests conducted by National Bureau of Standards were also made upon cinder block retaining wall

DEALER REVIEW



NEWS OF NRLDA AND STATE AND REGIONAL ASSOCIATIONS

Dates Announced for 1950 State And Regional Dealer Conventions

ANNOUNCEMENT has been made by regional and state dealer associations of the dates for their annual conventions in 1950.

Many of the convention sessions in 1949 set attendance records, and the interest in industry affairs was generally higher than in past years. It is anticipated by association officials that the high interest will be maintained, with registration continuing the trend of increase which it has shown for several seasons.

General business features of the annual conclaves are reports from association officials, discussion panels with audience participation, resolutions on major issues and talks by authorities on subjects of interest.

Manufacturers' and dealers' exhibits are a part of most of the conventions and attract wide interest. Next year, exhibits are planned by all except the Florida, Northern California and New Jersey associations.

The schedules for 1950 follow:

January: Kentucky Retail Lumber Dealers Association, Brown Hotel, Louisville, 16-17; Northwestern Lumbermen's Association, Minneapolis Auditorium, 17-19; Western Retail Lumbermen's Association, Royal Alexandra Hotel, Winnipeg, Can., 18-19; Northeastern Retail Lumbermen's Association, Hotel Statler, New York, 23-25; Ohio Association of Retail Lumber Dealers, Cleveland Auditorium, 23-25; Southwestern Lumbermen's Association, Municipal Auditorium, Kansas City, Mo., 25-27.

February: Middle Atlantic Lumbermen's Association, Chalfonte-Haddon Hall, Atlantic City, N.J., 1-3; Michigan Retail Lumber Dealers Association, Pantlind Hotel, Grand Rapids, 7-9; Lumber Dealers Association of Western Pennsylvania, William Penn Hotel, Pittsburgh, 8-9; Mountain States Lumber Dealers Association, Shirley-Savoy Hotel, Denver, Colo., 9-11, Wisconsin Retail Lumbermen's Association, Milwaukee Auditorium, 14-16; Virginia Building Material Association, Roanoke

Hotel, Roanoke, 17-18; Illinois Lumber and Material Dealers Association, Hotel Sherman, Chicago, 21-23; Indiana Lumber and Builders' Supply Association, Murat Temple, Indianapolis, 28 through March 2; North Dakota Retail Lumbermen's Association, Fargo, 28 through March 1.

March: Intermountain Lumber Dealers Association, Hotel Utah, Salt Lake City, 9-11; Louisiana Building Material Dealers Association, Jung Hotel, New Orleans, 15-16; Iowa Retail Lumbermen's Association, Des Moines Coliseum, 15-17; New Jersey Lumbermen's Association, Hotel Traymore, Atlantic City, 22-24; South Dakota Retail Lumber Dealers, Sioux Falls, 23-24; Carolina Lumber and Building Supply Association, Myrtle Beach, S.C., 22-24.

April: Mississippi Retail Lumber Dealers Association, Buena Vista Hotel. Biloxi. 12-13: Florida Lumber and Millwork Association, Palm Beach Biltmore Hotel, Palm Beach, 12-14; Southern California Retail Lumber Association, Ambassador Hotel, Los Angeles, 13-15; Arizona Retail Lumber and Builders Supply Association, Inc., Maricopa Inn. Mesa, 20-22; Lumbermen's Association of Texas, Municipal Pier, Galveston, 23-25; Lumber Merchants Association of Northern California, Ahwanhee Hotel, Yosemite National Park. 26-27.

Rental Housing Booklet Prepared by CIIC

"The Postwar Rental Housing Situation" is the title of a new booklet which has been prepared by the Construction Industry Information Committee. The booklet contains facts and statistics on the nation's rental housing supply.

The booklets are being distributed by the National Building Materials Dealers Service Corp., 302 Ring Building, Washington 6, D.C. They may be ordered by Association members and executive committees at a small charge.

The President's Column



By C. B. SWEET President, NRLDA

Have we, as believers in free enterprise, the 'courage to do the things that are necessary to preserve this system?

Are we willing to stand up on our hind legs and tell Congress in no uncertain terms that it is time to stop spending tremendous sums of money for "smoke dreams"?

Are we men enough to tell Congress to stop giving us subsidies, and really mean it?

We do not hesitate to write our Congressmen asking them not to vote for this or that piece of legislation when it is disadvantageous to our particular business. On the other hand, we are just as quick to write seeking their help in getting an appropriation for farm subsidies, flood control, new highways, or anything else that fits our selfish needs. For the past sixteen years we have had a bad case of the "gimmies".

During a recent debate in the Senate, on one of the appropriation bills, Senator Douglas is reported to have made the following statement: "It is unfair primarily to blame members of Congress for this patchwork of projects representing a pooling of political strengths." He continued: "The demand for these juicy appropriations, in fact, comes from the business groups back home organized into their various associations. These gentlemen will commonly meet one day and pass a resolution that the government expenditures should be cut to the bone and that the budget should be balanced, and will write irate letters to their Senators to that effect.

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Oklahoma Dealers Co-Sponsor-Farm Building Program

A "Farm Fitted Building Plans" program, designed to meet the particular needs of Oklahoma farmers, has been arranged by the Extension Division of Oklahoma A. and M. College in cooperation with the Oklahoma Lumbermen's Association.

The program was made public in June at a "Farm Buildings Day" in Oklahoma City, with more than 1500

state farmers attending.

The joint project is designed to show Oklahoma farmers the type structures best suited for the state, and to recommend the most economical materials and the best locations in relation to homes, other farm build-

ings, highways, etc.

It was pointed out by Walter R. Kelly, Tulsa, president of the Oklahoma Association, that the majority of farm buildings in Oklahoma were built by farmers who had moved into the state from other areas. He said that in many cases these buildings were constructed along the same lines as structures in areas with entirely different types of weather and topography.

Through the plan service, all necessary construction information will be furnished state farmers at a low cost.

President's Column, Cont'd

Then the next day, they will want their waterfront improved and will begin to turn the heat on for big appropriations for relatively nonessential projects. They want economy on the other fellows' projects, but they want appropriations for their own."

Are we big enough to want economy on all projects, and not just on "the other fellow's"?

Our nation became great on the principle of achievement and self reliance, and not through paternalism. We must go back to that principle if we want to keep our nation great.

Sometime, somehow, the spending of vast public funds must be curtailed. Obviously the astronomical total of Federal expenditures will ultimately rise to such heights that it can rise no more. When that point is reached, the mere appropriation of money by Congress will not produce money. Higher taxes, in a bankrupt nation, will return less and not more revenue, and eventually none at all.

It takes very little brain matter to realize that no individual, no company, and no nation can go on forever getting something for nothing.

Have we courage enough to tell Congress to quit spending?

Arrangements Announced for NRLDA Directors Meeting

Headquarters of NRLDA has announced hotel arrangements for the annual board of directors meeting in San Francisco the week of Nov. 7.

This year, it is requested that reservation requests be returned to the national office. After being recorded, they will be forwarded to the Housing and Information Bureau of the San Francisco Convention and Tourists Bureau for completion. Any further reservation correspondence will be carried on directly with the San Francisco Bureau.

The Fairmont Hotel, meeting headquarters, has reserved enough rooms for officers, directors and committeemen. Deadline for reservations is Sept. 15.

Rooms are also being held at the Mark Hopkins, Sir Francis Drake and Palace Hotels.

Efforts will be made to effect a complete pre-registration for the meeting.

Retail Lumber Stocks Show Slight Increase

Total retail lumber stocks at the end of April showed a slight increase over March, according to an NRLDA survey. Stocks were estimated at 4,875 million board feet, an increase of 0.2 per cent.

Most of the regions showed an increase in stocks. Largest increases were shown in the West South Central Region (5.3 per cent), East South Central (2.4 per cent) and West North Central (2.4 per cent).

Largest stock decreases were shown in the New England region (1.7), Middle Atlantic (2.5) and East North Central (2.8).

Sales of all reporting regions were 11.6 per cent above March. Most regions indicated sales increases, with largest increases in the New England, West North Central and East North Central areas—28.9, 26.8 and 23.7 respectively. Slight decreases were reported for the East South Central and West South Central regions.

Hold Mass Hoo-Hoo Initiation for Red Cedar Shingle Bureau Trustees

In what is believed to be the first industry association Hoo-Hoo concatenation ever held, members of the Red Cedar Shingle Bureau's board of trustees were initiated en masse into the International Concatenated Order of Hoo-Hoo at ceremonies at Seattle in June.

Presiding at the event was LeRoy H. Stanton of Los Angeles, Hoo-Hoo Grand Snark of the Universe. He was assisted by W. C. Bell, Hoo-Hoo Custocation member of the Supreme Nine. The initiation team was composed of members from the Everett and Tacoma-Olympia Hoo-Hoo.

Bureau Secretary-Manager W. W. Woodbridge originated the event, but was unable to be present for the ceremonies.



SHOWN following Hoo-Hoo initiation ceremonies are (front row, from left): Red Cedar Shingle Bureau trustees R. A. Wilde, Everett, Wash.; Paul R. Smith and Keith G. Fisken, Seattle; H. V. Whittall, Vancouver, B.C.; R. D. Mackie, Aberdeen, Wash.; and Dale Craft, Raymond, Wash. Second row: Trustee Charles Plant, Vancouver, B.C.; Bureau President E. R. Scott, Edmonds, Wash.; Chief Inspector F. J. Monte, Seattle; Trustees R. H. Farrington, Everett, Wash.; R. H. Wayland, Seattle; J. A. MacKenzie, New Westminster, B.C.; Snark LeRoy Stanton; Bureau Treasurer Virgil G. Peterson, Seattle; Trustee N. A. English, Vancouver, B.C.; and Supreme Custocation W. C. Bell, In inset is W. W. Trowbridge, Bureau secretary-manager



TECHNICAL GUIDE for Builders and Craftsmen

Use of Welded Studs in Application of Roofing

A FAST method of welding rivet studs with a special lightweight gun, used widely during the war in ship-building, is being adapted to the building industry, where it has proved particularly successful in the application of corrugated sheet metal roofing in conjunction with steel framework. By use of the method, sheet metal roofing crews have been enabled to perform their entire job from the topside of the structure, an important factor in increasing the speed of operations. The system is applicable



STUD welded fasteners are used to install metal roof deck of power plant building

to either old or new buildings.

The gun, which is easy to operate, end-welds studs to the steel purlins. The process is very rapid. The welder loads the gun with a stud, places it in position and presses the trigger. A lightweight template is used to locate the studs correctly.

The first step in application is the welding into place, through the template, of the rivet studs. The corrugated sheets are then placed into position. A worker, striking with a rubber hammer at each stud location, drives the

stud extensions through the crown of the corrugated sheets. The job is completed by another worker who, with a rivet-set and machinist's hammer, upsets and rounds-off the rivet stud.

The gun welds studs from

CROSS-SECTION shows fusion between end of stud and metal surface to which applied. In process, stud is automatically lifted to create arc, then plunged into molten metal COMPOSITE stud for applying corrugated aluminum roofing and siding is made with cadmium-plated, flux-filled mild steel base and aluminum insert. Aluminum washer is placed over stud before stud is riveted over to secure sheet. This construction minimizes possibility of electrolytic action



1/8 inch to 3/4 inch in diameter, up to 9 inches in length. It operates from a standard DC welding generator, suited to welding the size stud required for the job. Welding time is regulated by a timer control box which is an integral part of the apparatus. For an ordinary operation, the timer control is set only once.

Studs are flux loaded on the welding end, with flux distributed to permit welding from varied positions. Por-



WELDING gun, guided by template, is used to replace corrugated iron roof on old building

celain ferrules are used with each stud to confine the arc and to control the weld fillet.

The stud welding method can also be used in application of asbestos cement board siding, a type of wall surface which has proved especially suitable for small industrial buildings.

In mounting the insulating fiber board, a threaded stud is end-welded through a hole in the material to the steel frame surface. A flat head zinc die cast nut and flat head washer are then screwed down on the stud to secure the material.

Holes for welding the studs may be pre-drilled on the ground or drilled after panels have been placed in position.

(Data and illustrations furnished by Nelson Stud Welding Div., Morton Gregory Corp., Lorain, Ohio)

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How to Obtain Quality Work With Power Hand Sanders

T IS necessary to sand plaster in order to prepare the surface for coating such as glue size, paint or wallpaper. To obtain a well-adapted surface for finishing the plaster, use a power hand sander, equipped with a standard sanding pad and a garnet or aluminum oxide, open coat cabinet paper. The grit size will range from 0-80 to 4/0-150, depending on the initial condition of the surface and the degree of smoothness desired. If removable type dust fillers are used, they should be tapped out frequently to prevent excessive accumulation of dust on filter element.

Sanding Joint Cement In Dry Wall Construction

ed

In dry wall construction, which consists of nailing wallboard, usually of the gypsum type, to the studding, the wallboard is prepared for painting or wallpapering in the following manner:

Place joint cement in the recessed edge where one sheet of wallboard abuts the next, filling the recess completely with cement. Place perforated tape, made for this purpose, in this cement-filled, recessed joint.

Cover tape with a thin layer of cement, bringing the joint flush with the face of the board, smoothing it as evenly as possible with trowel. Fill any nail holes with cement at the same time and allow it to dry (usually overnight).

The costliest, most time-consuming and most tiresome part of dry wall construction is the hand sanding of the taped joint. A power hand sander is ideal for this job. Use a 2/0-100 aluminum oxide, open coat, cabinet paper with standard sanding pad to

smooth cement over joints and nail holes.

Apply second coat of cement, feathering edges out a few inches beyond the edges of the first coat, and machine sand with a 4/0-150 aluminum oxide, open coat, cabinet paper and standard flat pad. Cement and sand the nail holes a second time.

Apply a third light coat of cement to compensate for any shrinkage and to level any defects, feathering this coat out an inch or two beyond the second coat. Sand lightly with a 5/0-180 aluminum oxide cement and sand the nail holes a third time.

Usually after the joint is sanded and dusted, a coat of a lime-locking primer is applied to condition surface of the wallboard for painting; or, if wallboard is to be papered, a coat of varnish size is applied.

Finishing Interior Woodwork With Oil-Base Paint or Enamel

Before applying finish to interior woodwork, sand all surfaces perfectly smooth, using 4/0-150 or 5/0-180 grit garnet or aluminum oxide open coat paper and standard sanding pad. Spray or brush on first coat and allow to dry overnight.

For best and quickest results, sand undercoat until smooth, using a standard sanding pad with 5/0-180 grit garnet or aluminum oxide finishing paper.

Dust off surfaces and fill all open joints; nail holes and any other imperfections with putty. When puttied areas have dried, sand smooth with power hand sander, equipped with standard sanding pad and 5/0-180 grit garnet or aluminum oxide finishing paper.



LIGHT sanding of trim between finish coats

Spray or brush on second undercoat and follow same drying and sanding procedure as for first. Dust surface and then spray on lacquer enamel; or brush or spray on an oil base enamel.

If a paste form of wax is used, apply by hand and rub with power hand sander, using a special rubbing pad absolutely free from abrasive particles. If liquid wax is used, apply and rub by hand with clean cheese-cloth.

Rounding and Chamfering Plywood Edges

For plywood edges, use power hand sander with 120 grit aluminum oxide open coat cabinet paper. For a flat bevel, standard sanding pad is used, holding machine at desired angle of chamfer. On rounded edges, use standard sanding pad, moving machine around edge until desired radius of curvature is obtained; or use sponge rubber pad, applying pressure proportional to desired size of round, it being necessary to move machine only slightly around edge.

With the soft, sponge rubber pad, particularly, abrasive paper may tear, unless long dimension of pad is used, or unless care is taken to use only slight pressure until sharp edge has

been knocked off.

(Data and drawings through courtesy of Sterling Tool Products Co., Melrose Park, Ill.)

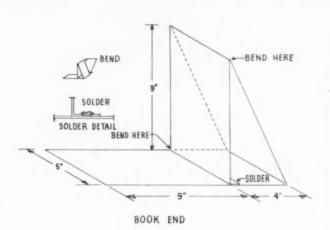






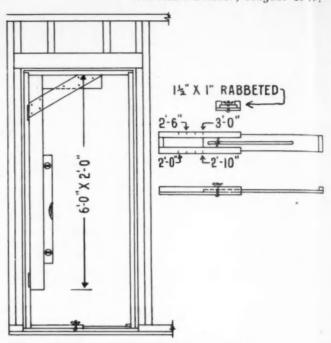
SHOWN at left is use of power hand sander in rounding and chamfering plywood edges. Power tool (center) takes place of hand method of sanding taped joint in dry wall construction. Right, note ease with which power sander is used in hard-to-reach areas





How to Make Metal Book Ends

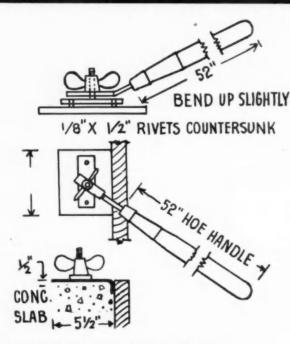
To make book ends from any stiff metal, bend the metal as illustrated in diagram. Drill three holes in the turned under lip, through one thickness only. While the metal is clamped in position, fill holes with lead solder. If desired, finished book ends may be painted or decorated.—George T. Mann, Ft. Myers, Fla.



How to Make a Door Setting Rig

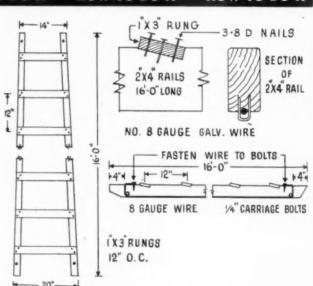
THE variation that often occurs between the width of door opening at the head and floor can be eliminated by use of adjustable rig placed in position between jambs. In conjunction with rig a large wood square, together with level, is used in preference to the carpenter's steel square. This brings the whole frame into line when plumbing the hanging side of door frame.—H. Cole, Vancouver, B.C.

HOW TO DO IT . HOM TO DO IT . HOM TO DO IT . HOM TO DO IT



How to Make a Sidewalk Edger

A SIDEWALK edger may be made by using an old hoe handle and a flat piece of steel from an old square point shovel. Anneal shovel and cut to shape as shown; then heat edge and turn one-half inch to form shaping edge for tool. Rivet a piece of 3/16 x 1½ inch flat stock to tool and bend shank of hoe handle to fit. Secure handle with one-fourth inch bolt.—J. G. Caldwell, San Mateo, Calif.



How to Make a Strong, Light Ladder

CLEAR 2x4's are used in making rails for ladder, 13/16 inch grooves being cut for each rung as shown; 1x3 inch rungs are 12 inches O.C.

Drill a 5/16 inch hole in each end of 2x4 rails and insert one-fourth inch carriage bolts in holes. Eight gauge galvanized wire is then countersunk into bottom face of each 2x4 rail and extended for entire length of rail. Wire is bent tightly around carriage bolts and extended over to top of rail where it is securely fastened to 2x4 with bolt. Countersunk wire is stapled to rail approximately 24 inches O.C.—J. G. Caldwell, San Mateo, Calif.

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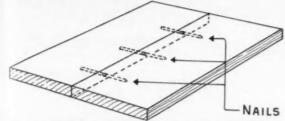
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How to Make Wide Boards for Shelving

SIMPLE way to make wide boards is to drive nails 24 inches O.C. about halfway into one board, and then remove heads, place boards flat on floor with one against wall and drive the two edges together.-H. W. Myers, Allegan, Mich.

How to Drive Nails In Siding Application

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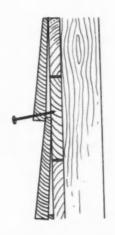
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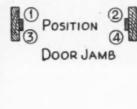
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N applying bevel or other siding to wall surface, drive nails at a slightly upward angle. This method causes surface water to drain from nail head thus reducing checking of the board and loosening of paint. Do not drive nail too near bottom edge of siding, as this may split the siding underneath. - H. B. Johnson, Rochelle, Ill.

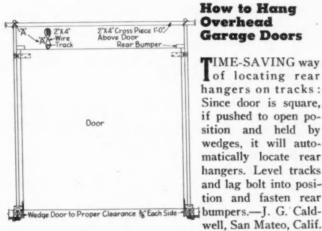


Rоом	SIZE	POSITION
BED RM#1	2/8	*2
Ватн	2/4	#1
BED RM#2	2/8	*2
HALL-STAIRS	2/8	# 4
KITCHEN	2/8 D.A.	# 3
LIVING ROOM	3/0	#1



How to Schedule Trim for Each Room

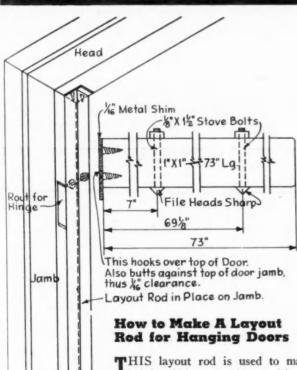
WHEN job is ready for trim, put all door jambs in one room where ample working space is available. Using blueprint, go through house and mark location and hanging position (see diagram) of each door. Then mark and cut jambs for hinges.-J. G. Caldwell, San Mateo, Calif.



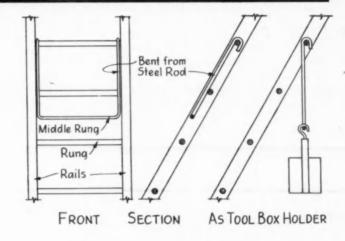
How to Hang Overhead **Garage Doors**

IME-SAVING way of locating rear hangers on tracks: Since door is square, if pushed to open position and held by wedges, it will automatically locate rear hangers. Level tracks and lag bolt into position and fasten rear well, San Mateo, Calif.

HOW TO DO IT . HOW TO DO IT . HOW TO DO IT HOW TO DO IT HOW TO DO IT



HIS layout rod is used to mark height of hinges on door and jamb, and its use will result in uniform clearance at top for every door. If care is used in mortising butts, door will fit snugly on jamb and no hammering will be required-J. G. Caldwell, San Mateo, Calif.



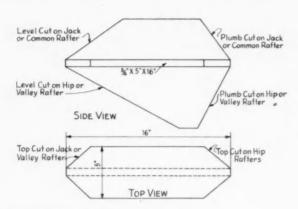
How to Make a Convenience Rung for Ladders

HIS middle rung, which permits a change of position for convenience, is made of a length of steel rod bent as indicated. It hooks over one rung and lies flat against the one below. When hung from back of ladder it swings clear of workman and serves as holder for tool box, etc. -H. Moore, Hamilton, Ont., Canada.

American Builder will pay \$5 for your favorite short cut or job pointer. Send rough draft to Architectural Editor, American Builder, 79 W. Monroe St., Chicago 3, III.

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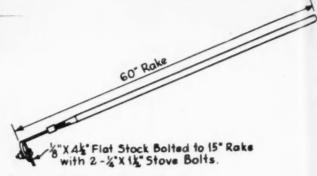
How to Make Templates for Bevel Cuts on Rafters

THIS template is designed for laying out bevel cuts for an 8 to 12 pitched hip roof. Templates for any pitch roof may be made same way.—C. C. Boles, Saginaw, Mich.



How to Make a Built-up Wood Beam

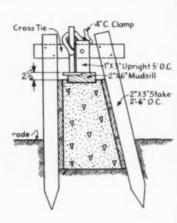
IN REMODELING a commercial building where a load bearing partition was removed, Edward Grabowski, Toledo, Ohio, shored the ceiling and installed a beam built up of two 2x12's with a diagonal 2x4 in between. This builder felt that greater load bearing qualities could be obtained from this type beam than from three 2x12's securely spiked together.



How to Make a Concrete Hoe

A HANDY tool for spreading concrete can be made with a garden rake and a section of flat iron by bolting the iron, approximately 4½ inches wide by 26 inches long to the hoe with two ¼ x 1½ inch stove bolts.—J. G. Caldwell, San Mateo, Calif.

How to Level Mudsills In the Dark



TAKE levels in advance. Make a T-shaped rod and have rodman clamp to crosstie 11/2 inches above form. Rodman then nails 1x3 to crosspiece with bottom of 1x3 flush with underside of crosspiece. Swing 1x3 upright to horizontal position preparatory to pouring concrete. When concrete is poured place mudsill in soft concrete; 1x3 is then turned down into vertical position, forcing mudsill to proper alignment.-J. G. Caldwell, San Mateo, Calif.

HOW TO DO IT . HOM TO DO IT . HOM TO DO IT . HOW TO DO IT

Modern Design Expressed by Generous Use of Glass

By R. J. Alexander

A N interesting and important development in both design and livability is the widespread and extensive use of glass in residential building.

Single windows have increased from the standard 24 inch by 24 inch two-light sash to an average of 28 inch width glass. The old cottage sash of 44 inches by 16 inches over 44 inches by 40 inches has become the picture window of today. Designers have gone even further than this by making the entire exposed wall of a room entirely of glass.

Manufactured double glazing units which provide for two thicknesses of glass with an insulated, sealed air space between, eliminate the use of unwieldy storm sash and the problem of their storage. The use of a single thickness of glass in a picture window and large areas of stationary sash many times create a problem in ventilation and condensation.

The details on the opposite page show how one architect solved the problem of glazing. Large double-glazed sash are flanked by ventilating louver vents. The sash and louvers blend well into the over-all design of the house, a design admirably suited to today's living.

The double glazing feature has been well planned. The outer pane of glass is installed permanently; the inner pane is removable, being held in place by metal clips with a felt strip forming the seal between the wood frame and the glass.

To insure proper ventilation louver vents have been incorporated in the design of the sash and frame. The vents in this case are approximately 2 feet wide by 6 feet high. The size of the units was governed by the height of windows and other local conditions.

The louver vents are screened and the screens are removable from the inside. Insulated plywood doors cover the opening on the inside. The entire height of the opening is divided into three or four parts by intermediate transom bars, each part having its individual door; thus one or all of the doors may be opened for ventilating purposes. These doors are hinged at the bottom and the opening is controlled by friction stays which hold the door in any desired position.

The excellence of the finished building is the result of careful planning and designing on the part of the architect.

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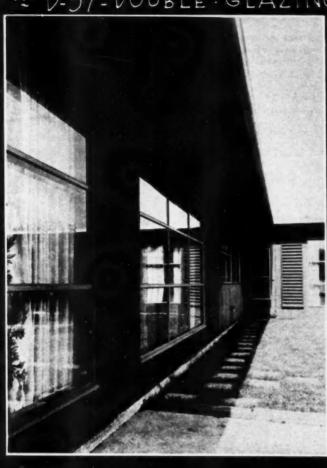
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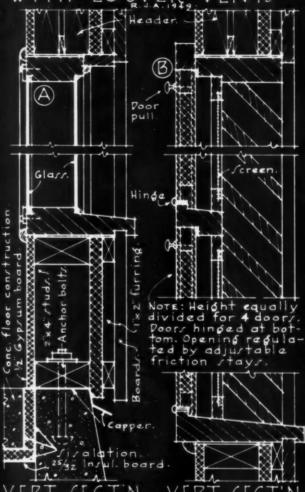
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AMERICAN BUILDER'S BETTER DETAIL PLATE

NO D-57- DOUBLE GLAZING WITH LOUVER VENTS







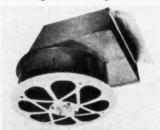


NEW PRODUCTS

Offered by Manufacturers

CEILING FAN

Ceiling fan, Ventrola 30-C, is powered to move 500 cubic feet of free air per minute, and in average home changes air in several



connecting rooms many times an hour. Induction type motor is shielded to prevent radio or television interference. Operation is with 110-120 volts, 60 cycle A.C., giving a speed of 1,600 r.p.m. to fan which has 10-inch blade. Required ceiling opening is 111/4 inches. National Appliance Co., 4814-18 West Vernor, Detroit, Mich.

DRILL JIG

AB8927

Drill jig, designed to cut door lock installation time, weighs 21/2 pounds. Made of cast aluminum with steel inserts, it



clamps on quickly and holds securely, assuring exact right angle holes for a per-fect lock fit. Spacing screw permits accu-rate adjustment on door thicknesses from 11/4 to 2 inches. Kwikset Locks, Inc., Anaheim. Calif.

ELECTRIC HAND SAW

The Maxaw, a new lightweight electric hand saw, is now being manufactured by Fred W. Wappat, Inc., Mayville, N. Y. The Maxaw has "big saw" features found on no other lightweight 6 inch electric



handsaw. It has a 6% inch blade that cuts to a full 2 inch depth on square cuts, and cuts 2 inch dressed lumber at a 45 degree angle. Depth adjustment, built-in as an intergral part of the Maxew, is from 3/16 inch to 2 inch. Bevel adjustment, also an integral part of the saw, is from 0 to 45 degrees.

ALUMINUM WINDOW

New awning-type aluminum window has pat-ented "Auto-Lok" hardware which closes window automatically, and keeps it closed tightly to permit effective weathering. When vents reach closed position, a lock-



ing device engages and pulls vents tight against window frame. "Cross-Over" weathering is effected upon closing of window: horizontal weather stripping crosses over vertical for effective sealing. Elastic meric vinyl, an industrial plastic material, is used for weather stripping. Ludman is used for weather stripping. Lu Corp., 21 N.W. 21st St., Miami, Fla.

FLOOR FURNACE

"Shalloflow" gas floor furnace drops only 22½ inches below level of floor. Water-tight up to burner ports, 19 inches below



floor level. Requires three straight cuts in wall and 15 minutes to install in dual-wall location. Sixteen thousand feet of warmed air passes through unit every hour. Safety automatic shut-off valve stops gas flow if pilot flame goes out. The Coleman Co., Inc., Wichita, Kas.

INSULATION TACKER

Markwell insulation tacker is used for applying ceiling tile and panels and for batt and blanket type insulation. Tacker uses staples 1/4 to 1/2 inch in length without mechanical adjustment. Markwell Manufacturing Co., Inc., 200 Hudson St., New York, N.Y.

DOORKNOB LOCK

America

Doorknob locks can be master-keyed or keyed alike. Outer knob spins freely when locked, and cannot be jammed or sprung. Quarter turn of milled-type key unlocks



outer knob so that it will draw latch. Only outer knob is controlled by the mechanism; inner knob opens door at all times.
In statuary bronze, polished brass, dull brass, polished chrome and dull chrome.
Especially adaptable to apartment houses, office buildings, motels and resorts. La-Belle Industries, Inc., Oconomowoc, Wis.

ADJUSTABLE LAVATORY FIXTURE

No. 703 Sherman adjustable lavatory fixture fits lavatories requiring a two-valve central spout combination. Special adjusting features help plumbers overcome many difficulties encountered in replacing fittings on old-style lavatory sinks. Swivel on spout tail-piece permits location of spout forward or backward about 13/4 inches. Slip-joint extension tubes allow maximum spacing of 12 inches between valves. H. B. Sherman Manufacturing Co., 22 Barney St., Battle Creek, Mich.

UPWARD ACTING GARAGE DOOR AB8922

No. 77 "Over-the-Top" upward acting garage door unit will fit openings eight feet wide by six feet eight inches high. Requires two inch headroom. Door of 24-



panel plywood is pre-fitted and pre-bored at factory for quick, easy installation. It is water repellent, and is toxic treated to Unit includes necessary hardware, with steel weather stripping. Frantz Manufacturing Co., Sterling, Ill.

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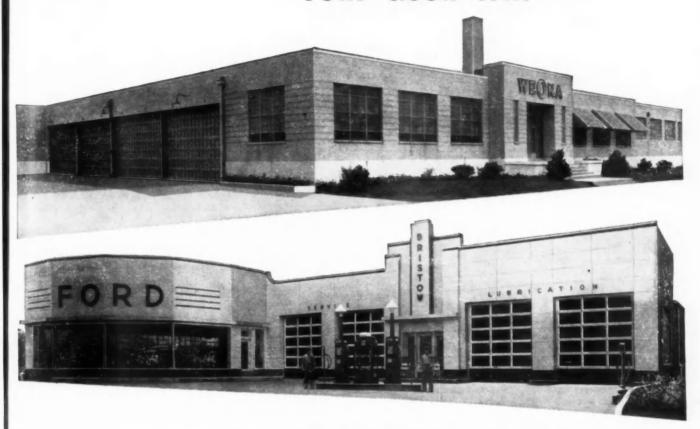
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Their Good Looks Your Good Will



Ro-Way Doors are built to keep both

When you specify Ro-Way Overhead Type Garage Doors, you have four assurances.

1st. Every Ro-Way Door is built completely in the Ro-Way plant, even to the power-metered springs, double-thick tread rollers, and friction-reducing track.

2nd. Exclusive built-in features give extra values in service and satisfaction.

3rd. All hardware is Parkerized and painted after fabrication to give Ro-Way Doors longer life and lasting good looks.

4th. A carefully selected network of National Distributors covers all principal cities. Installations are carefully made by them to protect your reputation and ours. (See your Classified Telephone Directory for names and addresses of Ro-Way Distributors.)



Yes, Ro-Way Overhead Type Doors for all commercial, industrial and residential installations are designed and built to "keep Their Good Looks and Your Good Will."

ROWE MANUFACTURING COMPANY

754 Holton Street, Galesburg, Ill., U. S. A.

Standard sizes available for prompt delivery, Good delivery on special sizes for commercial and industrial use,



There's a Rollay for every Doorway!

(Continued from page 122)

CUPBOARD DOOR STOCK AB8923
Made in seven widths starting at one foot

Made in seven widths starting at one foot and increasing at two-inch intervals to two feet, and any length up to eight feet, cupboard door stock is 3/4-inch thick with pat-



ented insert stiles of solid wood on both edges. Matching face veneers cover both faces of stock. Woods used include redwood, African mahogany, maple, white oak, birch and rotary cut and vertical grain fir. Made in standard cupboard door widths, it needs to be cut only to desired lengths. M and M Wood Working Co., Columbia Blvd., Portland, Ore.

FLOORING MATERIAL

AB8919

Roc-Wood flooring is made of hardwood fibers, chemically treated and bonded together with plastic. In application, dry material is mixed with gel until reaching consistency of coarse wet sand. Wet material is placed on floor, levelled off and trowelled to smooth surface. Can be finished by sanding, varnishing and waxing. Roc-Wood Floors, Inc., 3321 S. Pulaski Rd., Chicago 23, Ill.

CALKING COMPOUND AB8915

"Nu-Calk" is a non-staining off-white prepared plastic compound, not subject to drying, cracking and hardening. Qualities of elasticity nullify effects of weather change and permit expansion and contraction to form bond with surface to which applied. Macklanburg-Duncan Co., Oklahoma City, Okla.

WALL CRACK FILLER AB8934

"Shel-Plas," wall crack filler, allows user to repair as he paints. No shellac, sealer, or sanding necessary. May be painted over immediately. Works well under all flat paints and oil flat. Fills grain of plywood



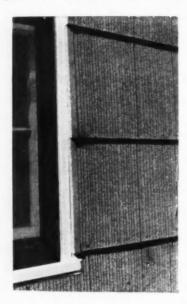
sufficiently so that it can be painted without grain showing. May also be used in caulking gun to seal doors, windows. Benwell Corp., 3010 Book Tower, Detroit 26, Mich. COMPLETE KITCHENS AB8939

Complete General Electric kitchens designed to fit into a space 60 inches wide, 25 inches deep and 84 inches high are available to builders for small home and apartment projects. Compact kitchens include a range, refrigerator, three storage cabinets and a stainless steel sink top. AP-I range has three five-heat Calrod surface units and full-size oven and broiler. Refrigerator has four cubic feet of space. Shelf area totals 8.7 square feet. Sink has chrome-plated faucet and a duo-strainer. General Electric Co., 1285 Boston Ave., Bridgeport 2, Conn.

METAL TRIM

AB8912

Stipple embossed aluminum trim is used around windows and doors in applying lapshingle design insulating siding. The side fitted against window or door casing is tapered from top to bottom, completely



covering edges of siding. Trim pieces may be applied as each siding panel is nailed into place or upon completion of entire job. Trim is installed by slipping it under the exposed lap of the course above and fastening lower end with a single nail. Insulite Div., Minnesota and Ontario Paper Co., 500 Baker Arcade Bldg., Minneapolis 2, Minn.

FLOURESCENT FIXTURES AB8938

New and improved Lytron fluorescent fixtures include: "Solo'Stall" hanger designed to reduce installation time; a new 25-watt light; two and four light Lytrons with slipon, snap-on parts; a new one tube bracket with decorative shield, and a new "Circline" series. One light Lytrons are for use in kitchens, baths, playrooms, offices, stores; over work tables, mirrors, under cabinets, in corridors and booths. Have ceramic-textured glass shield. Two-light Lytrons have slip-on covers for easy installation. Four-light units have slip-on covers plus snap-on die cast ends. No screws required. Circline series is handsomely designed for modern or traditional rooms. Lightolier, Inc., 346 Claremont Ave., Jersey City, N.J.

CARBIDE GLASS DRILL AB8936

Carbide tipped glass drills in sizes from 1/8 to 1/2-inch have two-flute design for easy sharpening. Built to quality standards for industrial and home use in drilling glass, tile and many other ceramics. Super Tool Co., 21650 Hoover Road, Detroit 13, Mich.

SECTIONAL GARAGE DOOR AB8924

Sectional, pine upward-acting garage door incorporates hardwood plywood panels. Is available in sizes 12x12 feet and smaller. Has ball-bearing rollers and pulleys. Joints

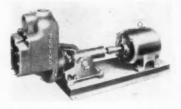


between sections rabetted so that they cover each other, making door weather-proof and dustproof when closed. Section next to top constructed so that four glass panes may be used instead of wood panels. Overhead space of 12½ inches and side room of 3¾ inches required for track assembly. Hall Enterprises, Casco, Wis.

SELF-PRIMING PUMPS

AB8932

Six stationary models cover range of capacities from 10 to 300 gallons per minute against heads up to 250 feet. One portable



type has capacity range of 10 to 90 gallons per minute against respective heads of 80 to 15 feet. Stationary types are for general industrial pumping services, irrigation or dewatering service and sump or bilge pumping. Portable type used for wide variety of drainage or water handling. The Deming Co., Salem, Ohio.

ELECTRIC RANGE

AB8907

Features of L & H Supreme Deluxe Electric Range include two full size ovens, each with automatic temperature control; four varispeed Monotube surface units with heat



volume control; and two seven heat Monotube surface units. Has automatic time control for right oven, appliance outlet, or two left surface units. Left oven is manually controlled. One-piece body is electrically welded and finish is porcelain enamel. A. J. Lindemann and Hoverson Co., Milwaukee 7, Wis.

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TYPE OF WORKMANSHIP RECOMMENDED TO SECURE

FOR many years intensive research on the cause and prevention of leaky brick walls has been conducted by various organizations and individuals, and much vital information has been gathered.

Most authorities agree that workmanship is the most important thing involved, but until now, no one has attempted to explain and illustrate the difference between good and bad workmanship.

"Type of Workmanship Recommended to Secure Dry Brick Walls" does just that. In it, a recognized authority on brickwork has compiled 16 pages of proven information—explanations and recommendations —96 color illustrations. It is a major contribution to good building. It is not an advertisement for our product, Brixment. It is published as a service to the building trades. It will be sent free to any architect, contractor, bricklayer or dealer who is interested in water-tight masonry.

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of "Type of Workmanship Recommended to Secure
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Name

Firm

Street

City

State

Monotime et, or inualeleccelain erson (Continued from page 124)

PORTABLE ELEVATOR AB8936

Portable 24-foot elevator has maximum lift of 171/2 feet at 45 degrees. Two men loading brick, mortar and blocks at lower end of elevator can supply sufficient amount of



material at various elevations to keep from 10 to 12 masonry workers busy. One man can handle and operate. Unit is easily transported by car or truck. Powered by either 4 HP gasoline engine or 1½-HP electric motor for normal use. Sam Mulkey Co., 1621 Locust, Kansas City 8, Mo.

WOOD SCREW PACKAGES AB8904

"Tape-Pakt" wood screws are applied to strips of printed tape which give data on



size, type and finish. Screws, in 59 sizes, are made of steel and brass, with flat, round and oval heads. Finishes are zinc plate, blued and chrome. National Lock Co., Rockford, Ill.

OIL WATER HEATER

Coleman automatic oil water heater burns straight run No. I fuel; can heat water up to one and a half times its capacity per hour. Has special low-draft burner. Galvanized tank is tested at 300 pounds pressure per square inch. Draft meter eliminates excessive drafts, reducing heat waste. Storage capacity is 30 gallons; over-all

height, 54¾ inches; weight, 197 pounds. The Coleman Co., Inc., Wichita I, Kas.

AB8914

GUN TACKER

Gun Tacker T-32 has double-leverage and



safety lock, and uses three different staple lengths: 3/5, 1/4, and 5/16-inch. Manypurpose tool is made of steel, and is precision locked. Arrow Fastener Co., Inc., 30-38 Maujer St., Brooklyn, N. Y.

COMPACT OIL FURNACE AB892

Unitized Hi-Furnaces, incorporating wallflame oil burner, furnace, blower, air filters, and optional humidifier in single compact



cabinet, are offered specifically for small home installations. Oil burner contained entirely within unit. Operates at low oil rates. Timken Silent Automatic Div., Jackson, Mich.

CHECK NUMBERS AND MAIL COUPON FOR INFORMATION

American Builder, 79 W. Monroe Street, Chicago 3, Illinois

NAME			ADDRESS		
CITY			STATE		
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AB8902	AB8910	AB8918	AB8926	AB8934	
AB8903	AB8911	AB8919	AB8927	AB8935	
AB8904	AB8912	AB8920	AB8928	AB8936	
AB8905	AB8913	AB8921	AB8929	AB8937	
AB8906	AB8914	AB8922	AB8930	AB8938	
AB8907	AB8915	AB8923	AB8931	AB8939	
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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.

HOME FREEZER

AB8918

America

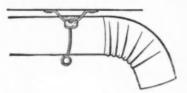
Features of new Kelvinator six cubic foot freezer are recessed table top work surface at normal counter height, push-button lock,



counter-balanced lid support and removable steel wire baskets. Cabinet is 39 inches long, 23½ inches deep, 36¼ inches high. Provides storage space for approximately 210 pounds of frozen food. Kelvinator Div., Nash-Kelvinator Corp., Detroit 32, Mich.

CONDUCTOR PIPE HANGER AB8909

Galvanized sheet base of new hanger can be attached to buildings with either screws or nails; hanger is designed for easy in-



stallation and removal. Wire loop holds conductor pipe securely, at sufficient distance to permit painting behind pipe. Mid-States Steel and Wire Co., Crawfordsville, Ind.

FLOOR FURNACE

AB8913

New "Superflame Twin" oil burning furnace may be installed under floor; requires no basement or air ducts. Has heat output of 59,000 B.T.U.'s per hour. Is



fully automatic, thermostatically controlled. Two safety bulbs stop fuel flow if furnace becomes overheated. Has two "Triple-Combustion" burners and two combustion chambers. One burner is used in mild weather, two in cold. Manufactured with either dual wall registers or floor registers. Queen Stove Works, Inc., Albert Lea, Minn.

(Continued on page 146)



Once again Guild offers you the last word in saw quality and value—the smooth looking, smooth operating, smoothly balanced Guild A-8. Weighs only 14 lbs.—yet it's chock full of power that whizzes through a full 27/8" depth.

You'll find the A-8 has typical Guild balance, too - balance that means ease of handling -minimum of fatigue-accurate cutting. This all-

duty beauty is the saw you've been waiting for!

See it in action at your dealer's. He'll be happy to demonstrate the exclusive Guild 3-way balance. You can see for yourself what an amazing buy you'll get in this compact, new Guild Saw. Drop in at your dealer's today-or write us for complete information.

Value Features that make the A-8 Today's Best Buy

- Saws lumber, plywood, composition, plastics, transite, etc.
- Abrasive wheel cuts sheet metal and light bars; scores tiles, brick, etc.
- · Ventilated by unique turbine fan.
- Sawdust or grit cannot work back into motor or bearings.
- Air from front opening keeps cutting line clear.
- Blade is on right side—the easy-to-guide, safe location.
- Knob raises or lowers blade for any depth cut between 1" and 27/8".
- Extra-broad base for steadier rest on work.
- Helical gear power drive—delivers higher percent of power to blade.
- Saw arbor and flange one-piece steel.

- · Safety, retractable blade guard.
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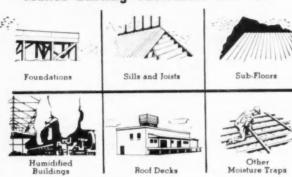
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Makes Lasting Customers for You



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- 3. Where wood is in contact with concrete or masonry.
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- Where wood is exposed to moisture in humidified buildings or farm buildings.

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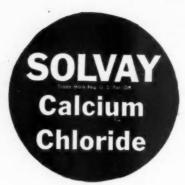
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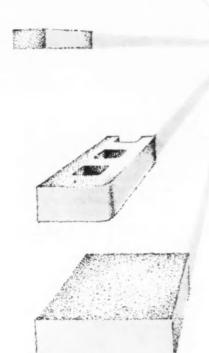
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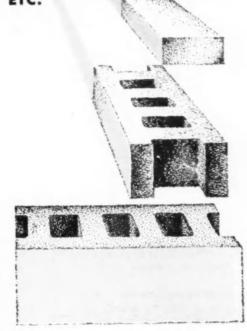
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BOOK REVIEW



PAINTING AND DECORATING CRAFTSMAN'S MANUAL AND TEXT BOOK, prepared by Painting and Dec-

orating Contractors of America. 450 pages, illustrated, 434 inches by 6½ inches. Theo. Audel. \$2.00.

Inasmuch as it is our intention from time to time to review worthwhile works of a more or less specialized nature, we can think of no better little book with which to start than this newly-published guide to the crafts of painting and decoration.

The volume is arranged in nine sections, each dealing with a separate subject. The first part on materials tells about pigments, oils, solvents, synthetic resins, other basic coatings, and accessory materials; next comes tools and equipment; then standard painting specifications and procedures; then an examination of paint failure and ways to avoid it; after this there is a simply written presentation of the subject of color; followed by chapters on wallpaper hanging; estimating and cost finding; there is also a helpful seventeen-page dictionary of trade terms; and finally a brief historical supplement that provides the student with a handful of facts about the age-old trade of painting. Did you know, for example, that the ancient Greeks used the tails and feet of fur-bearing animals for paint brushes? Or that in 17th Century England the practice of stencilling was downright unlawful since the licensed company of Paynters and Stevners considered it "false and deceitful work and destructive to the art of painting, being a great hinderer of ingenuity and a cherisher of idleness and laziness in all beginners in the said Art?"

One advantage that this book offers over some other vocational guides we have seen is that it not only tells the rehat and the hore of painting but also explains the whys-a real asset to the apprentice. It should not be assumed, however, that this is just another textbook. It is, in fact, a valuable pocket-sized reference work that contains a wealth of practical information generally useful to all journeymen, painters, and painting contractors.

THE SLIDE RULE, How To Use It, by Rufus T. Strohm and Archibald De Groot. 100 pages, illustrated, 51/4 inches by 61/2 inches. International Textbook. \$2.00.

While on the subject of books dealing with matters of specialized interest in the building field, we would like to call attention to a small yet comprehensive volume that explains by word and picture just how to use

a slide rule properly.

We recommend THE SLIDE RULE not because it is a new book-it was first published in 1939 and revised last year-but because it contains clear, concise instructions that are nicely keyed with pictures of actual slide rule settings. By following these simple directions the average person can soon learn to use the slide rule effectively for making calculations involving multiplication, division, proportion, finding powers and roots. Instructions are included not only for the standard Mannheim rules but for the various types of duplex and circular slide rules as well. Since it has been demonstrated that there is nothing difficult or mysterious about using a slide rule, there is no reason why it should not prove to be one of the best time saving tools in the builder's kit.

Here's an easy way to get new essential information that will help you increase your income. Every vol. ume a standard work by leading authority. Remember-it's the informed builder who is the successful builder.

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- 1. THE BUILDING ESTIMATOR'S REFERENCE BOOK and Vest Pocket Estimator (not sold separately). By Frank R. Walker, Most complete estimating and reference book. 1.687 pages, 800 illus., \$10.00
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Automatic, Forced Air Oil Burning Furnace, with front panel removed to show motor and blower. DU-44 CI is gravity model without blower or motor.

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H.C.Little Burner Company SAN RAFAEL, CALIF.

Catalogs and

604—UPWARD ACTING DOOR HARDWARE—A bulletin describing pivot type and jamb type hardware for residential and light commercial doors has been published by the Holmes Manufacturing Co., 211 N. Madison Ave., Los Angeles 4, Calif. Installation details are illustrated and a schedule indicating overhead-clearance for the various types of hardware is included,

605—OIL FLOOR FURNACE—Six-page, four-color folder describes in detail the H. C. Little oil-fired floor furnace. Included are complete specifications, cross section detail, and a cutaway photo of the product with thirteen important features shown. Offered by H. C. Little Burner Co., San Rafael, Calif.

606—SCHOOL BUILDINGS—An eight page brochure published by the Luria Engineering Corp., 500 Fifth Ave., New York 18, N.Y., contains drawings and floor plans of six Luria schools, including both modern and traditional styles of architecture. A description of the standard units is given.

607—"HOW TO SELECT YOUR WATER SYSTEM"—A 32-page booklet published by The Deming Co., Salem, Ohio, explains what to look for in a pump, and how to protect water supply against contamination. The firm's line of pumps are illustrated.

608—WATERPROOFING MANUAL—Comprehensive and instructive "Exterior Waterproofing Manual" is available from the Wurdack Chemical Co., 4956 Fyler Ave., St. Louis, Mo. Contains 29 pages of information on specification, method and amount of application, costs and other waterproofing factors.

609—FARM BUILDINGS—"Farm Building Construction Book No. 116," published by Starline, Inc., Dept. 116, Harvard, Ill., contains technical information and more than 100 drawings covering construction details of modern barn buildings. The 65 page book also provides comprehensive treatment of insulation and ventilation for farm buildings.

610—BRONZE MOULDINGS—A fully illustrated pamphlet issued by the Loxit Moulding Co., 1217 W. Washington Blvd., Chicago 7, Ill., furnishes information about applications of the firm's mouldings, as well as complete descriptions.

611—OUTDOOR FIREPLACES—"How to Enjoy an Outdoor Cook-Nook," a 52 page book published by the Majestic Company, Huntington, Ind., contains drawings of 11 fireplace designs, instructions for building outdoor fireplaces of varied sizes and styles and menu and recipe suggestions for outdoor meals.

612—"SOUTHERN PINE DIMENSION . . . ITS PROPERTIES, GRADES AND USES"—This booklet, published by the Southern Pine Association, New Orleans, La., is designed to assist designers, specifiers and buyers. It contains a number of useful tables and drawings.

613—TRUSSED RAFTERS—A new leaflet, prepared by the Timber Engineering Co., 1319 18th St., N.W., Washington 6, D.C., gives detailed information about clear span Teco trussed rafters, including assembly, erection, design and mechanics.

(Continued on page 134)

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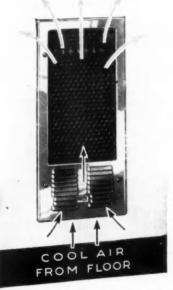
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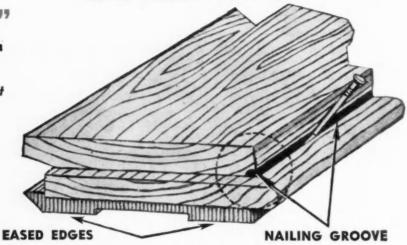
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Catalogs

(Continued from page 132)

614—DOOR LOCKS AND LATCHES—"Latching Your Doors the Low Cost Way," a well-illustrated booklet published by the National Brass Co., Grand Rapids, Mich., contains factual information about selection of types of latches for different doors in the house for utility, decorative effect and other considerations.

615—TOWEL BARS—"Chrome-Forever" towel bars, manufactured by General Chrome, Bridgman, Mich., are described in a folder issued by the firm. The folder illustrates uses of the towel bars and gives information about installation.

SERVICE COUPON-CLIP and MAIL to CHICAGO

Readers Service Department American Builder,

(August, 1949)

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*Please note that occupation must be stated if full service is to be given.

CORRECTIONS

In the June issue, item 579, page 140, name of manufacturers whose locks are described in their catalog "Preview" is the Best Universal Lock Co., Inc., 10 North Senate Ave., Indianapolis 4, Ind.

New address of the Independent Pneumatic Tool Co. is Aurora, Ill. Last month the firm's old address was published in connection with a catalog describing their "Silver Line" of Thor portable electric tools.

616—SHOWER EQUIPMENT—A catalog prepared by the Fiat Metal Manufacturing Co., 1205 Roscoe St., Chicago 13, Ill., contains illustrations and descriptive data for the company's line of shower cabinets, doors, receptors and accessories. It includes battery installation details, roughing-in details and construction features.

617—APPLICATION OF ASPHALT ROOFING-

a summary of recommended application practices for various types of asphalt roofing is given in new booklet, "Good Application Makes a Good Roof Better," published by the Asphalt Roofing Industry Bureau, 2 West 45th St., New York 19, N.Y.

618—HEATING EQUIPMENT—New revised edition of 28-page catalog issued by the Burnham Corp., Boiler Div., Irvington, N.Y., is titled "Dependable Heating Equipment." Illustrates fully the entire line of Burnham products, including boilers, radiators, radiant radiators and Base-Ray radiant baseboards.

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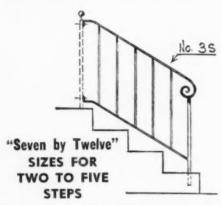
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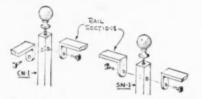
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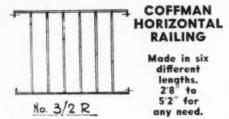


Coffman Stack Step Sections are standardized for 7 inch riser, 12 inch tread. Perfect alignment assured by Coffman precision craftsmanship, giving a finished job of great beauty.

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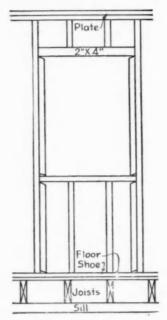
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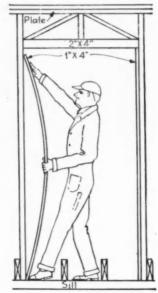


TECHNICAL GUIDE for Builders and Craftsmen

Framing of Door and Window Openings

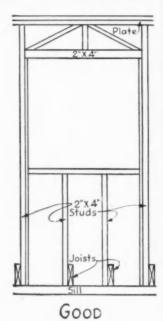


TYPICAL



HERE'S HOW!

WHILE double-framing of door and window openings is a requirement in most building codes and for FHA approved construction, often the installation of the extra studs below the header is a symbol of compliance rather than an added element of strength and support to the header and the construction above it.



Usually the header is installed first, and the inside 2x4 inch studs are cut to support it, but they often

actually fail to reach the header.

In order to save time and cost of material, the use of a 1x4 inch member on each side of the studs can be used instead of the usual 2x4. Either rough 1x4's may be used or 1x4 roofers, which must be measured and marked exactly for each side below the header.

When sprung into place as shown in the accompanying sketch and nailed to the standing stud, the combination of 2x4 and 1x4 is stiff and rigid and the trussed header will support the load of wall above without settlement.

The strength of the 1x4 in compression on end may be more than the shear-strength of the end of the header bearing on it, both being capable of sustaining more than the headers share of the load.

The real value of the 1x4 used in this manner in addition to the better type of construction obtained, lies in standing the 1x4 as well as the studs on the sill or plate below and not on the flooring. It permits nailing the studs into the sides of joists thereby obtaining greater rigidity to the wall construction. This type of construction applies to door and window openings alike. Erwin L. Schwatt, Atlantic City, N.J.

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Builders like KWIKSET'S low price, good looks, and rugged strength



Certainly, the price is low—because engineered craftsmanship makes volume production practical. You save money on the job, too...because easy 2-hole installation keeps time and labor to a minimum.

Good looks and ruggedness are built in! Kwikset working parts are of brass stampings or pressure-cast Zamak No. 5, the rugged, high-test* alloy that stands up under years of heavy service. External parts are (Top) 300—Emergency entry set for bedroom and bathroom doors. (Bottom) 400-5-pin tumbler entry locking set for exterior doors.

handsomely designed, beautifully hand-finished in polished or satin brass or chrome, or satin bronze... authentic for every traditional or modern residence. Materials and workmanship are unconditionally guaranteed!

Available for standard residential installations, with or without deadlatch. Write for file-size catalogue.

*Tensile strength, 45,400 lbs./sq. in.; compression strength, 87,000 lbs./sq. in.; impact strength, 18 ft. lb.

Manufactured by KWIKSET LOCKS, INC. Anaheim, California

passage set, for

interior doors.

Distributed by

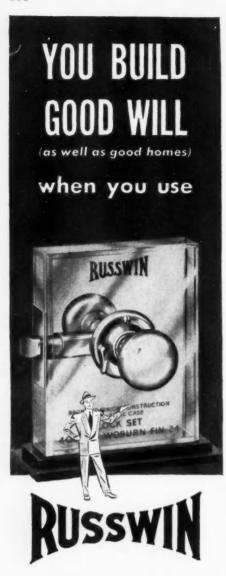
PETKO INDUSTRIES, INC.

1107 East Eighth Street Los Angeles 21, California Please send me complete information on Kwikset locksets and name of my nearest dealer.

AB-4

Name Company

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TUBULAR LOCKS and LATCHES

There are no costly call-backs for service or adjustments when you choose Russwin Tubular Locks and Latches for the homes you build. The name Russwin stands for quality construction—throughout. Which means you get such client-pleasing extras as the famous Russwin all-steel rack and pinion construction which assures smooth, positive, trouble-free action . . . the automatic throw-off safety feature (in case of accidental closing of door)—in a lockset that's easy to install.

See your Russwin dealer. Buy the hardware backed by over a century of experience—RUSSWIN, the "good will builders" in builders' hardware. Russell & Erwin Division, The American Hardware Corp., New Britain, Conn.



SINCE 1839
DISTINCTIVE
HARDWARE

Federal Government Enacts PUBLIC HOUSING LAW

CONGRESSIONAL action in July made public housing in the United States an established fact. There are those who are convinced that the passage of the Housing Act of 1949 constitutes the first and irrevocable step on the road to complete socialization. Similar laws in other countries have led to the liquidation of private building and the socialization of all housing. The results in those countries have been depressing. Housing standards have declined.

American Builder consistently has been among those who have been unable to see anything constructive in a public housing program. That view has not been altered by the passage of the Housing Act of 1949. However, the |American Builder does not see the beginning of the end of private enterprise as a result of the Act. If the principle of public housing is as demoralizing as we honestly believe it to be, the native intelligence of a free people can be depended upon to demand that it stop. And a Congress which, despite its admitted inadequacies in many crises, has always managed to return the nation to an even keel, can be depended on to repeal the Act.

If, on the other hand, public housing in some way not yet demonstrated can improve the nation's housing standards without killing individual initiative and removing the incentive of the children of low-income parents to improve themselves, American Builder will be the first to admit that its fears were ungrounded.

In the meantime American Builder will report public housing activities and the social and economic implications objectively. Editorial comment will be based on the facts as they emerge.

AS this is written (early in July) the Housing Act of 1949 needs only the signature of President Truman to become law. No one doubts that the President will sign the Act. Following the passage of H.R. 4009, which called for 1,050,000 public housing units, a joint committee of the Senate and House agreed to a limit of 810,000 units in the next six years. That amounts to 135,000 units a year. The President, however, is authorized to accelerate construction from 135,000 to 200,000 units a year, but with the total limited to 810,000 units in the next six years.

Federal subsidies are limited to \$308,000,000 a year for 40 years, but under the acceleration provision an additional amount up to \$55,000,000 a year may be pledged. A revolving loan fund of \$1,500,000,000 is authorized for interim short term loans. The maximum allowable cost limit is \$2,500 a room. That is exclusive of land, utilities, site preparation and equipment. Actually, the bill limits the cost per room to \$1,750, but provides that where the Administration finds that the \$1,750 limit is not feasible and that there is acute need for such housing, the cost per room may exceed \$1,750 by amounts up to an additional \$750.

With certain exceptions it is necessary for the local governing body to agree with the local public housing agency that within five years following the completion of a public housing project a number of unsafe and insanitary dwelling units substantially equal to the number in the project will be eliminated.

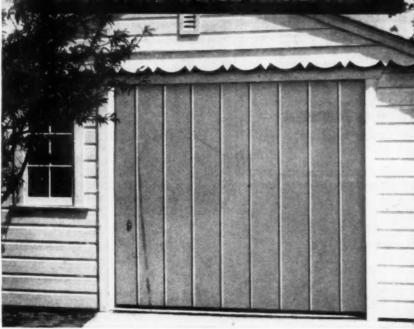
Fixing of maximum income limits to determine eligibility for admission and continued occupancy of public housing units is a function of the local public housing agency. Recommendations are subject to prior approval of the Authority, which also may require the agency to review and revise maximum income limits if the Authority decides that changed conditions make the revisions necessary. Certain priorities are established for the selection of families to be admitted to the low-rent public housing units. Periodic investigations are required to determine eligibility for continued occupancy. Eligibility preference is given to veterans of both wars. First preference is to families of veterans with service - connected disabilities; second to families of veterans who died as a result of service, and third to other veterans. The Authority may make no contract with a local public housing agency for low-rent public housing unless the agency has demonstrated that there is a gap of at least 20 per cent between the upper rental limits for proposed low-rent public housing and the lowest rents at which private enterprise unaided by public subsidy is providing decent, safe and sanitary housing.

Special provisions determine the eligibility of large families of low (Continued on page 140)

It's Easy to Sell the Door **Home Owners Want!**



LIFETIME GARAGE DOORS MADE OF N-A-X HIGH TENSILE STEEL



THE ONLY DOOR WITH ALL THESE ADVANTAGES:

"Glide-Away" is the only overhead-type garage door made of N-A-X High Tensile Steel for 50% greater resistance to distortion and denting, and 4 to 5 times greater resistance to rust and corrosion. And look at the other features: One piece, all-welded construction for extreme rigidity. Edges are completely flanged to eliminate all sharp surfaces. Full recessing with only 21/2" of headroom required. Space-saver, jamb-type hardware that provides smooth, gliding action without sacrificing interior space. Distinctive jamb-aligner and weather seal that assures perfect closure even for out-of-plumb openings; and easily-adjusted, spring-balanced mechanism that provides effortless operation. Yes, "Glide-Aways" are just what home owners want, because they're built for a lifetime of trouble-free service, good looks and utmost protection.

DESIGNED FOR QUICK, FOOLPROOF INSTALLATION

"Glide-Aways" are so simple to install that anyone can do it quickly and without special tools. Standard sizes include the popular 8' 6" x 7' door for wide, late model cars, in addition to 8' x 7', 8' x 7' 6" and 8' x 8'.

Double size is 16' x 7'. Special sizes available up to 16' wide by 8' high. Prices are competitive.

Stamping Products and Mfg. Co. Steel Door Division 628 E. Forest Ave., Detroit 1, Mich. Please send detailed information on "Glide-Away" Garage Doors. I am a

Builder,

Dealer,

Prospective Buver NAME ADDRESS

STEEL DOOR DIVISION STAMPING PRODUCTS AND MFG. CO.

628 E. FOREST AVE. . DETROIT 1, MICH.

PUBLIC HOUSING LAW

(Continued from page 138)

income for public low-rent housing. In such cases the annual family income, less an exception of \$100 for each minor, may not exceed five times the annual rental including the cost of water, electricity, gas, other heating or cooking fuels and other utilities. That is the provision for admission. For continued occupancy, the local housing agency may allow from the net income of any family, an exemption of \$100 for each minor member of the family (except the head of the family and his spouse) or all or any part of the annual income of each

The slum clearance section of the Act provides loans in the amount of \$1,000,000,000 during the next five years to local communities for the acquisition and clearance of slum properties. In addition, \$500,-000,000 in grants is authorized to defray two-thirds of the difference between acquisition cost and resale value. Land can be acquired for slum clearance purposes only after a public hearing following notice of date, time, place and purpose of such hearing.

Authorizations are granted for unlimited appropriations to the Housing and Home Finance Agency to conduct research in materials, methods and techniques. The program can concern itself with standardized building codes, standardized dimensions, and methods of production, distribution and assemblv.

Title V of the law-farm housing -places the government in the business of making direct loans to farmers for building, replacing or improving farm houses or farm buildings. Loans may be made at interest rates not to exceed four per cent, and for periods not to exceed 33 years, provided that in the opinion of the Secretary of Agriculture the applicant has the ability to repay the loan. Grants are also provided for land acquisition and development purposes. Total authorization for this loan and subsidy program for farms is \$325,-

FHA amendments included in the Act extend Title I to September 1, 1949, and extend Section 608 to August 31, 1949. An increase of \$500,000,000 in the insurance authorization of Title II is provided.

Whereas the House bill provided that preference for occupancy in development and re-development projects be given to families dis-

(Continued on page 142)

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HARD TO SELL?

Are you driving prospects away by trying to sell 1939 houses in a 1949 market? Are you up to date? Are you giving today's prospects the beauty, quality and ease of maintenance they demand by using today's quality materials in houses designed for today's living? You will be surprised at the ease with which such houses are sold.

When you select materials, remember this: No other single item can increase the salability of a house more than floors of WRIGHT RUBBER TILE.

HOW WRIGHT RUBBER TILE MAKES HOUSES MORE SALABLE

Ideal for today's homes, WRIGHT RUBBER TILE gives a house extra beauty that makes every prospect want to call it "home"!

They will be even more enthusiastic when you show them that WRIGHT RUBBER TILE is the easiest of all floors to keep clean.

You clinch the sale still more when you point out the comfort of WRIGHT RUBBER TILE—and when you call attention to how much quieter it makes a house.

Then, when you assure them that their floors of WRIGHT RUBBER TILE will still be new-looking the day their house is paid for, they will be ready to sign the papers!

AND YOU MAKE MORE PROFIT

One builder reports that by spending less than \$200 extra for WRIGHT RUBBER TILE, he could sell his houses faster—and at a \$500 premium! Many other builders, from all sections of the country, are reporting similar experiences.

Don't delay! Start making *your* houses easier to sell by installing WRIGHT RUBBER TILE in kitchens, bathrooms, halls and other rooms. Call your flooring contractor or write us for full information and samples. WRIGHT MANUFACTURING CO., 5205 Post Oak Road, Houston 5, Texas.



THE FINEST FLOOR COVERING IN THE WORLD IS MADE IN TWO DIFFERENT TYPES:

WRIGHTEX is the soft rubber tile for homes, churches, hospitals and other places where extreme quiet and comfort are desired. **WRIGHTEX** wears longer than any other brand of rubber tile made.

WRIGHTFLOR Hard Surface Rubber Tile is especially recommended for restaurants, offices, public buildings, and wherever traffic is extremely heavy. No other resilient floor covering is as durable, economical and low in over all cost as WRIGHTFLOR. It stands supreme!

WRIGHT-ON-TOP Compression Cove Base is now available in twenty colors! WRIGHT-ON-TOP, the perfect "tie-in" between floor covering and wall fits snugly, resists scuffing and lasts a lifetime. This smart, smooth, glossy wall base is now being made in all twenty field tile colors—to provide the perfect mate for WRIGHTFLOR and WRIGHTEX Rubber Tile.



WRIGHT RUBBER TILE

FLOORS OF DISTINCTION

"Big Savings on Small Jobs"

Hydrocrane owners find this fast, truck-mounted unit ideal for quick digging on housing and light commercial projects. It saves man power and keeps excavation moving at a fast clip. Here are a few examples:

DIGGING WATER CONNECTION PITS

"We saved 22 man hours by using a Hydrocrane to dig house water connections. This unit is particularly good when working below overhead wires and in tight quarters. Also, it's very handy for digging between sidewalks and curbing."—D-V Construction Company, West Allis, Wisconsin.

TRENCHING FOR HOME SEWERS

"This is the most remarkable machine I have ever seen in my work for digging street to house trench for water and sewer pipe. It gets into tight spots and really moves along on the road. On one job we saved 48 man hours over hand labor."—John B. Przbylski, Contractor, Milwaukee, Wisconsin.

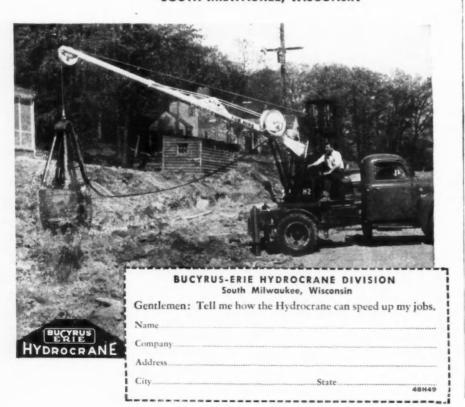
EXCAVATING FOR AND INSTALLING SEPTIC TANK

"We often dig 200 ft. of drain trench and install a 540 gallon septic tank in eight hours with a Hydrocrane — once we did it in six hours. Hand methods required three men one-half day to set tank, three days to dig ditches, one day to lay pipe and place rock. We save about 100 man hours with our Hydrocrane."—Winchester Building Supply Co., Winchester, Virginia.

In addition to digging, you can use the Hydrocrane for countless hoisting, material handling and hauling jobs. Send the coupon for full details.

BUCYRUS-ERIE HYDROCRANE DIVISION

SOUTH MILWAUKEE, WISCONSIN



PUBLIC HOUSING LAW

(Continued from page 140)
placed by reason of the project, the
final bill contained no such provi-

Determination of wages to be paid to on-site building labor is to be entirely in the hands of the Secretary of Labor.

The House bill contained a provision requiring that none of the appropriations, loans or expenditures be used to pay the salaries of persons belonging to organizations asserting the right to strike against the government, or who belong to organizations which advocate the overthrow of the government by force or violence. The final bill limits the requirement only to officers or employees of the Housing and Home Finance Agency and the Department of Agriculture.

The foregoing are the highlights of the bill as reported out by the joint Senate and House committee. The final vote in the House was 228 to 185, recorded only after one of the bitterest and tightly contested struggles in recent years.

Prior to the final vote on the entire bill in the House, a vote was taken on the public housing section. The section was defeated 168 to 165. Then a record vote was called for. The record vote was 209 to 204, a plurality of only five votes. Of the 204 votes against public housing, 63 were Democrats and 141, Republican.

The fact that the final vote was 228 to 185 is not an accurate indication of the bill's support. Many of the switches on the final vote were made for political reasons by Congressmen who, seeing that the fight was lost, saw no reason to jeopardize re-election in districts where the votes of strong public housing minorities are necessary.

Passage of the Housing Act of 1949 probably is not the end of legislation respecting housing that the current Congress will pass. A number of bills designed to aid private enterprise are under consideration.

First, the Senate recognizing the need for temporary relief approved a new \$500,000,000 authorization for FNMA. The action was taken on July 8, and it was expected that the House would concur before the end of the month. The Senate took that action while S.712 was still awaiting consideration by the Senate Banking and Currency Committee.

S.712, before hearings and debate, is reported to provide for making FHA Title I permanent with a large increase in its authori-

(Continued on page 144)

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Double Duty INSULITE

BOARD and PLANK



THIS beautiful new interior finish, with rich textured surface in buff and oyster white, will give every room modern beauty plus extra insulation. It's not only decorative, but practical and durable. Resists scuffing and rubbing ... cleans easily, paints easily.

NEW IMPROVED METHOD OF APPLICATION

Ingenious new INSULITE Clip helps assure easy, accurate, economical application. Joint and Clip combine to produce an accurately aligned, level ceiling or wall surface. Long nailing slot in Clip accommodates practical variation in position of nailing member-makes nailing easier, faster.

APPLIED JOB STAYS RIGID AND LEVEL

Close, tight inter-locking joint stays trim and neat-panels stay rigid and level. You get smart, handsome finished jobs that attract attention, build new business, and give you a reputation for perfection.

See Sweet's File for Builders — 2c/11

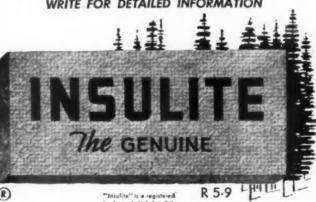
BUILDS VINSULATES



MANY USES - MANY VARIATIONS

Ideal for restaurants, taverns, lounges, stores, display rooms, and home construction. This product now readily available in variety of widths and lengths for interesting pattern arrangement.

WRITE FOR DETAILED INFORMATION



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Crystalorome

With its tasteful designs that combine lustrous chrome on solid brass with clear, sparkling crystal, Hall-Mack Crystalcrome adds a dramatic new touch to bathroom styling. It is fast becoming the choice of more and more architects, builders and contractors for fine bathroom accessories...accessories that are new in appearance, new in design, yet made for a lifetime of practical daily use.

Crystalcrome Accessories are available for all bathroom needs, from towel bars, soap dishes and paper holders to shelves, robe hooks, and toothbrush holders—and in regular wall and recessed types. If you have not received your copy of the new Crystalcrome Catalog, write today.

Crystalcrome Accessories are a part of the complete Hall-Mack line. Standardize on Hall-Mack—and know that in one line you can find accessories and cabinets that meet your most exacting requirements whether you're planning a millionaire's mansion or a low-cost housing project.

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SOAP AND GRAB

TUMBLER AND TOOTHBRUSH HOLDES

1344 WEST WASHINGTON BOULEVARD, LOS ANGELES 7, CALIFORNIA 7455 EXCHANGE AVENUE, CHICAGO 49, ILLINOIS

PUBLIC HOUSING LAW

(Continued from page 142)

zation, perhaps one billion dollars. It had been proposed that the bill include an extension of Section 608 until March 31, 1950, and to provide for FHA operating expenses to be paid out of earnings. This latter proposal would eliminate the need for Congress to vote an annual appropriation for operating FHA. Another provision would set up 95 per cent, 30-year mortgages up to \$6,650 for two-bedroom houses, plus \$950 for each additional bedroom not exceeding four, up to \$8,550, with an 85 per cent firm commitment to the builder up to \$7,650. The bill was expected to call for an increase in FNMA authorization

S.1184, the Wherry bill, had passed the Senate by early July, and had been reported out by the House Banking and Currency committee. It contains certain provisions for aiding builders to construct rental units on leased land at military establishments. It provided FHA insurance up to 90 per cent, and granted an authorization of \$500,000,000, with an additional \$500,000,000 to be made available at the discretion of the President.

Armstrong Cork Extends Wholesale Distribution

THE Armstrong Cork Co. has added Cushiontone, perforated fiberboard acoustical tile, to its products wholesale distribution effective July 1. Formerly this product was distributed only through acoustical contractors. Announcement of the extension of Armstrong's program of wholesale distribution was made before over 300 wholesalers, special guests, and Armstrong field men at the second annual convention of Armstrong's building materials wholesalers.

Several other changes in merchandising and selling plans and policies were announced at the convention. These include the development of wholesale salesman's seminars, a plan by which groups of 12 wholesale salesmen will be brought to the company's home offices for a one-week training period during each seminar.

Armstrong executives who spoke at the convention reaffirmed their faith in the over-all stability of the building materials industry even though economic conditions result in a down turn of construction,

C. J. Backstrand, Armstrong first vice president, said there is no economic situation ahead of us that cannot be mastered by "sound planning, intelligent leadership, and hard work."

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-that's what a Kansas construction firm says of the DELTA Multiplex Radial-Arm Saw

on one \$12,000-\$15,000 house"

You cut job time and costs, with a Delta Multiplex. Two men can carry even a cabinet model, so it's easy to take right to the job.

That's like bringing along a whole shopful of handy tools. You can use a Delta Multiplex blade at any angle — and get 100% mitering capacity. The patented "Versatile Elbow" sees to that. It's a center-pivoted track that carries the cutting head and rotates 360°.

With a Delta Multiplex, you cut the full length of the sliding arm on both right-hand

— and left-band — miters from 0° to 90°! The blade moves through practically the center of the table. Your work rests on the full table and you get full-capacity cuts.

Your nearby Delta distributor has Multiplex models with rip capacities up to 6". Inspect them there. See for yourself the Delta Multiplex features that assure you of safety, speed, convenience, capacity, and economy.

Send coupon for descriptive literature.



Look for the name of your Delta distributor under "Tools" in the classified section of your telephone directory.



	TEAR	OUT	COUPON	AND	MAIL	TODAY
ļ	POWE ROCKY 3802H	R TOOL VELL M	DIVISION, IANUFACTURE roe St., Milw	NG CO.	Wis.	
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Miter Compound
Miter
Plow Dado
Rabbet Shape

does all this

-and more!

Cut-off

Model 20A — for cutting interior trim

An exceptionally low-cost portable machine. Can be carried easily in the back of your car. Has a rip capacity up to 2".



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HEATILATOR*

Fireplace Unit

The Heatilator unit is a scientifically designed form around which any style of fireplace is easily built. Complete from floor to flue, it actually circulates heat . . . gives protection against the common causes of smoking.

Saves Time . . . Saves Materials

- * SAVES cost of building downdraft shelf and smoke dome.
- * SAVES cost of separate damper and its installation.
- * SAVES time and labor in forming firebox and throat.
- * SAVES cost of firebrick and labor to line firebox.

The Heatilator name on the dome and the damper handle is your protection—refuse substitutes.



Write today for installation data.

HEATILATOR, INC.

353 E. Brighton Ave., Syracuse, N. Y.

*Heatilator is the registered trade mark of Heatilator, Inc.

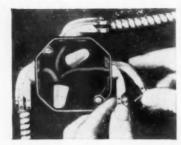
HEATILATOR FIREPLACE

NEW PRODUCTS

(Continued from page 126)

CABLE CONNECTORS AB8921

"Harbot" 3/8-inch connectors, for attaching armored cable to knockout boxes in electrical installations, form rigid fitting to protect wiring from damage at point of

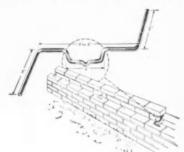


entry to box. Each of two parts has grooved lip which engages edge and inside surface of standard 1/8-inch knockout opening. Operating on simple cam-wedge principle, it is possible to install connector from outside of box after wiring hook-up is completed. Does not project into box, allowing full use of interior. Unimatic Corp., 52 East Centre St., Nutley, N.J.

CAVITY WALL TIE

AR8914

A new moisture drip feature of "Rock-Fast" cavity wall lie is designed for permanent protection of the tie from corrosive action of moisture, lime and mortar. Ties are manufactured with six-inch stem,



with two-inch spacer for two-inch cavity; and with eight-inch stem, with four-inch spacer for four-inch cavity. Produced in high strength zinc clad, steel alloy copper clad and stainless steel wire. Rockford Fastener Co., P.O. Box 353, Rockford, Ill.

DOUBLE CASEMENT WINDOW AB3920

Malta twin casement kitchen window unit is fully modular for masonry, frame, block or veneer construction; is adaptable to



varied types of construction and wall thicknesses. Manufactured in variety of light sizes. Water-tight sill joints and sill supports are patented features. Unit is assembled, glazed, weather stripped and treated at factory. Malia Manufacturing Co., Malta, Ohio.

(Continued on page 150)



OF ALL GARAGE DOORS to INSTALL and PAINT

Costs Less

- 1. TO BUY
- 2. TO INSTALL
- 3. TO MAINTAIN





tenestra PRODUCT

The Strand all-steel one-piece door-leaf eliminates field assembly of single doors-receding or canopy type (8' x 7'). Receding-type doors for double garages (16' x 7') are quickly assembled from two 8' x 7' door-leaf units and splice channel.

Hardware comes already assembled, and serves as an installation templet. Only ordinary tools are needed-no "factory trained expert" is required and installation is surprisingly quick and easy.

Strand Doors are easiest to paint because they're galvannealed for rust-protection-with a heavy galvanized zinc coat, oxidized to provide an excellent base for paint without special priming coat. They can be painted to match any color scheme.

The strength of steel-that can't warp, sag, rot or shrink-assures lifetime durability and means a satisfied customer for you every time you install a Strand Door. Volume production, concentrated in one plant, and standardization on three models, make Strand doors an unequalled value! Order from your dealer, or

COUPON FOR INFORMATION AND DEALER'S NAME

ALL-STEEL . GALVANNEALED . OVERHEAD

FOR SINGLE AND DOUBLE GARAGES STRAND GARAGE DOOR DIVISION Detroit Steel Products Company Dept. AB-8, 2250 E. Grand Blvd. Detroit 11, Michigan

Please rush detailed description of Strand all-steel Garage Doors, for 8' x 7' and 16' x 7' garage openings.

I am a Builder Dealer Prospective Owner Other

Name Address

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More Glass means

here's proof from Pittsburgh

IN BANKS OR BAKERIES...shoe stores or hat shops, "open vision" fronts help achieve the same end — more business. "Pittsburgh's" complete line of quality glass products and "Pittsburgh's" trained and skilled installation crews have helped to create talked about "open vision" fronts across the country. So when you're selling store fronts, remember — your job will be easier when you mention "Pittsburgh" Products — and the store will be a better one if you use them.

MODERN HOMEOWNERS want mirrors such as this. Every modern home needs them. While the full-pender door mirror tops the cal applications are: over ens and entrance halls for mirrors not only increase the increase your profits as well.

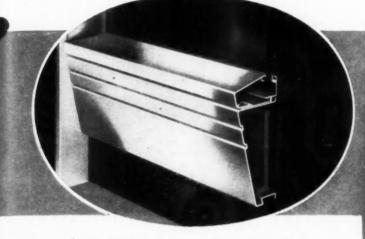


* Design it better with.

MOS' vie cau les



etter Buildings



2 PITTCO DE LUXE MEMBERS - a sill-sash combination — have been designed to simplify installation and reduce the hazards of glass breakage in certain types of modern store front design. Setation ting procedure is so simple that a substantial saving in setting time is usually effected. The sill was designed to recess the Carrara Structural Glass bulkhead, providing toe room and protection. Invertible sill members offer variety in styling.



TO HELP YOU make better Carrara Glass installations, a new Carrara edge point-ing compound has been developed in "Pittsburgh" laboratories. Setting into a tough, resilient, non-absorbent film, this new compound maintains high adhethis new compound maintains high adnesion to the edges of the Carrara Glass. This development is typical of the work being done in "Pittsburgh" laboratories to improve the performance of all "Pittsburgh" glass products in service, as well as the quality of the products themselves.

Free . We will gladly send you free our special "Builders Kit" which includes illustrated literature bow you can use glass effec-

showing how you can use glass effectively on all types of jobs in which are interested.



MOST HOMEOWNERS want to take full advantage of pleasant views. That, of course, calls for picture windows. Because of its perfect transparency and brilliant flawless surfaces, Pittsburgh Polished Plate Glass is ideal for picture windows. And where insulated windows are required, we suggest Twindow — "Pittsburgh's" window with built-in insulation.

with.

Pittsburgh Glass

Pittsburgh Plate Glass Company 2259-9 Grant Building, Pittsburgh 19, Pa. Please send me without obligation your "Builders Kit" of illustrated literature. State Address.....

· PLASTICS

PLATE SBURGH GL





SAVE INSTALLATION TIME AND MONEY... hold up to 10,000 lbs. in any Solid Material

When you find it necessary to fasten objects such as machinery, shelving and electrical equipment to solid floors, walls and ceiling, you can save yourself time and trouble by using Paine Expansion Screw Anchors No. 900 (screws are not included). These anchors are quickly set in place to make a permanent anchorage that is capable of supporting up to 10,000 lbs., depending on the size used. They can be used in stone, marble, concrete or any other solid material. They are rust proofed and vibration resistant. A Setting Tool comes in every box. The anchors are stamped with size and thread of bolt or screw to use and have a directional arrow identifying which end goes in the hole.

Use a Paine Sudden Depth Rotary Drill bit for quick, accurate holes or, for the occasional user, use a Paine Hand Hammer Star Drill.



*For the Paine 1/4-20 drill a 1/2" hole, at least 7/4" deep.



Place the anchor in the hole with the arrow on the anchor pointing down.



Place set tool on anchor and pound until anchor is set.



Screw the object to be anchored as tightly as possible.

*Dimensions in first illustration apply to Paine 1/4-20 only.

THE PAINE COMPANY

2959 Carroll Avenue Chicago 12, Illinois OTHER PRODUCTS Spring Wing Toggle Bolts Hanger Iron, perforated Expansion Anchors **Expansion Shells** 'Sudden Depth' Drills Star Drills Wood Screw Anchors Malleable Shields Pipe and Conduit Clamps Special Hanging and and Straps Fastening Devices WRITE FOR CATALOG

NEW PRODUCTS

(Continued from page 146)

HOT WATER BOILER AB8910

Horizontal type hot water boiler is designed for use as medium for either baseboard, radiant or conventional water heating in low-cost housing. Can be fired inter-



changeably with breese or gun type burner or gas-fired equipment. Maximum capacity is 70,000 B.T.U.'s; and unit recovers 93 gallons of water per hour at 87 degree rise. Outside jacket dimensions are: 18 inches wide, 18 inches high and 39 inches long. Burner equipment projects from the above jacket. Dewey Shepard Boiler Co., 1311 N. Capitol Ave., Indianapolis, Ind.

PLYWOOD PANELS

ARR911

Douglas fir, California redwood and Southern pine are plywoods chiefly used in "Ply-

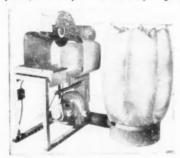


tex." Panels, 4 feet by 8 feet, are produced in variety of hues and tones, or may be finished with clear lacquer. Triwood, Inc., Napanee, Ind.

MASONRY SAW

AB8931

Fireproofer masonry saws feature easilyadjusted patented cutting table. To cut materials of varying thickness, adjust by simply lifting table. It automatically locks in place, and may be lowered by fingertip



control release levers. Model ADF, one of four models, is dry-cutting saw with a built-in dust collector. Utilizes two 1½ HP shielded motors. Manufacturer makes blades for cutting every type of masonry material. Diamond blades for wet cutting and several types of abrasive blades for both wet and dry cutting are available. Martin Fireproofing Corp., 2200 Military Rd., Buffalo 17, N. Y.

(Continued on page 152)

1949.

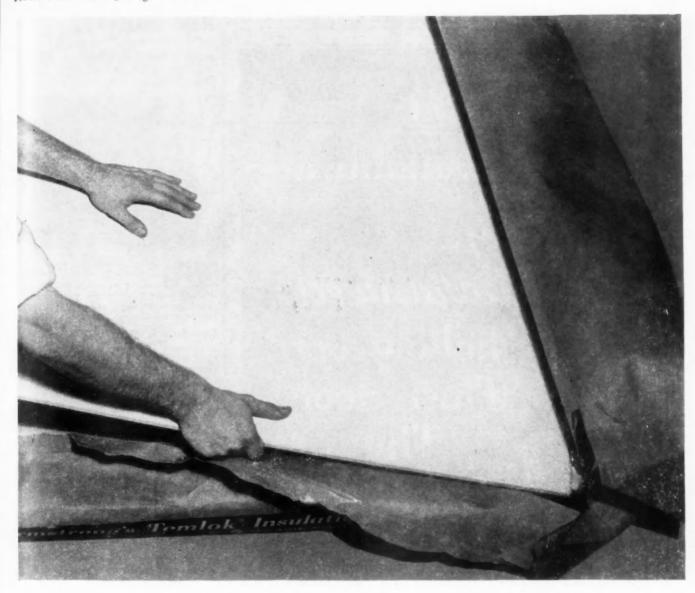
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New smooth finish for Temlok board

A new smooth, "ironed-on" finish is now being applied to Armstrong's Temlok® Insulation Board. The color of Temlok board is now a pleasing "warm white." This new surface is designed to meet the need for an interior finish material that is bright and attractive yet economical to install and maintain.

The satiny smoothness of Temlok is produced by big heated rollers that iron paint evenly over the surface of the board. This smoothness makes "warm white" walls and ceilings of Temlok practical for home construction as well as for farm and commercial building and remodeling.

The board itself is the same strong, durable fiberboard that has already made Temlok popular with carpenters and builders. On the job this strength makes Temlok easy to handle and install. Temlok's insulating efficiency is important to your customers, too. It cuts the cost required to maintain comfortable inside temperatures.

Armstrong's Temlok Insulation Board is available in 4' widths, 6', 7', 8', 9', 10', and 12' long. For samples and complete information about this improved interior building material, see your lumber dealer or write Armstrong Cork Co., 1608 Ross St., Lancaster, Pa.





resin-bonded trouble-free door with the patented construction has been timetried and time-proved by over three million installations in buildings of every type from coast to coast.

> Rezo doors are now available to all dealers.

Manufactured by the NE LUMBER CO., LTD.

NEW PRODUCTS

(Continued from page 150)

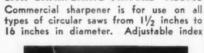
SANDER-EDGER-POLISHER

The "Jyro" is a light, rotary type sander, edger or polisher, especially adapted for



rapid stock removal where fine finishing is not required. Weight is 41/2 pounds. Unit is ball-bearing equipped throughout. AC-DC motor in which no gears are in-corporated provides silent operation. Peninsula Tool Co., Inc., Menominee, Mich.

SAW SHARPENING FIXTURE AB8903





finger sets distance between each saw tooth during sharpening operation. Entire table top may be tilted more than 30 degrees on either side, set at correct angle to meet requirements for different saw types and for uniform angle on lead edge of each saw tooth. Treyco Products, 264 Hartford Ave., Buffalo 17, N.Y.

POWER TENONER

"Powermatic" motor driven, single end tenoner is used in making windows, doors, screens, storm sash and doors, cabinet work, etc. Has top and bottom heads,



upper and lower cope spindles and cut off attachment. Table is of easy rolling type with clamp for holding material. A 2 HP motor drives tenon heads and cut-off saw. Woodworkers' Tool Works, Inc., 222 S. Jefferson St., Chicago 6, III.

(Continued on page 154)

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TODAY'S OF THE STATE OF THE ST

Beautiful Joints at No Extra Cost!

Why didn't somebody think of it before? That's the question builders are asking about Nu-Wood Sta-Lite Board with the new SHADOW-LINE edge! For here's a board that solves the problem of getting decorative and beautiful joints with board installations—at no extra cost!

Saves Several Dollars per Thousand Feet!

All first-rate interior finish jobs require some kind of joint treatment. Such treatments normally cost several dollars per thousand feet, whether done at the factory or on the job. With Shadow-Line Board, this expense and time on the job are completely eliminated. This Nu-Wood product creates a beautiful, modern shadow-line effect—with plus values of distinctive texture and lasting light reflection!

For more attractive interior finish jobs—at moderate cost
—investigate Nu-Wood
Shadow-Line Board.
The coupon will
bring you complete information!



- New, modern effects . . . the joint between boards now adds a distinctive, decorative touch to interiors.
- Nu-Wood Shadow-Line Board and decoration are applied in one operation . . . no further decoration is required.
- No "on-the-job" processing because edges are factory-finished.
- 4. Attractive walls without use of moldings or other joint treatment.
- 5. Faster application . . . can be applied directly to framing, no furring strips needed.
- Chamfer on shadow-line edges provides better edge protection during shipment and application.
- Shadow-line edge conceals movement of joints caused by dimensional changes.
- 8. Can be used on sidewalls and ceilings.

WOOD CONVERSION COMPANY

First National Bank Bldg., St. Paul 1, Minn.

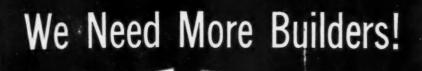
BALSAM-WOOL* • Products of Weyerhaeuser • NU-WOOD*

*Reg. U. S. Pat. Off.

WOOD CONVERSION COMPANY
Dept. 119-89, First National Bank Bldg.
St. Paul 1, Minnesota
Please send me complete information regarding
Nu-Wood Shadow-Line Board.

Name.....

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



We said "Somebody
Will Sell
TRI-LEVEL HOMES
in Your Market."

NOW YOU CAN SEE THIS
SENSATIONAL LOW COST,
3-BEDROOM HOME!
There's Or Near You

GRADE AND LOWER

LEVEL Perregtion and

Recreation and Utility Space WITHOUT BASEMENT COST

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GRADE AND UPPER LEVEL

Three Bedrooms and Bath All on Upper Level

Other Builders
have proven that
TRI-LEVEL means:
Low Cost, TOP QUALI

Low Cost, TOP QUALITY,
QUICK SALES, EASIER FINANCING

Hou Must See It!

Words—even pictures—can't describe the uniqueness of the TRI-LEVEL. It offers privacy with spaciousness and compactness. It has a fabulous amount of storage and closet space. It provides a basement without basement costs and 7 rooms including 3 bedrooms.

In most areas TRI-LEVEL sells below \$10,000 and its evaluation is invariably above the sale price.



Limited Territories still open for Factory Representatives

LUMBER FABRICATORS, INC.

FORT PAYNE, ALABAMA

Write Today

For booklet and address
of model nearest you.
Many other low cost, fine
quality models available.

NEW PRODUCTS

(Continued from page 152)

PICKET POINTING MACHINE AB8940

Hand-operated machine makes fence pickets in three styles of Gothic points: short, medium and long. Points pickets available



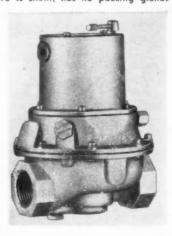
in any length; flat pickets are from 1½ to 6 inches wide, and square pickets are from 1 to 1½ inches wide. Woodworkers' Tool Works, Inc., 222 S. Jefferson St., Chicago 6, III.

DRYING AND CURING FAN AB8905

A direct-connected 42-inch fan, designed especially for farm drying and curing operations, the "Ilg-farmaire" mounts a castaluminum, non-overloading fan wheel to operate against resistance from products being dried. Fan has 5 HP, 1140 r.p.m. 220 volt, I phase, 60 cycle Ilg. ball-bearing capacitor motor. Handles cribs and mows, with delivery of 25,000 cubic feet of air per minute at one-half inch static pressure and 20,000 cubic feet per minute at three-fourths inch static pressure. Ilg Electric Ventilating Co., 2850 N. Crawford Ave., Chicago 41, Ill.

GAS CONTROL VALVE AB8928

B-50 electric diaphragm gas valve is designed for reliable control of natural, manufactured, mixed and liquefied petroleum gases in space and unit heaters, central, floor and wall furnaces and boilers. Valve is silent, has no packing glands or



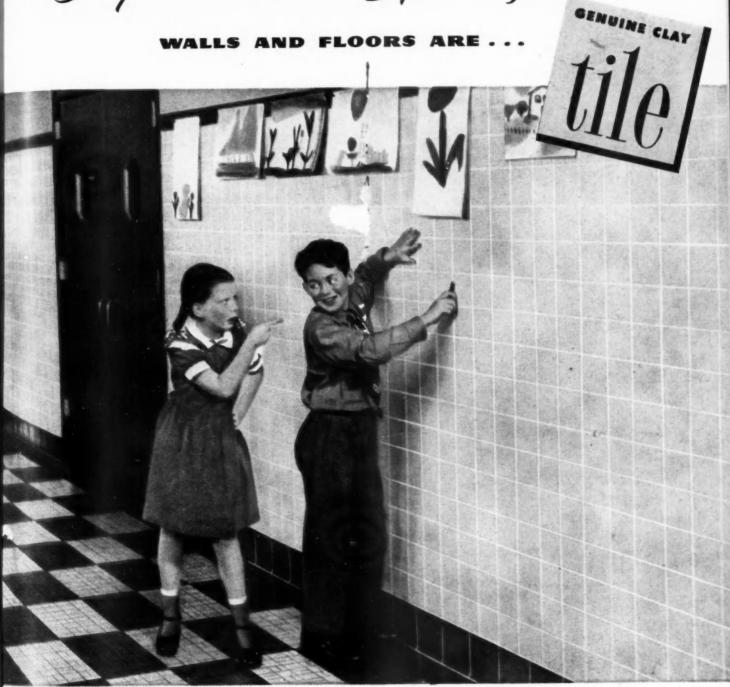
bellows. Low current consumption of 5 watts. For low or line voltage applications. Standard model and manual opening model with or without electric trip. Two small and medium sizes and three large sizes, ranging from $\frac{3}{8}$ -inch to $\frac{11}{2}$ -inch, with diaphragms from $\frac{1}{2}$ -inch to $\frac{5}{4}$ inches. General Controls Co., 801 Allen Ave., Glendale I, Calif.

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FOR Easy MAINTENANCE - Sparkling GOOD LOOKS



The maintenance superintendent of this modern school says: "I can wash down all the corridors in this building in a single day. Without tile, it would be a two to three week job!"

Yes, floors and walls of sparkling clay tile are easy to clean . . . keep their gleaming spic-and-span freshness for a lifetime. Even the pranks of mischievous youngsters leave clay tile's finish unimpaired. And the rich colors won't fade because they are fired in.

Water? It leaves no tell-tale streaks or fade-marks on a clay tile

surface. Soaps, acids and greases are handled with equal ease.

And wherever you use it, clay tile means maintenance-cost savings that clients appreciate. It's in to stay—it stays good looking!

Today, genuine clay tile is available—there is no need to accept substitutes. For specific information, see Sweets Architectural or A-E-C File, THE TILE COUNCIL OF AMERICA, Room 3401: 10 East 40th Street, New York 16, New York. Room 433: 727 West Seventh Street, Los Angeles, Cal.

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

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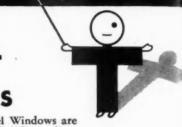
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PARTICIPATING COMPANIES: American Encaustic Tiling Company Inc. • Architectural Tiling Company, Inc. • Atlantic Tile Manufacturing Company • B. Mifflin Hood Company • Cambridge Tile Manufacturing Company • Carlyle Tile Company • General Tile Corp. • Gladding, McBean & Company • Mosaic Tile Co. • Murray Tile Company, Inc. • National Tile & Manufacturing Company • Olean Tile Company • Pacific Clay Products • Pacific Tile and Porcelain Co. • Pomona Tile Manufacturing Company • Robertson Manufacturing Company • The Sparta Ceramic Company • Summitville Face Brick Company • United States Quarry Tile Company

THE MODERN STYLE IS CLAY TILE

TRUSCON ARCHITECTURAL **PROJECTED** STEEL WINDOWS

• Truscon Architectural Projected Steel Windows are especially recommended for use in any building where ample ventilation and freedom from drafts are important considerations. Outward projecting ventilators may be kept open during inclement weather; the ventilator acting as a canopy to deflect the rain and yet allow ventilation. The lower, inward projecting ventilator prevents drafts by deflecting air currents toward the ceiling. Projecting ventilators permit easy cleaning from the inside.



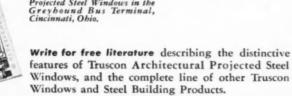
Wide Range of Types and Sizes

Truscon Architectural Projected Windows are adaptable to a great many different types of buildings, where their smartness and utility will help add appearance and value. Use nature's free sunshine and fresh air by installing Truscon Architectural Projected Steel Windows - the nation's favorite for beauty and efficiency.



A typical large-scale installa-tion of Truscon Architectural Projected Steel Windows in the Greyhound Bus Terminal, Cincinnati, Obio.

P-0002 ANGION MALLOWED LOPUS 18 228 238 238 238 238 238 238 238 238 23	DIMENSIONS SHOWN ARE WINDOW OPENING DIMENSIONS. ALL SWINDOWS SHOWN AS VIEWED FROM OUTSIDE. ONLY STANDARD MARDWARE CONSISTING OF SOLD OWNERS FOR OPEN-OUT VEHTS, AND ETHER BROWZE LOCKING MANDLE OR BROWZE SPRING CATCH FOR FOLE OPERATION OF OPEN-IN VEHTS, WILL BE VEHINSHED. ALL WINTS ARE PREPARED TO RECEIVE TRUSCOM STRINGES SIZE FOR ALL OPEN-OUT VEHTS, AND FIRES SIZE FOR ALL OPEN-OUT VEHTS, AND FIRES SIZE FOR ALL OPEN-OUT VEHTS, AND FIRES SIZE FOR FOR ALL OPEN-OUT VEHTS, AND FIRES SIZE FOR ALL OPEN-OUT VEHTS, AND FIRES SIZE THE SIZE FOR SIZE FOR ALL OPEN-OUT VEHTS, AND FIRES SIZE FOR SIZE THE SIZE FOR SIZE FOR ALL OPEN-OUT VEHTS, AND FIRES SIZE THE SIZE FOR SIZE FO	25.	₽ 211	-00 -00 -00 -00 -00 -00 -00 -00 -00 -00	5'-O\(\frac{1}{6}\)" M M M M M P P 233T P P M M M M M M M M M M M M M M M M M M
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YOUNGSTOWN 1, OHIO Subsidiary of Republic Steel Corporation Warehouses and sales offices in principal cities Manufacturers of a Complete Line of Steel Windows and

Mechanical Operators • Steel Joists • Metal Lath • Steeldeck Roofs • Reinforcing Steel • Industrial and Hangar Steel Doors • Bank Vault Reinforcing • Radio Towers • Bridge Floors



more home comfort... more planning freedom

WITH CRANE BASEBOARD HEATING!

Crane Radiant Baseboard Panels are as inconspicuous as they are efficient... especially when painted to match the walls. They heat rooms evenly throughout, from the floor up. Best of all, these modern panels permit complete freedom in furniture arrangement they claim no valuable floor or wall space.

Crane Radiant Baseboard Panel Heating is economical and utilizes the maximum amount of heat developed by the heating system. Available in two types (Type R, Radiant—Type RC, Radiant-Convection), baseboard panels may be used with 2-pipe steam or hot water systems—they're completely practical for remodeling as well as for new homes.

See your Crane Branch or Crane Wholesaler for full information on Crane Radiant Baseboard Panels.



crane boilers cover every heating need. Among them are, left, the CRANE SIXTEEN Boiler, a completely packaged boiler-burner unit; and, right, the CRANE TWENTY Boiler, which may be installed to burn coal, or later converted to stoker, oil, or gas.



CRANE

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one side (Type C) of tough knoth paper. Reflects
one side (Type C) of tough knoth paper. Reflects
one 95% of radiant heat. Moisture vapor frammission
practically all 0.10 grants sq. ft. hr. for

Facts (not claims)
that every architect
should know about

REYNOLDS ALUMINUM REFLECTIVE INSULATION

crawl space: Between floor joists over unheated areas, shown unshaded in ground plan above, this is the only practical, economical insulation and vapor barrier.

One layer of Type B meets FHA requirements in most areas. Approximate conductance coefficient 0.10.

The accepted specification. (Above Garden Apartments, only a small part shown, insulated by The Fireproof Products Co., Inc., N. Y.)

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

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

REYNOLDS Lifetime ALUMINUM BUILDING PRODUCTS



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

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

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

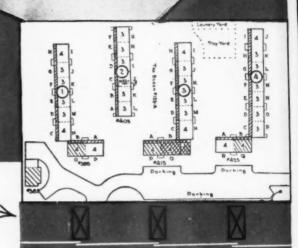
Please send me A.I.A. File Folder on Reynolds Aluminum Reflective Insulation.

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AMERICAN-Standard First in heating ... first in plumbing

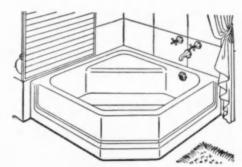


Designed for the job...

American-Standard is keenly interested in seeing that the products you specify or buy are appropriate for your particular jobs.

In the complete American-Standard line, you will find heating equipment and plumbing fixtures designed and styled to fit in with any type of architecture . . . and to complement any decorative scheme. They are all properly proportioned in size and lines; their finishes are durable; and they are available in pleasing and permanent colors.

For detailed information about the complete line, contact your Heating and Plumbing Contractor. American Radiator & Standard Sanitary Corporation, P. O. Box 1226, Pittsburgh 30, Pa.



The NEO-ANGLE Bath. Only 4 feet square, this luxurious bath actually provides roomier bathing space, yet fits into shorter wall lengths than conventional baths. Distinctive, modern shape adds pleasing touch to any bathroom.



Serving home and industry

AMERICAN-STANDARD + AMERICAN BLOWER + CHURCH SEATS + DETROIT LUBRICATOR + KEWANEE BOILER + ROSS HEATER + TONAWANDA IRON

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There's a comfort reason for using wood windows! Sit close to one on a winter day . . . feel how the natural insulating qualities of wood help create comfort by resisting the transmission of cold. In summer you can feel that wood windows do not "heat up" readily.

Ponderosa Pine is an ideal wood for windows. Smooth, even-grained, it provides an excellent bonding surface for all finishes. Its low thermal conductivity discourages condensation, resulting in fewer decorating bills. As Ponderosa Pine is a workable material, its use in windows provides maximum flexibility of styling and design combinations. Ponderosa Pine windows are now available, treated at the factory with a scientific wood preservative process. This treatment is in accordance with high industry standards and adds still more years to the long life of wood. Ponderosa Pine Windows are available in modular standard sizes in a wide variety of styles.

for friendly living Ponderosa

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"Today's Idea House"—32-page Booklet—full of photo-graphs showing how Ponder-osa Pine windows, doors and frames create more conven-ient, more comfortable living.

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d me a copy of "Today's Idea House."
d me a copy of "Today's Idea House," (Please print,)

WOODWORK

Reputation for Good . . .

(Continued from page 79) Architect Philip Resnyk of New York City. Royal Barry Wills has also done work for them.

The Wilnot Woods project, now being completed, is an especially attractive residential park in one of the finest sections of Westchester county. Homes here range from \$25,000 to \$35,000. One of the lowerpriced designs is a five-room colonial ranch type with attached garage, designed by Resnyk, to sell for \$25,500 on a 75x110-foot lot. The foundation, including a full basement, is of concrete blocks. Exterior walls are a combination of brick veneer and asbestos cement shingles with asphalt shingles on the roof.

Interior walls are finished with three coats of plaster over gypsum lath. Ceilings and sidewalls are insulated with mineral wool and windows are double-hung aluminum. Select oak hardwood floors are used throughout except in kitchen and bathroom. Both walls and floor are ceramic tile. The interior doors are all six-panel colonials. The kitchen here, as in all Haring & Grant houses, received special attention with top-quality cabinets, formica counter top, combination sink, good lighting, large window areas, and a ventilating fan. Plumbing fixtures are Standard and the furnace is a gas-fired forced warm air unit made by Richmond Radiator. Copper pipe is used for all the water lines and hot water is supplied by a Bryant gas-fired unit.

Finish hardware is by Dexter with a Skillman lockset on the front entrance. The garage door is a Wel-Bilt upward-acting unit. Landscaping is included in sale price.

Another example of the type of construction being offered in Wilmot Woods is a \$32,500 ranch type house with six rooms and 21/2 baths located on one-third of an acre. The general specifications on this house are about the same as the house described above except that the heating unit here is a Janitrol gasfired forced warm air furnace and the hot water heater is a 70-gallon gas-fired Rheem tank.

An unusual feature in all Haring & Grant houses is a floating basement floor. Before the floor is poured a drainage system is laid in gravel and connected to a dry well. When the floor is poured, forms keep it four inches from the foundation walls on all sides. This 4-inch space is then filled with clean gravel to assure a basement floor that is

(Continued on page 162)



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(Continued from page 160) always dry. Any condensation that might accumulate on the walls and run down them disappears into the 4-inch-wide gravel bed to be drained away underneath the floor,

The current 36-acre Hickory Hill operation is to consist of 155 \$18,000 to \$20,000 houses built from two basic floor plans with seven different exteriors. They will have full basements with concrete block foundations. The usual diagonal wood sheathing, which is standard with Haring & Grant, will be used here also. The windows in these houses will be Truscon steel double-hung with stainless steel weather stripping. Exteriors will be finished with asbestos cement shingles or Permastone with asphalt shingles on the roofs.

Interior walls will be finished with three coats of plaster over gypsum lath and floors will be select oak. Kitchens are to be equipped with Youngstown cabinets and a gas range. Bathrooms will be finished with ceramic tile and plumbing fixtures are Standard. Most of the houses, which are to be twostory in design, will have powder rooms on the first floor. A woodburning fireplace will be a feature of each of the houses in Hickory Hill. Copper gutters, metal venetian blinds, basic landscaping are standard with all this firm's houses.

Homes are not turned over to purchasers until yards are cleaned, graded and seeded and interiors of the houses are cleaned throughout, including a complete window washing job. Conscientious attention to details and quality throughout the construction job by all employes charged with supervision is no small factor in maintaining the excellent reputation of this firm for turning out fine homes in well-planned, attractive neighborhoods.

Fred Walters to Direct Hotpoint Marketing Program

FRED J. WALTERS, vice president of Hotpoint, Inc., has been named director of the company's marketing activities, James J. Nance, president, announced recently. Walters has served for the past two years as the firm's vice president in charge of industrial relations.

Walters, who joined Hotpoint in 1947, was for 15 years associated with a manufacturer in the automotive industry. Prior to changing to the industrial relations field during the war, he started as a retail salesman and advanced to managerial and sales executive posts.



14 DISTINGUISHED FEATURES—here is the finest ceiling-type kitchen ventilator you have ever seen or heard! It's easy to install. It's automatic in operation. It's simple to clean (grille, motor and fan unit just lifts off). It has large Cfm capacity combined with super-quiet operation. It has a new hinged grille, motor and fan assembly (easily removed and replaced for cleaning) with built-in electrical plug which automatically breaks circuit when unit is removed. It has an insulated outer door with new spring booster control. This is just PART of the story—call nearby Branch Office (consult classified directory) or send coupon for complete details!

HURRY! G	ET FREE
NEW BULL	ETIN!
ILG ELECTRIC VENTILATING	со.,
2852 N. Crawford Ave., Ch	icago 41 III
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	new 10" Ceiling Ilgette Kitchen Ventilator.
	new 10" Ceiling Ilgette Kitchen Ventilator.
Rush Bulletin No. 523 on	new 10" Ceiling Ilgette Kitchen Ventilator.
Rush Bulletin No. 523 on	new 10" Ceiling Ilgette Kitchen Ventilator. Title

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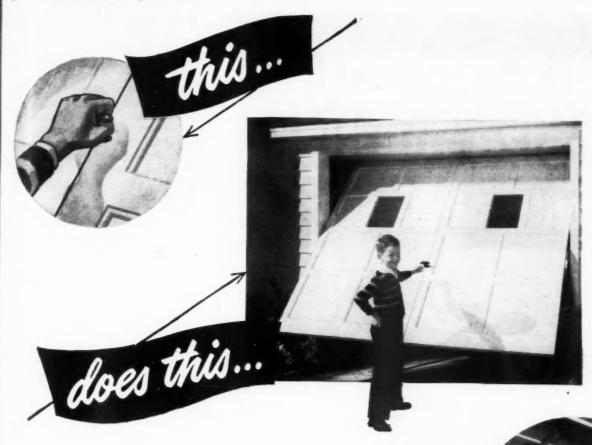
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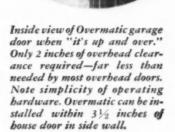
when it's a CURTIS OVERMATIC!

No strong muscles needed to open a Curtis Overmatic garage door. One turn of the handle—and the door glides up and over. Anyone who can open a house or car door can open the Curtis Overmatic—and a slight pull closes it from outside or inside.

In the Overmatic, Curtis answers the problem of providing a truly modern overhead garage door at moderate cost! The Overmatic fits an opening 8'x7', providing ample clearance for any style car. It comes as a complete unit with all hardware, ready to install.

Greater Strength with the New Prespine Panels

The door panels in the lightweight Overmatic are made of Curtis Prespine—a superior new wood product manufactured exclusively by Curtis. Prespine Panels will resist heavy impact blows—won't mar or scratch readily... won't splinter or chip. Prespine has superior bending strength, withstands warping, shrinking and swelling and it provides an excellent bond for paint or stain.

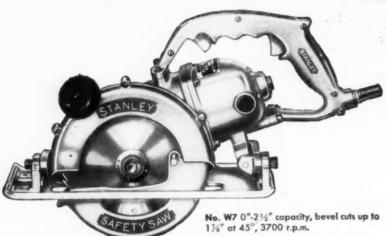




When in New York: visit the Curtis Woodwork display at the Architects' Samples Corporation, 101 Park Avenue.

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	Curtis Companies Service Bureau AB-8-0 Curtis Building, Clinton, Iowa
	Gentlemen:
	Please send me literature on the Curtis Overmatic garage door
	Name
	Address
	CityState
	I am () Architect () Contractor () Prospective Home Builder () Student (Please check above)

More powerful... size for size STANLEY SAFETY SAWS



No. W8 0"-2¾" capacity, bevel cuts up to 2½" at 45°, 3500 r.p.m.

No. W9 0"- $3\frac{1}{4}$ " capacity, bevel cuts up to $2\frac{1}{4}$ " at 45° , 3300 r.p.m.

FASTER ... More power and less weight.

TOUGHER... Aluminum alloy base, heat-treated. Heavyduty ground gears. Swivel points on steel trunnions.

SMOOTHER... Gears adjustable for proper mesh. Ball bearing mounted. Forced oil lubrication.

EASIER... Duplex handle with 2-position, independent trigger switches. Simple wing nut depth of cut adjustment and scale for bevel cuts up to 45°.

SAFER... Cutting edge covered at all times. Blower removes saw dust ahead of cut.

COMPLETE... Comes with combination rip and crosscut blade, ripping gauge, wrench, lubricant and carrying case.

Sold by your industrial distributor
Stanley Electric Tools, New Britain, Conn.



Reg. U.S. Pat. Off.

HARDWARE . HAND TOOLS . ELECTRIC TOOLS . STEEL STRAPPING

Conventionally Built . . .

(Continued from page 95) on the tables. When completed the walls are moved by an overhead hoist to their places and are nailed.

The setting of rafters and application of roof sheathing is done in the third position. As the house moves on, the wood shingles are applied and part of the wiring, heating and plumbing is installed. All parts needed are in the bins on one side of the assembly line, so no time is wasted.

With the roof on, the house in position five, moves out of the shed or enclosed portion and the rest of the work is not under cover. However, since the furnace is in place, gas can be piped in in cold weather, and the house heated with its own furnace. In this position plasterboard is applied and made ready for painting.

In number six the plasterboard is painted, cabinets installed and linoleum is laid over kitchen and bathroom floors. Metal lath is placed for kitchen and bathroom tile. At Bakersfield the company makes the cabinets in its own shop on the premises. In the next position the ceramic tile, in colors previously selected by the buyer is set in place, and the fixtures are installed in the bathroom.

In position eight the hardware and lighting fixtures go in and the final coats of paint, both inside and out, are applied. In number nine the floors are again sanded and then finished and waxed.

In the tenth position the now completed house is raised on jacks about 18 inches above the rollers so that the three-wheeled dolly on which it is to travel can be slipped under it. The floor joists are attached to the heavy steel I-beams of the dolly which are V-shaped corresponding with the three wheels. Experience has shown that houses can be moved in this way with practically no racking. Curran says the trucks frequently travel at 30 miles per hour on good roads and that even when they have to traverse bad roads virtually no damage is done. Of course the unusually heavy construction, i. e., 2x12 floor joists, 2x6 ceiling joists, 4x6 headers over doors and windows, and the steel strapping of floor joists as well as wall sections is responsible for the "moveability" of the house.

At the lot where the foundation has been previously prepared (four walls and a concrete wall through the center) the dolly is backed right up to the foundation and the house deposited exactly in place on jacks and then lowered to the foundation walls and nailed in place. If the truck and dolly cannot get this close for any rea-

(Continued on page 166)

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Conventionally Built . . .

(Continued from page 164)

son the house is placed in front of the foundation on a cribbing of heavy timbers and then pulled by a winch and rollers onto the foundation.

There are openings in the concrete walls through which heavy I-beams used to support the house while in transit and while it is being lowered, are removed. These opening are later plugged with concrete blocks. The floor joists are toenailed to the redwood sills on the foundation walls; gas, electricity, water and sewer connections are made, a skirting board is applied to cover the concrete and the trim is put on and the last two items are painted. The owner is given the key—ten days after his house was started.

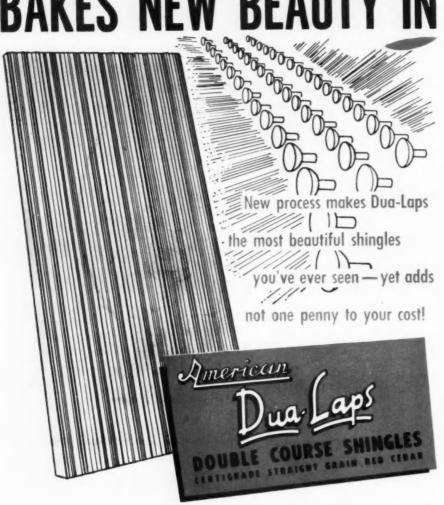
FHA, Veterans Administration and the local building departments involved have given their unqualified endorsement to the houses, because in addition to the heavier lumber and the bracing already mentioned quality materials are used throughout. Many nationally advertised appliances are used; the sink top and drainboard are ceramic tile as is the backsplash. The same type of tile is used on two walls over the tub; cabinets are painted on the inside: eaves are boxed in, cedar shingles are used on the roof: three coats of paint are given all surfaces inside and out; some of the cabinets have rounded corners; there is a laundry tray in some kitchens, guest closet in some models.

A wide choice of design is offered buyers in Bakersfield. There are five basic floor plans and these can be had with different roof and porch treatments and window placements. The prices ranging from \$4,700 to \$8,550, include completion of the house ready to move into-there are no extras. Sewers or cesspools are connected; concrete walks to the front property line as well as the usual rough grading are included. It should be emphasized that these houses are qualitybuilt in every respect and that when placed on the foundations they cannot be distinguished from homes built on the site in the conventional way. Therefore their resale value is maintained and they have the added advantage that should the owner desire to move his house to another location he can do so. The houses are guaranteed for 90 days against defects in workmanship and materials.

The production line is not limited to single-family dwellings. Duplexes and medical buildings as well as garages have been made. One of the important features of this system of building is its flexibility with regard

(Continued on page 168)

GIANT INFRA-RED OVEN BAKES NEW BEAUTY IN



NOW!

- A harder, more durable protective finish.
- A more beautiful, more uniform coating.
- Available in all greys.

New glowing beauty, a wonderful evenness of tone that you've never before seen in a shingle! Thanks to our Infra-Red drying process, American Dua-Laps are better protected during application and while in

Butted and squared and tapered perfectly for easier application, Dua-Laps can be laid with a full 12" or 14" exposure over solid or spaced sheathing. Double coursing gives home owners double insulation value.

Write for samples to be sent direct from our warehouse stock.



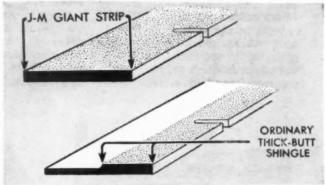
Johns-Manville GIANT STRIP

... the heavier, more rugged asphalt shingle that

"Stays put"

Here is a shingle that gives greatly increased protection against wind, weather, and fire. It is the J-M Giant Strip, so named because it is extra thick and extra heavy. The entire surface has extra coating of selected weather-resisting asphalt, in which colorful, fireproof, mineral granules are uniformly embedded. This results in a thicker, more rugged shingle—one that "stays put" and lasts longer.

Entra thickness over ENTIRE surface



Sketch shows how extra protection is built into the J-M Giant Strip. Note that the entire surface—not just the exposed portion—is covered with an extra thickness of asphalt and fireproof granules. On the ordinary thick-butt type of asphalt shingle only the butts have the extra thickness.

When you sell J-M Giant Strip Shingles, you provide the homeowner with a product backed by 90 years of roofing experience. And it has the Johns-Manville name, recognized by millions as the mark of quality in building materials.

For further details, write Johns-Manville, Box 290, New York 16, N. Y.



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PORTABLE ELECTRIC POWER FOR

Saws...Screw Drivers...Planers...Floor Sanders
Grinders...Pipe Threaders...Cutters...Drills







You'll finish more jobs in less time with KOHLER Electric Plants

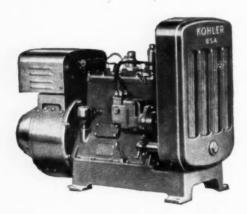
Whether you need a compact generator for small power tools or a large model for more power, there's a Kohler Electric Plant that will fit your requirements perfectly.

Kohler Electric Plants are convenient, easy-to-handle sources of electric current which your men can move rapidly from one place to another. They are particularly valuable when you build homes or cottages in outlying districts, lake resort areas and other places where central station electricity is not available—for they enable carpenters, electricians and plumbers to use many time-saving power tools. A carpenter using a power saw, for example, will

be able to do a faster job at a lower contract price.

Where power line service is available, you'll find many occasions when it is far more practical and convenient to use a Kohler Electric Plant than to buy the current you need. There are, indeed, many ways in which your investment in Kohler Electric Plants will pay dividends. One contractor recently said: "In the short time we've had it, the plant has already paid for itself."

Sizes range from 350 watts to 10 KW. A Kohler field representative will gladly advise you as to the most practical unit for your needs. Write for illustrated folder E-9. Kohler Co., Kohler, Wis.





Model 350M21-K7, 350 watts, 115 volt AC. Manual Control. Length 17%, width 11%, height 16% ". (Above)

Model 3A21, 3KW, 115 volt AC. Automatic start and stop. Length 41", width 16", height 27¼". (At Left)

KOHLER OF KOHLER

PLUMBING FIXTURES . HEATING EQUIPMENT . ELECTRIC PLANTS

Conventionally Built . . .

(Continued from page 166)

to change of models. Recently Curran considered the advisability of reducing his prices but finally decided that it would be better to give more house at the established prices. So he revised his plans and the very next day was able to make the change effective. This same flexibility takes much of the gamble out of operating during a period of falling prices; materials and subcontracts do not have to be committed for months ahead of the actual building of the houses.

Mobilhome in Bakersfield operate their own carpentry and painting crews as well as their own cabinet shop but make arrangements with subcontractors to do the balance of the work. The subs fit their work into the assembly line technique.

FHA and G.I. financing is available to buyers. A \$500 deposit is required by Mobilhome before the house can be scheduled for the production line but if the buyer owns his lot and proves eligible for 100 per cent financing he can get the initial payment back if he wants it. A typical instance on Plan 720 is as follows:

Cost of home	\$5600 1200
Total	\$6800
FHA loanGI loan	
Total	\$6120

Down payment for veteran, \$680 plus closing costs.

Down payment for non-veteran, \$1200 plus closing costs.

The closing costs including fire insurance will run about \$180. The monthly payment for veterans will be \$51.75 and for non-veterans \$48.98 including taxes and insurance, both based on FHA 20-year loans. If the applicant owns the lot its appraised value may be deducted from the down payment.

Lumber, in Transit, Treated at St. Louis

RAIL shipments of lumber and plywood may be treated for resistance to fire, rot and vermin while in transit at St. Louis and delivered to their destinations at regular through rail rates, according to an announcement by Fox Brothers Manufacturing Co., St. Louis, operators of a Protexol chemical impregnating plant.

The Protexol process is listed as standard by Underwriter's Laboratories, Inc. The Fox company also has kiln drying and specialized wood fabrication facilities.

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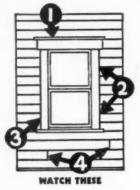
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(Continued from page 113) building materials expand and contract due to temperature changes, changes in humidity cause the wood to expand and contract, but, because of the greater density of summerwood, it expands and contracts a different amount from the springwood. Naturally, this means that a paint, successfully to hold to wood without cracking, must be able to stretch with the wood. It must be tough, elastic, and fewilde.

Cedar, cypress and redwood, used in large quantities for siding and trim in present-day building construction, rank as among the best "paint-holding" woods, lumber experts at the Government's Forest Products Laboratory assert.

To provide the most durable and long-lived paint film on redwood sid-



ing, the California Redwood Association recommends that:

(1) The siding be protected from rain or moisture conditions from the time it is delivered on the job, nailed on the building, and painted.

nailed on the building, and painted.

(2) That carpenters be especially careful to join squared ends closely together (see No. 4 in sketch) after first sealing ends of siding boards with white lead and oil of creamy consistency. That ends of siding be sealed and tightly joined against door and window casings (see Nos. 2 and 3). That carpenters make sure that all metal flashings over windows have been properly put on (see No. 1) to prevent rain from getting down behind siding which may later soak through to painted surface.

(3) That the priming coat of paint be applied before any rain or fog reaches the surface of newly applied siding. If an unexpected rain should wet unprimed wood, always postpone applying first coat of paint until all water has re-evaporated completely from the siding. This means after one day of sunshine or drying winds have thoroughly dried the siding.

(Continued on page 172)



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ACTUAL COST OF A ROOF?

You'll never know exactly what a roof costs until it's worn out, or until its service fails. Then it may prove terribly expensive... or it may prove to have been an excellent investment.

Investment ... that's the word for a roof of Bird Master-Bilt® Shingles... the kind of strong, lasting investment your clients and customers expect you to make for them. Master-Bilts add rich beauty and texture ... they're available in many colors and blendes, in more variety than any other roofing material. Bird's experience since 1795 is reflected in the narrow cut-outs, the heavy shadowlines, and the massive Bird thick-butt construction (extra layers of asphalt and mineral granules where it counts ... on exposed tabs). Bird processes every material...another reason for the unparalleled quality of these shingles.

This fact is equally important... Bird Master-Bilt Shingles are economical because of the long life built in them... a fact daily becoming more important in the specification of good roofs.

Let us send you full information about Master-Bilt and Master-Bilt Weather-Tex designs. Bird & Son, inc., 18 High St., East Walpole, Mass.

BIRD Master-Bilt SHINGLES

East Walpole, Mass. New York



Chicago Shreveport, La.





UNIVERSAL-RUNDLE CORPORATION
NEW CASTLE, PENNSYLVANIA

PLANTS IN New Castle, Pa.; Camden, N. J.; Milwaukee, Wis.; Redlands, Calif.



Am. rica

Correct Paint

(Continued from page 170)

(4) That plastering in the new house be dried out by opening windows for plenty of ventilation so moisture is not forced through the walls into siding which will cause paint to peel.

(5) To secure the most durable and satisfactory paint job, pure white lead in oil or the highest grade mixed paint obtainable should be used. Select a brand of highest quality sold by a reliable dealer.

Causes of Blistering and Peeling

When blistering of exterior paint occurs, it is almost always caused by moisture trapped behind the paint film and drawn outward by the heat of the sun. Although the surface to which the paint was applied may have been dry at the time of painting, moisture penetration from within the walls is often the cause of this failure.

Briefly, interior moisture originating from water vapor or "humidity" which is present in the air in various amounts both indoors and out, will,

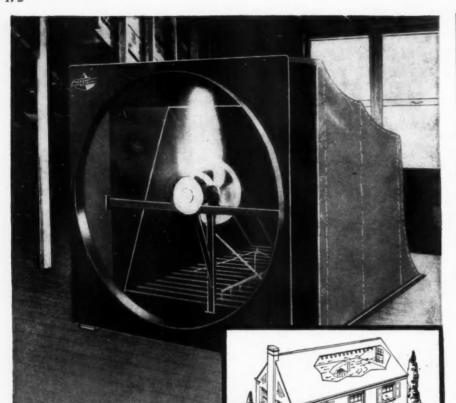


HEATED AIR HAS PRESSURE FORCING MOISTURE VAPOR
OUTWARDS, WHEN PROPERLY
POLICED THIS VAPOR EVITS
HARMLESSLY. WHEN NOT
CONTROLLED, IT MAY LEAD
TO MANY DISTURBANCES,
INCLUDING PAINT FAILURE.

under the proper circumstances, pass through certain building materials. This generally occurs when indoor humidity and temperature are comparatively high and the outside temperature is low. When the moisture-laden warm indoor air passes through the walls and strikes the colder exterior part of the walls, condensation occurs and droplets of water form. These cause the trouble—blistering of the exterior paint.

When houses were built "roomy" and were not too tightly constructed, adequate ventilation, intentional or otherwise, allowed the house to breathe. Thus, during the summer, when the weather humidity was low, there was some opportunity for a

(Continued on page 174)



Horizontal-discharge fan installed over ceiling opening, with automatic shutters, and canvas plenum chamber.

SAVE HALF

the installation costs for clients by including an EMERSON-ELECTRIC ATTIC FAN when the house is built!

Clients appreciate the savings you can show them by planning to include an Emerson-Electric Attic Fan in new homes or major remodeling jobs during construction. Savings up to one-half—as compared with later installation costs—are easily effected. In addition, you assure your clients of a completely satisfactory, economical home cooling system that will give extra years of trouble-free service. These powerful fans quickly and quietly exhaust hot, stagnant air . . . replace it with a continuous flow of cool night air drawn in through windows and doors in living quarters . . . providing "sleeping porch comfort."

Sleeve-bearing fans are available in blade sizes from 24 to 48 inches for

horizontal-discharge mounting in outside wall or as illustrated; also ball-bearing type for vertical-discharge mounting in four blade sizes from 30 to 48 inches. Capacities up to 19,350 cubic feet of air per minute. See your electrical supplier, or write for Home Cooler Fan Bulletin No. B-49.

SPECIFY EMERSON-ELECTRIC KITCHEN FANS



Please ber with a Kitchen Ventilator Fan...
to whisk away heat,
smoke and cooking
odors, prevent spread
of greasy vapors to
walls and drapes. Easy
to install in any type of
construction. Models
for wall and ceiling
installation.

THE EMERSON ELECTRIC MFG. CO. . St. Louis 21, Mo.



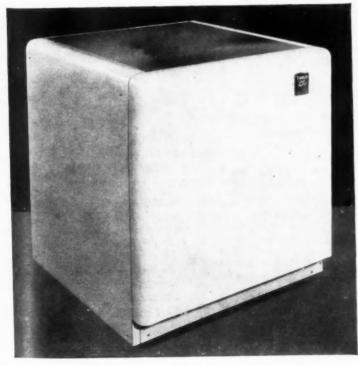
A FAMOUS NATIONAL MAGAZINE asked LEVITT AND SONS, of Long Island, N.Y.-

"What gave Timken Silent Automatic the winning edge over all competition for your 1949 heating business in the \$20,000 home class?"

ND BILL LEVITT REPLIED:

"When you see the new Timben
"When you see the new Timben
Silent Automatic Kitchen-Type
Silent Oil Boiler, you will understand.

It's a terrific job!"



Here is the first all-in-one house-heating and water-heating unit for kitchen installation-the new Timken Silent Automatic Kitchen-Type Oil Boiler. The counter-high cabinet, finished in sparkling white and topped by a stainless steel work surface, contains a house-heating boiler fired by the Wall-Flame Oil Burner, instantaneous water heater, expansion tank, circulating pump, tempering valve and automatic controls. WHEN YOU SEE THIS REVOLUTIONARY NEW UNIT, YOU TOO WILL UNDER-STAND WHY ADVANCE ORDERS FOR THE TIMKEN SILENT AUTOMATIC KITCHEN-TYPE OIL BOILER ARE MOUNTING SKY-HIGH!

> Write for Free Literature Today!

TIMKEN Silent Automatic

OIL . GAS . COAL

TIMKEN SILENT AUTOMATIC DIVISION

The Timken-Defroit Axle Company • Jackson, Michigan



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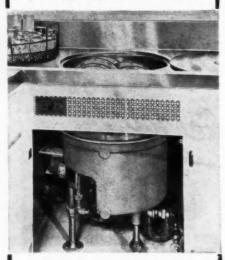
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INVESTIGATE THE JACKSON BUILT-IN HOME DISHWASHER NOW!

For more "SELL" to the homes you build, equip the kitchen with a JACKSON DISHWASHER. No other unit can equal the performance of this extremely fast-operating, dependable machine.



To install, simply cut hole in drain board and make hot water and drain connections.

- 70 SECOND OPERATION!
- EXCLUSIVE DOUBLE-REVOLV-ING SPRAYS!
- WASH WATER RECIRCULATED BY PUMP SYSTEM!
- FITS BEAUTIFULLY IN EVERY TYPE KITCHEN—NEW HOMES OR OLD.
- BACKED BY 24 YEARS EXPERI-ENCE IN THE DISHWASHING FIELD. PROVEN PERFORM-ANCE!

Write Today
for illustrated literature

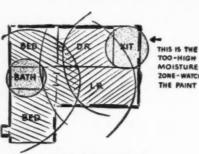
JACKSON DISHWASHER COMPANY

DISHWASHING SPECIALISTS SINCE 1925 3703 EAST 93:4 STREET CLEVELAND 3, OHIO

Correct Paint

(Continued from page 172) fair balance between indoor and outdoor humidity. Walls were seldom insulated and were not too tight, and the exterior finish materials, such as sheathing and siding, were at a higher temperature relative to their temperatures in insulated walls. These two hazards worked together to reduce the hazard of moisture condensation in walls.

Today's homes have much higher humidities in the winter time. The use of humidifiers and air condition-



PRIME MOISTURE SOURCES ARE KITCHEN AND BATH, EXCESS MOISTURE USUALLY STRIKES FIRST AT STRUCTURE IN THEIR VICINITY

ing systems, more bathrooms, greater use of home laundries and kitchens have added to the amount of moisture in the average new home. Not only is more moisture produced, but in many cases it is confined to smaller spaces.

Another reason for higher humidities in the modern home is that tighter construction, due to the use of weather stripping, storm sash and caulking materials, as well as other improvements in construction, literally "bottles up" the moisture and forces it out through the walls.

Several effective remedies can be used to overcome condensation trouble. One is to suitably ventilate the house. Another is the installation of a vapor barrier. Inasmuch as moisture condensation will take place in any type of wall, whether it is insulated or not, provided the conditions are right, the solution lies in the placement of a barrier which will prevent moisture penetration to the outer wall where it will condense. Blistering due to this source is thus eliminated. A barrier of this type, be it paper, paint, or metal foil, should be placed as near as possible to the warm or room side of the wall to prevent the moisture reaching the colder outer section of the wall.

The paper type of barrier should be asphalt impregnated, or a sheet material of proper thickness and sufficiently waterproofed with wax and bitumen to insure adequate vapor resistance. This type of barrier should be applied to the inside face of the vertical framing members (studding) before the lath and plaster or other interior finish is installed.

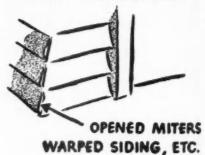
A paint vapor barrier is generally used in buildings which have been completed and which do not readily permit the installation of paper barriers within the outer walls. The paint must be applied to the entire wall in order to eliminate throughthe-wall moisture condensation which causes blistering of exterior paint.

In addition to moisture condensation, other causes of blistering paint may be moisture entering through flush siding, or entering the wall through improper flashing. Excessive moisture in basements due to ground water encountered in excavations, unusually damp surrounding areas, stoppage of sub-surface drainage, leaks caused by broken or clogged gutters, and downspouts—any of these conditions may be found at the bottom of the trouble, and should be investigated before placing the blame on the paint itself.

Painting Masonry Construction

Structures of stone, brick, concrete and stucco often are incorrectly thought of as being permanent. However, if these surfaces are not given the proper maintenance treatment,

& Cause of Rain and Moisture Penetration



they inevitably succumb to the attack of natural weather elements.

Protective and decorative coatings for such surfaces may be divided into four classes: cement-water paint, resin-emulsion paint, oil paint, and paint containing rubber in the vehicle. These paints are also suitable for use on such masonry surfaces as foundations, interior walls, gate posts and (fence) enclosure walls, but they should not be used on floors which are subject to abrasion. Instead, for such surfaces a very hard-drying paint with good water resistance and good gloss retention is recommended.

In selecting the type of paint to be used, some consideration should be

(Continued on page 176)



This Cost-cutting Building Combination Helps You Sell More Houses

Low-cost, modern reinforced concrete stucco construction, plus the Keystone System of Stucco Application meets today's market requirements.

The combination of modern stucco and the Keystone System of Stucco Application boosts the building business two ways:

First, modern stucco means lower cost construction—to produce homes that appeal to buyers price-wise. In most areas stucco siding costs only about ½ the cost of equivalent siding material.

Second, the Keystone System of Stucco Application produces stronger, more durable stucco—for lasting crack-resistance and permanent beauty.

So, take advantage of the cost reduction and quality construction you achieve with this sales-stimulating building combination now. Build with stucco—the Keystone way.

The KEYSTONE SYSTEM of Stucco Application—using Keymesh Reinforcing, furred out 1/4" to 3/8" from the felt backing—gives stucco strength right in the middle of the tension zone. Normal structural movement is counteracted by the rigidity and strength of Keymesh Reinforcing, to resist cracking and checking.

Stucco's durability has been proved on thousands of homes erected with Keymesh

Reinforcing—in both hot and cold climates. Use Keymesh Reinforcing for new home construction and overcoating—1½" hexagon mesh, 17-gauge galvanized steel wire, or 1" hexagon mesh, 18-gauge galvanized steel wire.



For complete information, see your building materials dealer or write direct. Find out all about the Keystone System of Stucco Application, and use Keymesh Reinforcing in easy-to-handle 3' x 150' rolls.

Keystone Steel & Wire Company
PEORIA 7, ILLINOIS

Manufacturers of Keymesh Reinforcing, Welded Fabric, Tie Wire and Nails

Durable, Low-Cost Stucco Calls for **KEYMESH**



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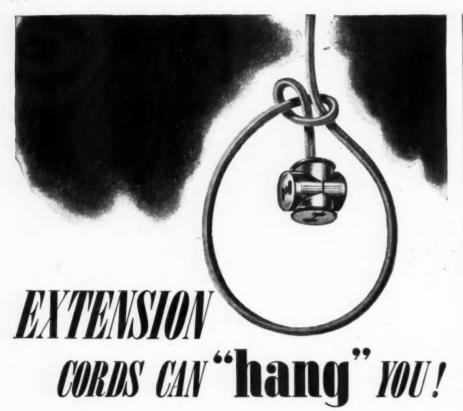
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Don't let prospective buyers see the need for unsightly and dangerous extension cord entanglements, due to a lack of convenience outlets in your homes. These are the things on which a sale can hang—or they can hang you!

An adequately wired home sells readily at a good price, because home buyers nowadays have learned to look for Adequate Wiring.

An Adequate Wiring Certificate is your proof that each house you design and build has:

- ▶ Enough outlets, fixed lights and switches.
- Adequate electric service entrance equipment, fed by three ample size wires.
- ▶ Enough branch circuits and spares for present and future electrical needs.

The Sign of the Times Use the services of the local Adequate Wiring Bureau in preparing a complete Adequate Wiring layout and specification, before you put the electrical job out for bids. Get the wiring into the plans for better appraisal—a better loan!

If there is no Adequate Wiring Bureau in your community, write us or your local electric utility for information on how to take advantage of Adequate Wiring in the homes you build.



USE THIS COUPON if there is no Adequate Wiring Bureau in your area

NATIONAL ADEQUATE WIRING BUREAU, Dept. AB-8 155 E. 44th Street, New York 17, N. Y.

Please send me, without charge, information on how to take advantage of Adequate Wiring as a sales feature.

STREET ADDRESS

Correct Paint

(Continued from page 174) given to the physical characteristics of the surface, such as relative moisture content and age, texture and porosity and, in the case of repaintings, the type of coating previously applied. Cement-water paints are particularly suitable for application on walls which are damp at the time of painting or may become damp after painting as a result of structural defects, new structures (less than 6 months old) which normally contain water-soluble alkaline salts, and opentexture surfaces (for example: cinder, concrete and lightweight aggregate block). Gloss-textured surfaces (cast concrete, asbestos-cement siding, tile, etc.) which are relatively dry may be painted with resin-emulsion paint or paints containing rubber in the vehicle. Walls which are dry at the time of painting and are so constructed as to remain dry after painting may be decorated satisfactorily with oil paints.

The performance of the paint selected will depend to a large extent on the preparation of the wall surface and the application of the paint.

COLOR ...

There is underway today a great renaissance of color. Intense interest is being aroused in the great masses of people in better and more extensive use of colors. Decorators, painters, printers, factory finishers of furniture, textiles and all who use color, are confronted with the necessity for learning more about its tasteful and harmonious use. A greater knowledge of color pigments, liquids, theory of color and principles of color law is imperative for those who would keep abreast of the times. More and more people are beginning to realize that simply painting the exterior or interior of the home is not enough. The medical profession has long realized that colors can be used to stimulate or depress. Some help people to relax and be cheerful. Others stimulate and invigorate them. Still others set up irritation and actual physical discomfort.

Color used judiciously can be an effective sales weapon in the sale of homes. Within the house it can be used to create the illusion of space. On the exterior, it can be used to accentuate the best architectural features of a house and to suppress its unimportant details. A tall, narrow house can be made to appear lower, and a small house larger, when color is selected both scientifically and intelligently.

For frame homes the top preference (Continued on page 178)

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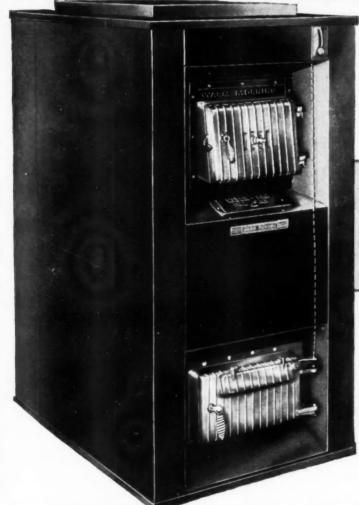
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Stiffere. of the future!



Now!...a worthy addition to the great WARM MORNING Line...a Package COAL FURNACE with many new, advanced features! A complete, compact packaged unit for quick, easy, low-cost installation. Does triple duty...serves as a gravity or pipeless furnace; a forced air furnace (with or without ducts) or as an all-purpose Space Heater.

WARM MORNING PACKAGE COAL FURNACE

• Heat output 80,000 B.T.U. at Bonnet • Exclusive, patented interior • Fuel capacity 100 lbs. • Cabinet finished in Beige Brown, Hammertone; feed and ash doors in aluminum • Built-in automatic heat regulator • Ball-bearing grates; heavy duty, draw center • Removable ash container — ½ bu. cap. • Blower adjustable for range of 800 to 1250 C. F. M. • Height 54"; width 28"; depth 36".

WRITE for Illustrated Folder giving detailed information on this New WARM MORNING FURNACE!

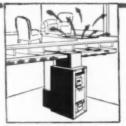
LOCKE STOVE COMPANY
114 West 11th St. Kansas City 6, Mo.



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Basement Installation



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- Changes air in average kitchen every three minutes!
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- Four models for all size kitchens . . . all wall thicknesses . . . all types of construction.
- America's largest builders use FASCO Ventilators as standard equipment.

WRITE, WIRE or PHONE for complete information to FASCO Industries, Inc., 100 Davis Street, Rochester 2, N.Y. (Phone HAmilton 1800)



ROCHESTER 2, N. Y.

Correct Paint

(Continued from page 176) still goes to white for exteriors. Probably one reason for this outstanding preference is the way in which white paints affect apparent size. For example, two houses can be exactly the same as to shape and dimension, vet one painted white will appear considerably larger than its counterpart painted another color. Another reason is that a house painted white can be as much as 15 degrees cooler in direct sunlight than a house painted a dark color. Also, today, because of the self-cleaning action inherent in quality paints, white paint on homes is not an extravagance, and creates an appearance of high quality and

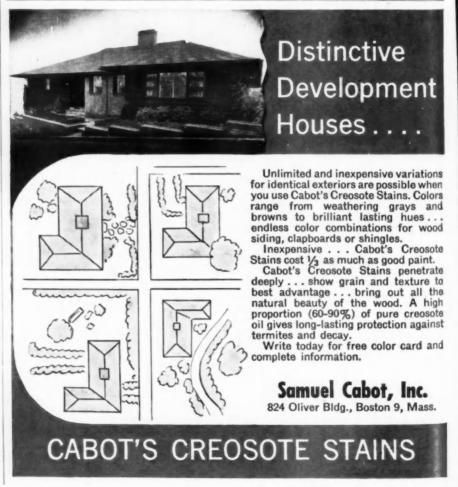
In any paint plan, color styling should play an important part. Royal Barry Wills, well known small home architect, believes that a house should be color-styled in keeping with its architectural design and landscape planting. He believes that color is important in setting the tone of the home so that it harmonizes with its surroundings. Near a manufacturing district, a grey or grey-green would be a wiser choice than white, while white or some very light shade makes a nice contrast for a house on a tree-lined street. Then, too, if a house is

situated close to other homes, the choice of color should be based on adjacent structures to avoid an unpleasant clash.

First consideration in the choice of color should be the large areas of



the house. However, correct handling of the attractive little details can make a house stand out from the commonplace. Objects such as doors, shutters, fences, the underside of porch roofs, door and window frames and sash and even chimneys can be enlivened with color. These are the "window dressings" of a house and when properly treated can (Continued on page 180)



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Glass And Screen Panels, Weather Stripping And Wood Surround, Completely Assembled—Ready To Nail Into Window Opening...

Twelve years of experience in the field have gone into the design and development of the Rusco Prime Window. All working parts are of sturdy, tubular, hot-dipped galvanized steel...factory treated and painted...all installation members of toxic-treated wood. Only the wood surround needs field painting.

The trim appearance, smooth operation, durability and efficiency of the Rusco Prime Window appeals strongly to the home owner. Its completeness, its ease and low cost of installation makes a hit with builders and architects.



Lightweight, Streamlined Glass and Screen
Panels Are Easily Removed From Inside . . .
Makes Window Cleaning Easy . . .

Slight Pressure With Thumb On Side Of Handle Releases Lock So Panel Can Be Raised To Any

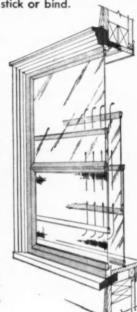


Level. Release Of Pressure Locks Window...No Weights, Cords Or Spring Balances.

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All sash frame members finest quality, tubular, hot-dipped galvanized steel—bonderized, zinc chromated and finished with outdoor, baked-an enamel for lasting beauty . . . cannot warp, stick or bind.

- Toxic-treated wood installation members complete—for easy installation.
- Waterproof felt weather stripping throughout assures easy, silent operation—complete weathertightness.
- Glass bedded in mastic and held in with stainless steel spline . . . simplifies glass replacement . . . no shortlived, unsightly putty is used.
- Lumite Plastic Screen Cloth will not rust, rot, corrode or bulge—is left in place the year 'round.
- AVAILABLE WITH STORM PANELS — inside-adjustable, self-storing — factory-fitted complete in frost-break frame.



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G. E.'s New Electric Heater is easily built right into wall!

For Old Houses . . . for New Houses!

Here's one of those extra, inexpensive luxury features that people look for when they're buying a house.

It's a Built-in Electric Wall Heater, manufactured by the General Electric Company—a wonderful selling feature for any house, old or new.

It was designed with the bathroom in mind, but is installed easily in any room in the house.

Complete, this heater makes any bathroom, any room look more modern. With the snap of a switch, it circulates heat throughout the room by the radiant-convection principle.

And for a very little bit extra, a remote control switch can be attached.



so that the heater can be turned on from the bedside or from another room.

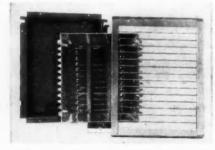
Specifications for General Electric Built-in Wall Heater

- 1. Comes completely equipped with tumbler switch as integral part.
- 2. Beautiful Hammertone gray finish-can easily be painted another color.
- 3. Fits flush with wall-guard projects only 1/8 of an inch.
- 4. Highly polished corrugated-aluminum reflector that radiates heat in wide zone.
- 5. Protective grille of high-quality-steel wire—easily removed for cleaning.
- 6. Two long-life heating elements of nichrome wire-ceramic cores.
- 7. Rating-1320 watts, 115 volts, a-c/d-c, 4507 Btu.
- 8. Size: 171/8 inches high by 131/8 inches wide by 4 inches deep. Wall opening, 143/4 by 111/2 inches.
- 9. Shipping weight, 10 pounds.

Amazingly low-priced



WALL HEATER



Heater consists of only three separate pieces: a wall box, heating assembly, and guard. Easy to install—instructions attached to each heater.

GENERAL 🐉 ELECTRIC

Correct Paint

(Continued from page 178) reflect good taste and individuality. For example, consider the garden fence. Think how much additional interest a simple striping line can add to it.

On interior surfaces, paints are not used as protection but to give uniform color, texture and decorative value. As design follows function, so colors must fit the purpose for which a room is used. Leading decorators today urge the use of solid color walls in greyed tones for the best effects. Greyed shades and light tints are receding colors and should be used in small rooms to create the illusion of space. Moderately large rooms offer greater latitude in choice of colors, textures and design. Here color schemes may be used which utilize greater contrasts of values as between tints and shades of one color or as between light and dark colors. Gloss and semi-gloss finishes may be used in large rooms but should not be used in small rooms since they emphasize the limits of vision and make a room appear smaller. Flat finish is best for small rooms and may also be used in large rooms.

A national survey conducted by Ponderosa Pine revealed that geographic location has a definite influence on the decorative preferences of people. For example, in the north central and western regions, people prefer a natural wood look while in the northeastern and southern regions the trend is toward painted interior doors. Painted bedroom doors are preferred nationally except in the north central region. Nation-wide the preference was for painted walls of pastel shades in living rooms, kitchens, and halls, while wallpaper had a slight edge over paint for the dining room and both paper and paint were equally favored for bedrooms.

Source material and illustrations for this article courtesy of following firms:

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Paint Progress, The New Jersey Zinc Co., New York, N.Y.

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National Painters Magazine, New York City SOL

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HASTINGS alumitile IS THE ANSWER!



SOLVE YOUR STRUCTURAL PROBLEMS WITH THIS AMAZING NEW WALL TILE!



HASTINGS ALUMITILE OFFERS YOU quality, permanence and dependability in a lustrous modern wall covering that can be easily and quickly applied to any flat surface. Properly installed, it becomes an integral part of the wall itself, proof against fire, water, rust, heat and cold.

HASTINGS ALUMITILE CAN SAVE YOU tons of structural weight, hundreds of man hours of labor and thousands of dollars. Fabricated of sturdy aircraft aluminum, it is remarkably low in price, easy to handle and fast to install. Yet it holds all of the advantages of conventional wall tile.

HASTINGS ALUMITILE COMES IN 15 vital decorator colors for interior use and 7 specially embossed color finishes for exterior use. It offers a wide range of distinctive designs and unlimited possibilities for residential and commercial installations.

and

HASTINGS alumi-SHIELD

Awnings will complete the job!



WINDPROOF! WEATHERPROOF!

Alumi-SHIELD Awnings are built for a lifetime of comfort, beauty and service. They will not sag, tear, rot, rust or flap noisily in the wind. Well designed louvres in the side panels guarantee adequate cooling and ventilation without weakening the structure or adding unnecessary weight.

Interchangeable units in choice of colors allow wide latitude for color combinations — and this interlocking strip design means that the awnings can be tailored to fit individual window and door openings. The method of assembly is so simple that full installation can be made in a matter of minutes.

For complete data see Sweet's File or MAIL THE COUPON for the story of Alumitile and our amazingly priced awning.

FIREPROOF!



METAL TILE PRODUCTS, INC.

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Metal Tile Products, Inc., Hastings, Mich.

Please send me complete data on Alumitile and your Alumi-Shield Awnings, without obligation.

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Business

City State

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BETTER BUILDING...LESS WASTE!

- "I was amazed at the saving in time, material and labor", writes a contractor who used End-Matched lumber for siding and lining on a 66 x 100 foot dairy barn.
- Interior lining of barn is made smooth, clean, and sanitary with End-Matched lumber.
- 3. Every piece of End-Matched lumber fits. No sawing needed . . . no time lost squaring up the ends. It lays up fast, and stays up tight.
- 4. Appearance counts too . . . and what could be better looking than the perfectly smooth undersurface of this fine home. End-joints are practically invisible.
- Diagonal sheathing makes a sounder, more perfect building . . . and End-Matched lumber is ideal for the job. Let the joints fall where they may!









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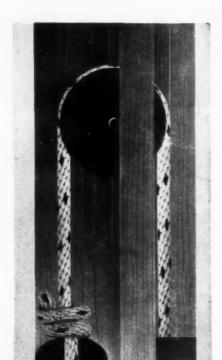
Retail lumber dealers are in a position to furnish End-Matched lumber from softwood species of the West Coast . . . lumber that locks together at the ends and edges to form smooth, tight, rigid panels of any desired area. There is no waste with End-Matched lumber—no cutting and fitting of each piece. It makes possible sound, speedy construction at lowered cost.

End-Matched, with its superior construction qualities for sheathing, siding and flooring, is extremely popular among builders who have used it and seen its extra values. They will be glad to know that End-Matched is available. The pictures on the opposite page illustrate some of the advantages of this superior lumber product.

Sound quality in lumber helps you win friends, build sales, increase your profits. You can offer that kind of quality in fullest measure, in Weyerhaeuser End-Matched Lumber!

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SPOT SASH CORD

Simplicity — no other device is as simple or as permanently efficient for balancing double-hung windows as the time-tested combination of Spot Cord, pulleys and weights. Perfect and permanent balance and noiseless operation are assured. There is nothing to get out of order.

The part that takes the wear is the cord — and Spot Sash Cord will last almost indefinitely. It is made of extra quality fine cotton yarn, firmly and smoothly braided, and guaranteed free from imperfections.

Identified by our trade-mark, the Colored Spots (Reg. U.S. Pat. Off.) Send for sample card with table showing right sizes for different weights.



SAMSON CORDAGE WORKS

W. Lawrence Kennedy Dies After Operation

W. LAWRENCE KENNEDY, widely known by dealers and contractors throughout the country, died May 18 after an operation.

Mr. Kennedy was a member of the of the Sisalkraft Co., Chicago.

Joining the Sisalkraft Co. 21 years ago, Mr. Kennedy pioneered the territory which includes Kansas, Missouri. Texas and Colorado. He was appointed manager of the company's New York office in 1945, and in 1947 became sales manager of the firm, with headquarters in Chicago. He was a member of the board.

Mr. Kennedy was a member of the Kansas City Club, the Lake Shore Club and the Builders' Club of Chicago.

Savings and Loan League Elects Conner President

JOHN L. CONNER, president of the Southern Federal Savings and Loan Association of Atlanta, Ga., was elected president of the National Sav-



JOHN L. CONNER

ings and Loan League at the League's sixth annual convention June 16 in the Grand Hotel, Mackinac Island, Mich

Other officers named at the meeting were: first vice president, O. W. Boswell, president of the First Federal Savings and Loan Association, Paris, Tex.; second vice president, Earl C. Weber, president of the Hoyne Savings and Loan Association of Chicago; and secretary, Allen H. Generes, president and general manager of the Central Savings and Loan Association of New Orleans.

Conner has been a member of the executive committee of the League, and has served as Georgia representative on the board of governors. He is a past president of the Atlanta League of Savings, Building and Loan Associations.

National Home Week September 11-17 for lapped-siding, some stock sizes other than 4 x 8-foot are ideal. Eighteen inch siding, for example, cuts out of 3-foot wide panels exactly.

Cabinets, built-ins, storage-walls, sliding doors— whether shop-fabricated, built on-the-jab, or con-structed by the home owner—all can utilize stock plywood panel sizes.

Soffits, gable-ends, fascias, other architectural treatment—all can utilize varying stock sizes with economy and ease of application.

for remodeling . . . for refinishing attics and baserumpus rooms...stock sizes other than are often ideal—saving installation time **Douglas Fir Plywood's**

STOCK SIZES*

permit more exact specification

...with full material utilization

BECAUSE big, rigid, durable 4 x 8-foot panels

of Douglas fir plywood are so easy to use, so

versatile and so perfectly suited to so many

applications, this "modern miracle wood"

ranks as one of America's preferred build-

Other stock sizes, too (see below) now mean

For many applications, you'll find a stock

size that will fit the need exactly-without cutting, without trimming-and with full utiliza-

tion of the material. Many other needs will be

Douglas Fir

Interesting wall treatments are made easier when planning with various plywood stock sizes. In re-modeling, such panels are especially convenient.

PLYWOO

LENGTHS:

WIDTHS:

30"36"42"48"

60"72"84"96"108"120"144"

(Some grades limited to fewer sizes)

LARGE,

LIGHT,

STRONG

even greater usefulness for remodeling and

ing materials.

new construction alike.

STOCK PLYWOOD

SIZES

met with less sawing and fitting-a substantial

saving of both on-the-job and mill-work costs.

and grades of Douglas fir plywood are detailed

in Sweet's File, Architectural. Or you may

write for the 1949 Basic Plywood Catalog (a

reprint of Sweet's). Other ideas for using ply-

wood's stock sizes are contained in "The Wood

of 1.000 Uses." For your copy, address the

Douglas Fir Plywood Association office nearest you: Tacoma Bldg., Tacoma 2, Wash.; 848

Daily News Bldg., Chicago 6; 1232 Shoreham

Bldg., Washington 5, D. C.; The 500 Fifth

For scores of farm uses, stock sizes of varying length and width will meet many building needs exactly. Here again—Exterior should be used.

Avenue Bldg., New York City 18.

Complete data on 'stock sizes, thicknesses

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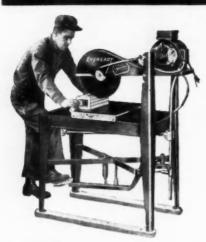






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Your COSTS COME DOWN with EVEREADY BRIKSAW





Lowest masonry cutting costs are yours . . . you can actually save the cost of your EVEREADY BRIKSAW on 1 job and you can do better work faster because BRIKSAW has these

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"ADJUSTA-HEIGHT"

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WET OR DRY CUTTING

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CUT ANY MATERIAL IN 4 TO 21 SECONDS



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Without obligation send information
on EVEREADY BRIKSAW and blades
for cutting . . .

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STATE

E. W. Smith Named to Owens-Corning Post

E. W. PAT SMITH has been appointed director of merchandising for the Owens-Corning Fiberglas Corp., Toledo, Ohio, according to an announcement by Ben S. Wright, vice president and general sales manager.

Smith, who joined the firm in April as special assistant to the general sales manager, was formerly vice president of sales for the Philip Carey Manufacturing Co., Cincinnati, Ohio.

Working with Smith are Tyler S. Rogers, technical editor and manager of Fiberglas Standards publications; Stephen J. Daly, advertising manager of the general products division; and Philip Linne, in charge of displays and exhibits. Edward C. Ames has been named director of public relations and publicity.

Lowry Heads Sioux Metal

DIRECTORS of the Sioux Metal Products Co., Bedford, Ohio, recently elected C. Dean Lowry president. Lowry joined the Sioux organization last fall as vice president in charge of sales.

Active in the metal and glass trade during his entire business career, Lowry was affiliated with the Libby-Owens-Ford Glass Co., Toledo, Ohio, for more than ten years.

Rilco Kansas Plant Gets New Building

A NEW building is being added to the Rilco Laminated Products, Inc., plant at Independence, Kas. The Rilco firm, which has another plant at Albert Lea, Minn and headquar-



SPANS of standard Rilco bowstring trusses used in roof framing of plant

ters at St. Paul, Minn., designs and produces glued-laminated wood products and framing members for commercial and farm uses.

When the new building is completed it will be used for fabrication of rafters for farm buildings, and heavy arches and trusses for churches, gymnasiums, community buildings and similar structures.





On jobs like this—and many others
—"Trouble Savers" pay big dividends
by saving time, labor and materials.
They provide safe working platforms
that give your men safe footing.

Made of rail steel, "Trouble Saver"
Scaffold Brackets are light, easy to
handle and extra strong. They're
available in nail-attached, studding
and bolt-attached types.

Write for catalog of "Trouble Saver" Equipment.



THE STEEL SCAFFOLDING COMPANY, INC.

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BROOKLYN 22, NEW YORK

Telephone EVergreen 3-5510

EASY TO INSTALL **EASY TO CLEAN**

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TO INSTALL:-

Blo-Fan housing merely nails be tween standard ceiling joists. Requires only 3½" depth. Wire is run into knockout box and connected to a standard receptacle. Duct is standard 31/2"x10" size.

Time: 20 to 40 minutes.

After job is finished the Blo-Fan combination fan and blower motor unit is merely plugged into the receptacle. Three grease resistant neoprene feet hold unit in housing. No

tools used for this operation. Time: one minute.



Grill is held in place by the center knob, which is screwed onto the spindle. No tools used for this operation. Time: 20 seconds.

TO CLEAN:-

Reverse operations 2 and 3 and each part is removed. No tools necessary. As easy as changing a light bulb.



ELECTRIC CEILING VENTILATOR

SPOT ventilation at the point of air pollution For Kitchen, Bath, Game Room and Laundry

PRYNE & CO., INC. POMONA, CALIFORNIA LOS ANGELES - SAN FRANCISCO - CHICAGO - NEW YORK



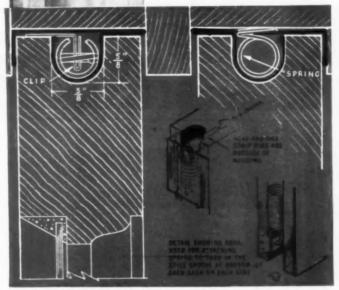
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Balance Sash and Weatherstrip with One Enclosed Unit

THE ALLMETAL SASH BALANCE & WEATHERSTRIP UNIT

EASY FOR YOURSELF. Give your client a betfer Installation and better sash control by using this embination Sash Balance and Weatherstrip Unit. The ALLMETAL Sash Balance Is rolled from one piece of etal and new engineering principles have been applied to give true two-way balance action — making use of both spring tension and metal tension—thus gaining stability. In raising and lowering sash, spring housing (in itself the most effective weatherstrip) compresses against groove yet does not hinder vertical novement. Hemmed side ribbing against the stops gives additional weatherstrip protection. Spring never shows. It is completely concealed.



- 1. Spring for vertical tension.
- 2. Enclosed housing for lateral stability and neater appearance.
- 3. Complete metal runway
- 4. One-piece tubular housing conceals spring.
- 5. Specially designed sash clip for secure spring holding.
- 6. Full 3/4" x 3/4" sash groove (after fitting).

Write today for complete details about this new, better, econom-Ical window equipment which saves so much in labor and time.

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ALLMETAL WEATHERSTRIP CO.

2243 North Knox Avenue, Chicago 39, Illinois

Gentlemen: Please send me complete information and prices.

Name Address

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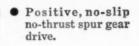
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Two Mixers Every Builder Should Ha



31/2 S NON-TILT

Improved Gated Batch Hopper with cam-operated shaker gives you power loader speed with-out its cost. 100% Timken equipped. Drum tracks are fully machined.

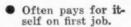


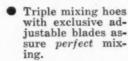
- Separate, self-cleaning blades and buckets mix and remix batch thoroughly in less time!
- Vertical water tank accurately calibrated.

Compact, perfectly bal-anced end-charge design.

SUPER "6" WONDER

This new 6 cu. ft. Wonder has telescoping axle. Special caster-type wheels available which permit mixer through 32" door. Plus many other features. A better mortar mixer any way you





Mixes cement, mortar, patent plaster with hair or fiber,

Renewable, longer-lasting drum liner guarantees long range savings. Jack-shaft equipped with anti-friction Timken Bearings assures longer trouble-free performance.



Write today for com-plete CMC Mixer Cata-

FOR DEPEND

ONSTRUCTION ACHINERY WATERLOO. IOWA, U.S.A.







See Sweet's Architectural File for the full Modernfold story, complete with architectural details.



NEW CASTLE PRODUCTS New Castle

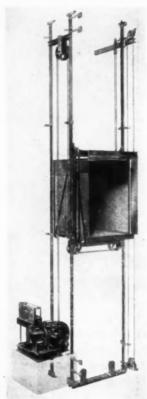
In Canada: Raymond Mfg. Co., Ltd., Montreal Consult your local telephone book for the names of our Installing Distributors

New Electric Freight Elevator is Self-Supporting



A new self-supporting elevator has been designed to provide a low-cost, electric elevator installation for every type of business and institution that business and institution that requires vertical freight transportation, but does not need heavy-duty freight elevators. It fills a long-felt need by making rnaterials handling considerably easier and less costly for small business. The elevator is being made in three standard sizes of 1,500, 2,000 and 2,500 pounds capacity. Vertical rise is limited to 35 feet—sufficient for a three story building. As illustrated, the elevator is

As illustrated, the elevator is As illustrated, the elevator is installed as a complete unit in a new or existing hoistway. Only 11 feet of headroom is needed above the top floor landing. Expensive construction, such as a penthouse on top of the building for the electric motors and other correction. tric motors and other operating machinery, overhead supports, roof alteration and building reinforcement, is eliminated. As the elevator supports itself, no heavy strain is placed on the building. The weight of car, load, hoist ropes and sheaves is carried by three guide rails in the hoistway and transferred to the bottom of the shaft. The elevator can be operated by any employee without special traintric motors and other operating employee without special training. For complete details, write for Bulletin B-720H. Address: Otis Elevator Company, 260 11th Avenue, New York 1, N. Y.



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TO CUT BUILDING TIME?

It's simple and easy to cut down the time needed to build any structure. To do it requires no change from conventional methods. A simple system of coordinating the sizes of the materials that go into the job is all that is needed. Known as modular design, this system is now the national standard. Building materials are sized



on a 4-inch "module" or unit of measurement to save time, labor and cost in construction!

WOOD... BETTER THAN EVER

WITH MODULAR DESIGN! Wood has always been the ideal material for windows, sash, frames, screens, storm sash and other woodwork products. Warm to the touch, wood insulates against heat and cold. Easily painted, stained or varnished, it holds finishes lastingly. Woodwork products are moderate in cost-precision made for quick installation. Toxic preservative treatment at the factory enhances their long life-provides extra resistance to staining, decay, insect attack or humidity. And today, leading woodwork manufacturers add an EXTRA advantage-MODULAR DESIGN!

ANSWERING YOUR QUESTIONS ABOUT MODULAR-SIZE WOODWORK



Q. HOW DOES MODULAR DESIGN HELP ON THE JOB?



In installing windows, for example, there is ONE standard opening. This opening takes any design of modularsize window. There's less cutting, less trimming, less waste of material.



O. WHO STANDS BEHIND MODULAR DESIGN?



Leading organizations in the building industry such as the Associated General Contractors of America, American Institute of Architects and Producers' Council endorse modular design. The U. S. Housing & Home Finance Agency recognizes modular coordination as a cost reduction system.



Q. ARE MODULAR-SIZE WINDOWS EASY TO OBTAIN?



Yes. Modular standard windows, window frames and screens are fast becoming available in all localities, thus simplifying specification procedure and assuring a ready source of supply.



Q. HOW DOES MODULAR DESIGN BENEFIT THE OWNER?



It gives him more for his building dollar. Modular design also simplifies repair and replacements of windows. In addition, the consumer can get not only his windows but his frames, storm sash, screens, trim, window shades, venetian blinds, etc., in standard sizes to fit modular openings.

GET ALL THE ANSWERS-MAIL THE COUPON!

Ask your lumber dealer to give you the facts about modular-size windows, frames, screens and other woodwork. Find out for yourself why modular window planning can cut your costs and put you in a better competitive position. Or, mail the coupon for our free, illustrated folder.

NATIONAL WOODWORK MANUFACTURERS ASSOCIATION

332 SOUTH MICHIGAN AVENUE . CHICAGO

Thi seal of approval ide ifies woodwork projects which meet NII MA minimum stan ards of toxic present the seal of ive treatment.

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National Woodwork M 332 South Michigan Av Chicago 4, Illinois	anufacturers Association enue
Gentlemen: Please send Builders."	me your folder, "New Savings for
Name	
Address	******************************

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

Amer



pointed advertising manager of Globe Roofing Products Co., Inc., according to an announcement by Harry F. Altheide, vice president in charge of

Dunham will have headquarters at the Whiting, Ind. executive offices of Globe. He was formerly advertising manager of The Ruberoid Co., and has been in the sales promotion end of the roofing and building material industry for 25 years.

The addition of Dunham to the Globe executive sales staff is intended to implement a stepped-up program of new product promotion and dealer helps for the trade.

Ponderosa Pine Appoints New Director Member

A. J. Glassow, general manager and vice president of Brooks-Scanlon, Inc., Bend, Ore., has been appointed a director of Ponderosa Pine Woodwork to fill a vacancy on the board

Glassow has long been prominent in West Coast lumber industry, and was formerly president of the National Lumber Manufacturers Association.

Product Service Facilities Expanded by Hotpoint

A PROGRAM of expansion for its product service facilities has been completed by Hotpoint, Inc., Chicago, David C. Marble, product service division manager has announced. Facilities of the service division which now occupy 165,000 square feet covered 50,000 square feet before the

Dewey B. Rinehart has been appointed assistant manager of the division and will direct service operations for the company's distributor and field organizations. Other service division executives are A. F. Deering, manager of the customer service and parts department, and E. H. Ruesch, manager, technical and training sec-

Since May, 1946 the product service division has conducted two-week training courses for all distributor product service managers.

Palmer Corp. Purchases California Plants

THE Pacific and Superior Heating Divisions of the Naco Manufacturing Corp. of Los Angeles, have been purchased by the Palmer Manufacturing Corp., Phoenix, Ariz., Oscar C. Palmer, owner-president of the Arizona firm has announced.

for a UNIVERSAL ALL-PURPOSE **FLOORING**

FLOOR WITH

FIRST CHOICE among architects, builders, contractors and property managers as the universal, all-purpose flooring is asphalt tileand the finest asphalt tile made is AZPHLEX!

Here's why AZPHLEX ranks as "the best of the best":

HIGHEST GREASE RESISTANCE will not soften or stain in contact with animal, mineral or vegetable greases, alkalis, alcohol or mild acid solutions.

TOUGH - virtually immune to scarring and scuffing; very resistant to indentation by rolling or standing loads. Surface will take very high polish - and keep it.

COLORFUL — sharp, clear marble-ized colors go all the way through; wide range of colors makes possible many color and pattern combinations.

MODERATELY PRICED - far below the luxury classification despite its premium qualities. Installed cost is only slightly higher than that of standard asphalt tile — an impor-tant factor in today's low-cost housing program.



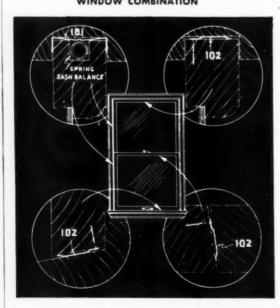
AZPHLEX is the asphalt tile that has everything - that comes closest to being the universal, all-purpose flooring!

For complete information see your AZROCK-AZPHLEX dealer, or refer to Sweet's Architectural Fileor, if you prefer, write directly to Department "B" - Please classify your business as builder, contractor, dealer, etc.



UVALDE ROCK ASPHALT CO. SAN ANTONIO, TEXAS HETTINGER'S

PATENT NO 2172580 WINDOW COMBINATION



Thousands of dealers are now getting their TRIPLE SEAL requirements from these jobbers and many others:

American Sash & Door Co. Kansas City, Mo.

E. E. Bach Millwork Co. Minneapolis, Minn.

Bardwell-Robinson Co. Fargo, N. D. Builders Wholesale Supply Co. Sioux City, Iowa

Carr & Moehl Co.

Des Moines, Iowa W P. Fuller Co. Portland, Oregon

Houston Sash & Door Co. Indiana Wholesalers, Inc.

Evansville, Ind. Rock Island Lumber Co.

Buffalo, N. Y. Scott Graff Co.

Duluth, Minn. Texas Sash & Door Co. Fort Worth, Texas

Whitmer-Jackson Co. Rochester N. Y.

Many profitable trade areas still We welcome dealer and jobber inquiries.

SASH BALANCES AND SPRING BRONZE METAL WEATHERSTRIPPING Complete Unit Carton Packaged - Any Size \$3.50

SEE YOUR LUMBER DEALER THE WEATHERPROOF PRODUCTS CORPORATION

329 Westport Road

Kansas City 2, Missouri

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BASIC SHAPES OF MOULDING KIT (1/2 SIZE) 2078 2083

...a Moulding Kit
in Pittco Premier

• The new basic mouldings in the Premier line of Pittco Store Front Metal may be truly called a Moulding Kit. They may be combined in a wide variety of attractive patterns, giving the architect fresh style and beauty, and great variety in design to help in the creation of distinctive, sales-winning store fronts.

Store Front Metal

Shown here with the same head and drip members are three of the many designs which may be formed with these new shapes. Cross sections of some of the new mouldings are shown at left.

Most of the shapes in the Premier Moulding Kit are interchangeable and may be used both horizontally and vertically. They make it easy to design several adjacent store fronts, giving each a distinctively different appearance through the proper selection and arrangement of mouldings.

This convenient Moulding Kit of Pittco Premier Store Front Metal, is another result of "Pittsburgh's" constant research, aimed at helping you solve architectural and building problems encountered in the field.

PITTCO STORE FRONT METAL

PAINTS . GLASS . CHEMICALS . BRUSHES . PLASTICS

PITTSBURGH PLATE GLASS COMPANY

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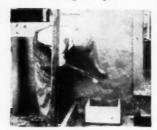
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3133

Do You Know YOU CAN INCREASE QUALITY AND REDUCE HOUSING COSTS by using all three

${f 1.}$ SISALKRAFT Reinforced Building Paper

SISALKRAFT is the best sheathing paper that money can buy! Costs very little more than ordiless to apply. Use SISALKRAFT for OUTER WALLS over sheathing...for INTERIOR WALLS, as a vapor-barrier (FHA-apas a vapor-partier (FIA-ap-proved) . . . UNDER WOOD FLOORING . . . UNDER RUB-BER TILE for "on-grade" floors . . . OVER SUB-FILL (under



concrete slabs) . . . under radiant heated floor slabs.

2. SISALATION Reinforced Reflective Insulation

At about \$25 per 1000 sq. ft., SISALATION saves 50% or more, compared with bulk or blanket-type insulation. SISALA-TION also costs less to apply. Provides BOTH sidewall insula-tion and vapor-barrier (FHA-ap-proved). Lining attics with SISALATION makes them more livable and attractive. • SISALA-TION and SISALKRAFT, used together, provide modern DRY ALL construction . . . SISALA-TION for effective insulation and vapor-sealing from the inside.



SISALKRAFT for weathersealing from the outside. Highest QUALITY construction at

3. COPPER ARMORED SISALKRAFT

For about 75¢ per window or door opening, you can get this pure copper flashing. Highest quality, low-cost, enduring protection . . . for flashing door and window openings, foundation damp-coursing, ridge roll and other flashing, waterproofing shower stalls . . . and other concealed flashing uses.



See Sisalkraft Insert in Sweet's BUILDERS' File



The	SISALKRAFT	Co.,	Dept.	AB,	205	W.	Wacker	Dr.,	Chicago	6,	III	
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I am
☐ ARCHITECT ☐ CONTRACTOR ☐ OTHER.

Please send data on all three Sisalkraft products and tell me where I can buy them.

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low cost!

Address

City, Zone & State

The SISALKRAFT Co., Chicago 6 . New York 17 . San Francisco 5

Majestic UNDERGROUND GARBAGE RECEIVER Takes the eye of every home owner—because it ends forever the unhandy, germ-breeding, aboveground garbage can! This unit installs near the kitchen door where it's handy! Foot-operated lid prevents foul odors, keeps out pesky insects and pets. Top and outer shell guaranteed 10 years. User recommended for 33 years. A real money-saver—inside garbage can lasts 3 to 4 times longer than ordinary longer than ordinary garbage can. Ideal for storage of cans, bottles, etc. Many sizes. Write today. The Majestic Co., 100 D Erie St., Huntington, Ind. TYPICAL MAJESTIC PRODUCTS EVERY HOME NEEDS Nationally Known and Advertised for Over 40 Years!

EATHER - BLOC

THE ORIGINAL INDIVIDUAL UNIT

VENTILATOR for GLASS BLOCK

in HOMES, STORES, OFFICES Check These Features



OUTSIDE FACE

- 1. Controlled Ventila-2. Inside Louvres Open and Close Easily
- 3. Insects Screened Out
- 4. Stainless Steel Body 8. Simple to Install
- 7. Made in Three Sizes to Replace the Three Standard Sizes of Glass Block

5. Lasts a Lifetime

6. Individual Units

9. Attractive . . . blends with glass block . . . no sacrifice to beauty or privacy



INSIDE FACE

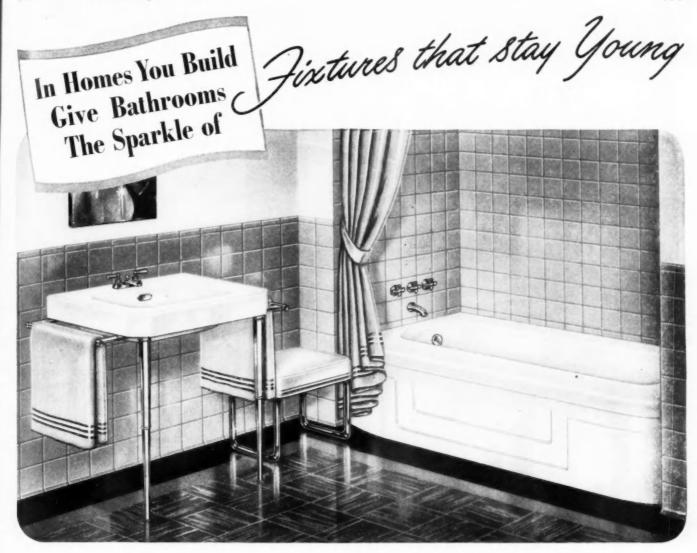
Weather-Bloc takes no longer to install than single glass blocks—simply set in place of glass blocks. No caulking or special preparation is required. For installation in completed construction, break out the glass block where ventilation is re-quired and replace with Weather-Bloc. All parts can be cleaned or replaced from inside the room.

Available through your Glass Block Dealer Also Nationally Distributed by WINCO VENTILATOR CO., St. Louis, Mo.

3734 SOUTHPORT AVENUE

CHICAGO 13, ILLINOIS

1949



• Beautiful bathrooms win more acclaim from home owners and their guests than practically any other room in the home. So the bathrooms of your houses are long-lasting advertisements of your discrimination as a quality builder.

Buyers of the homes you build will be enthusiastic in their joy with the sparkle of AllianceWare porcelain-on-steel sanitary fixtures that stay young year after year. The beauty of AllianceWare makes a wonderful appeal to home owners.

Your customers will be delighted, too, with the convenience of the wide seat which is an integral part of the outer rim of the AllianceWare tub illustrated here.

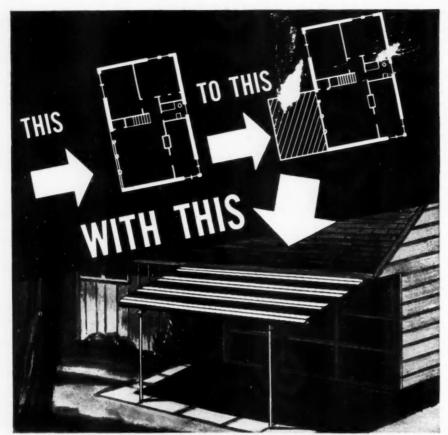
And you, as the builder, will appreciate Alliance-Ware's wallguard construction—an integral flange extending upward a full inch from the rim of the tub where it joins the wall. Concealed behind the wall tile or plaster, this wallguard provides a permanent water-tight seal of tub to walls. Neither can an AllianceWare tub shift from its permanent position—the AllianceWare method of installation prevents shifting and settling.

Builders from coast to coast are finding complete satisfaction for both themselves and their owners with AllianceWare. Your plumbing contractor can give full details of AllianceWare. Or write us for catalog sheets.

ALLIANCEWARE, INC. . Alliance, Ohio

Bathtubs • Lavatories • Sinks

AllianceVare



ALUMAROLL The Roll-Up Patio Cover

Try adding an outdoor living room at little extra cost. Watch the home-seekers sales resistance vanish.

Home-seekers are quick to note the added dollar value, with the added living space. You won't need to point out how much more cool and comfortable the window-wall room is, when the direct rays of the sun are blocked. They'll fall in love with Alumaroll's sparkling baked on enamel finish, in colors that harmonize with the house. There's an invitation to relax in the shade of an Alumaroll aluminum patio cover.

A home with an Alumaroll Roll-Up patio cover definitely has a silent salesman that speaks louder than words

So make an ALUMAROLL Roll-Up Patio Cover a MUST in your plans for them.

Mail coupon today. — Get full and complete information, including our super-fast delivery schedule — thru O.B.I.'s nation	Orchard Bros., Inc. 67 Meadow Rd, Rutherford, N. J. Please send full information about ALUMA- ROLL patio cover. I am a Dealer I would like to Contractor Know about the Builder K.D. plan.
wide K.D. plant setup.	Address City State

Revere House Institute Becomes Division of Southwest Research Group

IN a step to expand a program already under way for raising the standards of design and construction in moderate-priced houses, the Revere Quality House Institute has become the Revere Quality House Division of the Southwest Research Institute, it was recently announced by C. Donald Dallas, chairman of the board of Revere Copper and Brass Inc., and Dr. Harold Vagtborg, president of Southwest Research Institute.

"As a result of this affiliation," the announcement said, "it is expected that in addition to Revere, other manufacturers of building products will join in supporting the broad objectives of the program, and in promoting locally or nationally such houses as seem to fulfill the ideal of quality at low cost."

Southwest Research Institute was founded and endowed as a public service, non-profit organization by Tom Slick, Texas oil producer and rancher. It is located on the 4,000-acre Essar Ranch, eight miles west of San Antonio, Texas. It is engaged in four specialized fields of scientific and practical research; housing, fire technology, petroleum technology, oceanography and meteorology.

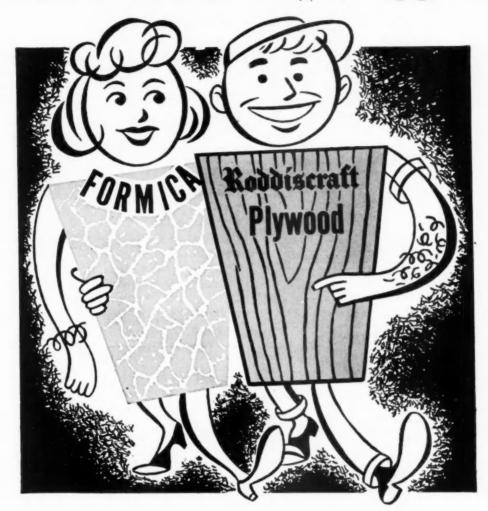
"This Institute," the announcement continued, "has more than 100 employees, and among its resources are research departments in chemistry, physics and engineering which provide extensive facilities for investigations of building materials, methods of construction, and standards of quality. With the housing programs of the two institutes combined, all these facilities will be employed toward the objective of bringing constantly increasing quality to American homes.

"As before, the basis of the program will be that of local design to meet local conditions, and construction by capable merchant builders. Under the Revere Quality House Institute, beginning in 1948, several hundred Revere quality houses have been erected and sold in eight communities from coast to coast, and this year there will be projects under the Revere Quality House Division in approximately 12 other communities. This construction is all done by the builders themselves, as the organization neither builds nor sells houses. It identifies quality and helps the public to recognize quality and the builder to merchandise quality.

"Also under the expanded program, field studies will provide information on methods of assuring

(Continued on page 198)

Roddiscraft Gives You A Double Profit Opportunity



Sign up these Team Mates to Boost Your Sales!

Beautiful, practical FORMICA—the plastic laminate that's out front in service and quality — is distributed by *Roddiscraft* warehouses. Hand in hand with *Roddiscraft* plywoods, FORMICA gives you a "two-way-stretch" to the big profits you want.

There are countless markets for FORMICA. Restaurants, homes, hotels, office buildings, stores, and many others. People go for the cheerful, colorful finishes . . . the rugged resistance to hard

use. Yes, and when they get FORMICA, they need plywood, too — *Roddiscraft* plywood for bonding to Formica and for other parts of the installation.

It's a money-making combination — Beauty-Bonded FORMICA and *Roddiscraft* quality plywood! Stock up now. Order both FORMICA and plywood from your nearest *Roddiscraft* warehouse.

Roddiscraft

RODDIS PLYWOOD CORPORATION

MARSHFIELD, WISCONSIN

NATIONWIDE Roddiscraft WAREHOUSE SERVICE

Cambridge 39, Mass... 229 Vassar St. Charlotte, N. C...... 123 E. 27th St. Charlotte, N. C...... 123 E. 27th St. Chicago 8, III... 1440 W. Cermak Rd. Cincinnati 2, Ohio... 457 E. Sixth St. Dallas 10, Texas... 2800 Medill St. Detroit 14, Mich... 11855 E. Jefferson St. Kansos City 3, Kan. 35-53 Southwest Blvd. L. I. City, N. Y. Review & Greenpoint Ave. Los Angeles 11, Calif... 2860 E. 54th St.

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...lays straight, stays straight

BUILDERS PREFER BEAUTIFUL TEXOAK FLOORING FOR THESE REASONS:

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

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

TEXOAK PARQUET FLOORING

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



TEXOAK STAIR TREADS

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



TEXOAK THRESHOLDS

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



TEXOAK FLOORING COMPANY

CROCKETT, TEXAS

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

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SAVE SPACE



THE BESSLER DISAPPEARING STAIRWAY CO.
1900 E. Market St. Akron 5, Ohio



The CAPITOL Tapes Seal GARAGE DOOR

BOTH you and your customer will be satisfied if you install CAPITOL Taper Seal doors on that next garage job, and you'll recommend them consistently, for they're by far the easiest door to install.

Precision built of finest materials and hardware, parts fit perfectly with minimum labor — tracks automatically line up — four hinged sections and short radius require but minimum clearance — unique rabbet seals section joints.

CUSTOMERS LIKE THESE TAPER SEAL FEATURES

Modern Beauty - Balanced Action on Ball Bearing Rollers for "Feather Touch" operation - Complete Taper Seal Weather Protection -Long Trouble-free Service Life - Reasonable Price. SIZES AVAILABLE 8'0x6'6, 8'0x 7'0

8'0x7'6, 8'0x 8'0 9'0x8'0, 10'0x 7'0 10'0x8'0, 10'0x10'0

See Your Lumber Dealer or Write Us For Prices

CAPITOL PRODUCTS 311 East Adams St. SPRINGFIELD, ILL.

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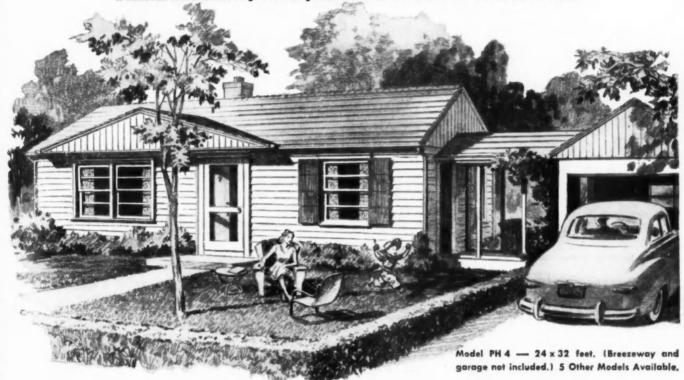
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The Economy Home IS THE ANSWER TO THE PUBLIC DEMAND

FOR LOW COST HOUSING

Yes, this new series of PH Homes is the perfect blending of beauty, sound construction and low cost. And each quality speaks for itself in a manner that means business for builders in '49, and business means more profit for you, Mr. Builder. Write or wire for full details.



Styled for today's market . . . a better home for the money

Experienced builders who see these new PH Homes quickly recognize the values that home buyers are seeking — supremely good design, expert craftsmanship, high quality materials —real livability. P&H's modern production methods make the most effective use of time and materials — insure precision down to the last detail — shorten the period of construction

— effect the cost savings that are so important in today's market.

P&H Homes come to you from the factory 83% complete — fully panelized and insulated — requiring only 169 man hours or less to erect.

This low cost economy Home presents a great opportunity for the active builder.

OUTSTANDING SALES APPEAL!

- 1. Full size 24 ft. wide x 32 ft. long.
- 2. Large living room 11'7" x 17' 4".
- 3. Joint-free, crack-proof interior walls.
- 4. Choice of two or three bedrooms.
- 5. Flush doors throughout.
- 6. Built with or without basement.
- 7. Choice of heating equipment.
- 8. Highly rated for FHA financing.



Make Sales Easier!



INSTALL Pyrofax GAS

In Homes beyond the Gas Mains



Gas Is Preferred!

Two out of three women prefer to cook with gas—and beyond the gas mains the choice is "Pyrofax" gas. It is clean, quick and economical, not only for cooking but for water heating, refrigeration, and room heating as well. No matter where you build, you can offer home buyers all the advantages of the preferred fuel...gas.

Turn "Shoppers" Into Buyers

Give them the fuel they want—install PYROFAX bottled gas service. Installation is quick and easy—low in cost—no expensive tanks to buy—no special wiring—no changes in construction needed. Supply is guaranteed in writing.



Nationally Advertised Appliances

Magic Chef ranges, Servel refrigerators, Ruud and Bryant water heaters, and other gas appliances are available for use with PYROFAX Gas—from our distributors in 30 states east of the Rockies.



For full information see SWEET'S CATALOG, or address Dept. AB.

PYROFAX GAS DIVISION

"Pyrofax" is a registered trade-mark of Carbide and Carbon Chemicals Corporation.

Revere House

(Continued from page 194) higher quality, and greater value, Along with work in the field will go investigations of a more scientific nature, using the laboratories and other facilities of the Southwest Institute.

"Another new activity for the Revere Quality House Division is the preparation of a 'check list' of house quality features, for the guidance of home buyers. This is based on the 12 principles of quality which govern the identification of Revere quality houses."

The announcement invited further builder participation in the program, which is conducted without cost to the builders themselves. The builder phase of the activities is centralized in a New York office, maintained by the Builder Relations Department, Revere Quality House Division, Southwest Research Institute, at 280 Madison Ave., New York 16, N.Y. C. W. Smith is director of the division, and John Hancock Callender architectural consultant.

In a separate statement, Dallas said: "This expansion of the service to builders and the public of the Revere Quality House movement gives Revere the greatest satisfaction. It was made possible by the thorough work done by the eight original architect-builder teams who designed and built the first Revere Quality Houses. Revere salutes them, and the Institute staff, which is being maintained."

Reorganization Made by Pacific Mutual Door Co.

IN a recent reorganization of the Pacific Mutual Door Co., Tacoma, Wash., Hollis J. Nunneley, was appointed headquarters manager, with the dual title of western sales manager and director of purchases.

Nunneley has had 15 years experience as a plywood sales executive and was in the marketing field for lumber and allied materials for a like period. He will continue to be an officer of Industrial Plywood Corp. He is a former sales manager of Associated Plywood Mills, Inc.

The firm interests of T. F. Eckstrom, former president, have been purchased by the present principals of the company. Eckstrom entered business in California. Present officers of Pacific Mutual are Kenneth D. Hoag, Garwood, N.J., president; Earl G. Thuresson, Chicago, vice president; Evan J. Owens, St. Paul, and S. Ray Lambert, Kansas City, vice presidents; Norman L. Johnson, Tacoma, secretary; and Ralph W. Sherrill, treasurer, Tacoma.

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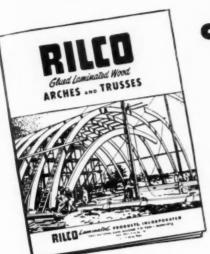
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American Builder, August 1949.

Figure RILCO members on those "sharp pencil" jobs



Pinched for time? You build faster with Rilco Glued Laminated Arches and Trusses. They come to your job all ready to set up, make it easy to beat deadlines because of their speedy erection.

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Send for our new booklet today! It describes and illustrates Rilco Glued Laminated Arches and Trusses, shows the many types available for various uses-churches, gymnasiums, bowling alleys, theatres, garages, etc. These modern, efficient framing members will save you time and money, and provide load-bearing strength and rigidity you need. Figure on Rilco for easier, better construction—and greater profits!

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Please send your Rilco Arches and Trusses illustrated booklet to me by return mail.

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Add Extra Beauty and Salability to Your Building Project

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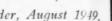
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Door and frame mortises are accomplished in a minimum of time with this new Stanley-Carter Router. Ten times faster than handwork, plus machine accuracy. Works on house current. High-speed cutting . . . 18,000 r.p.m. . . . gives smooth, chatter-free operation. Direct drive from universal motor.

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Complete with two bits, templet guide tip and ring, selfsharpening grinding wheel, arbors and wrenches. Write for literature. Stanley Electric Tools, Stanley-Carter Sales Dept., 534 Myrtle Street, New Britain, Connecticut.



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Remarkable is the word for these exciting new Marlite plastic-finished wall panels. Here's all the rich warmth of fine woods, the stately grandeur of rare-imported marbles . . . faithfully reproduced and permanently retained in Marlite's exclusive sealed-in surface. Think of the many places you can use these authentic patterns—in offices, stores, banks, hotels,

institutions, homes and a host of other interiors. Every building

Mahogany Wood Pattern Marlite used in the new offices of the Calumet Brewery, East Chicago, Ind.

prospect will be fascinated by this great new line. Famous Marlite is easy to work and handle... goes up fast over old walls or new... is perfect for either new construction or remodeling.

Homeowners and commercial prospects everywhere are reading about these new Marlite patterns in widespread advertising. Take advantage of it!

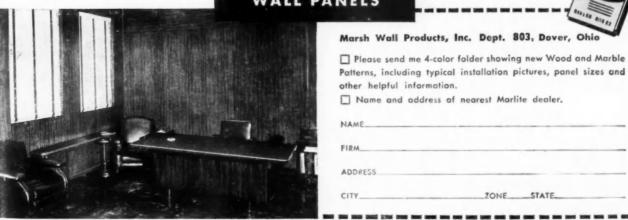
Marsh Wall Products, Inc., Subsidiary of Masonite Corporation.

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WALL PANELS

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Has Greater Durability
Offers More Beauty
Is More Economical
For Any Floor Plan

High construction costs resulted in Speed-Wall! It is the answer to spiraling prices and hesitancy in building. Here is how exterior and partition Speed-Wall increase profits, yet cut costs: Reduce construction time 50 to 60%. Eliminate studding, fire-blocking, diagonal bracing, insulation, plaster and stucco. Made from No. 1 and better air dry Douglas Fir (o.p.), precision cut Speed-Wall is exceptionally fire-resistant. Also provides 25 to 34% more insulation. Speed-Wall is the outside surface as well as the inside surface. You may stain, varnish, paper, calcimine or panel interior surfaces. You may floor and roof with Speed-Wall. Using Speed-Wall eliminates many construction difficulties and inspections. Know more about this sound. new materials-method approach to building. Wire or write for full,



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New Paneling Has Plastic Surface, Presdwood Base

PRODUCTION of a wall paneling material with a hard plastic surface in modern colors and patterns and a Tempered Masonite Presdwood base has recently been started by the Service Products Division of Woodall Industries, Inc., Chicago. The material is called Lamidall.

Qualities of the new product, the manufacturers said, are resistance to



LAMIDALL installation in office

heat, moisture, abrasion and impact; and lack of harmful effect from contact with water, soap, beverages and common solvents.

The material is designed for wall paneling or wainscoting of bathrooms, kitchens and other rooms in the home, and for stores, hotels, hospitals and other commercial and industrial buildings.

Panels can be applied by nailing or cementing to existing walls. They are manufactured in size ranges up to 4 inches by 12 feet.

Facilities Expanded By Weyerhaeuser Co.

MACHINERY units recently added to the plywood plant of Weyerhaeuser Timber Co., Longview, Wash., are now in operation, Harry E. Morgan, Longview branch manager has announced.

Expansion was begun at the plant in 1948. The annual capacity of the expanded production facilities is approximately 60 million square feet of 3/8 inch plywood, Morgan said.

Principal equipment additions include an eight-line tray system for green veneer handling, a core lathe, a Smith veneer retriever, automatic stackers on the green veneer grading table, a second drying oven, an additional glue spreading machine and another hot press.

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DRY WALL CONSTRUCTION has come of age!

Homasote permits dry wall construction with the average wall in one piece

dry wall construction.



steadily replacing plaster and has now been used in millions of dollars worth of private homes.

The average wall is-covered with a single piece of Homasote. If a wall runs longer @ than 14' the joint is made at (the door or window and covered with an architectural panel. Ceilings larger than 8' x 14' are beamed or paneled so that every detail is a desirable architectural feature. Many an architect has acclaimel Homasote the perfect base for either paint or wallpaper. When you design and build with Homasote you are giving the home owner tops in both

HOMASOTE COMPANY has structural strength and insulong been one of the pioneers lating value. You are giving and strongest advocates of him walls that are permanently crackproof. (You save your-Today the average home own. self the time of waiting for er knows a good deal about plaster to dry.) You give him this sensible, modern method a quieter, drier house with deof building. For the past 32 pendable insurance against years, Homasote has been musty closets and mildewed walls.

> Today you can specify dry wall construction-with Homasote - in complete confidence. We invite architects and builders to send for illustrated booklet-giving physical characteristics, performance charts, specification data and application instructions.



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EASY, LOW COST INSTALLATION

LIFE-TIME EFFICIENCY



An insulation that doesn't give you these vital features results in a poorly insulated home or building — robs you of valuable customer good will lowers your profits.

Insl-Cotton Insulation gives you all these superior features—and more. For the architect, contractor or

builder, Insl-Cotton is an insulation you can specify with confidence - buy with confidence, because it gives you these

SUPERIOR ADVANTAGES ...

- Most Efficient Type Insulation— Tests by U. S. Dept. of Agriculture and leading laboratories prove Insl-Cotton to be from 4% to 36% more efficient than any other type of insulation. K factor is 0.24.
- Permanently Flame-Proofed Lasts indefinitely under normal conditions.
- Moisture and Insect Repellent Cotton fibers have no capillary attraction for moisture-treated to make it insect and rodent repellent.
- Won't Sag or Settle-Heat, agitation and vibration cause it to grow better with age.
- Exceptionally Light-Weight Weighs about 118 lbs. per

- 1,000 sq. ft., 3" thick, including vapor barrier.
- Uniform Thickness No high or low spots. Mechanically laminated to avoid error.
- Easy to Install As simple as unrolling a rug. No special tools needed.
- Low Labor Cost Installation in open attics about 1/2c per sq. ft.
- An Excellent Sound Deadener - A fine sound absorbent between walls, floors and ceilings.
- Made in 1", 2", 3" and 4" thicknesses and in 16", 20", 24", 36" and 48" widths, with vapor-proof barrier on back side. Also available completely enclosed in 1" and 2" thicknesses at no extra cost.

AND..IT IS *Certified — Inst-Cotton contains no second-hand material. Every lot is tested and certified to the U. S. Government. No other insulation except flame-proof, fire-retarding cotton insulation made under Federal supervision can make this claim. Inst-Cotton exceeds Government requirements for 7d, FHA, FPHA and HH-1-528 specifications. Available in open face, enclosed or reflective type — prompt deliveries. All cotton insulation is not INSL-COTTON.. insist on the original and genuine INSL-COTTON

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"... because it saves money."

We use Cuprinol for ourselves wherever appropriate because it saves We recommend and use it on wood wherever it is impossible, impractical wherever it is impossible, impractical and wherever it is impossible, impractical to recommend and use it on wood wherever it is impossible, trate or necessary and the same timbers, and where rain and dampers and timbers, and or inconvenient to paint, and where stuations are: porch inside of or inconvenient to paint. A few such situations are: porch inside of or inconvenient to paint. A few such structure of the convenient to paint with the weather, garage doors, cracks, because it of the weather, garage doors, cracks, because it swinging doors exposed to the weather, garage doors, cracks, because it swinging doors exposed to the weather, garage doors, cracks, because it we soak from the under side and fill all joints and occurs.

We soak from the under will not and where rot first occurs. us money.

The only way to keep ahead of depreciation is to not let it start.

Preservative and paint cost less than lumber.

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The Vitroliner type "E" Flue is a time-tested, proven practical, complete chimney designed to take care of all home heating equipment—used by large national builders and small contractors. Available individually or in any quantity.

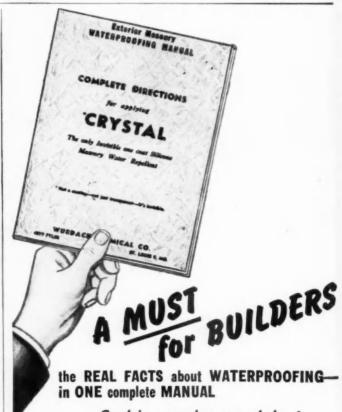
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TOWER

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Contractors everywhere are profiting with it! Saves scaffold erecting time — saves repeated loss and cost of scaffold material — handles and places materials faster and surer. Take the dis-assembled tower and 17-hp hoist to your jobs on a truck. Two men assemble it on the ground in two hours. Then the Jaeger "Hoister" raises it to 37' standard height — 67' with extra sections. Material cage accommodates two wheelbarrows or largest concrete cart — handles 1 ton loads with absolute safety. And, there's a Concrete Bucket available — easily interchangeable with the cage, on the job — water level capacity, 14 cu ft — working capacity, 11 cu ft (the full batch of an 11-S mixer!)

Write for bulletin and complete information

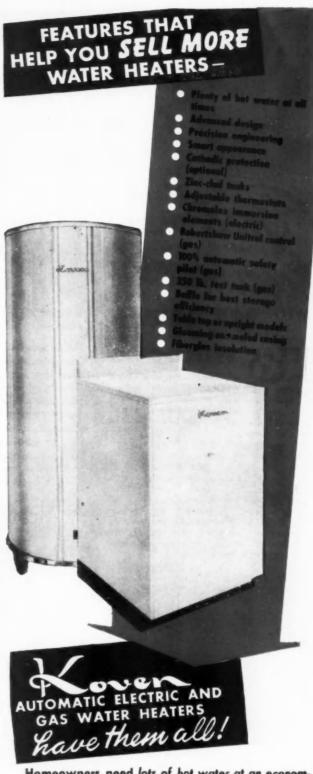
THE JAEGER MACHINE CO., Columbus 16, Ohio Distributors sales and service in 130 principal cities

Pumps • Mixers • Compressors • Paving Equipment



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Builders and home owners both appreciate VENTO quality. It's a line of steel casement windows that will bring you satisfied customers . . . and business-building prestige . . . for the years to come.



THE BUILDER likes to buy windows that are completely assembled, ready to install . . . that are sturdily constructed

of heavy section steel to stand rigidly in position during construction, and finally operate smoothly.

THE HOME OWNERlikes the moderate
price and enduring
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Windows . . less
costly than wood



construction, better in quality than most steel windows. Fine quality workmanship down to the smallest detail has real significance to the man making a "life-time" decision.

Other VENTO features are: heavier construction than other steel windows of comparable price; electrically welded throughout; easily installed screening or storm sash; roto hardware, and locking device.

Write for price list and catalog . . . today!



VENTO STEEL PRODUCTS

COMPANY, INC. 24 7 Colorado Avenue

Sub-base Without Sleepers Applied with Adhesive

A METHOD of applying plank subbase to concrete without use of sleepers has been announced by the Armstrong Cork Co., Lancaster, Pa. In

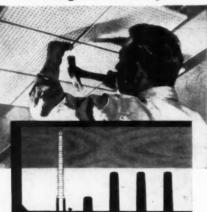


WORKMEN apply adhesive for cementing sub-base planking to concrete slab

the new installation method, the subbase is cemented directly to the concrete by use of a special adhesive developed by the company. The adhesive forms a moisture barrier between the concrete and wood.

> National Home Week September 11-17

ACOUSTICAL TILE NAILS ... designed for the job



When installing acoustical tile choose a job-designed nail that combines ease of application with these special features: a head end which allows the nail to be driven home without damaging the tiles ...a collar which holds the tiles firmly in place...annular threading which gives superior holding power. The nails are furnished with a plated finish to prevent rust streaks where moisture is present. Send for free samples and descriptive literature.



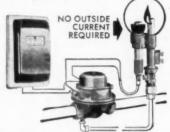
JOHN HASSALL, INC.

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Control INDOOR CLIMATE AUTOMATICALLY

without Outside Current

The tiny pilot flame generates the electrical current to operate the contol system. All three units scientifically designed to provide safe, remote control of room temperatures.



Automatic, Safe, Silent and Self-Operated



Put GENERAL CONTROLS heating comfort in the plans. It's the easy, modern way and effects construction economies, too.

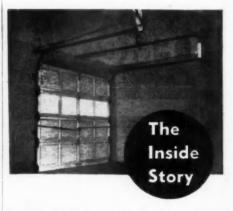
Request Free Descriptive Literature on the B-60 "All-Gas" Control System

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EXCLUSIVE Adjustable AIR PEELER

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ONE HAND . . . ONE BLOW . . . FREE HAND CONTROLS WORK!



Bostitch H4 Self-Feeding Hammers are TWICE AS FAST FOR SHINGLING

It's no job at all for Bostitch H4 Self-Feeding Hammers to cut your shingling time at least in half. Each flick of your wrist places and drives home a sturdy 34'' staple like a two-pointed nail . . . even through light metal. No mashed fingers . . . no infected mouths . . . no swallowed nails. These powerful hammers drive 50 staples with each quick, easy loading. And their longer reach cuts down your staging needs. No wonder Bostitch H4 Self-Feeding Hammers speed up shingling by a profitable margin. Try them yourself and see!



FOR LIGHTER HAMMERING

Bostitch H2 Self-Feeding Hammer for general use, such as installing insulation, attaching building paper or light roofing, etc.

FOR ONE-HAND TACKING

Bostitch T5 Gun Tacker shoots staples in, within 1/16" of corners. Saves time, labor and money on such jobs as applying metal lathe strips over joints for plastering. Many other cost-cutting uses.



INVESTIGATE BOSTITCH! You're sure to find, in building as in so many other industries, that Bostitch fastens it better and faster at lower cost. Fill in coupon below for all facts.

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Please send me complete information about the time-saving, cost-cutting uses for Bostitch machines in construction work.

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THE Flush Wall Radio fits in perfectly with today's popular trend to built-in appliances and appointments in the modern home. Architects and builders find it gives that touch of individuality and charm which means added sales appeal.

And homeowners are enthusiastic about the Flush Wall Radio for it enables them to enjoy the convenience of several fine quality radios throughout the house—in kitchen, bathroom, bedrooms, study, recreation room, children's rooms—in addition to their large conventional living room radio.

FLUSH WALL RADIO FEATURES:

- 1. 5-tube AC-DC Superheterodyne Licensed by RCA and Hazeltine.
- 2. Easy Installation—
 Comes with Steel Box, 61/2" x 95/4" x 37/4" deep, which Goes Between Studding. As Easy to Install as an Electrical Receptacle Outlet.
- Easy to Service— Chassis Swings Out On Patented Adjustable Slotted Hinges.
- 4. Attractive Instrument Panel 7-13/16" x 11-7/16". Plastic panels available in Wide Choice of Colors to Harmonize with Room Decoration.
- Approved by Underwriters' Laboratories for Built-in Installation.

Retail Price, \$34.95 Radio, Model 5P\$34.95

Panels Extra From \$2.45 to \$4.45





BUILDERS AND DEALERS! Write today for SPE-CIAL TRADE NET PRICES and complete information, etc., to FLUSH WALL RADIO CO., Dept. 8-A, 9 West Park Street, Newark 2, N. J.

Door Group Has New Name

THE name of the National Door Manufacturers Association has been changed to National Woodwork Manufacturers Association. Officials of the group said the change was made because the new name more adequately describes the products of the member companies, which include wood windows, doors, frames, screens and cabinets.

Ormie C. Lance is secretary-manager of the association. The head-quarters remain at 332 S. Michigan Ave., Chicago 4, Ill.

Perlite Manufacturers Form Trade Association

EIGHTEEN companies which manufacture plaster and concrete aggregates from perlite rock organized a national trade association, the Perlite Institute, at a recent meeting in New York City

Named to the board of directors of the new association were T. C. Carter, vice president of Great Lakes Carbon Corp., New York, N.Y., president; J. Don Alexander, president of Alexite Div., Alexander Film Co., Colorado Springs, Colo., vice president; Oliver N. Gregg, president of Gregg Lumber Co., Grand Rapids, Mich.; and C. H. Hall, presi-



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KORK-PAK is composed of cork granules bonded together with asphalt between two sheets of asphalt-saturated paper—it's waterproof and insect proof to assure positive joint filling for the life of the building.

KORK-PAK is the least expensive non-extruding joint filler made—low cost, coupled with its high insulation coefficient makes KORK-PAK the ideal joint filler for any type of construction.



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Patented ball-bearing race assures perfect adjustment under severest conditions. Telescope 12" long, 25 power, horizontal circle 4½" with Verniers to 5 minutes. Write today for full information—also free booklet, "How To Lay Out Building Lots." We repair all makes of instruments

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Manufacturers of instruments for engineers, surveyors and builders.



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2 x 8 CARPET NAILER

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ORDINARY CONCRETE
ZONOLITE CONCRETE

With Zonolite Concrete Aggregate your radiant heat jobs will assure rapid heating, better temperature control, and important fuel savings. Heat loss into the ground can be greatly reduced if you follow these simple steps:

On a level well-drained base prepare a 5 or 6-inch fill of coarse stone or gravel, tamped smooth and firm. On top of this, lay a moisture barrier of one or more saturated felts.

Pour 4 inches of Zonolite concrete and allow it to set. Zonolite Aggregate replaces sand, in proportions of 1½ bags of Zonolite Aggregate to 1 bag of portland cement, providing up to 16 times the insulating value of ordinary concrete.

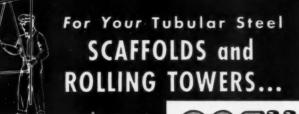
Next the radiant heat pipes or ducts are placed, and ordinary concrete poured to a thickness of at least 1" over the top of the pipes. A 2 x 8 sill insulates against lateral heat loss and serves as a carpet nailer.

Write us for full details on any concrete or plastering job where insulation is important. Send for valuable booklet, "ZONOLITE VERMICULITE INSULATION AND LIGHTWEIGHT AGGREGATES."

ZONOLITE COMPANY

Dept. AB-89, 135 S. La Salle St., Chicago 3, III.





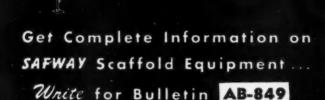
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THE SIMPLE TAMBLYN SYSTEM OF ESTIMATING REDUCES BUILDING MATERIALS and LABOR COSTS TO EASY-TO-USE FACTORS!

Do you get that creepy feeling about your estimates? Why take a chance when you can be sure! Just multiply by our simple factors to determine your labor and material costs. The Tamblyn System is simple, fast, accurate, complete and dependable!

YOU MAY SAVE MANY TIMES ITS LOW COST IN ONE USE

In order to get your share of profitable building contracts, you must be able to figure jobs fast and accurately. You must be sure your estimate is just right—low enough to get the job—high enough to give you a reasonable profit.

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Many of the largest and most successful contractors in the United States and Canada—thousands of them—have used the Tamblyn System of estimating. It is tried and tested—it has been used for more than 25 years. Forty years of experience in construction and building is behind it. And you can study the system for 10 days without cost.

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with the window that cools...protects...saves!

HOME BUYERS "go" for smooth-operating Gate City Awning Windows that cool off hot rooms . . . provide 100% controlled ventilation all year 'round.

Scientifically designed and architecturally correct, these windows provide draft-free ventilation, indoor installation of screens and storm sash, safety from prowlers. One redecorating bill saved by the rain-deflecting sash more than pays any difference in initial cost. Toxic treated, Gate City Awning Windows provide extra durability and reduced maintenance.

Every window furnished with a Lumite screen. All glass and hardware factory installed. You receive the window as a precision-fabricated "package", ready for economical installation.

15 standard and 36 special sizes meet every requirement. Write for name of nearest distributor. Gate City Sash & Door Co., Dept. B-8, Fort Lauderdale, Fla.

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For use with double-hung wooden windows. Single or double installations.



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only 34" thick. Fits flush in pulley stile.



head of window.





ACME

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A mortise type balance. Fits into side of frame.

Acme Sash Balances are fully enclosed, easy to weatherstrip, require no adjustment and provide quiet, effortless window opening. Packed complete with fixtures. Sold only through leading hardware, building supply dealers, jobbers. Write for literature.



Perlite Association

(Continued from page 208) dent of Standard Perlite Corp., Pasa-

dena, Calif.

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WHARTON CLAY

ciation, was appointed executive sec-

Plans of the group call for research study, designed to develop new uses and markets, promotional campaigns, and work in cooperation with government agencies and other industries.

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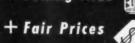


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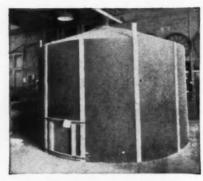
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Agricultural Engineers Design and Test New Grain Storage Structure

A NEW type grain storage bin designed and tested by agricultural engineers at the University of Illinois College of Agriculture can be easily built at low cost on the farm.

In designing the grain bin or crib, Deane G. Carter, professor of Farm Structures, and his associates applied previous findings in grain storage research to a new laminate building material. The result is a round bin,



NEW structure holds 1,000 bushels

14 feet in diameter and 8 feet high. It has a capacity of 1,000 bushels, and can be constructed and set up by two men in about a day's time.

The design uses twelve 4x8-foot (Continued on page 218)



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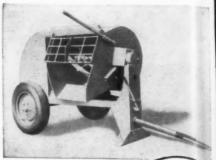
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MODEL NV-18 — An efficient kitchen ventileting fan, with chrome grille. List, \$26.95. Other models, \$24.95 to \$36.95.



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A beautiful chime, with ivoryplastic cover and satin-brass tubes. List, \$12.95. One of 14 models —\$3.95 to \$69.95.

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Superlite Panels now are surfaced with a new high-gloss, plastic finish, BAKED ON for extra lustre and extra resistance to abrasion.

New rounded-edge score lines mean less dust collection and greater ease in cleaning. Just a wipe of a damp cloth over Superlite Panel's high-gloss surface and they're glistening again!

Large sheet size means reduced application cost. And no fuss and muss as in the application of plaster or similar materials!

Superlite Panels for interior walls and ceilings, in either new construction or renovation, are available in eleven pleasing colors.

Your customers will be pleased with Superlite Panelling because of its beauty and durability. Ideal for kitchens, bathrooms, game rooms, restaurants, hospitals—and other institutions.

Use the coupon below for descriptive literature and other pertinent information.

Superlite Panels are sheets of Masonite Presdwood, surfaced with a high-gloss, baked-on plastic finish. Eleven colors (including black and white) are offered, with a variety of colors in the score line. Available in sheet sizes 4 ft. wide, and 4 ft., 6 ft., 8 ft. and 12 ft. long. Finished four ways:

plain colors, tile design (4" x 4" square), Leveline (horizontal lines on 8" centers) and in a grained leather effect, in 4 colors and in sizes 4 ft. x 4 ft. and 4 ft. x 8 ft.



LEATHER TILE EFFECT LEVELINE
Also available in plain sheets.

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- LIBERAL discounts to project builders.

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IT'S the method perfected by the makers of famous Sheetrock* gypsum wallboard, thus is backed by years of dry-wall know-how. So, play safe—use Perf-A-Tape* reinforcement and cement ... made exclusively by ...



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the roof ..."

writes Pennsylvania builder about choice of Dubl-Coverage Tite-Ons for swank Main Line development

"When homes sell for between \$19,000 and \$35,000 roofing materials must meet two key requirements," writes Stephen Schifter, Inc., Upper Darby, Pa.

"First is appearance . . . the shingles must look as if they belong on an expensive house. Second-they must provide the trouble-free service expected from quality roofing materials.

"On both counts, Dubl-Coverage Tite-Ons filled the bill.

Their basket-weave beauty is in keeping with the finest traditional architecture. And their proved wind and weather resistance promise more roofing years for the home-owners dollar.

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Dubl-Coverage TITE-ON SHINGLES

"Builders like us prosper to the extent we keep home-owners happy. So, from our point of view, also, the choice of Tite-Ons was an ideal one."

Note how perfectly Dubl-Coverage Tite-Ons blend with the architectural style of these fine homes in this beautiful development at

Strafford Village, Wayne, Pa. 35 homes, selling

from \$19,000 to \$35,000 - and all roofed with

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More and more builders are coming to the same conclusion. Wouldn't it be smart to check the Dubl-Coverage Tite-On story yourself?

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Clip this handy memo to your

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Prestile Mfg. Co., 5850 Ogden Ave., Chicago 50

Please send me free samples and Dealer's Merchandising Kit —"How to Make More

Your Name

Profits from Tileboard."

Favrot Heads Asbestos Cement Association

CLIFFORD F. FAVROT, who as vice president has acted as head of the Asbestos Cement Products Association since the resignation of former President E. W. (Pat) Smith early in the year, was elected president of the association at its 12th annual meeting, held recently in New York City. Favrot is president of the Asbestone Corp., New Orleans.

Named to the vice presidency was W. R. Wilkinson, vice president and general merchandise manager of the building products division of Johns-Manville Sales Corp. S. P. Moffitt, Ruberoid Company, New York City, treasurer, and Chester C. Kelsey, New York, secretary, were re-elected.

Directors for the coming year are: W. R. Wilkinson, J. E. Holbrook, J. W. Humphrey, Otis Massey, Ernest Muehleck, Stuart H. Ralph and R. J. Tobin.

Agricultural Engineers

(Continued from page 214)

sheets of the laminated wood and paper material. The sheets have a wood veneer core, glued and covered with tough asphalt-resin paper. The sheets are 1/7-inch thick and are light enough so that they can easily be carried by one man.

In building the crib, three sheets of the building material are assembled at one time. Sheets are over-laid four inches along the 8-foot edge and glued with a special urea-formaldehyde glue. Strips of 1-inch by 4-inch board are then placed on each side of the glued joint and nailed with 134 inch nails three inches apart. The built-up sections of three sheets are then joined in pairs, making two half-circle walls. In joining the sections, a 2-inch by 4-inch plank strip is used in place of one of the 1-inch by 4-inch strips.

The next step is to erect the two half walls and join them to form the circle wall. Two 2-inch by 4-inch cross ties are nailed across the top of the crib.

Professor Carter points out that there has been time to run only limited tests on the new bin, but that these tests indicated that the bin will stand the weight and pressure of the stored grain satisfactorily. In the tests the crib was filled with 1,115 bushels of shelled corn; that is 62,440 pounds, and 10 per cent above the rated capacity of the crib. The bin was left under test for 112 hours, during which time the frame-work was severely jarred to reveal possible weaknesses. There was no damage, and glued joints remained sound.



1949 CLIPPER MASONRY SAWS

Yes, nine NEW models to choose from and each with outstand.ng features for smooth, fast and economical Clipper Cutting Action. See the 1949 DUSTLESS Model HD—cuts wet or dry—the 100% Answer to All Masonry Cutting. Contact your nearest Clipper Factory Branch for a FREE TRIAL on any of the nine Clipper models. See the "ADJUST-A-CUT" Control; "PRESSURE EQUALIZER" Spring; and the STREAMLINED Conveyor Cart . . . you'll know why Clipper is more outstanding than ever before!

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Heavy, rust-proof, corrosion-resistant aluminum frames and wire-stainless steel hardware. Simplest to install of all screens made—only 4 screws necessary. Greatest variance for adjustment. Maximum tension from two stainless steel handles, engaged at bottom of screen. Full range of sizes.

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BOICE-CRANE SIX-INCH JOINTER

e 6"x36" overall (5" longer than most); long x 3%" high (10" longer than most).

Give your inside finish that high grade look, and save hundreds of high priced labor hours. The ONI V fence that is 100% rigid, permits steady guiding and accurate cuts through the full length of even heavy 12-foot doors and sash. Unskilled operators get perfect results and more output because they can give entire attention to feeding the stock.

The only 6-inch jointer with quick acting fence locks at both ends. The value of this feature will show up the first time you joint long stock or fit doors.

the first time you joint long stock or fit doors.

The 23" diameter cutterhead has a 3" diameter cutting arc, the largest in any low price 6-inch jointer, for freer cutting "rake-angle" to knives, for a chatterless and much smoother shearing cut, rather than the chipping and chattering cut common to small diameter cutterheads. Cutterhead and bearings will withstand speeds up to 5500 r.p.m.

Features a double-pivoted cutterhead guard which, when rabbeting, is not bodily removed from the machine (usually the case), but swings down and out of the way, remaining immediately replaceable when conventional jointing is resumed, thus reducing the chances of failing to return guard to position.

Dual fence controls BOTH at operator's fingertips.

MODELS ESPECIALLY DESIGNED FOR DOOR FITTING

Four models, belt or direct-motor drive, bench or oor type.

The direct-drive bench models are especially recom-mended for fitting doors. Placed low on the floor, operator has full control in jointing the edges of doors and large panels. Floor cabinet has motor compartment and dust chute.

Overall length: 431/2". Max. width of cut: 6". Depth of cut: Max. 9/16".

At minimum cost you can completely equip a shop that makes you practically independent of the mill.



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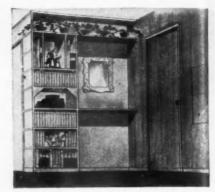
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Builder to Include Record Player in Moderate Rental **Apartment Units**

AS standard equipment in a moderate-income apartment project, Milton L. Ehrlich, president of Milton L. Ehrlich, Inc., community builders, has announced the development of the "Musicorner" which will be a feature in each of the 310 apartments in Warren J. Lockwood Village, which his company is now constructing at Roselle, N. J. The Musicorner will feature a built-in RCA Victor 45 r.p.m. record player, shelves for record libraries and a planned setting for a television receiver.

The Musicorner is located in the living room of each of the apartments which will be ready for occupancy this summer. Heart of the Musicorner is a floor to ceiling 5-foot wide alcove complete with built-in automatic phonograph and ample shelves for a record library. Second wall of the corner, attractively woodpanelled, will feature a unique recessed space that will enable the tenant to achieve a custom-built effect with any standardmake television receiver. The record player and built-in units are furnished to tenants at no increase in



Ehrlich, who received nation-wide recognition during the war for the construction of Day Village, Baltimore, and won prize awards for two garden apartment projects completed last year, made the announcement at a conference held jointly with RCA Victor officers at the RCA Exhibition Hall in Radio City.

Kwikset Locks, Inc. **New Gate-Way Name**

KWIKSET LOCKS, INC., is the new name for Gate-Way, Inc., Anaheim, Calif., according to the president, Adolf Schoepe. The firm will continue to manufacture Kwikset doorlocks and other builder's hardware, formerly produced under the Gate-Way name.



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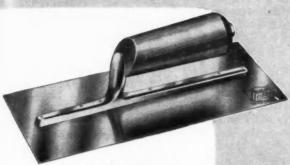
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Goldblatt masonry tools save time, work, money. For 64 years, skilled craftsmen have chosen Goldblatt, because Goldblatt tools are forged stronger, balanced better, more comfortable, non-corrosive, more flexible. Every Goldblatt tool is guaranteed for materials and workmanship.

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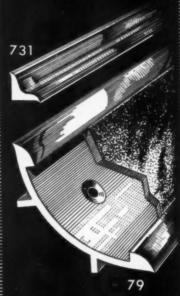
CEMENTERS' TROWEL NO. 4S — aluminum mounting; 10, 11, 12-inch, each \$3.35 — 16-inch \$3.60 — 16-inch \$3.85 – 18-inch \$4.10.

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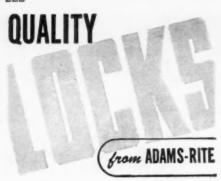
The B&T Metals Co.

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THE ORIGINAL RITE-LOCK for **SLIDING DOORS**

Single assembly easily installed by simple cut-out, even in narrow stiles. No mortising. 3 types fit doors 11/8"thickness, with a 3/4" wardrobe type. Latch and thumb button types with



emergency unlocking feature adaptable to either hand. Pin tumbler cylinder in escutcheon is optional. Exterior parts solid brass. Escutcheons measure 41/2" x 27/8".

MINIMUM BACKSET DEADLOCKS FOR STANDARD CYLINDERS

Can Be Keyed to Any Job



For narrowest extruded aluminum, structural steel and wood stiles. Series 970 Deadlocks for standard cylinders have 1%6" backset, 1%6" depth. Fifteen other standard backsets to 13/4". Series 980 identi-

cal except for 3/4" dia. pin tumbler cylinder and ${}^{15}\!\!/_{6}$ " backset. Rugged steel and brass construction, armored bolt with ${}^{5}\!\!/_{8}$ " throw, bronze or aluminum face and strike. Radius, flat and bevelled faces interchangeable.

TEMPERED GLASS DOOR DEADLOCK

Takes the place of 2 locks. Has single or double bolts and 1 or 2 cylinders. Handle operates bolts in sequence, cylinder locks handle. Designed for and can be installed in any tempered glass door top or bottom channel. 4 sizes: 1-15/16" High x 1-13/32" Wide.

CYLINDER SLIDING DOOR LOCK

Operates by cylinder from one or both sides. Fits all standard cylinders with adapter cams furnished. (specify when using Yale). Solid bronze face, strike & bolt. Heat treated aluminum alloy case. Use your own cylinders and trim. Also used as jimmy-proof lock.

Also—Adams-Rite Solid Brass Sliding Door Flush and Edge Pulls, Surface and Jam Bolts and Ball Latches



Manufacturer Provides Builders' Hardware Sales Aid for Lumber Dealer

A MERCHANDISING method designed to enable retail lumber dealers and hardware dealers to compete in builders' hardware sales with firms maintaining special departments has been developed by Sargent and Company, New Haven, Conn.

Called the "Select-O-Graph" system, the merchandising plan is centered on an especially designed display cabinet, which provides both stock and display space. Every type of item needed to supply a house is advantageously shown, with such articles as locksets mounted on blocks to show actual operation.

The articles on display are those which, in the manufacturer's experi-



TYPICAL Select-O-Graph display in small city store-Arrow Store, Salem, Ohio

ence, have proved the fastest-selling. Harmonizing designs and finishes are emphasized in the exhibit; and ample storage space is provided in compartments behind the display panels.

An equally important part of the merchandising system is a Select-O-Graph manual, which contains more than 50 pages of color-chart floor plans, graphs and drawings. This data points out all the "openings" where builders' hardware is required in the average home, and the various types of hardware recommended for these installations. In each instance a choice of recommended and optional designs and finishes is given. The factual material in the manual aids the retailer to give technical advice.

Also included in the plan are lists covering stock quantities, costs and suggested resale prices; line drawings of each item to provide easy recognition; stock control sheets to keep a running check on shelf supplies; order pads and addressed envelopes for replacing stock; and label cards for open merchandise trays.

Infra Insulation Is Never A Wet Blanket

Excludes Unwanted Heat, Cold or Vapor-Never Retains Them

Infra Accordion Aluminum Insulation neither absorbs, retains, nor is harmed by moisture. Fireproof, it will not swell nor warp, is effective at any temperature. One carton, 2 cubic feet of Infra, provides 1000 square feet of insulation. Infra is easy to unpack and install.

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"The reverse is also true, a foil insulated structure will tend to heat quicker than one insulated with ordinary insulation,"

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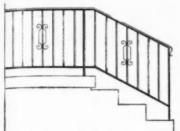
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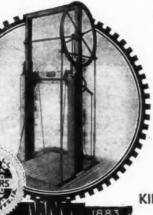
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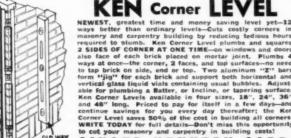
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—Homer L. Short, Supt. Reed Construction Com-any, Mishawaka,

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and again.

Bolt holds forms together and also holds tie both ways. No nails or spreaders are

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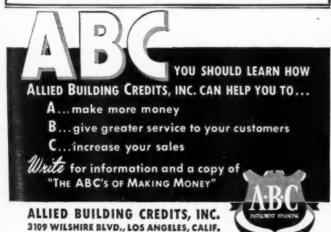
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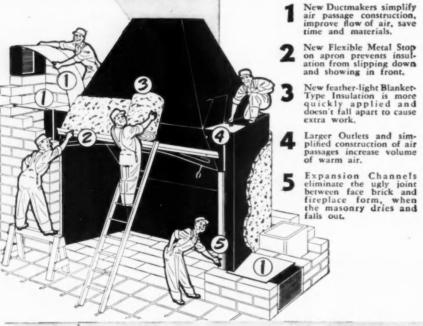


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Use Steel-Reinforced Concrete Slabs in Building Demonstration

A DEMONSTRATION of a slab system of roof and wall construction employing machine-made units of steel-reinforced concrete, "Strest-crete," was recently given at Napa, Calif., by the manufacturers of the product, Basalt Rock Co., Inc. of Napa. In production, the contacting edges of the concrete units are precision ground; and the units are secured together with pre-stressed steel bars placed in designed recesses or grooves.

For the demonstration, Strestcrete roof panels were erected and attached by welding to the steel framework of a building 40 feet wide, 100 feet long and 22 feet in height at the



STRESTCRETE roof on Sacramento home

eave. Steel trusses for the building were 40 feet long and placed 16 feet on center. No purlins were used. Strestcrete roof slabs, 16 feet long, four feet wide and six inches thick, were laid in place with a crane, and were the only connecting units between the trusses. For rigidity in welding, end washers of steel were used at both ends of the assembled slabs and the steel was stressed against these washers.

At the same time, erection of Strestcrete tongue and groove siding was demonstrated. The siding consisted of slabs 110 square feet in area; and, like the floor slabs, was also composed of ground units secured together by steel rods under tension. Siding was assembled in panels 16 feet long by 6 feet, 8 inches in height. Also conducted were bend and shear tests,

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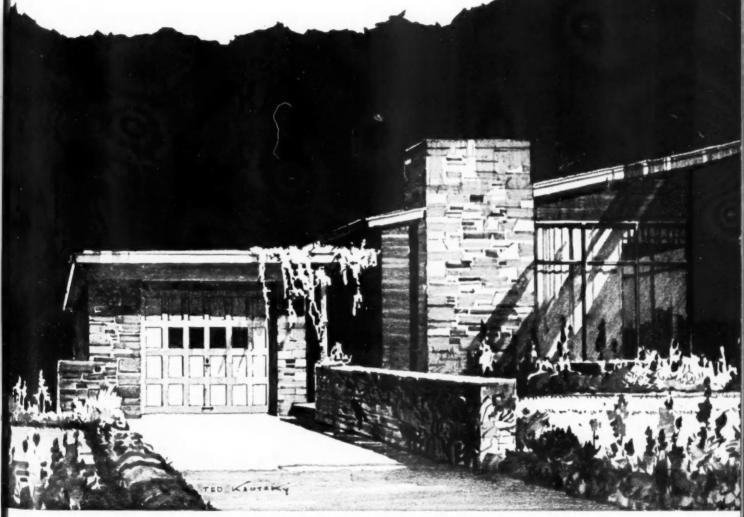
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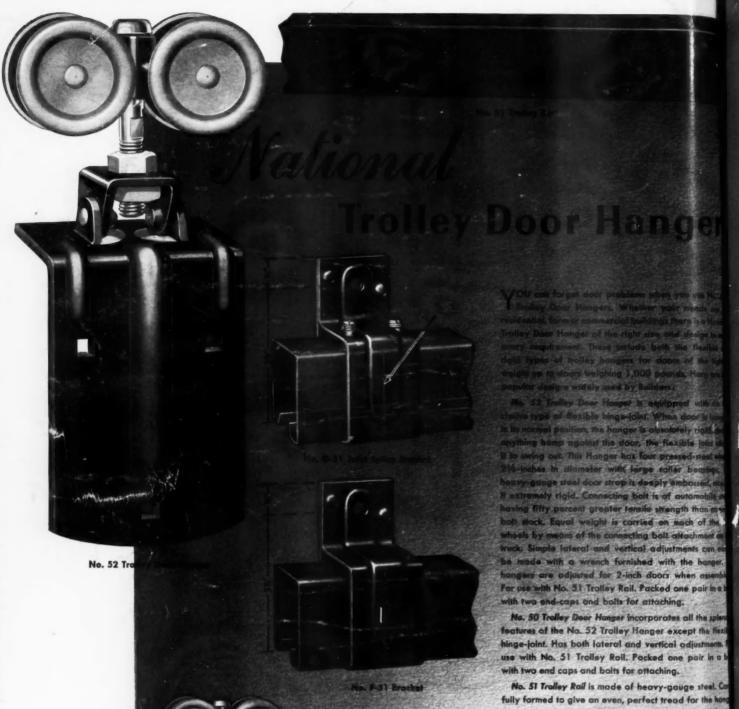
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