The well-known electric clock thermostat automatically provides lowered night temperatures and morning pick-up. NOW better than ever with the Thermostat Magic of TM.

*Available in a few weeks.

For lowered night temperatures. Set the dial for the morning pick-up time you select—wake up in a comfortably warm house. The Time-O-Stat now assures pin-point control through the Thermostat Magic of TM.

The finest thermostat of its type in the world. Featuring the easy-to-read dial adjustment, precision control—and NOW, Thermostat Magic with Honeywell TM.

The magic of TM is accepted and acclaimed everywhere...winning enthusiastic approval from builders and home owners, alike. In the building profession, installation of TM simply means that you offer the best heating control available...at no increase in cost. Buyers of your homes will thank you for recommending the newest, the finest—the nationally advertised...nationally accepted...Honeywell Comfort Thermostats with TM!
HERE'S THE NEWEST, FINEST, MOST COMPLETE BASEMENT WINDOW UNIT MADE!

GLAZED—no glass or putty problem

PACKAGED—no loose parts to handle

AVAILABLE IN 3 WAYS

1. Package A—Fenestra® Basement Window, glazed, with Screen and Storm Panel insert, in carton.
2. Package B—Basement Window, glazed, with Screen, in carton.
3. Basement Window Unglazed—Screen and Storm Panel available separately also.

These outstanding advantages:
- Easily installed—all of the sizes fit concrete block.
- Glazed—no fiddling around with glass or putty.
- Sturdy—made of hot-rolled cement window sections.
- Weathertight—double contact of seal against frame.
- Leakproof—square corners for tight construction.
- Varmintproof—insensitive to rats, termites, other pests.
- Protected ventilation—opens in at the top.
- Easy to operate—steel can't warp or swell or shatter.
- Locks tight—with quick and easy lever action.
- Foolproof—no side arms or hinges to get out of order.
- Easily removable—vent removed from inside only.
- Low cost—produced in great volume... in standard sizes.
- Low maintenance—steel can't shrink, rot or splinter.

NEW FENESTRA UTILITY WINDOWS AVAILABLE IN 3 WAYS

1. Package A—Glossed Utility Window, with Screen, plus Side Guards to reduce drafts in barns.
2. Package B—Glossed Utility Window, with Screen only.

For garages, shops, dairy barns, building areaways, etc. 2' 9½" wide by 3' 6½" high. Construction and quality features same as the New Fenestra Basement Window.

For full information call the nearest Fenestra office, listed in the yellow pages of your telephone directory, or mail the coupon.
From Experience In Their Own Homes—Leading Lumber Dealers Praise UPSON PANELS

FRED H. LUDWIG, Reading, Pa.

“The reason I used Upson Kuver-Krack Panels in the living room and library of my residence was brought about by the great difficulty I had with the plaster cracking. I am glad to report that these panels have been extremely satisfactory and have added beauty and charm to our home.”

BOB GEISY, Columbus, Ohio

“We put Upson Strong-Bilt Panels in our new home, built in 1941. We never expect to have any repair work of any description on them. As a matter of fact, they have never been repainted. Visitors often comment about the beauty of our paneled ceilings.”

G. E. CARTER, Port Arthur, Texas

“Several years ago, I applied Upson Panels to the walls and ceilings of my house. Today, they look just as good as when they were first applied. I don’t think they will ever need repairing beyond an occasional coat of paint.”

O. C. CALDWELL, Lisbon, Ohio

“We chose Upson Strong-Bilt Panels for the interior walls of our home because their surface has a rich and delicate quality; one that lends itself well to decoration. We are well pleased with our Upson walls and beautiful ceilings and recommend their use to everyone desiring artistic interiors.”

Carpenters: Everywhere, more and more carpenters are applying more and more Upson Panels. Application can be made any month in the year. Get your share of these profitable jobs.

mail this coupon today

Upson Panels are easily identified by the famous blue-center

THE UPSON COMPANY
418 Upson Point, Lockport, New York

I am interested in knowing more about □ Upson Strong-Bilt Panels for new construction □ Upson Kuver-Krack Panels for re-covering cracked ceilings. □ Send me your booklet “New Interiors For Old” and Instruction Sheets. □ Have your Representative call and discuss application with me.

NAME ________________________________

TYPE OF BUSINESS ______________________

STREET _______________________________

CITY __________________ STATE ________

AMERICAN BUILDER
IN THE SEPTEMBER ISSUE

Read the most comprehensive article on INSULATION ever published. Profusely illustrated with charts, drawings and photographs, the article will present specific details on how to install—where to use—and what benefits are derived from insulation. Here is an article you will want to read and keep for ready reference. Don't miss it!

See how another kitchen equipment manufacturer suggests altering the kitchen of the First Prize House in America's Builder's contest for women architectural students to increase its efficiency.

A double feature blueprint! Two houses for small lots designed by well-known architects that have individuality, sound planning, and are suitable for any climate.

Technical Guide, numerous How-To-Do-Its, and New Products are other popular features of the September issue.

Office of publication, Bristol, Conn. Editorial and executive offices at 79 W. Monroe St., Chicago 2, Ill., and 38 Church St., New York 7, N.Y. American Builder (originally “Carpentry and Building”) with which are incorporated Building Age, National Builder, Permanent Builder, and the Builder's Journal, was founded Jan. 1, 1879. Name registered in U.S. patent office and Canadian registry of trade marks.

Copyright 1950 by M. B. BARDMAN PUBLISHING CORPORATION.

Subscription price: United States and Possessions and Canada, 1 year, $3. 2 years, $5. Single copies, 50 cents. Subscriptions in foreign countries, 1 year, $5. 2 years, $10. Phone. Single copies, 50 cents. Subscriptions are requested to state company connection, nature of business, title or position. W. L. TAYLOR, Circulation Manager. Field Staff. C. L. Cotley, W. J. Griffith, M. A. Specter, John Simonson, Dick Whittington.

DEPARTMENTS

Letters to the Editor ........................................ 33
On and Off the Record .................................... 39
Technical Guide, How-To-Do-It and Better Detail Photos .......... 42
Editors' Round Table ...................................... 51
New Products .................................................. 62
Catalogs ..................................................... 134
Index to Advertisers ....................................... 248

In This Issue

Publisher's Page ........................................... 7
How to Prevent Socialism

Association News ......................................... 67

Editorial ................................................... 73
What is Maximum Volume?

FEATURES

The Garage—Part of the Home Today ............................................ 74
Improved planning results when garage is designed as utility building

Architectural Details that Add Interest ........................................... 86
Embellishments that unify the garage and the house

How to Build Outdoor Fireplaces ............................................. 88
Inexpensive to build, outdoor fireplaces help close sales

Uncle Doesn't Know Best ............................................. 91
Post Office focuse on example of government business ability says R. E. Sebree

Panelized Home for Select Projects ........................................... 92
Prefabricated modular panels used in Cy Williams' Sun Ranch Home

Rental Units for the Small Builder ............................................ 94
Low construction cost makes apartment units profitable investments

Sell from the Customer's Viewpoint ........................................... 96
Personalized selling plus a unique buying control system proves profitable to dealer

How to Use Section 213 Cooperative Housing ................................... 100
By Martin Nudd of Chicago Metropolitain Home Builders Association

How Office Proof of Dealer's Half-Century of Success ......................... 101

50 Personalized Homes from One Floor Plan ................................... 102
Individuality achieved by altering exterior designs and finishes

A House of Limited Frontage ............................................. 104
American Builder's Blueprint House especially designed for 50 foot lots

Split Level Galas in Public Favor ............................................. 110
Colorado builder finds ready market for project of split level homes

American Builder—Authoritative—Most Widely Quoted ........................ 123
Examples of how newspapers use American Builder as authority in discussing home building
you get tough crack-resistant stucco when you back it with Pittsburgh Steeltex

Here's why you can stop worrying about the permanence of a stucco wall when you back it with Pittsburgh Steeltex. First, the tough, welded steel mesh sinks deep into the stucco slab providing positive resistance to distortion. Second, the specially designed backing helps proper setting and retards the deadly penetration of moisture. For further good reasons to specify Steeltex for stucco, see Swee't's or write for Catalog D.S. 151, Dept. AB, Pittsburgh Steel Products Co., Grant Building, Pittsburgh 30, Pa.

Pittsburgh Steel Products Company
A Subsidiary of Pittsburgh Steel Company
Pittsburgh 30, Pa.
How to Prevent Socialism

What kinds of policies should all industries and professions unite in opposing because of their tendency to destroy private enterprise and establish socialism?

Such policies are principally of two kinds: (1) policies by which government takes the money of the citizens and uses it in competition with them, and (2) policies by which government applies unnecessary controls and deprives citizens of opportunity to carry on their businesses and professions with success proportionate to their ability and to the energy with which they use it.

Almost innumerable examples could be given of policies of both these kinds which already have been adopted or are being promoted. The railroads afford the most examples of them. The government has taken and is still taking billions of dollars from the taxpayers, including the railways themselves, to aid carriers by inland waterway, highway and air to take traffic and earnings from the railways. And the government subjects carriers to regulation so unequal that its regulation adds greatly to the difficulty caused the railways by the subsidization of their competitors. The government's combined policies of taxing the railways heavily, subsidizing their competitors and applying more restrictive regulation to the railways than to other carriers is steadily promoting the adoption of government ownership of railways, which would do more than any other single thing to establish socialism.

The government is taxing everybody to pay for government building of homes. In this way it competes with and injures both the private home builder and the private home owner. It can raise money at a lower rate of interest than the private home builder and with it hire labor and buy materials that the private home builder needs. And when, as it always does the government pays less than normal taxes on housing that it owns and rents it at less than cost, it taxes private home owners to help build, operate and maintain the housing occupied by its tenants. Thus it reduces the value of the private home owner's property both (1) by increasing his taxes to help provide homes for government tenants and (2) by charging its tenants less than the rental value of the private home owner's property, based on its cost.

Socialized medicine would subject doctors to controls that would make it impossible for them to attract patients and make earnings in proportion to their knowledge and skill, and thereby hinder progress in the development of the science and practice of medicine.

In view of the fact that every socialistic policy applied to any industry or profession has the same detrimental effects, why has there been no united opposition by all industries and professions to all such policies? One reason is that most men in any industry or profession have little or no knowledge of what government is doing or threatening to do in other industries and professions but believe the socialistic attacks being made on their industry or profession are unusual and, therefore, of special importance. Also, many believe they benefit by socialistic policies applied to others and have no inclination to oppose what they believe benefits them.

Why should home builders and home owners oppose the policies driving the railways toward government ownership when many of them believe that, as shippers, they benefit by the rates that unequal regulation and subsidization enable them to get from other carriers? Why should the railways concern themselves about socialization of home building and home ownership when they get traffic created by home building regardless of whether the building is done by government or private builders? Why should the railroad and building industries concern themselves about socialized medicine if they believe it will affect only the doctors and that if they oppose it they will increase the hostility to themselves of politicians who are promoting socialized medicine?

The answers to these questions are very plain. (1) Socialistic policy applied to any industry or profession in the long run injures everybody. (2) Private enterprise will never be destroyed and socialism established by most of the people voting for it. If private enterprise is destroyed and socialism established it will be by the application, step by step, of socialistic policies to one industry and profession after another. This process already is far advanced; and the only way to stop it is by everybody who is opposed to socialism opposing the application of socialistic policies to any industry or profession.
How to Make a Home

It's easy to bring nature right into the home with Ceco Picture Windows of Steel to make each room truly live. There's movement in the murals of the vibrant outdoors framed by these handsome window creations. Distant views, ever changing with the mood of the hours, bring relaxing thoughts and a sense of better living. All this is possible because there's less interruption of vision. The eye is drawn easily to the outside world of motion—barriers are minimized due to slender frames and muntins. And to have Ceco Steel Windows is to know truly sound value. They're engineered to

In construction products CECO ENGINEERING
provide the tightest weatherseal ever—with extra strength built in—sections are 1\(\frac{1}{8}\) inches deep. Yes, when you build with Ceco Steel Windows, you know you’ve used the very best—you’re sure of economy too—you’re modern as tomorrow.

Ceko Steel Products Corporation

General Offices: 5601 West 26th Street, Chicago 50, Illinois
Offices, warehouses and fabricating plants in principal cities

makes the big difference
American Radiator & Standard Sanitary Corp.  
P. O. Box 1226  
Pittsburgh 30, Pa.

Gentlemen:

Last year I built ten new houses in the east section of Denver. I wanted these homes, which were designed to sell for $22,000, to be
quality homes in every sense of the word — not only in design and con-
struction but also in equipment and fixtures used. So I used American-
Standard Heating Equipment and Plumbing Fixtures whenever possible.

From past experience I found that American-Standard products gave good
service and that the use of these products made people confident that they
were getting a well-built house. And I also knew that I could find the
products I needed in the complete American-Standard line.

To assure the best in heating I chose Standard Gas Boilers,  
Multifin Convecors, and Snowboard Radiant Panels. These panels under
the picture windows are most attractive and efficient.

The bathrooms and kitchens are modern and good-looking, with every
convenience. Among the American-Standard Plumbing Fixtures I used for
these are Master Pembroke Baths, Logwood Lavatories, Cadet Water
Closets, and Custom-Line Sinks.

My home owners and buyers are very pleased with their homes, and I
believe my choice of American-Standard products helped make them that
way.

Sincerely,

Roy Nieber

Roy Nieber

"Quality Homes"
call for American-Standard
says Denver Builder

"To be sure of quality homes in every sense of the word—not only in design and construction, but also in equipment and fixtures used—I used American-Standard Heating Equipment and Plumbing Fixtures wherever possible," reports Mr. Roy Hieber, in writing about his new building project in Denver, Colorado.

More and more builders, like Mr. Hieber, are using American-Standard products to assure quality homes that will sell rapidly and that will bring satisfied customers. Because they're so widely known—for their smart styling, skillful designing, and dependability in service—the use of American-Standard products creates public confidence in the dwellings in which they're installed...helps make fast sales, with minimum selling expense.

You, too, will create satisfied customers when you use American-Standard products in the homes you build. No heating equipment and plumbing fixtures are better made...none better known. And you'll find just the products for your particular needs in the complete American-Standard line. Ask your Heating and Plumbing Contractor for details. American Radiator & Standard Sanitary Corporation, P. O. Box 1226, Pittsburgh 30, Pa.

AMERICAN-Standard
First in heating...first in plumbing

Serving home and industry

AMERICAN-STANDARD AMERICAN BLOWER CHURCH SEATS DETROIT LUBRICATOR STEWART BOILERS ROSS HEATER TOMAWANDA IRON
Robert H. Wachenhoef, builder and developer, is cooperating with Servel, Inc., and The Cincinnati Gas and Electric Company in the construction of the Meadow Ridge Year Around Model House in Amberly Village, Cincinnati, shown below.

Many conventional features of a house no longer have functional value when you design it around Servel All-Year Air Conditioning. You can leave out porches, fireplaces, screens, double-hung windows, etc., in your preliminary plans. Generally, you'll save enough to make up the cost of the Servel system. And you'll find clients feel they're making a wonderful exchange. For the things they give up provide pleasure only part of the time. Servel brings them comfort 365 days of the year!
IN ALL-YEAR AIR CONDITIONING
...AT LITTLE OR NO EXTRA COST!

For little more than the cost of a quality heating plant, you can now offer your new home clients the all-year comforts of Servel All-Year Air Conditioning.

You can offer them homes which will always be ideally comfortable, no matter how hot or cold, how wet or dry, the weather outdoors.

The new Servel All-Year Air Conditioner cools the air or heats it. It squeezes out wilting humidity in summer, adds just enough moisture to the air for comfort in winter. It filters out dust and irritating pollen, circulates air evenly, without drafts through every room in the house.

The whole operation is automatic. Your client just sets the Servel Selectrol—and forgets it. From then on, the Servel unit switches automatically from cooling to heating and back again, as needed, to maintain the chosen temperature.

A Servel air conditioned home needs no porch, no fireplace, no attic fan. Outside doors and windows may be kept closed. Glass may be fixed, permitting use of a simple wood frame. Screens are not necessary. If you plan your homes around Servel All-Year Air Conditioning, you'll find that these and other possible savings permit you to include the Servel unit for little or no extra cost.

The Servel All-Year Air Conditioner can be easily adapted to any size, style, type, or shape of home your client wants. Ask your local Gas Company for all the particulars, or write to Servel, Inc. 1008 Morton Avenue, Evansville, Indiana.

Architect: Luigi Marioni,
1518 Beacon Street, Cincinnati
Thrush Radiant Hot Water Heat is a leader... in economy, in efficiency, in popularity. Thrush Flow Control System offers the simplest yet most satisfactory method of automatically controlling temperature of radiant ceiling, wall or floor panels. This system provides uniform heating comfort without continuous Circulator operation. Inexpensive No. 201 Thrush Radiant Heat Control, illustrated below, maintains a constant room temperature and system water temperature without variation. Thrush Forced Circulating Flow Control System is easy to install. It provides economical heating plus summer as well as winter supply of domestic hot water for laundry, bath and kitchen use.

THRUSH FLOW CONTROL SYSTEM OF HOT WATER HEAT

Send for booklet giving the complete story of Thrush Radiant Hot Water Heat. The same simple equipment may be used for zoning apartments inexpensively and is ideal for modernizing home heating plants. For more information, see our catalog in Sweet’s or address Dept. G-6.
Window shopping stops here...

The most intensive of all "window shopping" - that of the architect and builder - must stop at the sight of Reynolds Aluminum Casements. Their superiority in design - and especially in finish - is outstanding. Their flash-welded corners assure maximum rigidity and weathertightness. Their roto-operation is smooth and dependable. And of course they have the basic advantages exclusive to aluminum windows: rustproof permanence with no need for protective painting, narrow frames of neutral tone to harmonize with any concept.

Reynolds supplies residential casement, fixed and picture windows in all combinations, standard and western types ...also Reynolds Aluminum Screens to fit these and all metal casement windows.

Stop right here and write for complete descriptive literature in A.I.A. file form. Reynolds Metals Company, Building Products Section, 2003 South Ninth Street, Louisville 1, Ky. Offices in 32 principal cities.

...and so does all Casement Screen shopping!

Reynolds Aluminum Screens fit not only Reynolds Windows but all Aluminum and Steel Casements. Exclusive corner lock feature assures great rigidity and high spring tension to keep the cloth tight. Where you are buying new windows, specify Reynolds Aluminum Windows complete with Screens. Where you must screen other casements, do it with Reynolds Aluminum Screens. See your dealer!

REYNOLDS ALUMINUM RESIDENTIAL CASEMENT FIXED AND PICTURE WINDOWS

REYNOLDS ALUMINUM AUGUST, 1950
We present the ALL NEW

Case ONE-PIECE

with lower bowl and important sanitary developments

With the $1000 Case One-Piece, modern development in water closet design attains a new standard of beauty, performance and utility. The $1000 carries on the immensely popular idea sponsored by Case in the original one-piece water closet. New mechanical features assure the positive, quiet flushing action people desire in the up-to-date bathroom. The bowl has been lowered one inch, incorporating the findings of the latest research on posture. For maximum health protection, the riser pipe of the ballcock is enclosed in a china channel completely separated from the water in the tank. The body of the ballcock is located well above any possible water level.

An open atmospheric vent obviates all possibility of back-siphonage under any conditions. Of particular appeal is the fresh exterior styling, designed to convey the feeling of quality inherent in this fixture. The $1000 is built to the highest specifications, is attractively priced, and is available in white and 26 popular colors. See it now at your Case distributor—or write for folder. W. A. Case & Son Mfg. Co., Buffalo 3, N. Y. Founded 1853.

...and a new matching lavatory

The handsome new style motif of the One-Piece water closet is duplicated line for line in this companion lavatory, the new Windell $780* with specially designed fittings. When installed together, each fixture complements the other's beauty.

Size 24" x 30".

Case Fine Vitreous China

Pace-Setter!
MAKE THIS SIMPLE MITER TEST!

Try all saws before you buy! It's easy ... just follow this picture. Swing arm to right for right-hand miters ... then swing arm to left for left-hand miters. The saw must cut miters and angle-dado from 0° to 90° both right and left, as shown, to be fully practical in today's construction. Don't take less — get the full range.

DELTA® MULTIPLEX portable job shop!


There's no doubt about it — make the miter test and prove to yourself Delta Multiplex is your best buy!

FREE MOVIE! FREE DEMONSTRATION!

Learn more about Delta Multiplex these 3 ways:

FREE MOVIE! Sound — Action — Color! Ask your dealer to show you this film.

FREE DEMONSTRATION! Ask your dealer to demonstrate Delta Multiplex in action.

FREE IDEA BOOK!

20 pages showing unlimited uses of Delta Multiplex. Send coupon for your copy.

DELTA MULTIPLEX DOUBLE RADIAL ACTION

TEAR OUT COUPON AND MAIL TODAY!
BECAUSE IT'S PRICED RIGHT . . . BECAUSE IT'S BUILT RIGHT . . . BECAUSE IT'S EASIER TO INSTALL . . . BECAUSE IT'S LIFETIME WARRANTED

Be Careful!

USE

DEXTER

the lifetime lock

MORE FOR YOUR MONEY!

NATIONAL BRASS COMPANY
Manufacturers of America's First Tubular Lock

Dexter Direct Factory Representatives are located in Abilene, Baltimore, Boston, Chicago, Cleveland, Columbus, Detroit, Fort Worth, Knoxville, Los Angeles, Milwaukee, New York, Omaha, Philadelphia, St. Louis, San Francisco, Syracuse, Tampa.

In Canada: Dexter Lock Canada Ltd., Guelph, Ontario
SOLID BRASS! AND LOOK AT THAT "JEWELER'S FINISH"!

DEXTER EXCLUSIVE ARMORED CYLINDER!

LIFETIME WARRANTED

INSTALLS EASY AS...

ONE
Use Dexter Bit Guide for uniform boring of locks and latches. Largest hole required: 1/4".

TWO
In one hammer blow, cut all four sides of face plate mortise, with Dexter Marking Tool.

THREE
Insert Dexter lock, position the knobs, attach the tie bolts - and the job's done!

WRITE FOR DESCRIPTIVE LITERATURE ON
Dexter Locks and Latches, Builders, Cabinet, Screen Door and Shelf Hardware.
The contractor on this 4000-cu. yd. concrete reservoir built exclusively with Atlas Duraplastic air-entraining portland cement reports:

"...walls have a pleasing appearance with smooth texture and no 'honeycomb' spots or streaks. We particularly like Duraplastic for structural concrete, especially if it is exposed to the weather. Duraplastic concrete is highly resistant to the effects of freezing and thawing..."

This report is typical. For Atlas Duraplastic air-entraining portland cement has proved its advantages in a wide variety of structural and mass jobs; foundations, walls, columns, and floors. It's ideal for slip-form, gunite and other uses. It requires less mixing water for a given slump; gives a more plastic, uniform mix; places and finishes easily.

Atlas Duraplastic complies with ASTM and Federal Specifications, sells at the same price as regular cement, calls for no unusual changes in procedure.


Offices: Atlanta, Birmingham, Boston, Chicago, Dayton, Kansas City, Minneapolis, New York, Philadelphia, Pittsburgh, St. Louis, Wyoc.

**"Duraplastic" is the registered trade mark of the air-entraining portland cement manufactured by Universal Atlas Cement Company.
"This SKIL Saw has been in business with me for 20 years"

Says F. William Wessel, for over 40 years a carpenter-contractor in Peoria, Illinois

Bill Wessel and his Model F SKIL Saw have been working together day after day for more than 2 decades—and both are still going strong. Bill knows, probably better than anyone, that SKIL Saws don't need to be babied or pampered to keep them out of the shop and on the job.

Here's one reason Bill Wessel's old veteran (like all SKIL Saws) stands hardest wear and the shock of heaviest loads: It has famous SKIL Saw Worm-Gear construction and the extra margin of power that make tough jobs easy year after year. Contractors who know never take chances. For saws they see their SKIL Distributor. It's plain good business for you to see him, too.

SKIL Products are made only by SKILSAW, INC.
5833 Elston Ave., Chicago 30, Ill.
Factory Branches in Principal Cities
in Canada: SKITOOLS, LTD., 66 Portland St., Toronto, Ont.
**Mack says... Check the Weather**

**Numetal WEATHER STRIP**

FOR DOORS

Conveniently packaged in sets for almost all standard doors. Available with regular brass and felt door bottom strips or with thresholds and exposed hooks. No special skill or tools are required. Easily installed with only a hammer and household scissors. Comes complete with sufficient strips for size openings, lock keeper strip, screws, nails and instructions for installing. Perfect for over-the-counter sales!

This door equipped with style "C" Numetal side and top, lock keep strip and a hanger and felt door bottom.

**Numetal DOOR BOTTOM STRIPS**

Just what your customers need to keep cold air, dust, and dirt from blowing under doors. A popular seller! Made of wool felt and extra heavy gauge brass or aluminum. Furnished in standard lengths for 28", 30", 32", 42", and 48" doors. Also available in special lengths. Packed ½ dozen same length in each carton.

**FOR WINDOWS**

Numetal Window Sets also come complete in convenient packages. Fits all standard 28", 30", 32", and 36" double hung windows. Cut-to-dimension sizes available. It is a practical and efficient type of permanent weather strip and can be quickly installed by anyone. Each set contains necessary strip for top, bottom, and sides, meeting rail strip, sash plugs, nails and instructions. Individually packaged — ready to hand to your customers — ready to install!

This window is completely weatherproofed with strip from Numetal Window set. Includes Style "A" for top, bottom and sides. Style "B" for regular meeting rail, sash plug available for ribbered meeting rails.

**Nu-WAY WEATHER STRIP**

Easy to sell because it's so easy to put on! Works perfectly on any type window or door. Made of mothproof, pre-shrink, color-fast, wool felt and white metal. Attractive display carton contains 12 individual 20-ft. rolls.
Proof Items You Need
...and Order Now!

**Nu-GARD Automatic**

Door Bottom and Draft Eliminator

This is the door bottom in answer to the homemaker's prayers! Beautifully designed, the Nu-GARD door bottom keeps firm contact with floor when door is closed. Saves fuel—stops cold drafts under door! When door is opened, the hinge fits into the slot in the door, so no automatic felt to wear out. All working parts are made of high quality, genuine Piano metal. Easily installed, fastened to doors 22", 32", 36" and 45" wide. May be shortened to fit. Fits right or left hand doors.

Includes necessary racks and complete illustrated instructions. A Nu-GARD Automatic Door Bottom is a bonus to your sales. Just show 'em and you'll sell 'em!

**Nu-Art Thresholds**

Thresholds are becoming increasingly important in the weatherproofing picture—residential as well as commercial and industrial! You should have a complete stock of these attractive thresholds. Available in brass or aluminum, with holes drilled, screws for installation—a individually wrapped and labeled.

**On-GARD Bronze Coil Weather Strip**

Here is the perfect coil strip! Patented hanging zone feature eliminates buckling and forms weather-tight edge. Double turned outer edge forms a hump, rigid contact. Packed 100 ft. or 200 ft. in exclusive, patented dispensing carton or with your initial order for five 100 ft. rolls we give you a sturdy counter display case.

**Nu-Glaze Glazing Compound**

Sells better because it does the job better—really stays put! Won't crack or peel off. Perfect for all Glazing Packages to attractive case from 1/2 pint to 12 1/2 lbs.—in doz. from 25 lbs. to 800 lbs. Order now!

**Nu-Calk Speed Load**

America's favorite calking compound in the most efficient calking load on the market. Packaged 10 loads to each carton and 4 cartons per shipping case. Keep a good supply on hand of this fast seller!

**ORDER NOW!** Your order will be shipped same day received.

MACKLANBURG-DUNCAN CO.
OKLAHOMA CITY 1, OKLAHOMA
Increase the range and quality of your building service with

**Architectural Concrete**

There are rewarding opportunities for the contractor who uses architectural concrete in small commercial, industrial and public buildings. Such buildings, carefully planned, attractively designed and quality constructed, enhance his reputation and are a source of pride to both owner and community.

Architectural concrete presents no special problems. It simply requires adherence to quality principles—selection of good materials; right amount of water; careful proportioning, mixing, placing and curing.

Forming is especially important because the concrete finish and sharpness of ornamental details are due largely to the character of the forms.

Most important is the quality of the mix. Architectural concrete must withstand years of weathering. That requires a minimum water-cement ratio consistent with conditions of placing, but no more than 6½ gal. of water per sack of cement or less than 5½ sacks of cement per cu. yd. and a slump not to exceed 4 in. when vibration is used or 6 in. for hand placing.

Beautiful architectural concrete buildings often cost no more than less attractive structures. That's because both structural and ornamental elements can be cast in a single operation. And the many advantages of concrete buildings—firesafety, minimum maintenance cost, durability—result in low-annual-cost service.

For more information on textures and colors, on what is appropriate and economical, on forming details, get a free copy of "Architectural Concrete for Small Buildings," distributed in U. S. and Canada.

**PORTLAND CEMENT ASSOCIATION**

Dept. 8-3, 33 W. Grand Ave., Chicago 10, Ill.

A national organization to improve and extend the uses of portland cement and concrete...through scientific research and engineering field work.
"Easier To Handle... Faster To Install"

IMPROVED ROLL BLANKET PACKAGE

- 25% Longer Roll . . . Less Cutting and Fitting
- One Cut and Roll is Ready for Use
- Fewer Packages to Handle on Job
- No Muss . . . No Bags or Cartons to Discard
- Uniformly Compressed Package Assures Specified Thickness Throughout

PLUS BETTER VAPOR BARRIER

- More Than Meets FHA's Latest, Rigid Requirements
- Stronger, Tougher Paper . . . Less Vapor Transmission

USE FIBERGLAS-BUILDING INSULATION IN YOUR HOMES

OWENS-CORNING FIBERGLAS CORPORATION, Dept. 62-H, Toledo 1, Ohio

Available through

5 National Distributors

AUGUST, 1950
THEY'RE genuine red cedar processed sidewall shakes. They're factory stained in a wide range of colors. Their heavy shadow lines lend beauty and interest to any home.

Back them with an underwall of CREO-DIPT Insulation Board and you can stress comfort and fuel savings, as well as beauty, as features of your homes.

Builders everywhere are learning that CREO-DIPT Double Wall Zephyrs make any home easier to sell. Used exclusively or in conjunction with other sidewall materials they arouse prospective home buyers' interest.

EASY AND ECONOMICAL TO APPLY
Aided by the unique CREO-DIPT "Speeder-Upper," two inexperienced men should apply at least 6 squares a day.

A COMPLETELY PACKAGED LINE
CREO-DIPT packages its shakes, insulation board and nails in sturdy cartons. You get them in A-1 condition and they're easier to handle on the job.

Mail this Coupon Now

CREO-DIPT CO., INC.—Dept. AB-80
North Tonawanda, New York
Send me further information on CREO-DIPT Double Wall Zephyrs and how to apply them.

NAME
FIRM
CITY ZONE STATE

AMERICAN BUILDER
Here's an introduction that's sure to meet with the approval of clients concerned with heating modern ranch style homes—or garden apartments where heat control and distribution are problems!

Here's a brand new, cabinet-enclosed Richmond unit that takes up just 22 1/2 x 28 in.-hes of floor space to fit easily into a closet or utility area—to lend itself ideally to any first floor or basement installation.

Here's a thermostatically-controlled unit that delivers uniform heat to every room—and does it efficiently and economically.

The new Richmond Furnace is available in two popular sizes—85,000 and 110,000 BTU input per hour—and is fully approved by AGA for all types of manufactured, natural and LP gases.

When you introduce your customers to this new space-saving, money-saving Richmond unit they'll like its ultra-modern features—in the Richmond tradition of fine engineering, design and workmanship.

**EXAMINE THESE FINE FEATURES**

of the Model SU Steel Gas-Fired Winter Air Conditioner

1. Sturdy round-cornered light green steel hammer tone jacket.
2. 1725 R.P.M., 115 volt, 60 cycle motor with V-belt drive, variable pitch motor pulley that quickly changes air volume for continuous air circulation.
4. Heavy gauge welded steel heat exchanger is extra-durable, extra-efficient.
5. Gas-tight, all-welded radiator assures a large heating surface, long fuse travel.
6. Choice of two fine Gas Burner Assemblies—one for natural and mixed gases; one for manufactured, natural and mixed gases.
Concrete masonry construction is booming—providing utmost economy, both initial and ultimate, in industrial plants, warehouses, garages, stores:

Walls of clean, smooth concrete block made with LONE STAR CEMENT—or with 'INCOR' 24-HOUR CEMENT, where faster hardening is needed to speed delivery. Quality block laid up with LONE STAR MASONRY CEMENT... a family kinship of quality materials that means utmost durability and low maintenance cost.

Here is sound block construction at its best, smooth-jointed with mortar to delight a mason's heart... rich, extra-fat mortar that sticks to block or brick like a true friend... mortar that stays plastic until units are firmly bedded, assuring better bond.

This job was done in summer sun, at 110°F—yet Lone Star Masonry Mortar retained its workability, no tempering needed!

Mortar to match the skill of the Masons who use it—that's why Masons everywhere are saying, "Be sure to send me that same Masonry Cement again!"
May homebuilding broke all previous records by spiralling to 140,000 new permanent dwelling units started, according to preliminary estimates of the U. S. Labor Department’s Bureau of Labor Statistics. The May figure was almost 50 per cent ahead of the May 1949 level.

The half-million mark for new housing starts was reached in May this year—two months earlier than last year. The cumulative total for the first five months of 1950 was 535,000 units, compared with 354,000 units in the like period of 1949. The sharp gain in house construction this year has been country-wide, and has been shared by cities as well as outlying areas.

Although annoying, shortages of materials are only temporary and will be cleared up in the next 60 to 90 days.

Producers of building materials have stepped up production to supply materials for residential starts at an annual rate of more than 1,250,000.

Johns-Manville Corporation, according to a Wall Street Survey, is reported to be working at a theoretical 120 per cent to 130 per cent of capacity. The nine plants are working three shifts and in most instances six and seven days a week. Unit volume is 25 per cent above a year ago.

Certain-Teed Products Corporation is working at capacity. Sales for the first six months of the year are expected to hit $22,500,000—up 15 per cent from the first half of 1949.

American Radiator and Standard Sanitary Mfg. Company has hiked employment about 35 per cent over last year. American Standard’s boiler production in May was 150 per cent over that month a year ago. Bathtub production has climbed 200 per cent. Other vitreous china products are being produced at a rate in excess of 32 per cent over a year ago.

Lumber mills in the South and Pacific Northwest are producing at a near record rate. A big producer of builder’s hardware reveals its incoming business is running better than 20 per cent above a year ago. A major producer of cast iron soil pipe says its plants are working two shifts a day.

Manufacturers of paint, plywood, brick, cement and tile report difficulty in keeping pace with the demand.

Housing Characteristics of other metropolitan areas are now available from the Bureau of Labor Statistics’ survey. Last month American Builder reported on the characteristics of home building in the Chicago area, showing that the majority of new houses in the area have basements, brick exteriors, foster interior finish, hot air heat, wood window frames, and have either four or five rooms.

Other cities for which data is now available include New York, Philadelphia, Washington, D. C., Atlanta, Pittsburgh, Miami, Dallas and Los Angeles.

It is no surprise to find from the survey that basements are non-existent in Miami, Dallas and Los Angeles; that only 20 per cent have them in Atlanta and 12 per cent in San Francisco.

Brick exteriors predominate in Philadelphia, Washington, D. C. and Pittsburgh. Stucco on masonry construction and stucco on frame is applied on 91 per cent of the new homes in Miami and Los Angeles respectively.

In the other areas wood or asbestos shingles are used most extensively.

Dry wall construction, mainly gypsum board, flourishes in New York, Washington, Atlanta, Dallas and San Francisco, but not in Philadelphia, Pittsburgh, Miami, Los Angeles or Chicago.

Hot water heat is used in 41 per cent of the new houses in the New York area, 14 per cent in Philadelphia and Pittsburgh, but not to any extent elsewhere. Radiant systems are used in 18 per cent of the houses in the New York area and 9 per cent in Chicago.

Elsewhere new homes are heated by hot air except in Atlanta, Dallas, Los Angeles and San Francisco where floor or wall furnaces are used. Miami does not admit to using any kind of heating equipment.

Window frames of steel and aluminum, used almost exclusively in the Maine area and elsewhere, account for one-fifth to one-half of all windows. Aluminum window frames are used in about 5 per cent of new homes in Philadelphia and New York.

The majority of new houses have four or five rooms, except Pittsburgh where 53 per cent are six rooms or more. Philadelphia, Washington, Pittsburgh and San Francisco have a high ratio of six room homes.

Most new homes are operate built, according to the survey except in Pittsburgh where contract built homes account for 7 per cent of the total and owner-built homes for 41 per cent. On the latter, the owners do a substantial amount of the labor. In all areas most new homes are built in projects of less than 25 units. Only a small proportion are built in projects of hundreds of units, except in Los Angeles, where 22 per cent of the new homes were built in groups of 100 or more.
BURNS REALTY FOUND A WAY TO MAKE BUYERS OUT OF LOOKERS!

Every home in the great Brentwood Development comes equipped with a Bendix Washer!

Out Denver way, they do things up big. And this huge development by the Burns Realty Co., is a typical example. 1150 homes will be the total count by the end of this year. And every home will be equipped with a Bendix Washer!

Why did Burns—along with so many other "look-ahead builders"—choose Bendix?

A woman wants convenience. A man wants value. They both get what they're looking for in a house that's equipped for modern living. And a Bendix is the very symbol of today's time-saving convenience.

Many, many builders have discovered that a Bendix home Laundry as part of their package is the "extra" that closes sales—even in the heat of today's keen competition. The Bendix builder story is a story worth looking into. Check up on it through your nearest Bendix distributor—or write us for his name.

Bendix is participating in the Good American Homes Program

BENDIX HOME APPLIANCES, INC., SOUTH BEND 24, INDIANA
DE LUXE 4-SECTION DESIGN — not a one-piece door.

ALL-WOOD 24-PANEL CONSTRUCTION, kiln dried Douglas Fir and exterior plywood.

FULL WIDTH SECTION FOR GLASS.

WEATHERPROOF PATENTED INTERLOCKING JOINT between each section, full width.

56 STRAND, QUIET, AEROTYPE CABLES with internal lubrication.

TEN ROLLERS WITH 100 BIG BALL BEARINGS.

INSTANT SPRING ADJUSTMENT BRACKET on each side.

5-PIN CYLINDER TYPE LOCK with chrome plated handle.

DOUBLE EXTENSION SPRINGS.

GALVANITE RUST-PROOFED HARDWARE.

LOWER CORNER BRACKETS cradled under door take all lifting load.

See this handsome new door at your local Crawford dealer. It is not yet available in your community, write us direct or send check and trial order and we will ship promptly from point nearest you. It’s a record-breaking value, priced away below the market. Quickly and easily installed by your men and works like a charm. Money-back guarantee.

FLEETWOOD DOORS ARE ALSO AVAILABLE IN INDUSTRIAL SIZES UP TO 12' x 12'.
Hollywood leads the way in making America's housewives want the latest and best for their homes. That's why Jane Wyatt® is pictured in a kitchen that sparkles with Genuine Clay Tile. The rich, decorator colors are fired-in...tiled surfaces defy scratches and stains...wipe clean with just a damp cloth.

Available in a wide variety of colors and patterns.

*Jane Wyatt will soon be seen in MY BLUE HEAVEN, starring Betty Grable, a 20th-Century Fox production. Color by Technicolor.

The Tile Council of America, Room 3401, 10 East 45th Street, New York 17, N. Y., Room 433, 727 W. Seventh Street, Los Angeles, California.

PARTICIPATING COMPANIES:
American Ceramic Tile Co.
Architectural Tiling Company, Inc.
Atlanta Tile Manufacturing Co.
B. Mifflin Hood Co.
Cambridge Tile Manufacturing Co.
Carlyle Tile Company
General Tile Corporation
Glaudin, McLean & Co.
Houlton Tile Company
Huntley Tile Company, Inc.
National Tile & Manufacturing Co.
Olsen Tile Company
Pacific Clay Products
Pacific Tile and Porcelain Co.
Pomeze Tile Manufacturing Co.
Robinson Manufacturing Co.
Seminole Terra Cotta Co.
United States Quarry Tile Co.

THE MODERN STYLE IS CLAY TILE
Letters to the Editor

Open End Mortgage

Sir: Please give us a little information concerning open end mortgages and in what sections of the country they are working. We understand you made a most interesting talk on this at the Florida Lumber Convention, and we are sorry not to have been there to hear it.

W. S. Lowry, Secretary and Treasurer, All States Lumber Corp., St. Petersburg, Fla.

EDITOR'S NOTE: It is our understanding that open end mortgages have been standard practice in California for some time and that new regulations now make them acceptable in Massachusetts, New Jersey, Connecticut, New Hampshire and North Dakota. Elsewhere Title I of FHA is now widely used. Although helpful in assisting home owners to make needed improvements, the terms and interest rates are still burdensome. The effective interest rate is close to 9½ per cent and the maximum terms are 3 years, 31 days. The practice of permitting home owners to make improvements on the same terms that they borrow to pay off their mortgage debts has long been encouraged by American Builder. The mortgagor’s stake in the property would be enhanced in virtually all cases. The home owner would be more satisfied with his property. The mortgagor is in a position to be a counselor as to the feasibility of making improvements and adding appliances. Most cases of default can be traced to the mortgagors being overcharged with installment payments. In some localities the title search procedure has been simplified and made less costly so that a new mortgage can be made with allowance for additions. It is to be hoped that the open end mortgage will soon become universal. We believe that it will be of benefit to the mortgagor, to the home owner, to manufacturers of building materials and equipment, and to the economic stability of the nation in general.

The Easy Way

Sir: Regarding the May issue of American Builder, page 100, and the How-To-Do-It “How to Lay Out an Arch.” I submit a much simpler solution (when the span is given, 30 feet, the rise, 8 feet, and the problem is to determine the radius of the arch):

\[
\text{Radius} = \frac{\text{Span}^2 + \text{Rise}^2}{2 \times \text{Rise}} = \frac{30^2 + 8^2}{2 \times 8} = 18\frac{1}{3} \text{ inches}
\]

In other words, radius equals one-half the span squared plus the rise squared over two times the rise.

Walter R. Roof, Structural Engineer American Roof Truss Co., Chicago 49, Ill.

Sirs: On page 216, May, 1950, American Builder, the article on how to taper lumber on a saw table does not look any too good to me. Nailing a wedge on side of stock takes time. Also, wedge as shown will not do any good, as stock will crowd between the saw and fence when it is fed into the blade. I have cut lots of tapered parts on my saw without any trouble by using a “hook” wedge, as in this drawing:

R. A. Patenaude
Myrtle Creek, Ore.

No Charge

Sir: Recently in the . . . issue of American Builder I saw some Catalogs and “How-To-Do-It” information listed, two of which I am interested in. What is the charge for these items?

R. W. Downs
San Antonio, Texas

Sirs: Will you please send us the catalog on “New Decorating Ideas” issued by the Sloan-Blabon Corp. . . . If there is any cost for the catalog please advise us.

Greet & Bridgen Ltd., Builders and Contractors Prince Rupert, B.C.

EDITOR'S NOTE: There are no charges for catalogs normally listed in American Builder. Readers may secure any of these by merely filling in the Catalogs coupon, marking the ones they desire, and sending the coupon to us.

AUGUST, 1950

Contractors!

This is Profitable Business For You!

Resurface Worn, Dangerous Floors Quickly 1/2" With

TUFCRETE

At Savings Up To 50%

Ideal for warehouse floors, loading docks, walkways, platforms—easily installed over wood, concrete or composition floors—outwears either. No trade-in buy. No heating. Normal curing time 24 hours.

Customers often ask names of Contractor who will install Resurfacer and other Tufcrete products. If you can use more business, mail coupon for detailed information and prices.

TUFCRETE COMPANY, INC.
553 Toeetow Blvd., Des Moines 9, Iowa.

ATTACH TO YOUR LETTER HEAD AND MAIL

Please send complete information about your Resurfacer proposition to Contractors.

Name

Business

Address

City Zone State
Q. WHAT IS MODULAR SIZE WOODWORK?

Modular size woodwork consists of windows, window frames, sash, screens, etc., sized on a 4-inch unit of measurement. With modular sizes, all types of check-rail windows, whether 2-light, 4-light, 8-light, 12-light, top divided or other type, are built to the same standard 2-light opening size.

Q. HOW DO MODULAR SIZES CUT BUILDING COSTS?

By reducing cutting and trimming on the job. Modular size woodwork, used with a modular plan, means that units go together quickly and easily on the job—that construction time is materially reduced—that labor costs are considerably lower.

Q. ARE MODULAR PRODUCTS GENERALLY AVAILABLE?

In woodwork such as windows, window frames, sash and screens, modular sizes are available in all standard designs, including the leading pre-fit or pre-assembled units. Other modular products are now available for the entire exterior shell of a building.

Q. IS MODULAR DESIGN SUITABLE FOR ALL TYPES OF BUILDINGS?

Yes, the planning of any building on the 4-inch modular system is easy and convenient. Modular design imposes no limitation or restriction on free architectural expression.

GET ALL THE ANSWERS—MAIL THE COUPON!

Your lumber dealer will gladly explain all the details of modular size woodwork—show you how it can save you time and money. Or, mail the coupon for our free folder.
AMERICAN STYLE:

AMPLIFICATION

TRULY AMERICAN HOUSE CHARACTERIZED IN SEPTEMBER BUILDING FEATURE

"A house in which all the social and technical progress of the 20th Century United States are put to work to serve the basic ideals of American life." That's the way September House Beautiful sums up the many things about appearance and performance which characterize today's truly American house. And tangible reasons are studied in detail . . . traced from the early architecture of H. H. Richardson and McKim, Mead & White down to modern standards, through the years of changing ideals.

PACE-SETTER

House Beautiful's third pace-setter house of 1950 appears in the September issue . . . complete with up-to-the-minute ideas which architects and builders all over the country can use to profitable advantage. The sketch reproduced above illustrates the "maximum livability" planning which went into its design and placement . . . for example, the wide-eave protection against all weather, the sunny terrace sheltered from prevailing winds, the traffic-free privacy of the living area, thanks to placing the entrance, garage and service areas along the street side.

CLIMATE CONTROL:

SUMMER COMFORT

Looking for ideas to combat excessive heat and humidity? You'll find them in the climate-wise Philadelphia house presented in the September issue . . . many of them simple, not-too-expensive principles adaptable to any difficult summer climate problems.

Merging the stone hillside architecture, so important to Pennsylvanians, with modern Climate Control design and construction requirements, this house embodies summer comfort, privacy and regional tradition. And the common extremes it overcomes offer any number of solutions and selling points for your locality.

Watch for it! Watch for its answers to mildew in closets and storage spaces, roof rot from high humidity, excessive summer heat

(Continued on next page)
BRIGHT FROM HOUSE BEAUTIFUL

ADVERTIES

FOR EASIER, MORE PROFITABLE SALES TIE-IN
YOUR FORTHCOMING PROMOTIONS WITH
THESA FAMOUS NAMES FEATURED IN THE
ADVERTISING PAGES OF SEPTEMBER HOUSE
BEAUTIFUL

INSULATION

32. JOHNS-MANVILLE "BLOWN" HOME INSULATION
JOHNS-MANVILLE CORP.
This machine-made Rock Wool insulation is pre-
sumption "blown" into the hollow exterior walls
and attic spaces of a home. The work is done by
approved J-M contractors who blow the Rock
Wool to the right density. The resulting insula-
tion saves fuel in winter and keeps houses cooler
in summer.

SURFACING MATERIALS

a. Walls & Ceilings
33. BLUE RIDGE PATTERNED GLASS
BLUE RIDGE DIVISION
LIBERTY-OWENS-FOORD GLASS CO.
Blue Ridge Patterned Glass lets light through,
yet its patterns block vision. In September House
Beautiful the Blue Ridge Sales Division of L.O.F.
shows readers how they can use this beautiful
glass in doors to brighten hallways and in
windows where light is desired without visibility.

34. BROWN'S SUPERCEDAR Lining
GEO. C. BROWN & CO., INC.

35. MISSISSIPPI DECORATIVE GLASS
MISSISSIPPI GLASS COMPANY

36. ROMANY TILES
U. & G. QUARRY TILE CO.

37. STRAHAN WALLPAPERS
THOMAS STRAHAN CO.
STRAHAN again leads the field of quality wall-
papering. It has a new and beautiful 1951 line
in a wide range of colors keyed to today's living
and homes. It is authentic and versatile. See
him personally advertised in House Beautiful.
Having Home Beautiful Bride's Living for Young
Homemakers. See them . . . and you'll know
they'll sell them.

38. "TREND OF THE TIMES" WALLPAPERS
C. W. STOCKWELL CO.

MORE ABOUT

SUMMER CONTROL

gain, high heat and humidity dis-
comfort, excluding summer sun and
insects while still admitting summer
breeze. They're all there and many
more . . . in September House
BEAUTIFUL!

39. VITROLITE GLASS PANELING
LIBERTY-OWENS-FOORD GLASS CO.
Color is popular in today's homes . . . especially
in the new kind of house that can't have. House Beautiful
readers will find in Liberty-Owens-Ford's September
marketing a colorful suggestion — walls of Vitrolite Glass on the inside make breakfast all. It's
an idea you can use to put extra sales appeal
into homes.

40. WALL-TEX FABRIC WALL COVERINGS
COLUMBUS COATED PRODUCTS CORP.
Wall-Tex Fabric Wall Coverings give the con-
tomer two values — 1. Authentic decoration in
color and design selection. 2. Protection against
plaster cracks. 3. Nonflammable-water resist-
ability that offers value. And Wall-Tex Dealers
have a triple selling advantage because their
customers want the extra value of beauty-plus-
proportionality that Wall-Tex is noted for.

41. WELDWOOD PLYWOOD
U. S. PLYWOOD CORP.

b. Flooring
42. BRUCE RANCH PLANK FLOOR
E. L. BRUCE CO.
Interest being shown in this new hardwood floor-
ing is phenomenal. Builders find it gives homes
extra sales appeal at only slight additional cost.

SAFER

Any doubt about the advantages of pushing nationally advertised product
names? Read this typical subscriber letter:

"Dear House Beautiful:

As a regular reader of your magazine, I think you might be interested
in knowing what a great help you've been to my Husband and me.
My husband and I like to add improvements to our home gradually.
Last year, when we added an extra room and did over two others, I'll tell
you honestly that every idea we used came out of House Beautiful. There's
something about seeing new things and definite names to ask for in a
magazine like yours that makes me, for one, feel safer about buying them.
I feel strongly about that, even though you probably hear it from a lot of
people all the time.

Anyway, thank you both for making our living so much easier. I now look
forward to House Beautiful every month.

Sincerely yours,
(Mrs.) E. S.

Dealers report Bruce's full color advertising on
Ranch Plank Floor is producing many inquiries,
with high percentage of sales. Literature, display
books and newspaper ads available from E. L.
Bruce Co., Memphis 1, Tenn.

43. HENKORE
DAVID E. KENNEDY, INC.

44. "SMOOTHEDGE" TACKLESS INSTALLATION FOR CARPETS & RUGS
THE ROBERTS CO.
"Installing Carpet for Uniform Beauty" is ex-
plained in this full-page, full-color advertise-
ment. An interior shows the beautiful effect of
"Smoothedge" tackless installation. Close-ups
show the flawless finish of "Smoothedge" and
explain how this tackless gripper works. Dealers
are told to look for the full-color "Better Carpet
Installation" dealer display.

45. ALCOA ALUMINUM WINDOWS
ALUMINUM COMPANY OF AMERICA
When building or remodeling, many modern
homeowners are insisting on aluminum windows.

Aluminum windows won't rot away, won't rot,
chip, crack or decay. They give you a lifetime of service . . . yet never need painting. Uniska-
ically handsome, aluminum windows go well
with any type of architecture . . . harmonize
with any color scheme.

50. TRUSCON STEEL WINDOWS 
SERIES 138
TRUSCON STEEL CORP.
"WEATHER-MASTER SCREEN & STORM
SASH COMBINATIONS
WARNER MFGS. CO.

51. CATO'S COLLOPAS
S. E. O. BURTON, INC.

52. RAMAC ENAMEL FOR POOLS
INERTOL CO., INC.

PAINTS

51. CATO'S COLLOPAS
S. E. O. BURTON, INC.

52. RAMAC ENAMEL FOR POOLS
INERTOL CO., INC.

RAMAC enamel provides a long-lasting, water-
repellant, tile-like finish on concrete pools, or on
any masonry. It actually becomes a part of the
surface — will not peel, peel, blister or flake
off. Colors hold true under the strongest sun. For
full information, address: Inertol Co., Inc., 490
Pinehurst Avenue, Newark, N. J.
TECHNICAL DATA

To illustrate how properly planned porches make fine climate control devices, as well as pleasant places to sit, this sketch is included in the September Philadelphia house story. In this case, the two-story porch along the entire south wall keeps sun, insects, and blowing rain out of all rooms, permits large glass doors to slide back for real summer ventilation. Insulating glass makes same walls weathertight in winter.

HEATING, VENTILATING, AIR-CONDITIONING, HUMIDIFIERS

62. AMERICAN-STANDARD WINTERWAY WINTER AIR CONDITIONER & EMPIRE BOILER
AMERICAN RADIATOR & STANDARD SANITARY CORP

Shown are the new oil fired Winterway Winter Air Conditioner, basement type unit for small to medium size homes; and the gas fired Empire Boiler for basement or first floor installation. Just two of the many American-Standard products for any type of heating — with oil, gas, or coal.

63. B & G HYDRO-FLO HEATING
BELL & GOSSETT COMPANY

64. BURNHAM BASE-RAY RADIANT BASEBOARDS
BURNHAM CORPORATION

Made of durable cast iron, these radiant base- boards hold heat longer. Only 7" high, they add to the appearance of any room. Placed on outside walls, where heat loss is greatest, they deliver radiant heat at ankle-height. Suitable for hot water or steam.

65. CHRYSLER AIRTEMP HOME HEATING AIRTEMP DIVISION, CHRYSLER CORP.

66. DUNHAM BASEBOARD HEATING
C. A. DUNHAM CO.

Modern, handsome Dunham Cabinet ConvectorS are efficient heating units which can be recessed into walls or fitted snugly under windows. Designed for use with hot water, steam or vapor, for old buildings as well as new, these convectorS are manufactured in numerous types and sizes — a connector for every need.

67. FITZGIBBONS BOILER-BURNER UNIT
FITZGIBBONS BOILER CO.

All Fitzgibbons residential steel boilers are now available with an oil burner if desired. The Fitzgibbons oil burner is thoroughly standardized and has proven itself in thousands of installations. It teams up perfectly with the Fitzgibbons steel boiler for maximum fuel savings and trouble-free operation.

68. FRIGIDAIRE ELECTRIC DEHUMIDIFIER
FRIGIDAIRE DIVISION GENERAL MOTORS CORP

Here's a sure simple way to check moisture-damage — electrically and automatically! The amazing Frigidaire electric Dehumidifier draws damp air over chilled coils — forming moisture to condense into container or drain. It's been praised in thousands of homes and business installations — is used by many stores to protect valuable inventories. Frigidaire Division of General Motors Corp., Dayton 1, Ohio.

69. HEATLATOR FIREPLACE UNITS
HEATLATOR, INC.

Heatlators circulate heat to every corner of room and escapes correct Frigidaire construction. Buildings — Here's a dramatic extra selling feature you can add to houses very economically! Architectural — Use of Heatlator units saves costly supervision time! Dealer! Heatlator is stepping up its national advertising, pre-selling more and more properties.

70. MOR-SUN FURNACES
MORRISON STEEL PRODUCTS, INC.

71. NU-WAY CO-2 OIL BURNER
THE NU-WAY CORP.

72. SILENT GLOW OIL BURNER
THE SILENT GLOW OIL BURNER CORP.

150. TRADE-WIND SUPER-CLIPPER KITCHEN VENTILATOR
TRADE-WIND MOTORFANS, INC.

73. VENT-A-HOOD KITCHEN COOKING VENTILATOR
VENT-A-HOOD COMPANY

Covering the ENTIRE operating area, Vent-A-Hood instantly consumes and removes all cooking steam, grease vapors, odors and heat from the home. 250,000 owners tell us that the extended
RIGHT FROM HOUSE BEAUTIFUL
MORE
ADVERTIES

Life of 9,000 plus savings in cleaning bills for rugs, draperies and furnishings more than pays for a Year-Around Information and Literature Special Report. Von-1-A-Post Company, 1190 Plantation Drive, Dallas 9, Texas.

74. WATERBURY FURNACES & AIR CONDITIONERS
THE WATERBURY-WATERBURY CO.

75. WEBSTER BASEBOARD HEATING
WARREN WEBSTER & COMPANY
Read what a well-known architect says about Webster Baseboard Heating in the Webster advertisement in September House Beautiful. See how well Webster Baseboard Heating fits into the custom-built house. Widely used in garden apartments and low cost homes. Eliminates the cold outside wall. Mild heat, clean, low fuel cost. Warren Webster & Company, Camden 1, N. J.

76. WILLIAMS-OIL-D-MATIC OIL BURNERS
WILLIAMS-OIL-D-MATIC DIVISION EUREKA-WILLIAMS CORP.
Regarded, beautiful, more economical! Williams Oil-D-Matic Complete heating units provide warm air winter air conditioning, hot water, or steam heat in homes of every size. OIL-D-Matic's buyers' guide booklet. "There is a BIG difference in Oil Burners" compared compares all types. Write Williams Oil-D-Matic Division, Eureka-Williams Corp., Bloomingdale, Illinois.

77. COPPES NAPANEE CUSTOM-BUILT KITCHENS
COPPES, INC.

78. FORMICA ON KITCHEN SURFACES
THE FORMICA COMPANY
The Formica Co., offers, free for the asking, copies of this brochure, "OPEN FOR INSPECTION." Brochure illustrates attractive applications of Formica throughout the home, including kitchen, bathroom, living and bedroom. Address request to: The Formica Co., 4680 Spring Grove Avenue, Cincinnati 2, Ohio.

79. GENEVA STEEL KITCHENS
GENEVA MODERN KITCHENS
GENEVA STEEL KITCHENS — This new line of standard cabinets plus any special units desired, makes it easy to plan kitchens for cottages or mansions. Highlights of line include seamless stainless steel sinks, custom counter tops, no-stop finish inside and out, smooth, silent drawer action. F. H. A. approved.

80. KITCHEN MAID KITCHENS
KITCHEN MAID CORPORATION
Here you can offer your customers Beautiful Kitchen Maid Kitchens with modern Plan-Line Styling, Aluminum Drawers, Beside Doors, and a host of convenient features. Available in four delightfully pastels and the popular Aquamarine White. Advertisements supported by a full assortment of sales promotion material and a complete newspaper tear service. The Kitchen Maid Corp., Andrews, Indiana.

81. SEDGWICK RESIDENCE ELEVATORS
SEDGWICK MACHINE WORKS
One-story convenience for two-story dwellings can be achieved by planning for installation of residence elevators, chain elevators and dumbwaiters. Vertical transportation not only enables home owners to have the convenience of one-story living, but, in addition, provides many other desirable advantages: such as higher levels, healthier sleeping quarters, greater privacy.

82. CUTLER-HAMMER MULTI-BREAKER
CUTLER-HAMMER, INC.

83. KITCHEN VENETIANES
KNAPF & VOOGTF MFG. CO.
More than 40 of these space-saving clothes closet fixtuees make up the X-VENTENES line.

84. KIRSCH DRAPERY HARDWARE
KIRSCH MFG. CO.
Kirsch leadership is cultivated by aggressive advertising and publicity, backed up by careful maintenance in the design and quality of Kirsch products. You share in the name of the Kirsch name when you tie-up with it in your advertising, and when you mention Kirsch on your sales floor.

85. SOSS INVISIBLE HINGES
SOSS MANUFACTURING COMPANY
Soss Invisible Hinges have flush, smooth, streamlined interior effects that definitely give any type of building an increased air of quality, of modernity, of streamlined, gracious beauty. Tie in your sales promotions with Soss HOUSE BEAUTIFUL advertising and increase your profit picture. There’s a weight-rated Soss Hinge for every type of installation. Soss Manufacturing Company, Detroit, Mich.

86. FLEXSCREEN FIREPLACE SCREEN
BENNETT-IRELAND, INC.

87. PORTLAND CEMENT
PORTLAND CEMENT ASSOCIATION

88. ANCHOR CHAIN LINK FENCE
ANCHOR POST FENCE DIV.
ANCHOR POST PRODUCTS, INC.

89. HABITANT RUSTIC WOOD FENCES
HABITANT SHOPS, INC.

90. RUSTICRAFT WOVEN PICKET FENCES
RUSTICRAFT FENCE CO.

GARDENING

a. Equipment

*BRIGGS & STRATTON GASOLINE ENGINES
BRIGGS & STRATTON CORP.

*GRAVELY 5 H.P. GARDEN TRACTOR
GRAVELY MOTOR PLOW & CULTIVATOR COMPANY

b. Fertilizer

AG ROYD VERTAGREEN
ARMOUR FERTILIZER WORKS

GARDENING

c. Lawn Care Products

*SCOTT'S LAWN CARE PRODUCTS
O. M. SCOTT & SONS CO.

Increase the volume of your garden department this fall by featuring Scott's LAWN CARE PRODUCTS. SCOTTS FOR SPRING, SCOTTS FOR SUMMER, WEED & FEED, TURF BUILDER, Scotts LAWN SEED and SPREADERS. September, and October are favored months for starting new lawns or rejuvenating summer scarred ones. It's Mother's seeding time.

* No card available.
GENERAL MOTORS—The five-year agreement made with UAW-CIO is unique in labor-management relations. It cannot be re-opened by either party for five years, for any cause before May 29, 1955.

HIGHLIGHTS—Adjustment of wages every three months in accordance with a cost-of-living formula; an improvement factor of 4 cents per hour annually; funded non-contributory pension plan; an insurance package for which GMC pays about half the cost; increased vacation pay for 15-year men; additional five cents per hour for certain skilled jobs.

MOST IMPORTANT—While the wage scales are important, of far greater importance to everyone including the public is the agreement between GMC and CIO on common goals.

PATTERN—The five-year agreement could set a pattern for all future negotiations, eliminate all strikes for five years at least, and provide a firm basis for industrial achievement as yet unequalled.

MORTGAGE BANKERS—They view the “Middle Income” housing bill and reduction of rate on Sec. 203 FHA loans without alarm. They do express the hope that Congress will recommend no further relaxation in terms.

NEED STABILITY—They ask a reasonable period in which to operate under present terms, and decry uncertainties which would be injected through further government intervention.

COOP HOUSING—There seems to be little question that the administration in Washington will press for a government-supported cooperative housing bill. Such legislation would confuse the whole structure of financing the present million-a-year home building program.

STARTS—The first five months of the year chalked up about 525,000 starts. Considering seasonal variations, and based on that total for five months the year could ring up 1-1/8 to 1-1/2 million starts, a new all-time record for any year. Weather and the limitations of certain segments of the industry will determine the final total.

COSTS—These are on the increase, and may go to a point where buyers will resist. A spot survey in Chicago in late June indicated that costs were up 7 per cent over the 1949 low, and prices up 5 per cent.

CHICAGO VOLUME—In spite of advanced costs and prices, sales of ready-built homes for present and future delivery were unchecked, and contracts for new custom-built homes were being signed in increasing numbers. Public was evidently convinced that increased wage scales to building tradesmen and others had set a new long-term cost basis.

ESCALATOR CLAUSES—These were beginning to appear in several spots including the New York area. Reason was sharp rises in lumber prices, and scarcity of some materials. Reports of attempts to renegotiate contracts by builders who had sold for future deliveries from models being circulated.

TROUBLE—Builders in several parts of the country, who had sold heavily for future delivery at firm contract prices were reported in trouble—unable to deliver at contract price without loss, and facing lawsuits if they failed to deliver.

TEAMSTERS—A Westchester (N.Y.) local business agent was reported to have forced builders to abandon the practice of picking up materials in their own trucks, and instead, hire trucks with drivers of a service concern. Started when union insisted that union teamsters do all the hauling on every job.

SPECIFIC CASE—Builder was short of copper nails one morning, so drove to his supplier and picked up kilo of nails. After return to office was phoned by union and asked if he had had his private car at suppliers that morning. Builder replied in affirmative. Was ordered to have check for one day's pay for truck driver at union office immediately.

PUBLIC HOUSING—Builders and suppliers in New York agree that public housing programs—federal and state—are seriously hurting private builders by draining materials and labor. That was situation in early summer.
During National Home Week, feature the
that completely modernizes dishwashing

POWERFUL ADVERTISING THAT

Act Now! Install Youngstown Kitchens Automatic Dishwashers . . . and
Get the Full Selling Power of Sensational Advertising that Appears in
Your Local Papers—as well as Nationally—during National Home Week.

THE BIG NEWS in the kitchen appliance
field is the entirely new and different Youngstown Kitchens Automatic Dishwasher.

AND TO THOUSANDS OF HOME BUY-
ERS IN YOUR COMMUNITY, the big
news will break during National Home Week! Powerful, 4-color double spreads in national
magazines and sensational advertisements in your local newspapers will sell the new
Youngstown Kitchens Automatic Dishwasher
as the electric machine that COMPLETELY
MODERNIZES DISHWASHING!

To virtually all the thousands of new home
prospects who read and hear about the
great new Youngstown Kitchens Dishwasher,
"Youngstown Kitchens" has long meant
"modern kitchens."

They'll be presold on the Youngstown Kitchens Automatic Dishwasher—just as they are
now presold on Youngstown Kitchens. And
when they see the Youngstown Kitchens
Automatic Dishwasher in your homes, they'll
greet it as the last word—and the best word—
in modern work-saving, timesaving equipment.

So make the Youngstown Kitchens advertising
of the Automatic Dishwasher, with the
exciting new Jet-Tower principle, help YOU
sell your houses easier, faster, during National
Home Week and after. Wire now, at once,
for details.

MULLINS MANUFACTURING CORPORATION
WARREN, OHIO
World’s Largest Makers of Steel Kitchens

YOUNGSTOWN KITCHENS ELECTRIC SINK
combines Dishwasher and Food Waste Disposer
(optional) in beautiful 48" Cabinet Sink . . . with
all the work-saving features and beauty that have
made Youngstown Kitchens world-famous.

YOUNGSTOWN KITCHENS AUTOMATIC
DISHWASHER in a trim, tidy, white-enamed
steel cabinet—27" wide. Fits snugly near any
sink. Handsomely styled to blend perfectly with
other Youngstown Kitchen units.
New Youngstown Kitchens Dishwasher
...and CASH IN ON THE LAUNCHES IT!...

IT'S THE AMAZING JET-TOWER
with exclusive HYDRO-BRUSH ACTION

—that makes the Youngstown Kitchens Automatic Dishwasher so practical, and so efficient. Water is “booster-heated” to ideal washing temperature (regardless of hot-water supply). Then, 64 whirling, swirling jets brush-flush every hollow, groove, corner and contour of every dish, glass, piece of silver and cooking utensil. Hydro-Brush Action from top to bottom. Followed by two piping-hot rinses. Presto! Dishwasher stops and pops open cover for practically instantaneous flash drying. All in 9\(\frac{3}{4}\) minutes (normal water pressure). All done automatically, electrically.

WHEN WOMEN SEE THE EASE AND THOROUGHNESS and speed with which the Youngstown Kitchens Automatic Dishwasher washes dishes, glasses and silver spotlessly clean—they’re instantly and completely sold!

Users have, generally, one comment:—
"This is the greatest helper a housewife ever had!"

For the Youngstown Kitchens Automatic Dishwasher COMPLETELY MODERNIZES DISHWASHING.

In just 9\(\frac{3}{4}\) minutes, it washes all the dishes for a family of six beautifully clean and bright. And—it’s FULLY automatic. All the housewife does is flick a switch. The Youngstown Kitchens Automatic Dishwasher washes, double-rinses, stops, and pops open its cover for quick atmospheric drying—all by itself!

It’s super-efficient—it is the only automatic dishwasher that incorporates the remarkable Jet-Tower principle and Hydro-Brush Action.
Installation of Structural Corrugated Glass

The possibilities of corrugated structural glass as both a structural and design medium are receiving increasing attention from architects and builders today. These men are now finding that entire walls can be made of translucent glass without a criss-cross of supporting members or mortar joints. Its application appears to be unlimited in its scope both for exterior and interior work. Its use is not confined to commercial or industrial work, but has a widespread appeal in many phases of home design.

Structural corrugated glass can be obtained in standard widths of 25 and 50 inches with a maximum length of 144 inches. The corrugations of two types of glass most generally used are based on multiples of 2-3/4 inches as indicated in drawing. Thickness of the glass is approximately 7/32 inch.

Edgework: When odd widths of glass are requested cut edges will usually contain spalls, projecting points and cut-backs. These edges should be ground to provide a neat butt joint. When turning the corner with glass it will be necessary to meter ground the edge.

Surface Treatment: Glare reducing finish can be applied on both surfaces on sheets up to 30 inches in width. Either or both surfaces can be sandblasted in sizes up to 50 inches. Corrugated glass exposed to sun or close to radiators should not be painted. Breakage may occur.

Special Operations: When required, pattern cutting can be done on the surface of glass with a diamond saw or by masking and sandblasting. Simple corner notches can also be made, as well as holes up to one inch in diameter for assembly use, etc.

Installation

General Setting Practice: Improved structural glass should never be glazed directly on hard metal, masonry, or other unsuitable base. Where a base of this kind is necessary, wood setting blocks or other cushioning material of adequate size and shape should be used. This glass should never be set directly in concrete, as breakage may result, and it should never be wedged tightly into an opening. Not less than 3/4 inch should be allowed at each side jam. The factory does not supply moulding, trim or fittings.

Interior Setting Practice: (a) Butt Joints: Where this glass is set edge to edge, the sides of the abutting lights must be accurately ground. The appearance of the installation will be improved if the ground edges are first painted with a clear cellulose acetate lacquer or transparent cellulose tape is applied; this will serve to remove the white, ground edge glass, when the installation is viewed from an oblique angle, and will prevent touching and spalling.

(b) Division Bars: This glass can be set with division bars of metal, wood or plastic, which may either be specially designed for the purpose or made up of stock shapes. Unless the division bars provide coverage of at least 3/8 inch from the edge of each light, the edges of the glass should be ground.

(c) Mouldings: Head and sill mouldings are generally used to hold the glass in place. Unless used in connection with ground edges, mouldings should be at least one inch deep, to cover any spoils or chips. Mouldings may be of wood or metal, and may be made to fit the contour of the glass or may be straight, with the contour filled by scribed

(Continued on page 165)
For under 15c sq. ft., material with labor

IN FACTORIES, WAREHOUSES, HOSPITALS, SCHOOLS, MARKETS, ARENAS, THEATRES, FIREPROOF RESIDENCES, ETC.

It is hard to keep these structures comfortably warm or cool. In addition, condensation forms, often drips, causes damage. These problems are solved by using tough, never-touching sheets of aluminum, compartmented by fiber or asbestos partitions.

Steel beams are good conductors, exchange much heat with the surrounding atmosphere, causing condensation, and need insulation against heat and vapor flow. Multiple accordion aluminum sheets allow no vapor to pass; are non-condensation-forming; retain no moisture. With their zero permeability, they push out fortuitous vapor from wall, floor, and ceiling spaces. They emit practically no heat on the cold side — only 3%.

Contrast this with the necessity of heating-up tons of steel beams and mass insulation (usually wet) which wastefully emit 90% heat on the cold side. In summer, iron and steel beams, mass insulations, and most building materials, continue to radiate uncomfortable heat into a room long after the outside air has cooled. Multiple accordion aluminum sheets not only are cool at night, but all through the hot summer day often maintain temperatures 10° to 20° cooler than the shade outside.

Insulation as described above is technically called Type 6 Infra.

**THERMAL FACTORS, TYPE 6 INFRA**

- Down-Heat: 0.044, R22.72 equals 7 1/2" DRY Rockwool
- Up-Heat: 0.080, R12.50 equals 4" DRY Rockwool
- Wall-Heat: 0.073, R13.69 equals 4 1/2" DRY Rockwool
- Vapor Permeability: equals ZERO

Multiple Accordion Aluminum and Triangular Reflective Air Cells

**INFRA INSULATION, INC.**

10 Murray Street, New York, N. Y.
Telephone: CORlandt 7-3833

Get Valuable Free Copy of new, revised "Simplified Physics of Thermal Insulation," an authoritative, simply-written 44-page manual on heat and vapor flow, condensation, radiant heating, etc. Just off the press. Master Chart gives k, C.R., and U factors of all insulations, of all thicknesses, weights, densities.

Explanations and illustrations of multiple aluminum accordion insulations and mass insulations; and how to install and where. Check coupon to get free samples of Infra's Insulations and price lists.

Our experts will answer specific questions.

Please send "Simplified Physics of Thermal Insulation."

**INFRA INSULATION, INC.**

10 Murray Street, New York, N. Y.

Department B-8

Name: ________________________________

Firm: ________________________________

Address: ________________________________

☐ Send Price Lists of Insulations
☐ Send Free Sample
They'll beat a path to

General Electric offers you all this:

- Tested merchandising programs that have helped so many other builders enjoy phenomenal sales results.
- The brand of electrical appliances that people prefer to all others.
- One source of supply for matched equipment

...a full line of cabinets and appliances.
- Assistance in designing and improving kitchen layouts for your houses.
- And most important: G-E equipment is world-famous for its dependability. Why not let G-E help pre-sell your houses?

You can put your confidence in—

GENERAL ELECTRIC

44

AMERICAN BUILDER
your door every time!

George Decker and Oliver Martin of Stratford, Conn., built their model home with a completely equipped General Electric Kitchen. Although other new homes near by were not selling, all fifty of the Stratford Acres homes were sold within 48 hours!

Here's how the Bridgeport Telegram, Bridgeport, Conn., reported the model home event the next day:

"An estimated 3400 persons visited the Stratford Acres Homes Model Home on Greenfield Avenue, Stratford, yesterday afternoon, and all 50 homes planned by the firm already have been sold... the home sells for $10,500."

Offered under "Packaged Mortgage" Plan

"Builders of the homes report that this is the first large-scale housing development in this part of the state to offer an all-electric kitchen fully equipped under a packaged mortgage..."

A typical success pattern!

This experience with the General Electric equipped house is not unusual. Rather, it is typical of the sales miracles that are happening all over the country.

General Electric will help YOU, too!

Why not let General Electric help pre-sell your houses? See your local General Electric distributor, or write to the Home Bureau, General Electric Company, Bridgeport 2, Conn.

Here's the big drawing card...

...the completely equipped General Electric Kitchen-Laundry that is included in the sales price of the Stratford Homes.

This work-saving General Electric Kitchen includes: Automatic Dishwasher-Sink and Disposal, Automatic Washer, Range, Refrigerator, Clock, and all-steel Cabinets. No wonder all 50 homes were sold within 48 hours!
Installation of Sliding Door Frames

BUILDERS and architects are interested today in methods devoted to saving space in areas, such as walls—especially with the current emphasis upon lower-cost homes. The Sliding Door Unit adopted by the Fir Door Institute fits itself into a normal 2x4-inch-thick frame wall with assured ease of operations.

WHILE the header indicated at (A), (B) and (C) in the assembled drawing above and the circled detail at left comes as a complete unit, it is necessary to screw the metal track in place on which the door hangs, before any assembly is started.

Step No. 1: The first step in setting up the frame is shown in Figure 1. Header comes from factory as a single unit consisting of (A), (B) and (C). Nailing assembly should proceed as follows: Header (A) is laid on horses, and rear jamb (G) is nailed to header. Next nail front jamb (E) to header. Bottom brace (K) is nailed to the two jambas (G) and (E).

Step No. 2: In Figure 2 in the assembly insert one of the split jambas (LF) in place, fitting into mortise in header. Put one (H) piece at (K) to give (LF) quick alignment. Then nail split jamb to bottom plate (E) and header to (A). Now nail spreaders (H) to (G) and (LF). Gluing spreaders to split jamb but not to back jamb is best practice. Following this, temporarily nail plaster stop (D) to pieces (B) and (C), placing between split jamb (LF) and front jamb (E).

Step No. 3: For the final assembly turn over the frame thwarting jamb spreaders (I) in position on split jamb (LF) as shown. Do not nail jamb spreaders on spreader. Spreader is needed so carpenter will not drive jambas too close together when nailing frame into place. Position (RF) following procedure in step 2. The frame is now ready to be shipped with the packages of hardware to the dealers yard.

NOTE that the plaster stop (D) is temporarily nailed. This is done to allow inserting and hanging door. When door is hung the stop is nailed per- manently. Right angle metal guides, which engage groove in door bottom, should be fastened on door in center of frame opening, and slightly forward of (RF) and (LF) jamb.

The complete sliding door frame is constructed for 2x4 standard wall construction. Finished thickness 5 1/2 inches with plaster stop (D).

Any 1-inch-thick door may be specified for use with this frame. Doors 1 1/4-inch-thick cannot be used with this stock unit.

THE HARVEY Sliding door track can be easily installed by the following directions.

1. Plate “A” should be mortised into top of door. Place plate “A” 5 1/2 inches from top edge of door to center of plate and scribe a line for position. Be sure the plate is centered and plumb with the top edges of door. (NOTE: For doors less than 24 inches wide—attach plates 3 inches from edge of door to center of plate.) Remove the plate and mortise to the depth of plate. Place plate in mortise and mark location of screw holes and center hole for adjusting bolt. Remove the plate and drill 3/4 inch hole 1 1/4 inch deep, for the adjusting bolt.

2. Screw plate (A) into position; insert adjusting bolt (B) into plate and thread down nut (C) until the bolt extends about 3/4 inch above plate.

3. When both plates and bolts are mounted, set the door in position in the opening. Project the door about 1 1/2 inch into frame pocket to steady the door. Now shim up door about 3/4 inch from floor.

4. Hook the hanger (D) onto the track groove directly above plate (A). Engage top slot of adjusting bolt into flange of hanger. Tighten nut on adjusting bolt so hanger is rigid.

Data and drawings courtesy Fir Door Institute.
Here’s one more reason why B & G Hydro-Flo Heating is tops in modern heating. Hot boiler water can be circulated by a B & G Booster through pipe coils under the driveway and sidewalk, melting snow as fast as it falls. Another tiresome job eliminated!

B & G Hydro-Flo Heating is known the country over for its outstanding advantages . . . controlled radiant warmth . . . fuel economy . . . supreme comfort in any weather! This forced hot water system permits a choice of baseboards, radiators, convectors or completely concealed radiant panels. Whatever your selection, you’ll have the finest in automatically controlled heating.

The B & G Hydro-Flo System matches the heat supply to the weather—so exactly that from Fall to Spring, indoor temperature is held constantly at the comfort level. And besides, it provides a year-round supply of hot water for kitchen, laundry and bath.

**NO JOB TOO BIG OR TOO SMALL**

Hundreds of thousands of B & G Hydro-Flo Systems are in operation today. You’ll find them in low-cost homes, apartments, industrial and commercial buildings, delivering the same comfort regardless of the size of the building.

---

**B & G HYDRO-FLO HEATING EQUIPMENT**

The basic units of a B & G Hydro-Flo System are simple and dependable—an assurance of long years of trouble-free service. Any hot water boiler—new or old—can be equipped with B & G Hydro-Flo Products.
5 New Models! Delco-Heat Announces a Brilliantly Engineered Line of New Gas-Fired Conditionairs

Products of General Motors!

Here is a new line of gas-fired forced warm air furnaces that will add sales appeal and make your new homes easier to sell! Because for features, for value and for appearance—the new Delco-Heat "GA" Conditionairs challenge all competition!

The new "GA" Series includes 5 AGA-approved, forced warm air models—in both 12 and 16 gauge steel. Capacities are 62,500, 90,000, 120,000, 150,000, and 210,000 Btu input—a range that makes them applicable for all sizes of homes.

Note that the new "GA" Conditionair has extreme eye-appeal. It's compact, streamlined, and tastefully finished in Delco-green. Nothing protrudes—even the draft hood is concealed beneath the louvered panel.

Outstanding features of the "GA" Conditionair include the exclusive Multi-Rad heat exchanger—ribbon-type twin burners—and a blower-filter unit that is powered by Delco’s famous Rigid-frame motor.

Ribbons-type twin burners are engineered specifically for Multi-Rad sections. Made of cast iron, with expertly designed stainless steel ribbons. Design assures more even flame, more complete combustion, positive ignition and quiet operation.

Exclusive Multi-Rad heat exchanger has continuous-welded construction. Each of the multiple sections completely encloses the flame from a separate burner head. This affords greater radiation area—extracts maximum heat from fuel.

New Homes sell better when they're equipped with Delco-Heat!

Delco-Heat manufactures a complete line of automatic home heating products—for all types of fuels, all systems of heating and all sizes of homes. And our engineering and sales department will be glad to serve you in any way possible. For information about Delco-Heat products, write to Delco Appliance Division, Dept. AB-8, General Motors Corporation, Rochester 1, New York.

Also manufacturer of Electric Water Systems for farms and homes—fractional horsepower electric motors—electric automobile clocks.
Build extra "Buy Appeal" into every home with new Celotex Insulating Sheathing

IT'S STRONGER—MORE RIGID

and Double-Waterproofed!

1 Waterproofed Inside!

Every one of the millions of tough cone fibres in its insulating board core is integrally treated with a waterproofing compound during manufacture.

2 Waterproofed Outside!

This board is then coated on both sides, and on all edges, with a thick, enduring "raincoat" of specially-treated asphalt which seals out moisture.

New Celotex Insulating Sheathing enables you to build better, more salable homes at lower cost. Provides the effective sidewall insulation so necessary to keep your home cooler in summer, warmer and thriftier to heat in winter. Cuts both material and labor bills, because it insulates and builds, all at one time, at one low cost. Far stronger, more rigid than ever. Quick and easy to apply. Negligible waste. No building paper needed.

Though double-waterproofed, new Celotex Insulating Sheathing has over twice the vapor permeability required by government agencies. Resists moisture penetration even under severe exposure during construction. Thus enables you to resume work more quickly after heaviest rain, cutting costly delays.

No other insulation gives all the advantages of Celotex Insulating Sheathing. For no other is made of long, remarkably strong Louisiana cane fibres. And no other is protected against fungus, dry rot and termites by the exclusive patented Fenox Process. Yet this strong rigid insulation—applied—costs no more than ordinary sheathing!


To make your home easier to sell...

Build with genuine Celotex Building Products

The Celotex Corporation, Chicago 3, Illinois
Donneybrook Corporation chooses

K&M "Century"

ASBESTOS-CEMENT ROOFING SHINGLES

for appearance, long life, economical installation

When the Donneybrook Apartment Corporation chose K&M "Century" Shingles for the roofing on this modern Towson, Maryland, apartment project, there were good reasons for doing so—three good reasons.

Read what William F. Chew, President of the company says: "We recognized in the use of 'Century' No. 5 Asbestos Roofing that it would not only give us the desired effect, but that long life and resistance to fire are features inherent in the product."

Commenting on the economical application of K&M Asbestos Shingles, Mr. Chew says, "We experienced on this installation, which involved over 1400 squares, that the No. 5 Shingles were not only easily, but quickly applied."

The experience of the Donneybrook Corporation proves again that your strongest sales points for K&M Shingles are attractive appearance, long life, and economy. Add to these the recognized freedom from maintenance, and you have a powerful sales story for any owner.

Tell your customers, too, about the "extras" in K&M "Century" Shingles. K&M Shingles resist weather, rust, rot, rodents, and fire. Their eye-pleasing colors—White, Black, Spanish Red, Surf Green, and Graytone—are built in.

With sales points like these, you can build your business—increase your profits—with K&M "Century" Asbestos-Cement Shingles. Ask your K&M Dealer for complete details, or write us direct.

KEASBHY & MATTISON

COMPANY • AMBLER • PENNSYLVANIA

Original manufacturers of Asbestos-Cement Shingles in this country
FHA, with a few exceptions in a few of its regional offices from time to time, has been viewed by builders as a great aid in the field of building finance. That has been the picture from the time FHA was founded until recently.

NOW, it is reported by many sources, FHA seems to be losing its traditional policy of realism and cooperation.

IN ITS PLACE, say builders who note the change, is an increasing note of bureaucratic arbitrariness.

THE QUESTION is arising as to whether FHA is deliberately attempting to slow up the current home building wave by a policy of unrealistic valuations. If that is not the idea, said one builder, maybe they think they are indispensable, and can force us to go along on any terms they want to name.

EITHER WAY, he continued, the attitude, if it persists, may well put FHA out of business. The builder, after all, is a customer, and he will do business with FHA only as long as it is expedient to do so.

IF THERE is any basis for these complaints, FHA officials would be well advised to take them seriously, and examine their attitudes. It is almost universally conceded that FHA has been good for home building. It is not necessary to recite the well known achievements of the agency, but it is timely, in light of criticism that is increasing, to suggest to FHA that it take a good, long look at itself.

HOW MANY RETAIL lumber dealers will participate actively in National Home Week this year was not known in early June. NRADA, however, was leaving no stone unturned to arouse interest, particularly among dealers in smaller towns where there is no formal organization of the home building industry.

NRADA in May had issued a prospectus for independent dealer participation. The prospectus detailed the advantages that would accrue through participation, and set up two plans.

PLAN A is for dealers who build homes themselves or can set up co-operative arrangements with one or more builders for the construction of one or more exhibit homes.

(Continued on page 35)
TRUSCON METAL LATH AND ACCESSORIES

immediate
delivery assured

from many supply points

From Truscon Warehouses in 24 principal cities... from Truscon building supply dealers in almost every community... from Truscon Sales Offices at 47 major points... you get products and service that give you the greatest possible assistance in attaining continuous, profitable craftsmanship. • There are over 40 items in the Truscon Quality Line, giving you the most complete group of metal lath and accessories available from any single source. They are made by the world's largest manufacturer of steel building products, assuring you the highest standards of materials and workmanship.

Write for illustrated literature giving details of entire line.

FREE Book on Truscon Metal Lath and Accessories. Write for it. The Truscon Steel Company Manufactures a Complete Line of Metal Lath and Accessories, Including Practically All Items Necessary to insure a First-Class Plastering Job in Any Type of Building Construction.

TRUSCON STEEL COMPANY
Youngstown, Ohio

Warehouses and Sales Offices in principal cities.
See the difference in MENGEL Stabilized SOLID-CORE FLUSH DOORS!

Mengel Stabilized Solid-Core Flush Doors employ an entirely unique and exclusive principle to give you a new standard of stability and dependability — and at strictly competitive prices.

Instead of attempting the impossible task of preventing expansion and contraction in wood, Mengel has developed a construction design which absorbs expansion and contraction within the core itself. All Mengel core members are deeply slotted at frequent intervals, both with and across the grain. The result is that the slots expand or contract in width, but the door remains stable!

Get all the facts, and see a cutaway sample. When you see the difference, you'll greatly prefer Mengel Stabilized Solid-Core Doors!

Also see MENGEL HOLLOW-CORE FLUSH DOORS, the finest products of their type on the market.

FOR FULL DETAILS, PLEASE JUST WRITE YOUR NAME AND ADDRESS IN MARGIN, AND MAIL TO—

Plywood Division  •  THE MENGEL CO.  •  Louisville, Kentucky
Because...
Only the Best Will Do!

MA-TI-CO
SELECTED FOR USE
THROUGHOUT THIS
MODERN HOSPITAL

Day by day, the list of impressive MA-TI-CO Asphalt Tile installations continues to grow. More and more architects and builders are discovering that MA-TI-CO's outstanding advantages are the answer to almost every flooring problem.

MA-TI-CO assures long-lasting wear, resilience, economy, sanitation and easier, faster installation — qualities that make MA-TI-CO ideal for every type of installation. And MA-TI-CO's 27 rich, clear colors in solid tones and marbled patterns — including five new "Petal Tones" — add charm to any decorating scheme — offer unlimited design possibilities.

Whatever your next project — apartment, theatre, industrial plant, church, hotel, commercial store, institution or private home — be sure to specify MA-TI-CO Asphalt Tile. You couldn't choose a better all-around flooring.

GET TO KNOW MA-TI-CO
Write today for MA-TI-CO literature and sample color chart!
THIS PLAN suggested that a dealer either have a house of his own ready for exhibit or arrange with one or more builders to have houses ready.

IT ALSO suggested arrangements with a local furniture dealer to furnish one or more houses, and listed publicity avenues available.

PLAN B was for dealers who do not build and for one reason or another could not arrange with a builder to have a house ready for exhibit.

THIS PLAN suggested open-house in the storage yard and showroom. Informative product displays were suggested and it was urged that local groups—women’s clubs, church groups, Boy Scout Troops, etc.—be invited to attend special demonstrations of materials and their uses.

IT IS NO SECRET that the retail distribution segment of the home building industry has suffered from lack of public relations to the extent that relatively few buyers are aware of the facilities and information— not to mention materials and services—that the modern, progressive retail lumber yard has to offer the building public.

PUBLIC RELATIONS increasingly are being recognized as more telling when implemented at the local level, and perhaps reaching maximum effectiveness when done locally and at the same time tied in with a national program. NRLDA points out to its affiliated locals and their members that National Home Week has a tremendous impetus because of the nation-wide character of the activity.

WHETHER a local dealer both cashes in for himself and gives his community the benefits of information highlighted during National Home Week depends upon his knowledge of the building problems and needs of his community, and his willingness to draft a program consistent with community tastes.

IN EARLY JUNE public relations counsels and editors were meeting in Washington to draft a manual of procedure designed to help builders, dealers and realtors in small communities to join forces for effective National Home Week activity.

CONTINUED ON PAGE 59
Distinctive Corner Beauty

*Milcor*

No.10 Bull Nose

From the world's most complete Corner Bead line

Ideal for sturdy, rounded corners

- Straight, true corners — 26-gauge galvanized sheet steel.
- Expansion wing — integral with nose of bead.
- Perfect plaster bond — provides strong plaster key and sturdy reinforcement.
- Small package for easy handling — boldly labeled for easy identification.


<INLAND>STEEL PRODUCTS COMPANY

Formerly Milcor Steel Company

4025 WEST BURNHAM STREET * MILWAUKEE 1, WISCONSIN

Baltimore 38, Md. * Buffalo 11, N. Y. * Chicago 9, Ill. * Cincinnati 23, Ohio


New York 22, N. Y. * Rochester 9, N. Y. * St. Louis 10, Mo.
700 ALUMINUM WINDOWS

... that never will need painting

For housing and commercial units that turn rental income into profits, be sure you include windows of Alcoa Aluminum. Then you’ll know you have cut window maintenance costs to the bone.

Quality aluminum windows never need painting, can’t shrink or swell; are easy to keep clean and attractive. Aluminum windows stay snug fitting and weathertight, can’t rot or rust away. Strong, narrow window members improve appearance, let in more light.

Aluminum windows, made by leading manufacturers are available for every type of building—residential, commercial and industrial. For information on any application of aluminum, call your nearby Alcoa Sales Office or write ALUMINUM COMPANY OF AMERICA, 1485H Gulf Building, Pittsburgh 19, Pennsylvania.
Builders!

Get the "Specs" on the
Duo-Therm gas floor furnaces!

They've got features that'll make
you and your buyers warm friends.

Revolutionary All-in-One Control.
All controls in a single,
compact unit including
automatic shut-off. Standard
on all models. Another Duo-Therm first!

Exclusive Comfort Selector—Now!
Eliminates on-and-off heating. A flip
of the handy switch lets you adjust
the low fire setting. A major
improvement in thermostatic controls.

Exclusive Equiflame Burner—burns all
types of gas. One piece burner,
special tapered design for efficient
uniform flame at all ports.

Generous 10 Year Warranty.

They're built with your problems in mind
- Shipped to you ready to install.
- So compact only one joint
  need be cut on any installation.
- Priced so competitively
  you won't believe it.
- Choice of BTU inputs from
  35,000 to 60,000.
- Choice of floor or wall registers
  on all models.
- All models available with either
  thermostatic or manual control.
- Designed so most service jobs can
  be handled from above floor.
- Two series—4 models—
  shallow and standard, to fit any home.
- Waterproofed to meet regional
  FHA requirements.
- AGA approved.

They're sold with a liberal
Duo-Therm Builder Discount Plan
This entitles you to special single and quantity discounts to fit your needs.

Remember: This is more than another line
of gas floor furnaces. These are gas floor furnaces built to the performance standards of the leader in modern heating appliances.

These are gas floor furnaces built to one high standard of quality—and incorporating the savings made possible by Duo-Therm precision mass production techniques.

For your most-for-your-money gas floor furnace investment, see your local Duo-Therm dealer or distributor. Or mail coupon below.

Duo-Therm Division, Motor Wheel Corporation, Dept. AB-8
Lansing 3, Michigan
Send me proofs and without obligation complete information on the Duo-Therm Gas Floor Furnace Builder Plan and all the specifications on the new line.

My name ____________________________
Firm ________________________________
Firm address __________________________
City __________ Zone __________ State ________

Over 1,500,000 Warmly Satisfied Customers

Duo-Therm
Always the Leader

Duo-Therm is a registered trade mark of Motor Wheel Corp. © 1955

50

AMERICAN BUILDER
EDITORS' Round Table

(Continued from page 55)

RETAIL LUMBER DEALERS

have for the past two years (the first National Home Week was in 1948) been prominently associated with the Week in the more than 100 major cities where great success has attended the observance. The aim of NRLDA this year is to extend the benefits of the Week to smaller communities.

THE LUMBER YARD, where there are no houses to be used for exhibit purposes, has the advantage of having in stock most of the important structural materials ordinarily used in home building. Lacking a new model house, the next best possibility is the yard with these materials on display, and with one or a series of dramatic demonstrations.

THE MANUAL under preparation in June, while probably too late in appearing to permit either a dealer or a builder in a small town to begin a full program with exhibit homes this year, was available in time to permit plans for effective work with the local lumber yard as the focal point for the community.

AT THE END OF MAY, 28 communities had turned down public housing by action of a city council or commission, and nine had turned it down by referendum vote. These figures do not include the entire state of California where a state-wide referendum refused public housing.

BENJAMIN F. FAIRLESS, president of United States Steel Corporation, recently delivered an address entitled, "Guilty Before Trial." It is a brilliant refutation of the attack made on American industry, in which industry was charged with failure to achieve permanent, full employment. It also scores government methods aimed at eliminating the weaknesses of private enterprise. The speech, published in pamphlet form, should be read by everyone in a position to inform any segment of the public about what is back of socialist schemes and what these schemes cost.

C.B. SWEET, NRLDA president, is urging families who expect to add more bedrooms to their houses to seek open end mortgages.

SEE THIS NEW FEATURE!
in Winkler Oil and Gas Wall Furnaces

HEAT FLOWS TWO WAYS AT ONCE!

Another great Winkler improvement! Winkler Wall Furnaces circulate warm air in two directions—for more uniform heating, greater comfort. Both front and side grills fit flush with wall—no space wasted. Smartly styled, handsomely finished. Small home heating at its best!

A complete package of comfort, economy and convenience at amazingly low price!

Radiant-air Dual Heating + Circulating fan for better heat distribution + Heat saving boiler + Quick and easy to install.

AUTOMATIC OIL-FIRED FLOOR FURNACES

A marvel of design for better heating at lower cost! Forced draft for more efficient operation, automatically adjusting itself to various firing rates. Larger warm air circulating fan speed automatically adjusted to burning rate. Larger heating surface and fine passages. Thermostatic control. Chassis mounted, entire unit removes for complete access. Adjustable burning rate—30,000 to 60,000 BTU with No. 1 oil.

WRITE! Got the facts on how to sell more and profit more with Winkler fine automatic heating products.

WINKLER WALL AND FLOOR FURNACES FOR THE SMALL HOME

AUGUST, 1950
Designer solves heat loss problem with new Reflective KIMSUL®

Each day, as the facts and figures about new Reflective KIMSUL® insulation become better known, more and more architects and builders specify it for residential construction. For in today's highly competitive market, maximum efficiency with low true cost is an absolute necessity.

New Reflective KIMSUL provides double-action resistance to heat loss, combining in a single highly efficient unit the advantages of regular insulation and reflective insulation.

Reflective KIMSUL, too, gives you a vapor barrier that meets FHA requirements—greater strength and permanence in the non-sagging, non-setting stitched blanket—an 80% reduction in storage and handling costs with the smaller, lighter compressed package—new Surely Tackless flanges to cut the time and expense of installation. It resists fire, vermin and mold—provides fuel savings up to 44%—keeps a home as much as 15° cooler on hottest summer days.

For complete information, see Sweet's Architectural and Builders Catalogs, or write to Kimberly-Clark Corporation, Neenah, Wisconsin.

KIMBERLY-CLARK CORPORATION
Neenah, Wisconsin
Here's an answer to cost problems

With today's problems of cost, there's a big demand for dry-wall construction that's practical, economical, and decorative.

The room above shows how Armstrong's Temlok® can be used to create the good-looking interiors your customers want and still stay within their budgets. On the ceiling of this room, large panels of Temlok Insulation Board were used. Temlok Tile was used for the distinctive styling of the walls. The addition of some wood moldings and false beams provided the finishing touches that helped to make the job so attractive.

Armstrong's Temlok is not only low in first cost, it's also an inexpensive material to install. In addition it has a durable, two-coat paint finish that's ironed on for extra smoothness.

Where costs are a problem, Temlok may be the answer. Get full details from your Armstrong lumber dealer or write direct to Armstrong Cork Company, 1608 Ross Street, Lancaster, Pennsylvania.

Armstrong's Temlok
NEW PRODUCTS
Offered by Manufacturers

ALUMINUM LATH ROLLS
Aluminum rolls are five feet wide and 50 feet long, consisting of aluminum laths spaced with openings ranging from 0 to two inches securely riveted to stringers. Assembled rolls are complete, ready to roll out for use in constructing lath houses by simply nailing in place. Laths are for use over patios, porches and asawnings or in nurseries for sun control. Harry H. Reynolds, Dept. A8, 2561 Valencia St., Santa Ana, Calif.

EJECTOR TYPE PUMP
Myers series "HN" Ejectors are furnished in 15, 2 and 3 horsepower sizes for well lifts up to 300 feet. Flow of water is automatically divided in separation chamber so that water pumped by lower impellers to nozzle is maintained at required pressure of 80 to 150 pounds. Impeller above separation chamber delivers water to greater lift. Ideal for crooked wells since unit has no rods to wear out. Can be offset at any convenient location from well, no well pit required. For wells up to three inches in diameter. Equipped with single phase or three phase motor. P. E. Myers and Bro. Co., Dept. A8, Ashland, Ohio.

AIR-ENTRAINING AGENT
Protex air-entraining agent developed for ready-mix companies, black plants and concrete contractors is a liquid which, when added to concrete mixtures, entrains millions of near-microscopic, non-combining air bubbles. Air-entrainment reduces bleeding and segregation, improves plasticity, and facilitates vibration. Increased plasticity of concrete reduces breakage in black plants. Automix Lubricants Co., Dept. A8, 1331 West Evans Ave., Denver 9, Colo.

BATT INSULATION
Rock wool batt 3½ inches thick of Seal-Foil insulation is backed with aluminum foil which stops 95 per cent of all radiant heat transfer. Made in 16 and 24-inch widths, batts have flanged edges for easy installation. Batt is fireproof, moisture-proof, rot-proof and vermin-proof. Units are packaged in substantial cardboard cartons. Sealite Insulation Manufacturing Corp., Dept. A8, Waukesha, Wis.

BRICK SIDING CUTTER
Unit cuts siding material up to ½ inches by feeding siding into blade as lever is worked, with three teeth on each side of blade. Blade is continuously oiled by impregnated felt pads. Handle is 25 inches long. Total weight: seven pounds. Blade is tempered spring steel. Unit held steady while in use by placing foot on plate that folds out from lower handle. Can be attached to table through holes provided on undercarriage. C. Pearson Manufacturing Co., Dept. A8, Lake Villa, III.

DRAFTING INSTRUMENT
Porcelain drafting instrument combines in one basic precision instrument the functions of T-square, straightedge, triangle, protractor, scale and parallel rules. It is constructed of sturdy transparent section with critical moving parts machine to 0.002 inch tolerance. The instrument, which measures 10½ by 3½ inches over-all, is completely self-contained and requires no attachments or base clamps. It fits readily into pocket for field or drawing table use. Loomis Industries, Dept. A8, 516 Park Way, Piedmont, Calif.

FOLDING DOOR
Plastic fabric-covered accordion-fold folding door has formed cornice which conceals top edge of closure and overhead track. Rust-resistant stainless steel panel and rails, side guides and connecting parts are all built into door frame.还可选择的款式和颜色是各种颜色的，适合不同的房间和用途。Hoscomb and Hake Manufacturing Co., Inc., Dept. A8, 1545 Von Buren St., Indianapolis 7, Ind.

GLAZING COMPOUND
Nu-Glaze glazing compound is applied like putty, but will not harden, crack or peel because oils in it are retained. Recommended for glazing wood or metal sash, setting plumbing, filling cracks. Holtz, South Park and Waterman, 1545 Von Buren St., Indianapolis 7, Ind.

MASONRY SAW
Clippers masonry saws have new "Save-A-Blade" dial that instantly adjusts blade-cutting pressure to conform to hardness of material being cut. These adjustments for brick or tile, concrete products, and glass and marble are provided. 1950 Clipper models also have Select-A-Hatch adjustment for cutting head heights and "Adjust-A-Cut" control of cutting head angle. Patented stabilizer locks head for high-speed, production work. Clipper Manufacturing Co., Dept. A8, Kansas City 8, Mo.
85% of all prospective home owners want oak floors

oak—starts the sale rolling

"When I put my money into a house, I want to know it's going to move fast. Substitute materials, I find, slow down sales—accepted materials speed them up.

"So, the first thing I show a house prospect is the oak flooring.

"I do that because it's the right way to start a sale. Those oak floors just naturally put them in the right frame of mind to look at the rest of the house favorably.

"That's because they wanted oak floors before they ever walked in. They're part of the 85% of all prospects who prefer oak floors over all others. So, it's no wonder I have oak in all my homes to start sales rolling."

NATIONAL OAK FLOORING MANUFACTURERS' ASSOCIATION • Dept. S-R, Sterick Bldg. • Memphis 3, Tenn.
LOCKING SHINGLE  AB85004

Ever-Fast locking roof shingle provides 100 per cent double coverage and 50 per cent triple coverage over roof area. Locking mechanism requires no metal clips since two slots on each side of shingle slide under and over edge of adjoining shingle, locking it in four places. Lock provides for expansion and contraction from temperature changes. Two nails only are required for each shingle though pattern results in each shingle being nailed in four places. Square requires 111 shingles weighing 225 pounds. Ever-Fast shingle is made in both plain and weather-grain finishes. Barrett Division, Allied Chemical and Dye Corp., Dept. AB, 40 Bank Street, New York 6, N. Y.

MULTI-BREAKER LOAD CENTER  AB85033

Type MO multi-breaker load center is new packaged with new method to eliminate necessity of stacking variety of complete devices and to simplify inventory and bookkeeping. Box and interior covers (10 to carton) and "Ad-On" breaker units (one per carton) are packaged separately. Required package assembled by removing "Ad-On" units and inserting cover in price of filter. Square D Company, Dept. AB, Detroit, Mich.

CONTOR COPY  AB85012

Contour copying device consists of blades with locking mechanism. Workman releases lock, presses each blade against contour to be copied, then locks unit which holds contour for copying. Made of aluminum. Available in twelve sizes from 4½ by 1½ to 15½ by 4½ inches. The Oehser Company, Dept. AB, 355 Gateway Building, Minneapolis 1, Minn.

STEEL LINTEL  AB85036

Formed steel lintels come in stock sizes of six-inch multiples and are corrugated for extra strength. Lintel is made of nine and 11 gauge steel and is painted with baked-on special prime coat. Steelcraft Manufacturing Company, Dept. AB, Rossomayne, Ohio.

TABLE SAW  AB85029

Floor model Kwick Saw of tilting arbor has 20 by 24-inch table and eight-inch saw blade. Features include cut-off stop, rip fence, angle position lock, miter gauge, depth of cut control, angle set control, heavy-duty one-half h.p. capacitor type motor and heavy-welded pressed steel stand. Cuts any angle up to 45 degrees. All moving parts are lubricated ball bearings. Ennich, Inc., Dept. AB, 1724 Clinton Ave., Kalamazoo, Mich.

SEALD ROCK WOOL BLANKET  AB85022

Gold Bond mat-thick sealed rock wool blanket is produced in 15-inch widths to fit standard spacing of studlings, in eight foot lengths.

New Products continued page 134

INSERT NUMBERS AND MAIL COUPON FOR INFORMATION

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

Name

Address

City

State

No. No. No. No.

No. No. No. No.

No. No. No. No.

No. No. No. No.

When you address inquiries direct to manufacturers concerning a new product described here, please mention that you saw it described in American Builder.
NOW! ... Johns-Manville Super-Felt Insulations come in 3 types
—all made of the famous, firmly felted Johns-Manville Rock Wool

**Ful-Thik Batts**

More thickness, more rock wool for the money! Here is our number one recommendation. Made of the firmly felted Langhorne rock wool produced by Johns-Manville's revolutionary new process. Full stud thickness. (Also available Semi-Thik.) Batts are stronger, lighter in weight, have greater uniformity and rigidity throughout. Vapor-barrier with reinforced tacking flanges.

**Thick Batt Blankets**

In addition to the Johns-Manville Ful-Thik Batt, J-M Super-Felt now comes in Thick Batt Blankets. The firmly felted rock wool is fully enclosed for convenience in handling.

**Medium Roll Blankets**

For economy jobs, here's the new Medium Roll-Blanket. With this third type you now have a complete line of Johns-Manville Rock Wool Insulations to meet every sales need.

For further information, write Johns-Manville, Box 290, New York 16, N. Y.

And remember, J-M Home Insulation is easier to sell because People think of Johns-Manville FIRST*

*For home insulation, the public preference for Johns-Manville is 40 to 1, according to nationwide public opinion surveys.
For Those Who Expect a Lot for Their Money

You can't see all the quality features of Eljer Brass Fittings unless, of course, you subject them to various laboratory tests. But quality is there . . . and to such a degree that your clients, who are entitled to expect a lot for their money, will be more than satisfied.

The finest of materials . . . modern, efficient equipment and machinery . . . craftsmen highly skilled in their trades . . . all contribute to this high standard of quality established by Eljer. To you, this means dependability and service from the items you specify. So be sure to specify the best . . . specify Eljer Fittings . . . designed for Eljer Fixtures.

A COMPLETE LINE

The fitting illustrated above . . . 8-9430-B, C. P. Over-rim Bath Filler with Drop Spout . . . is a popular item in Eljer's complete brass line. All moving parts are completely and easily removable. For full descriptions of all Eljer Fittings ask your Eljer Distributor for a copy of Eljer's Brass Goods Catalog or write to Eljer Co., Ford City, Pa.

because we specialize in Plumbing Fixtures and Brass
ASSOCIATIONS
Their Plans and Activities

Membership Drive Adds 202 To Long Island Institute

A 94 per cent increase in membership was recorded by the Long Island Home Builders Institute in the five months, Feb. 1 to July 1, it is reported by Leonard L. Frank, president, who "would not be surprised to see membership tripled by the time of the next NAHB convention."

Seventy-nine per cent of the membership gain was registered between May 15 and July 1 as a result of a contest among 16-four-man teams.

Says Frank: "During the fiscal year Feb. 1 with 214 members, the Long Island affiliate of the NAHB added 43 builder and associate members through staff solicitation in the 14 weeks ending May 15. In the next seven weeks, with the contest underway, 159 new members were added, 37 of them being active builders. This brought total membership on July 1 to 416, of which 262 were signed since Feb. 1. Scheduled to end July 31, the contest was organized like a baseball pennant race. Each builder member counted as 5 "runs"; a sustaining associate at $500 annually, 10 "runs"; $250 contributing associate, 5; each $100 special associate, 2; and a $60 minimum associate as 1 "run."

A long list of cash and merchandise prizes were offered, chief of which was $200 toward expenses of attending the annual NAHB convention next January for each contestant scoring 20 "runs." By scoring 10 additional runs with two new builder members, each winner of the trip to Chicago was awarded $400 toward expenses of himself and wife or associate.

Dallas Association Gets Big Housing Center

The offices of the Home Builders Association of Dallas have been moved to the Home Builders Auditorium, a 12,000 square-foot building where a housing center has been established. H. Leslie Hill, association president, said that a vigorous residential campaign has been launched with a goal of attracting 5,000 visitors to the building center.

The auditorium was officially opened August 1 with 40 exhibits.

'Step Up Sales' Clinics Held By Northwestern, Iowa Dealer Groups

The first "Step Up Sales" clinic sponsored by the Northwestern and Iowa Lumbermen's Associations and held recently in Sioux Falls, S.D., attracted more than 150 lumber and building material dealers from Iowa, Minnesota and South Dakota.

The program of one-day sales clinics replaces the district meetings formerly held each year throughout the territory. The clinics are conducted by William H. Badeaux, secretary of the two associations, and F. P. Longeway and R. H. Laird of the field staff.

Badeaux said that interest in the first clinic was not limited to newcomers in the business, attendance including a number of veteran dealers. One was 88-year old C. W. Derr of Mitchell, S.D., who said that he still had a lot to learn about the business.

The "Step Up Sales" plan covers eight topics, focusing on moneymaking motives, opening the sale, telling your sales story, showing and demonstrating, out-selling competition, overcoming objections, closing the sale, and planning for better results. Training aids include slide films, illustrated text booklets and test questionnaires.

Roy Healy Named Milwaukee Executive Vice President

The appointment of Roy F. Healy as executive vice president of the Milwaukee Builders Association has been announced by the association president, Elton A. Schultz.

Healy was formerly executive assistant of the Chicago Metropolitan Home Builders Association, which he joined in 1944. Prior to that he was secretary of the Sycamore, Ill., "Your Own Home Association."

While with the Chicago Association he was known as an authority on housing projects in the area. He helped organize and served as secretary for the Home Builders Association of Northern Indiana and the Home Builders Association of the Fox River Valley, two groups which are sub-chapters of the Chicago chapter, with a single membership providing affiliation with the local, the Chicago Metropolitan and the national.

The Milwaukee association is one of NAHB's largest and most active. In 1949 it enrolled 248 new members to take first prize in its bracket of the national membership contest.

Past Presidents Club Organized in Detroit

The recently-organized Past Presidents Club of the Builders Association of Metropolitan Detroit, whose membership is limited to persons who have headed the group in its 22-year history, has named S. J. Christie, association president from 1931 to 1934, club president. Other club officers are Harry J. Durkin, 1939 association president, vice president; Edmund Kuhlman, association president in 1927-38 and currently a member of the city plan commission, treasurer; and Frank A. Quinlan, 1935-36 association president, secretary.

Among the aims of the club is development of closer cooperation between components of the industry, particularly builders, bankers, lumber dealers and retail outlets. Another function is to make former leaders' experience and training available to the association as an organized advisory body. The club plans to meet monthly.

Woodwork Jobbers Meeting

The ninth annual meeting of the Woodwork Jobbers Service Bureau will be held Sept. 13-16 at the Chalfonte-Haddon Hall Hotel, Atlantic City, N.J.
After the Current Boom... A New Multi-Million Market

A multi-million dollar plus market is awaiting the building material dealers of the country when the current building boom starts to taper off.

When we bear in mind that half of all our 44,000,000 homes are 30 years old or older, it is rather easy to visualize the tremendous market these older homes offer.

A great many people in this country believe we can't make our private enterprise system work. They do not question our ability to mass produce, but they do question our ability to solve the problem of mass distribution.

This is a challenge to our industry, for whether we continue to prosper will depend to a large measure on how far the 78 per cent of the United States families, whose incomes are less than $5,000 a year, can safely stretch their buying dollars. Installment credit has been the magic word that has helped fill the gap between our tremendous productive capacity and the purchasing power of our people. And it must continue to be if industry is to be kept turning at top speed.

There is a relatively new type of installment credit that stretches the home-owner's dollar from three to six times as far as traditional consumer credit. It is the open-end mortgage which allows long-term amortization for remodeling and repair instead of the now widely used short term FHA Title I type of loan. There is nothing very abstract or complicated about the plan; it simply permits the mortgagor to reborrow additional sums from his lending institution for the purpose of repair, remodeling or improvement of the structure covered by the mortgage. It does however, allow the borrower to make the desired improvements without over-extending himself on monthly payments.

If properly merchandised, this credit tool will serve as a strong economic bulwark and as a trump card for the building material dealers in the struggle for the consumer's dollar. The open-end mortgage can be the means of providing the dealers with a considerable amount of new business which might not be obtained in any other way and which may be sorely needed in the next year or so.

200 Visitors Attend Dallas Regional Builders Conference

More than 200 visiting home builders, including top NAHB officers, attended the recent Texas-Oklahoma regional conference at the Baker Hotel, Dallas.

Panel discussions included mortgage and construction finance, public relations and advertising, new housing legislation, land planning and house design, economy housing and low rentals and public housing and slum clearance.

Among the national association guests who participated in the program were President Thomas P. Coogan, Miami; First Vice President W. P. Atkinson, Oklahoma City; Second Vice President Alan Brockbank, Salt Lake City; Executive Vice President Frank W. Cottrell, Washington, D.C.; Director David D. Bohanum, San Francisco; Franklin L. Burns, Denver, regional vice president for Colorado and Wyoming; and E. Earl Colonh, New Orleans, regional vice president for Arkansas, Louisiana and Mississippi.

One of the meeting's social highlights was the "Home Builders Stampede" at Pappy's Showland night club which approximated 900 persons attended.

Members of the conference program committee were H. Leslie Hill, chairman; Vernon S. Smith, Avery Mays, E. P. Lamberth, Hub Hill and Edward Dicker.

Junior Group Organized

Plans for organizing a junior association were announced by young men who are members of the Chicago Metropolitan Home Builders Association, are being made by a special committee representing the younger men.

The committee, appointed at a recent organization meeting, consists of Chairman Robert H. Wilson, Laurence Hollander, William Jones, William McCulloch, Brittain C. Macias, and Edward Sawyer.

Plywood Promotion Mapped At Douglas Fir Meeting

In the keynote address of the recent annual meeting of the Douglas Fir Plywood Association at Tacoma, Wash., Frost Snyder, who was re-elected president, emphasized that "controlled hard-hitting advertising and plywood performance will maintain plywood's preferred status as America's finest building material in the highly competitive years ahead."

Speaking of the future of the plywood industry, now producing a record volume of 45,000,000 feet of panels a week, Snyder said the manufacturers are not jointly spending one million dollars to develop new markets and uses.

Elected vice president of the group was Victor Olson of Olympia, Wash. Other officers are Charles M. Dicey, North Bend, Wash.; secretary: J. P. Simpson, Tacoma, treasurer; and O. Harry Schrader, Tacoma, managing director.
WAR AND THE BUILDING INDUSTRY

Every one in Washington is on edge about the Korean war. Whether it will fizzle out—drag along for months—or explode into a world conflict is anybody's guess.

In any event, it has awakened us to the necessity of making war plans during times of peace. Nothing is more unpleasant and unpopular than crying "Wolf, wolf!"—and preparing to shoot the wolf down if he does jump from the bushes unexpectedly.

That is just what the National Security Resources Board has been doing here in Washington for many months. Their budget and personnel have been inadequate. Their reception by both government and industry has been indifferent to say the least, but, now that American boys are being killed every day in Korea, their job has moved to the number one position.

Not only has NSRB been making a careful study of the successes and failures of World War II in matters of civilian defense and mobilization, but, anticipating an atomic war, they have sent men to Japan, England and Germany to learn how to take care of people in bombed-out areas.

This is where the housing industry comes in. One part of the job would be the construction of war housing for new war plants, shipyards and military installations, but in an all-out war, with American industrial centers and seaports heavily bombed, the erection of temporary shelter and the patching up of damaged structures would constitute a staggering task.

Daily we are asked what will happen to home building if an all-out worldwide conflict started. Of course, no one can answer such questions as yet. It will depend upon how serious the situation is and what the thinking of the various government officials is in event of an all-out world war. This reporter assumed the risk of guessing answers to the most generally asked questions as follows:

1. IN THE EVENT OF ALL-OUT WAR, WOULD CURRENT HOME CONSTRUCTION BE STOPPED?
   No further construction could be started but housing well under way would probably be permitted to be completed on a minimum basis.

2. WOULD MATERIALS AND MANPOWER BE AlLOCATED?
   Materials would undoubtedly be allocated on a priority basis following the pattern of World War II.

3. WHAT KIND OF HOUSING COULD BE BUILT?
   Only minimum war housing under rigid governmental control for immigrant war workers and military personnel.

4. WOULD OCCUPANCY BE CONTROLLED?
   Rigid restriction and occupancy controls would be instituted. There would be a minimum of requisition and maximum of conversion.

5. WHAT ABOUT PREFAB AND MOBILE HOUSING?
   Most careful study is now being given to the industry's facilities to construct housing in non-military areas for rapid shipment into areas where on-site building labor is in minimum supply or is needed for war purposes.

6. IN THE EVENT OF BOMBING, WHAT TEMPORARY CARE WILL BE TAKEN OF VICTIMS?
   This is NSRB's number one problem. Temporary sharing of all existing facilities would be required and elaborate provision made for temporary shelter of various kinds, including the mobile shelter of trailers, demountables, and even tent cities.

The above questions are, of course, being threshed out now in Washington.

(Continued on page 229)
"Kwikset’s easy installation saves me 10 to 30 minutes per door!"

Builder’s Time Studies Show that Kwikset Locks are the World’s Fastest and Easiest Locks to Install!*

More and more builders all over America are recognizing the cost-saving features of Kwikset locks. They’ve found that Kwikset locks save them money two ways. First, Kwikset locks cost less to buy. Second, Kwikset locks cost less to install. Typical of the enthusiastic acceptance of Kwikset’s simplified, time-saving installation is this unsolicited statement by a large builder of F.H.A. insured tract housing: “I make it a point to buy Kwikset for every door of every house I build. We’ve made detailed time studies of the length of time to install all popular residential locks and have found that Kwikset saves our men 10 to 30 minutes per door on installation time. The ease of installation coupled with low cost assures our continued use of Kwikset locks.”

Compare These Kwikset Installation Features With Any Other Residential Lock

✓ Kwikset’s tubular design permits simple, 2-hole installation—eliminates mortising.
✓ Kwikset’s unique installation jig assures exact right-angle holes—speeds perfect installation.
✓ Kwikset’s cylinder is quickly and easily reversed on the job for installation on left- or right-hand, in-swinging or out-swinging doors.
✓ Kwikset’s novel construction automatically compensates for different door thicknesses—saves installation time.

Combine these time-saving installation features with Kwikset’s striking beauty, high quality and low cost and there is little wonder why more and more builders say, “Kwikset locks save me money when I buy them…. save me money when I install them!”

*Name and address available upon request.

MANUFACTURED BY

DISTRIBUTORS

MANUFACTURED BY

Kwikset
LOCKS, INC.
ANAHEIM, CALIF.
A floor for every home

No matter what type of homes you may be building, there is a Bruce Hardwood Floor to match the architecture and fit the budget . . . and to please the owners.

For example: If it's a truly modern home there's nothing so distinctive or appropriate as a Bruce Block Floor (which can be installed directly over concrete slab or wood subfloor). If it's a rambling, informal home, use the glamorous new Bruce Ranch Plank Floor with alternate widths and walnut pegs. And, for any style home, the ever-popular Bruce Strip Floor is always in good taste.

For a most pleasing and decorative effect at reasonable cost, use two or even three types of Bruce Hardwood Floors in the same home. For example, Ranch Plank in living room, Blocks in dining room, Strip flooring in bedrooms.

See our catalog in Sweet's Builders' File. For three new color booklets, write: E. L. BRUCE CO., MEMPHIS 1, TENN.

Above, STRIP: Center, BLOCK: Bottom, RANCH PLANK

Save Time and Money

All three floor types can be secured prefinished (Ranch Plank prefinished only). This saves you time and money, because there's no sanding or finishing on the job. And you give owners the famous Bruce factory-finish which, as demonstrated, doesn't scratch, chip or peel like a surface finish.

Bruce
HARDWOOD FLOORS

Product of E. L. Bruce Co., Memphis, Tenn. World's largest maker of hardwood floors
Take it from these SUCCESSFUL builders!

Here is another group of well-known, successful builders who choose Kelvinator products for their projects. These men know from long experience that Kelvinators not only delight users—but protect the pocketbooks of buyers. For here is enduring beauty...long-time dependability...extremely low maintenance cost. Why not select Kelvinator products for your next project?

For full information, write to Dept. AB, Kelvinator, Division of Nash-Kelvinator Corporation, Detroit 32, Michigan.

Kelvinator featured exclusively, nationwide, in Good American Home Program.
QUESTION often asked since 1945 is "What is the capacity of the home building industry in new units a year?" Both guesses and estimates have been made, but there has been no sound basis for a statistical study. Now, in light of what has transpired since the first of this year, there is beginning to develop some evidence that might establish the answer to the question as a little in excess of one million, or possibly a little less than one million.

It will be remembered that 1949 saw a record of 1,019,000 starts. General opinion was that the figure was not industry's maximum capacity. It is well known, however, that the record was established at a sacrifice of an unknown volume of needed remodeling and major repair work. How many starts would have been made if builders had taken care of remodeling work can only be guessed at.

On the other hand, an unmeasured quantity of both material and skilled labor was consumed on public works projects. It is possible that had these been sacrificed also, the home building total might have been larger.

Conceding, however, that a certain volume of public works construction and heavy industrial and commercial building has to be done to keep abreast of the needs of a million new home owners, home building at the end of the first five months of 1950 seems to have pegged its capacity at roughly 1,000,000 starts a year. Each of the first five months set a new record for starts compared with the same month in any other year.

The result was serious dislocation by the middle of June. Excavators in many parts of the country were far behind their orders. Cement workers were unable to keep up with the demand for new foundations, and serious cement shortages were being reported. Carpenters, apparently geared for higher production, were being slowed, and short weeks were being worked.

Where weather broke right for two-shift excavation work, carpenters and bricklayers were being paid premium wages by builders who could afford to go above scale to keep high-grade workmen, and sub-standard workers were finding jobs. In New York plumbing supplies were short, iron pipe was on allocation, and soil pipe was difficult to get. Of course, strikes in some of the major lumber mills and inclement weather in most of the lumber producing areas had created serious lumber shortages with accompanying sharp increases in prices. This condition might be said to be unusual, however, and to have no bearing on the capacity of the industry.

As 1950 started it appeared that the year would beat the record of 1949 by about 20 per cent. Viewing the dislocations that began to show up in June there is good reason to believe that neither skilled manpower nor materials production can be expanded as rapidly as 20 per cent in a few months without causing automatic slow-downs that peg the industry's maximum capacity at about the figure established last year. With this in mind the public housers' demand for 2,000,000 units a year seems even more ridiculous than it did four years ago. And it might be added that about all the current public housing program will do is slow down much needed private construction.
THE GARAGE, an essential component of modern living in the United States today, is being neglected in the current record production of new homes. In a preponderant percentage of the low priced houses it is eliminated altogether. When it is included, even in the high priced houses, there is frequently a lack of serious planning of the unit for the purposes it is to fulfill.

Actually, the garage in the modern home, especially where there is no basement, serves a multitude of purposes in addition to protecting the automobile from the weather and other possible sources of damage. Much improvement in the planning and erection of garages could be expected if they could be thought of as utility buildings for storing cars and other equipment required in the maintenance of a modern home plus, even, certain recreational facilities.

In contrast to the apartment dweller, who has no maintenance problems either on his dwelling or his grounds, the home owner as a general rule must have some place to house, at ground level, his lawn and garden equipment plus a host of other items. A partial list includes such family appurtenances as lawn furniture, bicycles and outdoor toys, lawn roller, lawn hose, fertilizer, lawn mower, storm sash or screens, step ladder and in many instances an extension ladder, firewood where there are fireplaces, garden tools, toboggans, sleds, skis, assorted lumber for odd jobs, awnings, cans of paint, several types of shovels, plus all the odd items most automobile owners accumulate to wash and maintain the finish on the family car. Even the best housekeepers, men or women, find it virtually impossible to find adequate storage space for the above essentials on the premises of the average American single-family dwelling.

The logical, most convenient and most economical place to provide room for storing the appurtenances of home ownership is the garage. This is the most convenient providing there is a good one and that it is properly planned and well built.

Although no figures have been compiled on the subject, industry authorities agree that a large majority of the low-priced houses erected since the war do not have garages. Many originally erected and sold without garages, have since had them added by the purchasers. Guesses on the percentage of single-family houses less than five years old with garages vary all the way from 30 to 50 per cent. During the last quarter of 1949 the Bureau of Labor Statistics conducted surveys on housing characteristics in fifteen major cities. Ten of these reports were completed at the time this...
was written and show that in the ten major cities reported on, 53.3 per cent of the single-family houses in all price classes erected during the last quarter of 1949 had garages. The cities and the number of new single-family houses erected with garages during the last three months of last year are as follows:

<table>
<thead>
<tr>
<th>City</th>
<th>Single-Family Houses with Garages</th>
</tr>
</thead>
<tbody>
<tr>
<td>New York</td>
<td>37 per cent</td>
</tr>
<tr>
<td>Chicago</td>
<td>16 per cent</td>
</tr>
<tr>
<td>Los Angeles</td>
<td>88 per cent</td>
</tr>
<tr>
<td>San Francisco</td>
<td></td>
</tr>
<tr>
<td>(one car)</td>
<td>73 per cent</td>
</tr>
<tr>
<td>(two car)</td>
<td>19 per cent</td>
</tr>
<tr>
<td>Philadelphia</td>
<td>67 per cent</td>
</tr>
<tr>
<td>Pittsburgh</td>
<td>89 per cent</td>
</tr>
<tr>
<td>Washington, D.C.</td>
<td>8 per cent</td>
</tr>
<tr>
<td>Dallas</td>
<td>36 per cent</td>
</tr>
<tr>
<td>Atlanta</td>
<td>36 per cent</td>
</tr>
<tr>
<td>Miami</td>
<td>59 per cent</td>
</tr>
</tbody>
</table>

From this it is obvious that in overcoming the postwar housing shortage, the industry has created a garage shortage. There will be a good volume of single and double, attached and detached garages erected to take care of this demand alone in the next few years.

When the functions of a garage as a utility building for the home are kept in mind, the planning of that unit proceeds beyond its original, prime function of protecting the automobile. First of all, space for the car must be at least wide enough to permit car doors to be opened so individuals may get in and out comfortably when the car is in the garage. Ten feet is about the minimum width for this. It must be at least long enough so a person can get around the car with the garage door closed. That means at least six inches in front and about 18 inches clearance in the rear. With the exception of about three of the largest American passenger cars made, 20 feet is adequate for this. The ceiling or deck above the car should be at least seven feet six inches above the floor. These figures approximate the minimum requirements for housing the family car. FHA requirements in many areas specify minimum inside width of 9 feet 6 inches and length of 19 feet.

Size of the lot and location of the garage determine largely where additional space can be provided in the unit so it can properly fulfill its function as a utility building. If it must be single-car width then the extra space should be added lengthwise. Even though the family may never intend to have two cars, a double-car 20-foot wide unit is desirable where space permits. Variations in providing extra storage and recreational space in garages can take an infinite number of steps in different directions from these two standard setups.

**AUGUST, 1950**
IN PLANNING for space to be occupied by the automobile in a garage where space is also allocated to storage of tools, toys and equipment, these diagrams illustrate the points on the car to be measured. In mapping length, allow at least six inches in front of the car and 18 inches at the rear. A clear ceiling 7 feet and 6 inches in height is adequate. The diagrams above show a medium-sized and a large car with one door on each completely open. The width should permit car doors to open fully without bumping the garage wall, a work bench, bicycles or other stored items. If a work bench is desired, 2 feet is about minimum width.

The Urban Land Institute in its "Community Builders Handbook" says: "It is recommended that storage space be provided in garages even where houses contain basements. Provision of storage space in the garage for tools, garden furniture, and similar articles is desirable. For single car garages, it has been found feasible to add five to six feet to the length of the garage for this purpose. This is preferable to widening the garage as this may require a greater lot width."

**Three Suggestions for Providing Extra Space**

1. In the interest of neatness, it is advisable to set up partitions or install cabinets to close off storage areas which frequently become cluttered.
Attached Garages Preferred

Studies of home buyer reactions indicate a strong preference for the attached garage. Regarding this, the Urban Land Institute says: "In general ... the attached type is recommended. Although construction costs may be somewhat greater, offsetting savings may be effected in shorter driveways, integral construction, and width of lot permitted by the attached garage. The attached garage with direct access to the street is preferred to one placed on the side or rear due to the great amount of paving required to maneuver a car in getting in and out. Garages in the rear yard detract greatly from the yard's use for garden and outdoor living."

Where the garage can be located, however, depends on a number of factors including the climate, size and topography of the lot, local codes, traffic on the street, size and style of the house to be built, parking space required for the home owner's and his guests' cars. Regardless of where it is located there are some fundamentals in planning which, if not observed, will cause unnecessary extra work and dissatisfaction for the home owner.

A WELL designed garage and porch that blends in character with the excellent detail of the house. Space is provided under the roof area for room or storage. Roof overhang provides shelter for door in bad weather.

Easy and preferably protected access to the basement, kitchen and service portions of the house is paramount. There is such a predilection of cash and carry shopping in modern living that the housewife as well as her husband will always appreciate a short trip with the purchases from the garage to the basement or kitchen. This is true whether the garage is attached or detached.

Since modern living calls for the use of the garage as a utility building, it is equally important that traffic between the garage and the rear yard be

A TYPICAL type of detached garage, adaptable in areas where a more generous use of site frontage is available. In the case above, entrance is obtained by means of a paved forecourt. If an alley is provided at rear, entrance doors can be reversed.

August, 1950
FEATURE of this house located on a sloping site is the garage wing which develops into a split level arrangement with bedrooms above garage. Design solution is based on all-center recessed position of doors. Facings of garage facade includes brick, horizontal siding and vertical flush boards. all painted white routed directly and simply. A large access door opening directly to the rear or at the side of the garage is usually preferred. When single garages are built wider than the ten foot minimum but narrower than a full double width, with an 8 or 9-foot door the entrance for the car should be set off center, to the side away from the access door to the yard. This puts the extra space for utility use in one spot, with the car always set close to the opposite side.

Adequate wiring and good lighting in the garage are as important as they are in the house. In addition to the lighting circuit, handy electrical outlets in several strategic wall locations are highly desirable. There should be a cold water tap as a convenience in the garage. Where space in the garage is devoted to the utility uses so necessary now, these extras add a great amount of usefulness and value to the units. Adequate window area for light as well as ventilation should be considered. During hot summer months, much of the greasy, gassy smell of an automobile can be eliminated from the garage by leaving windows open during the daytime. This is especially desirable where the garage is attached to and a definite part of the house. One of the problems with a basement garage is frequently the lack of sufficient window area for light as well as ventilation. Most housewives object violently to having the gasoline and grease odors, which are not pleasant, entering the house.

Garage Doors

The garage door is usually the biggest single unit of movable equipment built in as part of the housing establishment. It is also one of the largest and most conspicuous features of the average home. Designers and builders who desire to please their clients, therefore, give the garage door problem much thought and consideration.

THE cabinet in the upper drawing is attached to the wall high enough to permit the hood of the car to clear under it. This is suitable for dead storage. The workroom shown is ideal for the gardener who desires a spot to keep tools, fertilizers, sprays and other items that go with intensive gardening. See preceding pages for floor layout provided the structure is built with that in mind. Folding stairway is convenient

THE ATTIC of a garage of the type above can be put to good use as storage area.
A large group of ingenious manufacturers, fully recognizing the problems of garage closures, have developed a host of excellent doors to meet an infinite variety of problems and tastes. There should be no valid reason why any modern garage door should not operate as easily as the front door of the home, and look just as attractive.

There are about six major types of garage doors on the market in a wide range of prices. These can be roughly classified as the roll-up or sectional door; the swing-up or panel type; sliding door; hinged doors; accordion doors and the two-section upward-folding door. Upward-acting doors of one type or another are far in the lead in popularity with builders and home purchasers.

Prime consideration in planning any garage for the installation of an upward-acting door is provision for head room for the type of door to be installed. There are doors available to take care of all kinds of head room situations, with a number on the market which require no head room, a maximum of two or three inches, on up the scale to others which require 15 to 16 inches. Stock sizes range from the smallest listed, which is 8 feet wide by 6 feet 6 inches high, on up to the large full double garage width of 14, 15 and 16 feet. There are sectional roll-up doors available with removable center posts. Thus two or more doors can be installed to close a large opening and if found desirable, the center posts between the doors can be raised up and taken out of the way to provide a clear opening of any width structurally sound.

The most meticulous designing, research and manufacturing techniques on garage doors and hardware are of no avail, however, if the units are not installed on the job properly. They are all made to function smoothly with minimum effort and maintenance, but faulty installation in too many cases, leaves the home builder, his designer and the occupant of the house with an ever-recurring headache over the vagaries of a stubborn garage door.

The builder and his workmen should never underestimate the importance of following, rigidly, the manufacturer's directions on garage door and hardware installation particularly on all upward-acting types. This is no place to cut corners on material or time. A decision on the particular manufacturer's door to be installed should be made before the rough opening is framed so that the opening can be made to exact dimensions required for the finished job, and also, so the recommended headers and jamb fram-
MODERN application of the garage to a two-story wing. The horizontal divisions in the door are in keeping with the horizontal siding on wall above. Canopy over door provides protection from weather.

THE DETACHED garage of this one-story ranch type house, designed in the traditional manner, is made a part of the over-all arrangement by a connecting breezeway. The garage doors are placed off-center at front wall to provide for work bench on side wall. Roof ridge is centered on door, thus extending the roof line on one side and purposely establishing a lower eave line.

THIS position of the eave line is flexible, as indicated in the house shown at left. It gives an informal appearance to this part of the house. Windows are effectively placed in the street wall of garage, with fieldstone and stained shingles used for the exterior.
THE first four designs above suggest various types of parking areas and turn-arounds that can be incorporated as part of the garage driveway where they are necessary or desirable. Where these large areas are concrete they are also ideal for children's play or gym courts. Dimensions shown are minimum. Where the driveway crosses the street curb it must be flared at a three to five-foot radius. The smallest outside radius to a circular turn-around or curved driveway is 25 feet and the smallest inside radius is 18 feet.

CROSS-SECTION of a thick-edge slab, reinforced to form foundation and floor of garages. 

WHERE building codes permit garages are effective when allowed to project beyond the front wall of house. Houses and garage are of concrete block with flat deck over garage.
the streets and being used more extensively as utility and storage structures, the need for keeping the door closed at all times is obvious. It not only obviates the danger of theft but also closes off from public view whatever weaknesses the house owner may have as a neat housekeeper where the garage is concerned. Because houses are designed to look their best with the garage doors closed, it is desirable that they be closed most of the time, whether the garage is attached or detached. These operators also switch lights on and off in the garage or outside and at other points in the house when desired.

Industry surveys indicate that less than one per cent of the existing garages have automatic door operators. There are several different models, but basically they consist of a simple sending unit mounted in the owner's car with an individual wave length set to activate the door operator mounted in his garage. His car unit will not open any other doors and no other owner of an automatic set of his type can open his door. These units make contact with a coil imbedded in the driveway or directly with the operating mechanism. There are units that activate the door operators with inaudible sound vibrations and function in the standard manner. Electrical switches inside the garage can be used to open or close the door and, should electric power fail, the door can be opened manually.

Automatic door operators are no longer experimental gadgets. Some manufacturers have been in the busi-
Several examples of garage framing showing practices which conform to common situations. Where there are storage rooms or living quarters above the garage, framing of course, is done to accommodate the extra loads. Exterior garage architecture and finish should closely match the house even though the garage is detached.

ness, doing research and producing units for more than 40 years. True, the mechanism is complicated and their manufacture requires highly skilled techniques but when the proper unit is selected for the job it is to do, installation is strictly according to the manufacturer's specifications, these additions to the plus conveniences of home ownership can be pleasurable and measurably valuable time-saving devices.

The pleasure and satisfaction of designing and erecting a modern garage with all the conveniences can be marred soon, however, if it is not set on a good foundation and is not easily accessible with the automobile. Footings and foundations should always be put down according to local code requirements and climatic needs. Recommended floor for the modern garage is concrete, with the slab at least four inches in thickness and equipped with a drain if at all possible. If the slab is not reinforced the bed under the slab should be gravel, cinders or crushed rock to a minimum thickness of four inches. Earth under the slab should of course be leveled and tamped. The slab should extend at least two feet in front of the garage door opening to form an apron, sloped to the driveway. An expansion joint should be provided at the garage apron between it and the driveway.

There are variations in the design and methods of laying garage floor slabs, depending on the locality and climate. A popular and satisfactory floor, incorporating foundation and slab in one unit, is the thick-edge reinforced slab. These are 18 to 24 inches thick at the outside edges with the underside arched to a minimum thickness of four inches at the center.

The driveway should always be planned at the same time the garage is planned. Tricky turns, bad grades and obstructed views of danger spots are some of the results of poor driveway planning. A one-car driveway should be at least eight feet wide on straight stretches and at least 11 feet...
The two-car "OVERHEAD DOOR" of finish wood construction, gives a wide, unobstructed opening. The door is equipped with the model "H" electric operator with radio type control.

Wide on curves. If it is a two-car driveway, minimum width is 15 feet and 16 to 17 feet is preferable. If the driveway is sloped there should be a level area at least 15 feet long in front of the garage to facilitate stopping the car and to minimize the possibility of the car rolling with poorly set brakes or because the brakes are not set. Where there are curves in the driveway it is well to remember that with modern model automobiles, the smallest outside radius for a curve is 29 feet and the smallest inside radius 18 feet. If there is room to do it, it is always well to increase both radii, at the same time keeping the driveway at a minimum width of 11 feet on the curves.

Whether the new rolled curbs or the conventional straight curbs are used, it is recommended that curb returns at the roadway be three to five feet in radius. With a 26-foot street, this will permit a car to enter or leave the driveway without being obstructed by another car parked at the opposite curb.

Sharp dips or sudden changes in grade on driveways are common faults to be particularly avoided because of the length overhangs and low ground clearances on most new model passenger cars. Entrances to driveways and the driveways themselves should be designed to accommodate all common makes of cars with long rear overhang and low bumpers or tailpipe clearance. Rear, overhangs run as high as 4½ to 5 feet and about six inches clearance for the tail pipe is usually accurate. Considering these factors along with possibilities of overloading and spring action, a change of driveway grade not more than one inch per foot within any 10 feet of distance will allow adequate clearance for practically all American-made automobiles.

No driveway should be absolutely flat but should slope slightly from the center toward each side, or from both sides to the center, depending on conditions. This is to permit good drainage. The usual slope for this purpose is one-fourth inch to each foot from the high point to the low point. Obviously no garage should be set on grade so that water drains toward it and remains around it to form miniature lakes or ice ponds.

In areas where there is a great deal of ice and snow during winter months, engineers and manufacturers have developed heating systems which keep concrete driveways warm enough to eliminate ice and snow as it develops. This type of convenience is especially important and serviceable where driveways have steep grades and complicated turns. For all home owners in cold climates, however, a heated driveway can assure easy access or exit to or from the garage in all weather, without the customary laborious snow shoveling or expense of having it removed.

Only a few years ago considering the garage as part of the house would have been thought as ridiculous as placing the old-time stable in the same location. Now that it has become so definite a part of modern living its design and construction merit the same attention as the house. Where the garage is attached to and a part of the house, obviously its design, construction and finish treatment must blend with and match that of the house. This also holds true when the garage is detached, with the exception of framing and foundation. Some builders and home owners cut corners on garage erection costs by using ex-
In areas where zoning laws permit, a great convenience may be established for tenants by erecting apartment over ground floor garages as indicated at right. These doors were built on the job and equipped with factory-made hardware.

Photo courtesy Prontz Mfg. Co.

Exterior finishes which are different from those on the house. Such a move should always be made reluctantly. The esthetic as well as the monetary value of property is enhanced when the garage matches and blends with the home.

All garages which are attached to or part of a house should be separated from the house with a firewall and fire-resistant access doors which conform to local codes and insurance underwriter specifications. If the house heating unit is installed in the garage, it should always be set apart with a partition. When a door opening occurs between the garage and the dwelling in attached garages, the garage floor should be lower than the adjoining floor or the door saddle should be raised a few inches.

The one-story detached garage may be framed with 2x4's 24 inches on center. Studds do not have to be doubled around openings less than about 3 to 3½ feet in width. Corner posts can be 2x4's or 4x4's and single top plates can be used but plates should be lapped or tied at the corners. The rafter ties can be 2x4's but should be spaced no farther than 6 feet on center. Corners should be braced and these pieces can be fastened on the inside surface of the studs. Sheathing and building paper can be omitted, although it can help the home owner to avoid much hard car starting in extremely cold weather if it is used. In extremely cold climates, insulation is desirable.

With the trend preponderantly toward street entrance garages, it is essential that the driveway, as well as the garage itself present an attractive appearance, blending with the house, its landscaping and architecture. Visitors and guests commonly park their cars in the home owner’s driveway, so the garage is one of the first closeup views such persons get of their host’s residence. This makes it essential that the driveway be in good order and that the garage present a pleasing appearance, whether it be attached or detached. This makes the garage door one of the most conspicuous parts of the home frontage. Thanks to the ingenuity and good designing techniques of manufacturers, the builder and home owner can obtain garage doors and garage entrance treatment which bespeak good living and “welcome” as much as the house front entrances have for generations. This plus judicious use of shrubbery, and trellises make the garage part of the home today.

Diagram showing one type of automatic garage door operator installation. This particular unit utilizes a receiving coil imbedded in the driveway. There are others which make direct remote control contact with the operator. All units are on individual wave lengths so that the sending unit in a car will open only the door to which it is synchromized. Wall switches can be used to open the door also and should electric power fail the door can always be opened manually.

Photo and drawing courtesy Barber-Coleman Co.

AUGUST, 1950
BECAUSE of the prominent position of the garage in relation to the house, the forecourt adjacent to the drive is thickly landscaped. Wall, flower box and lamp standard which form a separation, introduces a color note both in the character of box and its contents.

Architectural Details that Add Interest

ARCHITECTURAL accessories such as the 2x4-inch square pattern lattice frame extending out from wall of garage, do much to break the severity of plain wall surfaces. The lattice frame is placed on a knee high stone wall that serves as a planting base. The horizontal facing of door and frame is painted white in contrast to the vertical redwood and batten siding. Garage forms a part of the entrance forecourt.

SEMI-DETACHED garage connected to house with a high board lense. All boards in lense are placed in an angular pattern, thus providing privacy but allowing passage of air through lense. Garage door is built up of vertical boards and battens. Material used is redwood. Wide roof overhane protects garage doors.
THE FEATURE at end wall of garage wing, referred to as a shadow box, while primarily ornamental and used for the purpose of dressing up the street wall, also has a practical value in that horizontal louvers are used for ventilating the garage. Shadow box is constructed of a 2x10 inch frame with a splashed surface on inside face. Vertical louvers are closed on inside face with provisions at sill for drainage. Flower box is supported on simple V type wood brackets. All material is of redwood. View below shows the relation of the garage to house and street.

DETAIL drawing below showing the construction and elevation of shadow box on street wall of garage shown above.
How to Build Outdoor Fireplaces

To backyard-conscious home owners who like sunshine and fresh-air entertaining, outdoor fireplaces are prized possessions. Today, a builder can offer these units, at little extra expense, as valuable selling features for any home.

Like an indoor fireplace, certain basic principles of design and construction must be followed in building an outdoor unit. These concern parts of the fireplace that control draft, fire, and cooking effectiveness, however, and need not interfere with the
DRAWINGS show how The Majestic outdoor fireplace, "The TV Cook-Meal," is built. An electrical outlet can be built into the unit. Designed for practical purposes, storage space for folding chairs are provided in one compartment, and space for wood in another. A sheet metal roof over chimney keeps rain out. If outside television aerial is required, it can replace weather vane.

BROAD top surface of this outdoor fireplace is large enough to hold a television set. Metal fireplace unit made by The Majestic Co., has removable top.
Outdoor Fireplaces

The builder's own good imagination in creating exterior designs to his liking. Here are some of the basic principles:

First, a good fireplace has a strong, solid foundation. Concrete or masonry is recommended, though in warm climates, tamped earth, cinders or gravel are sufficient. In cold climates, the unit should be built on either a floating slab of reinforced concrete, or brick or stones set in mortar at least four or five inches below frost line. A floating slab should be six to eight inches thick, with two-thirds of it below grade, the remainder above. If the foundation is stone set in mortar, be sure all joints are filled with mortar to prevent water from entering. The foundation should be at least one inch wider on each side of the fireplace and one inch longer at each end. A paved apron in front is desirable, to form a work area.

To avoid the necessity of worrying about proper dimensions of fireboxes, flues, and other working parts, the easiest and usually the least expensive procedure is to purchase a ready-built, all metal fireplace unit. They form a framework for the masonry and keep all inner working parts in proper proportion. Outer walls may be of brick or stone, or both. Inner walls should be firebrick placed on edge to save bricks and space. These should be lightly buttered with 1/16-inch joints of fire clay mortar, as should the space between firebrick and exterior chimney. Mortar made of fire-clay, with about 20 to 25 per cent portland cement is recommended. Common brick should be thoroughly dampened before laying up, and joints should be not more than one-half to three-fourths of an inch.

Before exterior mortar joints set they should be raked deeply with stiff wire loop, if rustic stone work is used, or flush for face brick. To make a neat finish for the top of the fireplace walls surrounding the metal unit, flat stone or tile may be used. Or any other material may be used, as long as it is fireproof, keeps water from getting down between the walls, and offers a convenient counter or working area.

Metal used in the fireplaces expands and contracts with the temperature. Provisions to allow for this are mandatory, to prevent ruining the fireplace walls. One good idea is to place sheets of corrugated paper against the fireplace unit before surrounding it with firebrick. When the first fire is built in the unit, this will burn away and leave the proper space for expansion and contraction.

If wood or coal are to be used in the fireplace, a chimney is preferred. It should be high enough to create a good draft and to carry away the smoke. There should be no square corners on the inside of the chimney passage. This interferes with the draft. It should have a flue liner of fire brick, a cap to keep water out, and a screen to prevent flying sparks.

Design possibilities for outdoor fireplaces are almost limitless, if the above basic principles are followed in setting up the ready-built working unit. Most attractive units suit the surroundings and available space where they are built. Low, rambling designs are ideal for open spaces; high chimneys go well where the yard is surrounded by trees. Any fireplace should face the direction of prevailing winds.

Materials selected for the exterior of the fireplace should be chosen to harmonize with structural materials used in the home or other nearby buildings. If field stones are used they should be the least porous type possible, to prevent cracking from moisture freezing and thawing.

It is advisable to waterproof the entire exterior of the completed outdoor fireplace, sealing all porous portions. This protects the materials, accents, and helps retain colors of the masonry used.

Data courtesy of The Majestic Company
THE MAILMAN just arrived. It is
mid-afternoon... a hot day. His
load was extra heavy and he was not
in a pleasant mood. Several of his
customers were complaining, as usual,
because it no longer is possible for
him to make his deliveries in the fore-
noon. They liked it best when he used
to come early in the morning. Now
his arrival is late in the day... and
uncertain. They don't like it. Neither
does the mailman.

Seems as how it was all brought
about because the Post Office Depart-
ment has been "forced" to curtail its
services, owing to the short-sighted-
ness of a group of niggardly poli-
ticians on Capitol Hill who insisted
that certain long-needed economies
might be in order. The Hoover report
had revealed shocking wastes and
exorbitant duplications sufficient to
arouse the ire of the over-burdened
tax payers—eye-witness daily to the
extravagances. Consequently it only
seemed reasonable that either the ex-
cessive costs or the incompetent offi-
cials should be eliminated. What could
be more logical!

The department's reply was a kick
in the pants for every Post Office user
in the United States. With bureau-
cratic noses tilted high in the air and
with public-be-dammed hauteur writ-
ten all over their grim countenances,
irate Post Office officials issued in-
structions that apparently were in-
tended to teach all economy-minded
citizens not to meddle with or worry
about the inefficiencies of the gargan-
tuan monopoly that once had the re-
spect of the public it is supposed to
serve.

This kick-em-in-the-slat reaction
on the part of Government officials is
more or less typical of what happens
when dear hearts and gentle people

have the temerity to suggest the in-
excusable inefficiencies and needless
extravagances be done away with or
at least reduced substantially.

By this time every citizen of the
so-called "land of the free and the
home of the brave" knows that the
Post Office Department is in an un-
holy mess. Mail trucks of ancient vin-
tage careen menacingly down crowded
streets. Delays in deliveries have be-
come the rule rather than the excep-
tion. Scheduled pick-ups are post-
poned and even overlooked. The
mailman that used to ring twice is
now ashamed to ring at all when he
puts in his belated appearance as he
attempts to carry the day's grit in a
single load instead of two as was
formerly the case.

No other Governmental activity is
as familiar to the American people as
the Post Office... no other bureau-
cratic operation comes more intimately
to the public's attention. Here the
man of the street has a first-hand op-
portunity to appreciate the costs pile
up needlessly whenever Government
redtape is involved.

There is much food for reflective
thought in the fact that the United
States Post Office has long been a
dyed-in-the-wool monopoly. No one
else has even had a chance to deliver
the mail. No one has ever questioned
the authority of the vast organization
or dared to do anything that would
improve its progress. The department
has been supreme from the very be-
ing and even protected by a psy-
cological aura that insulated it from
criticism.

Yet despite these unusual advan-
tages that are never enjoyed by pri-
ivate companies that can only grow big
by virtue of the quality of the services
rendered (and therefore "vicious" ac-
cording to current bureaucratic phi-
losophy), the Post Office steadily has
grown bigger and has gone from bad
to worse until finally it has all but
broken down.

American citizens who are looking
ward Washington with more and
more concern over the manner in
which their hard earned tax monies
are being spent, have a perfect right
to wonder whether a Government that
cannot deliver and collect the mail
efficiently is able to take over the ex-
ceedingly complicated job of provid-
housing, as is the constant ambi-

(Continued on page 128)
Panelized Home for Select Projects

This is the new Sun Ranch Home—supplied to eastern builder-developers in modular panels from prefabricating plant.

EXHIBITION models of the new Cy Williams three-bedroom, duo-bath Sun Ranch Home were opened in April for public inspection in two Long Island locations. Although 40 per cent factory-fabricated by Cy Williams Fabricators, Inc., Huntington Station, New York, it is constructed and assembled with conventional building methods.

Last year the expansion model Sun Ranch Home, which is an improved version of the conventional five-room story-and-half home, won national acclaim (see American Builder, August, 1949, page 80). The new model of 1,220 square feet of living space has been developed to meet the requirements of the $15,000 market; the 1949 home was in the $10,000 price class.

Approved by Institute

The 1950 Sun Ranch Home is the first of its type to be approved by the Revere Quality House Division of the Southwest Research Institute. On Long Island the home is priced at $14,900, complete with garage and fully landscaped plot.

The basic floor plan of this house designed by James Scovil includes a large living room with wood-burning fireplace, three bedrooms, duo-bath, fully-equipped kitchen and a dining area.

Monolithic concrete foundations of the house extend below the frost line, and the structural floor (four inches...
completed Sun Ranch Home has design integrity of modest and functional lines that arrest attention with dynamic proportions of large window area, vertical paneling and facade of common brick. Hard-burned common brick are used, also, in Fireplace that is motor focal point in living room shown at right. Wallboard and asphalt tile were used for wall and floor finishes of concrete over a six-inch gravel fill has half-inch copper coils imbedded in it for the radiant heating system. Three-fourths-inch insulation boards used as a barrier at the floor slab periphery also extend four inches below the slab to the footing abutment at the grade line.

Panelized Framing

Framing consists of panelized sections of 2x4-inch studs, 2x6 joists, 2x6 roof trusses and ¾-inch plywood sheathing. A 2x4-inch continuous top plate installed on the job helps to bind the sections. Attached to the foundation with ¾ by 8-inch anchor bolts is a 2x4-inch creosoted sill.

Interior walls are finished with ¾-inch wallboard carefully taped, with 1½-inch baseboard at the floor and quarter-round at the ceiling intersection. Windows and doors have two-inch beveled wood trim. Interior floors are finished with asphalt tile except in the bathroom which has a white ceramic tile floor and wainscoting.

All the factory-made closets in this model home have sliding doors. Youngstown kitchen cabinets are generally used. Top hung casement windows and flush doors complete the interior trim motif.

Roof and Walls Insulated

While type “B” Reynolds Metallation is used to insulate exterior sidewalls, two inches of Cellulite are used in all ceilings. Zinc interlocking type weatherstripping on all exterior openings provides further weather protection. Covering the roof are 210-pound asphalt shingles over a felt under-
Rentals Units for the Small Builder

Apartments designed by "the flying architect" are built in Nebraska for as low as $7,000 per unit

Rental units designed by a Lincoln, Nebraska architect are finding wide acceptance in a four-state area for two practical reasons: (1) they are small enough to be comparatively inexpensive to build, and (2) large enough to bring sufficient rental income for the owners. The architect is Selmer A. Solheim.

One recently completed project of four-family units in Lincoln was built at a cost of $7,000 per family unit, including land. Built by the Huesle Building Company, they are conventionally framed, individually heated, and equipped with separate hot water heaters, ranges, refrigerators, garbage disposers, and kitchen ventilating fans. With one and two bedrooms, they rent for $69.50, $82.50 and $85.

Reinforced concrete slab floors over concrete foundation walls and footings are used in some of these frame apartments, while others have full basements. Where slab floors are used, first floor covering is asphalt tile. Two-by-four plates are bolted around the outside perimeter of the foundation wall or slab, and 2x4 studs 16 inches O.C. are erected. Floor joists are 2x8's, 16 inches O.C. Oak flooring is placed over diagonal subflooring. Slab floors are insulated with 2 inches of Fiberglas, while insulating sheathing is used on outside walls and three inches of mineral wool is placed between ceiling joists. Roof covering is 210-pound asphalt shingles.

Where there are basements in the new frame buildings, each four apartment unit has two bedrooms. Where a slab floor is used, there are two one-bedroom and two two-bedroom units.

One four-unit apartment project in Lincoln designed by Solheim was built at $6,500 per unit, and rents range from $55 to $71.50 for one-bedroom units to $65 and $86.50 for two-bedroom units. These four-unit buildings are 28 x 55 feet.

Recently the Lincoln Real Estate Association, a private enterprise group promoting construction of low rental housing, selected Solheim to draw up plans for four, two, and single-family units for low rental. Solheim's contribu-
The Colonial Terrace apartment project built in Lincoln in 1948, now owned by Solheim, is typical of other Solheim-designed apartments. It won an Honorable Mention award

(Continued on page 205)
A Kansas lumber dealer says

“Sell from the

Sales ideas that count for this firm include a personalized portfolio, picture post cards and slogans. Equally important to the company’s success is a new method of buying control...

A PERSONAL touch to selling has steadily built up a long list of satisfied customers for the Davis Lumber Co., Hutchinson, Kansas. The sales methods, promoted by Jack C. Davis, managing partner, offer new ideas of selling from the customer’s viewpoint.

Aim of the firm’s sales approach is to make as many people as possible feel they actually “know” the company, and feel that it is intimately concerned with their home building or maintenance problems. Newspaper and radio advertising are more personalized than usual, and this, together with a unique type of advertising with portfolios, post cards, and slogans—backed up by services that fulfill the complete demands of the consumer—keeps this company in stride with a progressive community.

Newspaper and radio advertising are effective for two reasons: (1) they are easy to read or follow, and (2) they leave the impression that Davis Lumber company can take care of the home building or repairing problem, no matter how large, with minimum effort to the customer. A few, simple words are used. The word “you” is stressed.

Classified advertising, says Jack Davis, is just as important as one and two column newspaper advertising—if it is properly worded. Stimulate the reader to immediate action, is the advice Davis gives. He uses such words as “Build Now... labor and materials are not going to be any lower from what we have...” Or, “Call the Davis Lumber Company now.”

Selling from the customer’s viewpoint means being able to know his wants and finding out how to satisfy them, says Davis. Most families, for instance, are proud of their new home, and want to show it off. More practically, every family likes to feel it has made a good bargain; that re-

PERSONALIZED portfolio, entitled “A home is built...” is presented by the Davis Lumber Company to each new home owner. On inside front cover, right, a letter guaranteeing the home for one year is included. Progress photographs of the home, a list of materials used, and a cost breakdown of materials and labor are incorporated in attractive book.
sale value is good, and will be for a long time. Davis has devised a personalized portfolio designed to point up the value of the home.

The portfolio is regarded by Davis as an important sales tool. Given to each new home owner, it contains illustrations showing construction procedures of the home, including a large black and white photo of the completed home; a guarantee from the Davis company; description of materials used, and manufacturers' guarantees of materials used if they are supplied. Spiral-bound, the portfolios are made up with handsome covers simulating wood grain, and are usually kept in a handy place in the living room by home owners.

The guarantee from the Davis company, on the inside front cover, is in the form of a personal letter from Jack Davis. The letter explains that the new home, like a new automobile, may sometimes require minor adjustments. These adjustments are made free for a period of one year, the letter states. Complete as it is, the book provides a valuable sales tool for the home owner, who may show prospective buyers complete details of his home. Important to Davis is that maintenance jobs on the homes will be required long after the one-year guarantee has expired, and long before the portfolio is taken out of use and display by the home owners.

Fifty post cards with a picture of the new home, in addition to the portfolio, are given to each new home owner. The slogan, "It's Fun to Build the Davis Way" is printed along one border of the picture side of the card.

"It's Easier to Build than You Think" is another slogan used by the company. A slogan emphasizing the reputation the company is striving to maintain is "Davis Built Means Well Built."

Backing up all advertising and promotion claims by the Davis company.
are well-trained employees, carefully selected, who are housed in homes they bought with no money down from the Davis company; who receive paid vacations, and work on a bonus plan. They feel they are an active, important part of the organization. Once a week they, with the company management, get together at night to discuss company problems and offer solutions to them. In return for good working conditions and salaries, Davis expects—and gets—first-rate salesmen who carry out his sales policies.

Unit Buying Control
As a basis for forecasting demand and for keeping inventories balanced in relation to sales, Davis has devised and uses a unit buying control method. It provides a convenient and systematic method of counting stock and ordering items. When properly kept, says Davis, it shows—(1) what sold well last year; (2) what did not sell well last year; (3) what is selling well this year, and (4) what is not selling well this year. It thereby helps determine what to order, when to order,
how much to order, when to take markdowns, and what to discontinue. "However," Davis cautions members of his firm, "no matter how valuable you find the Unit Buying Control, it must never be considered as a complete substitute for your own good judgment. What you must do at all times is use the figures on the Unit Buying Control and see through them to the customers."

Buying control pages (see illustration) are set up each year for items to be controlled. Spaces to be filled at the top are the year, department, counting date (date each month on which items on the page are to be counted), page number, basic class of items on the page, unit (gallons, pounds, dozens), source or supplier, replacement time or days which will usually elapse from time of order until item is received, and item. There is space on each page for controlling twelve items. Name of each item is entered in those spaces, with size, color, unit, stock number, or other necessary identification.

Spaces for each item are filled in each month. The letters "F, M, A, M, J, J, A, S, O, N, D" at the top of vertical columns stand for the months of the year, beginning with January. Each item on the page is counted once each month, a date of counting established and set at the top of the page, and the quantity of the item on hand at the counting date is listed in the column marked "On Hand."

After an item is counted, a study is made of sales of this item during the

(Continued on page 132)

UNIT Buying Control system devised by Jack Davis provides space on one page to control purchases of 13 items, and provides good basis for forecasting demand and for keeping inventories balanced.

LOCATION of Davis Lumber Co. is not ideal, since it is near outskirts of town, but this handicap is more than made up for by aggressive selling and good service. For end of shed contains display room
DIRECTORS of the State and District offices of the Federal Housing Administration, prompted by Commissioner Richards, are recommending to home builders that they sound the possibilities involved in Title II, Section 213, Cooperative Housing, a new, and potentially profitable program.

The section was written and enacted as a private enterprise substitute for the bill providing direct government loans for cooperative housing which was so ardently fought and finally defeated by our industry. Its substitute accordingly provides a challenge to private builders to take it, utilize it or suffer the consequences of ignoring its provisions.

A Profit Incentive

A preliminary review of the provisions of the law might possibly lead to the belief that little incentive is offered to engage in the organization and construction of programs under this law. That is not true because the fee construction contract provides as much profit as builders usually seek and renders a compensation for the extra work involved.

It is certainly true that groups of cooperators desiring homes under the provisions of the law, when unskilled in construction operations, will run into the same and possibly more serious difficulties than those who have previously tried to organize cooperatives and failed miserably and often scandalously.

Builders The Logical Promoters

It follows that, if the law is to become operative to a successful degree, it is best that the transactions should be handled by those skilled in the wholesale production of housing. The project builder therefore becomes the only logical person to carry through the promotion from beginning to end.

The law offers extremely favorable terms—mortgages for $8100 per dwelling unit or $1800 per room, whichever is best, but aggregating not more than 90 per cent of replacement cost. When 65 per cent of the stockholders are veterans of World War II these figures are advanced to $8550 per unit or $1900 per room with a 95 per cent mortgage limit. Savings are also achieved due to freedom from franchise and income taxes. In addition the limit of amortization is placed at 40 years and the rate of interest at 4 per cent, rendering monthly payments very reasonable.

Chicago Committee Has Made Close Analysis

The Chicago Metropolitan Home Builders Association committee on Housing Redevelopment of which Leonard R. McDonald is chairman, with the advice and counsel of the association attorney, John F. McCarthy, has made an exhaustive study of the possibilities lying within the provisions of the act and offer a suggested method of procedure to those who would like to try their hands at such cooperatives. The chairman has been bold enough to try out a "guinea pig" case, preliminaries of which have involved two trips to Washington, and the following procedure is offered as being most likely to avoid difficulties. Steps as follows:

1. Provide a definite or firm option on the land involved or other means of placing the site entirely under control.
2. Prepare preliminary plans in sketch form in sufficient detail to avoid future differences. Make a preliminary estimate of cost.
3. Present the site, plans and estimates to FHA and arrive at a mutual preliminary understanding regarding location, plans and arrangements, and costs.
4. Consult with bankers and know definitely where and how mortgage will be handled.
5. Organize a corporation and prepare by-laws and cooperative leases. (These papers to date, require the approval of the Washington office of FHA. The chairman has obtained such approval for the so-called "guinea pig" case. Forms will be made available at the office of Attorney McCarthy.
6. Obtain from FHA a Preliminary Letter of Eligibility.
7. Proceed with the sale of stock and leases. Ninety per cent of the stock must be sold before the corporation can function. Each stockholder must be passed upon by FHA and found eligible for credit amounting to his share of the loan payment as represented by his rental. In connection with such sale, take from each stockholder an amount equal to his share of the difference between the total cost and the mortgage, plus a small amount to provide working capital.
8. Present final plans to FHA and secure firm commitment, execute mortgage papers and proceed with construction.

All Types of Housing Covered

Under the provisions of the law any type of housing can be constructed—single family dwellings, semi-detached and row housing or any type of apartments. Any stockholder may sell his stock and lease at any time with the approval of the corporation. In the cases of single family dwellings, semi-detached and row housing, he may also purchase his unit outright by paying to the corporation his share of the mortgage balance. There are no strings on this sale. It offers the greatest opportunity yet devised for home purchase, particularly to non-veteran stockholders.

Avoiding Delays and Disintegration

It will be observed that the committee recommends the postponement of the actual sale of stock until all preliminaries except building construction have been completed. This is to avoid disintegration due to delays often encountered in similar transactions and anticipated here. A reasonable homogeneity of membership is also recommended.
New Office Proof of Dealer's
Half-Century of Success

Progress and prosperity of
dealer is attested to by
grand opening of his new
sales and office building

FIFTY-two years of successful busi-
ess operations of the Lincoln
Lumber Company, Plentywood, Mont-
tana, culminated in the grand opening
of a new sales and office building this
past spring. Founded in 1908 by Mr.
A. Riba, the yards have been managed
since 1910 by Mr. R. L. Rie who has
promoted the company's interest in
civic improvement and in better
building construction and design.

The new building which measures
30 by 60 feet has a full basement and
is constructed of concrete and con-
crete block with a stucco finish. Many
of the items in the building, such as
the Thermopane front window, sliding
doors, Modernfold door and kitchen
equipment, were incorporated in it for
demonstration purposes.

Since paint is a major item in the
company's business, the coverings
used on the interior walls, floors and
ceilings were selected to show appli-
cations of various paint products.

The building is equipped with an
elevator, two bathrooms and is located
in the front center of the yard.

The Lincoln Lumber Company
operates a building plan department
and works closely with a professional
architectural service to provide skilled
drafting for local builders.
50 Personalized Homes from a Single Plan

First of a group of houses built from a standard plan. Each house to be personalized for buyers through design and materials.

THE FIRST of 50 personalized homes to be erected in a quarter million dollar setting of flowering trees and shrubs on the former Percy Pyne estate in the village of Roslyn Harbor, Long Island, N.Y., has been opened for public inspection by Walter G. Stackler and Leonard L. Frank, builders.

This house, as well as others to be built, is placed on a one acre plot and contains 1,518 square feet of living area exclusive of the garage and basement. The sale price is $23,800 including refrigerator, range, dishwasher, automatic laundry and exhaust fan. The L-shaped ranch-type house with three bedrooms, two baths and attached garage was designed by Alwin Cassens, Jr., Forest Hills architect.

"Although we are building with a standard floor plan in order to hold down costs and selling prices, each of the 50 Mid-Century houses planned for the 75 acre development will be personalized for individual buyers," Builders Stackler and Frank said. "This will be accomplished by offering a variety of exterior designs which will provide changes in both roof and wall surfaces, exterior and interior finishes, or other changes necessary to meet the tastes and requirements of individual buyers. In addition, each house will be carefully oriented to its site to take full advantage of the desired exposures and at the same time to be properly screened from adjoining houses."

Close collaboration on the part of architect and landscape architect in laying out the development has produced a house of contemporary design that will form the pattern of others which are to follow. Extensive glass areas on exposed walls in the main living rooms, open to the home owner a vista of flowering shrubs and trees on an area of rolling terrain, both to the front and rear of the property.

The window walls are divided into three horizontal tiers, the two lower tiers are all fixed sections and insulated with Twindow hermetically sealed sash. Abundant ventilation is provided by the aluminum casements in the upper tiers of the picture windows and windows at shoulder height in all other rooms.

The designers of this model house

KITCHEN is furnished complete with Kelvinator refrigerator and range. General Electric dishwasher and Bendix washer. Work counters are plastic topped.

CLEVER utilization of space is a feature of one bedroom. A quiet study nook is provided in alcove between closet and entry.

THE BASEMENT, which extends under the entire house, is planned for maximum use. It has room for recreation and service units.
SPACIOUSNESS is the keynote of the plan. All rooms are generous in size with ample closets well distributed. Picture windows on front and rear wall flood the living room with sunlight. Picture windows on rear wall feed the living room with sunlight.

This L-shaped house with wide overhanging eaves, faced with a combination of double coursed cedar shingles and variegated face brick, is designed to blend wall with the wooded and rolling terrain.

are commended for providing a living room sufficiently large to accommodate the occupants of three bedrooms and two baths. A full size dining room wing adds additional area to the living portion. A kitchen, one-car garage and ample closets complete the layout.

A feature of the house is a huge basement containing 1,518 square feet. Equipment furnished includes a Rheem 52 gallon electric hot water heater and a warm air oil burner. The layout provides for a large recreation room, hobby room, workshop, laundry, clotheslines and other facilities.

Foundations are of 10 inch poured concrete on 18 inch footings. Most of the first floor joists are 3x8's supported by steel girders and Lally columns. The house has a wood frame shell with face brick veneer facing in some portions and gray stained striated cedar shingles for balance of walls and gables. The house is insulated in side walls and ceilings with rock wool. Roofing is slate-surfaced asphalt shingles. Wide overhanging eaves all around the house, except at gable ends, afford protection from sun and rain. The garage is separated from the living quarters by an insulated, fire-resistant wall and ceiling.

VIEW of rear of house. Two picture windows occupy 34 feet of the 18 foot rear wall of living and dining room. Extended eave provides protection from elements.
A House of Limited Frontage

A ONE-story dwelling that can be built on a 50 foot lot in urban areas is the type of house desired today by many potential home owners.

This month's blueprint house designed by Grainger, Thomas & Barr, architects, Seattle, Wash., reflects this type of planning. The featured front carrying back to approximately three fourths of the length of the house is confined to 25 feet 5 inches in width. This includes an entrance porch 5 feet wide and the width of the living room. The rear portion of the house is extended in width to include the attached garage. This arrangement allows a wide, open area on the garage side of the house for the living rooms and kitchen.

A feature of the house is the over-all economy of the design. The simple gable roof is unbroken in line except for the garage gable which overlaps the main gable but does not disturb the framing of the main roof. Simplified framing throughout is possible because of the rectangular shape of the house. An architectural feature that provides balance to the house is the wood louver screen that extends from grade to underside of roof soffit, on the side of house opposite the garage.

Six rooms are contained within the perimeter of the exterior walls. The rooms consist of three bedrooms and a bath and a combination living and dining room that is separated by a low wood screen. The living area of the house contains approximately 1012 square feet exclusive of the attached garage and entrance porch.

For complete one-quarter inch scale working plans of this house write American Builder Home Plan Service, 30 Church Street, New York 7, N. Y.
A Progressive Company that has been in business for over 40 years under the same ownership and management.

A Modern Plant equipped with many special machines—developed exclusively for the production of the finest overhead type doors at lower cost.

A Door Factory that does the whole job—even to making those famous "Power-Metered Springs," Friction-reducing tracks and ball bearing track rollers with double-thick treads.

A Select Force of mill-timber and steel buyers—trained testing crews, and skilled workmen who have averaged more than 10 years on the job of making Ro-Way Doors the best that can be built.

A Sales Organization that has always kept faith with architects, builders, contractors and home owners, so that today "Ro-Way" is the most sought after door franchise in America.

A National Network of selected distributors competent to counsel intelligently with architects and builders and equipped to see that every Ro-Way Door is installed right.

That's What's Back of Every RO-WAY Door!
THE living rooms on ground floor, bedrooms on intermediate level and large, open basement below, form the basis for the plan of this interesting three level house shown at right. Exterior facing is natural colored stone and painted brick topped by a wood cedar shingle roof. Plans of ground and intermediate levels shown below.

**Split Level Gains in Public Favor**

THE TWO houses shown on this page are part of a development of 35 homes designed and built by Edward B. Hawkins, Denver, Colo. This development consists of a group of one-story and split-level houses, that, because of the large variety of design in each of the houses, appear to be custom-made to conform to individual requirements. To obtain this effect is the goal of every operative builder, whether they be large or small, providing, of course, that economy in building is maintained.

The so-called split or tri-level house appears to be the answer to the one who does not like to climb the stairs of a full two-story house. Conversely, there are those that object to the ranch or one-story house because they do not provide for a basement. The split-level house takes care of both. One half flight of stairs up to the intermediate level with bedrooms off the ground, and one half flight down to a light basement, usually just the right size.

The house shown at top of page contains approximately 1,050 square feet of living area exclusive of garage and basement area. The house at bottom of page contains 1,325 square feet of living area with the same exceptions.

ANOTHER example of a tri-level house. The living room extends across the entire front of dwelling. Ceiling line follows the pitch of roof with fixed sash extending to the underside of roof soffit. Bedrooms are at the upper level of the rear unit. The ground and intermediate floor level plans is shown above.
Add up the Advantages of BILDRITE* over Wood Sheathing

TWICE THE INSULATING VALUE OF WOOD

In fact, more than twice the insulating value. By actual tests in a laboratory "cold room," BILDRITE Sheathing proved to have 122% more insulating value than ordinary wood sheathing. That saves on fuel bills.

4 FT. WIDTHS OFFER TWICE THE BRACING STRENGTH OF WOOD

Here again, laboratory experiments with a MILLION pound testing machine proved that BILDRITE had more than twice the bracing strength of wood sheathing horizontally applied. Wood sheathed walls showed a 1/2" distortion at 1,021 lbs., but it took 2,179 lbs. to cause the same deflection in walls sheathed with 4 ft. widths of BILDRITE.

VAPOUR PERMEABILITY HELPS CONTROL MOISTURE CONDENSATION AND FROST IN WALLS

In a laboratory "ice box" big enough to hold a house, tests proved condensation in walls can be controlled by sealing the warm side and venting the cold side. This is the principle of the INSULITE "Wall of Protection"—recommended and used for ten years. Sealed Lok-Joint Lath seals the warm side. Vapor-permeable Biltrite on the cold side properly "breathes" vapor towards the outside.

WATERPROOFED . . . EVERY FIBER PROTECTED

INSULITE is the original wood fiber structural insulating board—first made 36 years ago. It is waterproofed throughout—not merely a surface coating. Every fiber inside and outside is thoroughly—safely—adequately protected.

LOWER APPLIED COSTS

To get the real story on sheathing costs, you have to figure the total applied costs. BILDRITE takes only half the time to apply (compared with wood), eliminates waste material and building paper, reduces labor insurance costs. When you add it all up and compare, your best buy is BILDRITE.

*Reg. U.S. T.M.
Easy Way to Drive Large Screw-Eyes

A breast drill is used to drive large screw-eyes into hardwood material. Undersized holes are first drilled as a starter, then the chuck of drill is placed over large screw-eyes as illustrated. Chuck is then released after screw-eye is in position.—Submitted by Herbert E. Fey, New Braunfels, Texas

How to Make a Brick Scale on Level

The task of laying out vertical brick joints on a wall surface for the brick mason can be greatly simplified by making a scale on the edge of level. Each space marked off on scale would represent a brick and joint, the entire length of scale to be marked off by using a sharp knife for marking.—Submitted by Oscar West, Bryan, Ohio

How to Make a Line Holder for Laying Concrete Blocks

Wood line holder is made of ¾ inch stock to fit snugly over top of concrete block while wall is in process of construction. This holder will work where other types run into difficulty.—Submitted by C. D. Robb, Frankfort, Ohio

How to Nail Warped Boards on Roof

Warped or curved boards can easily be secured to roof. Mark the exact location of rafters on boards and then saw cut one side as illustrated. Crooked board is drawn up tightly.—Herbert E. Fey, New Braunfels, Texas

DISPLAY units, placed in strategic positions, often complement the displays shown in the exterior show window. They become a sales medium of inestimable value. The display case detailed on opposite page is located directly in front of top of stairs leading to basement and consequently is seen and examined by many of the people that frequent this shop.

The problem before the designer was to create a shoe display case whereby the merchandise could be protected from the public, and yet afford a clear, unobstructed view of the entire content of the display. To protect the merchandise placed in the case from being handled indiscriminately by the public, intervals of plate glass were installed with open spaces between each length of plate glass. The open spaces are used for trimming purposes. Each length of glass can easily be removed by simply lifting and pulling out. This arrangement of glass gives the effect of an open display and yet does not permit the handling of merchandising displays.

The trim and return panels, both inside and out, are finished in bleached solid and walnut plywood panels. The interior background finished in plywood and corrugated transite is painted white and turquoise. The wall into which the case is recessed is painted a chartreuse shade. The floor of case is covered with rubber tile in a grayish green and white marbleization.

G-10 . . . Shoe Display Case
KEEP POSTED—read the American Builder every month. The highly competitive building business demands that you keep abreast of the times. Be informed on the latest techniques of building—keep posted on the new and improved products, materials and equipment—get the benefit of tried and proven methods of selling homes, new ideas on financing and land development.

Special information on small commercial and industrial structures—stores—motels—shopping centers and form buildings.

In addition you get the latest in home designs—pictures and plans of the best sellers coast to coast.

AND EVERY MONTH a complete blueprint of a selected home drawn to 1/8-inch scale, plans, elevations and details.

Read the monthly review of the National Association of Home Builders—items directly from local Association headquarters. Study the better detail plates and "How-To-Do-It" features contained in every issue.

DON'T MISS A SINGLE COPY. Start your personal file of this valuable building magazine NOW!

If you are already a subscriber, renew your subscription to make sure of receiving your issue each month. The coupon below is for your convenience.

---

PLEASE NOTE—
Kindly check your principal activity
Builders and Contractors:
□ Builders and Contractors specializing in Residential or Light Commercial or Light Industrial Building.
□ Contractors specializing in Heavy Building Construction.
□ Contractors specializing in both Residential or Light Commercial or Light Industrial Building and Heavy Building Construction, not specializing in either.
□ Contractors specializing in all types of Heavy Construction other than Buildings.
□ General Contractors engaged in Heavy Construction of both Buildings and other than Buildings, not specializing in either.
□ Special Trade Contractors, contracting for only such parts of Building Construction as carpentry, masonry, plumbing, roofing, heating, ventilating, electrical, painting, concreting and excavating.

Distributors:
□ Retail Dealers—dealer, building materials and installed equipment.
□ Wholesalers, jobbers and Manufacturers' Agents of dealer, building materials and installed equipment.
□ Distributors of Construction equipment.

If some of the foregoing apply, please advise type of business with which you are affiliated:

Type of Business

SUBSCRIPTION ORDER

AMERICAN BUILDER, 30 CHURCH STREET, NEW YORK 7, N. Y.

□ Enter my subscription to American Builder for THREE YEARS (36 issues) at your money-saving rate of $5. My remittance of $5 is enclosed.
□ Enter my subscription to American Builder for ONE YEAR at your regular price of $3. My remittance of $3 is enclosed.

Your Name

Street

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

NAME OF YOUR FIRM

Please indicate your position in the above named firm:

If Owner of Business, please state

If not, give Title or Position

Subscriptions accepted only from those directly connected with the building industry.

(Good only in United States, Possessions and Canada)

AB-8-30
Tel-O-Post's price structure enables you to make a fair profit.

Tel-O-Post is manufactured in four separate sizes giving you a complete range from 12" to 84". There's a Tel-O-Post for every situation.

Tel-O-Post is the only post advertised regularly in Saturday Evening Post and Better Homes & Gardens.

Tel-O-Post combines the best materials with highest class workmanship to assure you the best product. Many exclusive features keep Tel-O-Post first in the field. Patent No. 2,504,391.

A prominent university research laboratory found Tel-O-Post stronger and safer. Constant experimentation and improvements keep it that way.

Tel-O-Post is packaged in neat, easy-to-stock cartons, clearly marked for ready identification. Cartons facilitate inventory—prevent lost or mixed parts.

No other post outperforms Tel-O-Post in any way. Use the coupon! Write today for prices or further information.
How to Scale Plans that are Printed in Magazines

Use the hatch mark as a unit of measurement and assume that it is five feet long. A small scale such as illustrated above can quickly and easily be made on this basis. The scale can then be used to measure any portion of the plan.—Submitted by J. G. Caldwell, San Mateo, Calif.

How to Fill Joints of Steel Tile

When installing steel tile on vertical wall surfaces use a cake decorator for filling in the joints in place of using a portion of the hand. This method keeps hands and tile clean and makes a neat job.—Submitted by LeRoy Bradley, Lorain, Ohio

How to Arrange a Bit Guide for Boring Holes for Door Locks

Guiding the bit is essential when drilling a hole for lock plunger or striker in end face of 1-1/4-thick door. This is best done by clamping a carpenter’s vise to the face of door and inserting a hardwood block guide, which has a 1/16 inch drilled hole, into the jaws of vise. The auger bit is then held in a level position for drilling by the guide.—Submitted by Fred Friedel, Logan, Utah

How to Make Brackets for Door Hood

By following the method indicated in the illustration a pair of wood brackets can be made from one piece of fir or cypress material with no waste. The brackets can be cut out with a band saw.—C. D. Robb, Frankfort, Ohio

No. D-69 . . . Garage Ventilator and Bird House

VENTILATORS on top of garage roofs, while not required by law, are a safety measure well worth considering, especially when the garage is made a part of the house. Fumes from the car that are often retained within the garage need to find a natural and easy way of escape and this can be accomplished best by means of a roof ventilator.

In addition to its practical value the ventilator or cupola, as it is often called, can be a distinct architectural feature and enhance the appearance of the complete unit of house and garage. This type of feature adapts itself well where the garage is connected to the main part of the house by breezeway or porch.

Cupolas can take a number of different forms and sizes. Two of these types are shown in detail on opposite page. One is devoted primarily to ventilation of garage through the use of stationary louvres placed on all four sides of cupola. Roof rafters are framed under this unit for support.

The other type indicates the use of the exposed portion above the roof as a bird house, with perforations made on all four sides, the size of openings to be governed by the kind of birds to be attracted. The roof sheathing over the main rafters under the cupola are to be laid with open joints, joints to be of a width to prevent birds from flying into the garage. The floor in the three levels of the bird house are to be laid in open joints to permit air to circulate through and ventilate the garage.

Size is of prime importance in the design of a cupola. This feature should be scaled in proportion to the garage structure and the roof and should be securely anchored to the roof framing.

How-To-Do-It Pointers Continued on Page 120
For jobs that are “off the beaten path”...

In many Ranch-Type houses the trend is toward a fixed window wall, with louver-type ventilator. Here’s something that homeowners will appreciate. For this construction, offered by Solar Air-Flo, Inc., Elkhart, Indiana, gives an unobstructed view through the Pittsburgh Twinow panels, with adequate ventilation and insulation. And louvered sections may be placed at top, bottom or sides of Twinow panels, according to design requirements.

This cutaway shows the construction of a Twinow unit with two panes of Pittsburgh Plate Glass. The hermetically-sealed air space between the panes provides effective insulation which minimizes downdrafts, cuts heat losses through windows, reduces condensation. Insulation is even more efficient when three or more panes are used. There are forty-five standard sizes available, adaptable either for wood or steel sash.
Glass can help you!

WHEN YOU BUILD or remodel a store front, you'll find that profit-wise merchants are already impressed with the advantages of "open vision." They know that that's the ideal way to show off their merchandise. Here, Pittsburgh Products (Carrara Structural Glass, Polished Plate Glass, Pittsburgh Doorways, Pittco De Luxe Store Front Metal) have been effectively used to build a store front of distinction—eye-catching and sales-winning. Always tell merchants that you are using Pittsburgh Products when you bid on a job. You'll find your selling job much easier.

HERE'S VALUE that can be seen and appreciated by the modern homemaker—Carrara Structural Glass on the bathroom walls. Carrara is easy to clean, lasts indefinitely, and is available in ten attractive colors to harmonize with any decorative scheme. Notice also the decorative panel above the tub, one of the many decorative possibilities inherent in Carrara Glass. The smart Plate Glass shower enclosure also is a feature that is highly appreciated by homeowners.

MAKE YOUR HOMES more glamorous . . . please every member of the family, with this modern home necessity—a Pittsburgh full-length door mirror. And give your homes the added appeal of structural mirrors, to bring even more beauty to every room; to make living rooms, dining rooms, bedrooms look larger and brighter. All this means more profits—more repeat jobs—for you.

BUILD IT BETTER WITH—

Pittsburgh Glass

See the complete listing and descriptions of Pittsburgh Plate Glass Company products in Sweer's Catalog Files.

PAINTS • GLASS • CHEMICALS • BRUSHES • PLASTICS

PITTSBURGH PLATE GLASS COMPANY

AUGUST, 1950
COFFMAN Standardized STOCK STEP and HORIZONTAL RAIL SECTIONS

Give the artistic "rolling touch" with economy of time and money. Surely, high-quality step and straight rail sections. Solid, rigid, welded construction. Simple quick installation.

"Seven by Twelve" SIZES FOR 2 TO 5 STEPS

Coffman Stock Step Sections are standardized for 7" inch rise, 12" inch tread. Perfect alignment assured by Coffman precision craftsmanship, giving a finished job of great beauty.

EASY TO INSTALL

Installation of Coffman Ornamental Iron is simplicity itself. All components fit easily, perfectly, to produce various combinations of railings and newel posts can be adapted for almost any installation.

COFFMAN HORIZONTAL RAILING

Made to six different lengths. 2' 8" to 11' 3" for any need.

Write for Form 713 AB TODAY! P.O. Box 1113
Gives you COMPLETE details and interesting "how to use" ideas.

Manufacturers of the Original "Complete Builders' Line" of Hand-wrought Ornamental Iron
Sold by Lumber and Building Supply Dealers

COFFMAN |—

TECHNICAL GUIDE for Builders and Craftsmen

How to Provide for Convenient Telephone Niches

WHERE to place the telephone is a problem in many new homes. Despite its importance to family needs the telephone is often poorly located, whether in the living, dining room, or elsewhere. The telephone niche illustrated above provides a location that can be convenient to all the members of the family at all times.

Whether it be for a new home or a remodeling job, the telephone shelf is not difficult to install. It is designed to fit the space between two studs—studs or 2x4's being normally 16 inches on centers. The clear area between studs will allow space sufficient to box in the shelf as illustrated. If it is built according to the dimensions given it will not protrude excessively into the room. It is well to have a light outlet located in the niche or shelves or located conveniently close by. This installation is easily done during remodeling when the wall is open, by installing wires from the nearest outlet.

The corner shelf could be located in any central and convenient corner. Height of shelf from floor is the same as that of any ordinary table. A double shelf arrangement could be made, if desired, to care for the telephone directory, pad of paper, and pencils. Using space in open book shelves is another way of arranging for a telephone installation as shown in illustration. The selection of design and construction of this job will depend on the general interior appointments, whether it is English, Early Colonial, Spanish or other influence. Niche and shelves should be finished to match the trim of the room.—Submitted by Harold O. Akeson, East Orange, N.J.
More builders are buying Schlage Locks...

Quick... Drill just 2 holes. Schlage No. 914 bit makes boring fast and accurate.
Uniform... All doors may be fitted alike, regardless of lock function.
Adaptable... Schlage locks are adjustable for all standard door thicknesses; reversible, for right or left hand doors.

SCHLAGE... FIRST NAME IN CYLINDRICAL LOCKS
REAL ESTATE

Early Start, Heavy Volume Is Noted In Home Building Here

By EMETT PETER, JR.
Tribune Real Estate Editor

Many of the so-called experts in the building industry doubt that housing in the United States could possibly reach the volume noted above even if home building were to begin earlier than last year. Such experts believe that the heavy volume noted above is due to the increased pace of building in the United States, and not to any change in the building industry's plans.

The experts' belief is supported by the fact that housing in the United States has been increasing steadily since 1945, and that the increased pace of building is due to the increased demand for housing, rather than to any change in the building industry's plans.

The increased pace of building is due to the increased demand for housing, which is caused by the increased population in the United States, and the increased number of people who are able to afford to buy homes.

The increased pace of building will continue, according to the experts, until the demand for housing is met, and the supply of housing is increased.

Cinder Block Gains in Use As Home Building Material

Cinder block is proving to be a highly satisfactory material for residential construction in northern climates, according to American Builder magazine.

Cinder block is a type of concrete block in which the aggregate (sand and gravel) mix used in the block is made into a block by a process called "cinder block production."

The magazine says that the use of cinder block in northern climates is due to the fact that cinder block is more durable and cheaper than other types of building materials.

The magazine also points out that cinder block is more energy-efficient than other types of building materials, and that it is more resistant to fire and other natural disasters.

Color Favored for Fixtures in Bathroom

Demand for colored bathroom fixtures has increased sharply since the war, according to American Builder magazine.

"The current color styles for bathroom fixtures are more popular today than ever before," the magazine says. "Today, tan, red, blue and green are the most popular colors.

American Builder magazine also says that the use of color in bathroom fixtures is due to the fact that the war has caused a shortage of materials, and that color is one way to make bathrooms more attractive.

Soft Water Reduces Operating Expenses

"Soft water reduces operating expenses," according to American Builder magazine.

The magazine says that the use of soft water reduces the amount of soap and detergent needed to clean household objects, and that it reduces the amount of water needed to flush toilets.

The magazine also says that the use of soft water reduces the amount of water needed to water plants, and that it reduces the amount of water needed to wash clothes.

The magazine concludes that the use of soft water is a good way to save money, and that it is a good way to conserve water.
Heating System For Basementless Homes

A radiant-force heating system has been developed to meet the need for a satisfactory low-cost method of heating basementless homes, according to American Builder magazine.

Warmth is distributed through ducts under the floor of the perimeter of the home. Radiant heat rises from the wall into the areas and by the ceiling.

PORTLAND, TELEG.
Circ. S. & E. 57

Eating System: For Basementless Homes

A radiant-force heating system has been developed to meet the need for a satisfactory low-cost method of heating basementless homes, according to American Builder magazine.

Warmth is distributed through ducts under the floor of the perimeter of the home. Radiant heat rises from the wall into the areas and by the ceiling.

In winter, double-glazed greatly reduces the amount of heat that escapes out through windows. In summer, the amount of heat can enter. American Builder tells owners and prospective buyers who are considering a "double-glazed"

Power Tools Make Building Gains Possible

Power tools are used in constructing every home built today, making possible the present production rate of a million homes a year.
No matter what kind of covering materials you use on sink tops, you'll find it a lot easier and faster to get a job that stays neat and watertight, with all edges permanently anchored, when you use Chromedge Tap-N-Rol mouldings. For one thing, you get away from having to scribe and cut coverings to hairline accuracy. It's easy to tap the lip of the trim down firmly over edges of the covering, forming a deep lip recess that gets a firm grip on the material. In addition, special grooves trap waterproof cement where it does the most good, forming a moisture seal that can't be beat! You avoid call-backs—and make more profit!

In the Chromedge "735" series, one-piece welded sink frames are available in all sizes, for all coverings up to 5/32". For matching effects on sink-top counter edges, use Tap-N-Rol nosings. Tap-N-Rol nosings are also available in preformed frames, or can be formed on the job for either round- or square-cornered frames, by cutting or notchching the flanges as required.

Catalogs and

HOW-TO-DO-IT INFORMATION

776—APARTMENT TELEPHONE SYSTEMS AND MAIL BOXES—A 24-page bulletin, No. 160, published by the Auth Electric Co., 34-20 Forty-fifth St., Long Island City 1, N.Y., features a variety of inter-apartment telephone systems, apartment mail boxes, and telephone-mail box combinations, along with data on wiring and installation.

777—BATHROOM ACCESSORIES—Wide variety of bathroom accessories for almost every need are included in new literature available from Reliable Metal Novelty Co., Inc., 46 N. Second Ave., Mount Vernon, N. Y.

778—"GLAMOUR WITH GLASS"—Attractively illustrated 22-page catalog published by Pittsburgh Plate Glass Co., 632 Duquesne Way, Pittsburgh, Pa., shows several different ideas for use of glass in the home.

779—STEEL KITCHEN CABINETS—Features and specifications of Jamestown White Steel kitchen cabinets are presented in a new catalog offered by Jamestown Metal Products, Inc., 178 Blackstone Ave., Jamestown, N. Y. Several illustrations are shown.

780—METAL TILE—"Tile In The Modern Manner" is the title of an attractively catalog offered by Hiltron Manufacturing Co., 2525 Hilton Rd., Ferndale 20, Mich., which presents a recent development in insulated metal tile.

781—POWER TOOLS—Heavier power tools for use with wood, metal and plastic are described in a two-color, 36-page catalog issued by the Walker-Turner Division of Kearney and Trecker Corp., Plainfield, N. J. The well-illustrated booklet gives complete specifications and operating conditions for each machine.

782—HOME FREEZER—An attractive color folder distributed by the Kelvinator Division of Nash-Kelvinator Corp., Detroit 32, Mich., shows 1950 freezer models ranging in size from six to 20 cubic foot food storage capacity and includes specifications and operating features.

783—STEEL DOOR FRAMES—A booklet published by the Richmond Fireproof Door Co., Richmond, Ind., gives illustrations, specifications and installation details for the firm's factory-assembled and welded steel frames; and knockdown frames, assembled by the contractor.

784—WATER SOFTENER—An attractive loose-leaf booklet, "Why Permutit?" outlining the features of its water softener has been issued by the Permutit Co., 380 W. 42nd St., New York, N.Y. The material is interestingly presented and well-illustrated.

785—STEEL BASEMENT WINDOW—Detroit Steel Products Co., 3101 Griffin St., Detroit 11, Mich., has published a two-color bulletin, "The New Fenestra Steel Basement Window." Included are sizes, construction features and installation details.

786—ELECTRIC HEATERS—Two brochures distributed by the Electromode Corp., 43 Crouch St., Rochester 3, N. Y., feature electric room heaters and unit heaters. (Continued on page 126)
Many builders have found that wire fabric reinforcement lends greater strength, more enduring beauty to the homes they build. Driveway aprons and sidewalks, reinforced with Welded Wire Fabric, retain their new appearance for many years — without unsightly cracks and settling — enhancing the value of your property.

To keep that "new look" longer

**American Welded Wire Fabric**

You can offer prospective buyers homes that will stay new by reinforcing concrete construction with American Welded Wire Fabric. Foundations, basements, floors and walls are joined into a single unit by the continuous reinforcement of American Welded Wire Fabric. Seepage and dampness, undue settling ... which usually results in cracked plaster, warped baseboards, bulging wood floors ... are prevented.

Sidewalks, curbs and driveways, too, stay free from unsightly cracks and fissures, hollows and hillocks, insure the good looks of home surroundings when you use American Welded Wire Fabric reinforcement. The many small, evenly spaced cold-drawn high strength members of Welded Wire Fabric fortify the entire concrete slab.

Make sure your new homes and the plots they occupy will remain good looking. Use the proper design and gauge of U.S.S. American Welded Wire Fabric for each installation in house foundations, walls and floors and in the sidewalks, driveways and curbs that help adorn the home grounds.

You can get U.S.S. American Welded Wire Fabric in every locality from jobbers' and dealers' stocks.

**Complete Information and Guidance**

It will pay you well to get the latest information on American Welded Wire Fabric. Send today for our illustrated folders, which show typical uses of wire fabric reinforcement in factories, farms, airports and public buildings, as well as in residences, sidewalks, curbs and driveways. If you wish, our qualified experts will be glad to call and show you how you can use U.S.S. American Welded Wire Fabric to the best advantage. Just drop a line, on your business letterhead, to our nearest sales office.

**Every type of concrete construction needs**

**AMERICAN WELDED WIRE FABRIC**

**reinforcement**

**UNITED STATES STEEL**

AUGUST, 1950
The Minnesota Mining Company recently chose Connor "Laytite" Maple, third grade, 1/4" face to floor the warehouse pictured below. "Laytite" is made under Maple Flooring Manufacturers Association specifications and is famous for uniform quality. Write for prices.

CONNOR LAYTITE MAPLE FIRST AGAIN

The Meets Minty Compan, seeutiy cheese Come "Laytite Maple. Gard grede. 4" face to Ge

Catalogs

Illustrated and described are kinds of installations, installation details and specifications. A number of models are shown of both heater types.

787—FARM BUILDINGS—The uses of glass block in farm structures are illustrated and discussed in a new eight-page brochure, "Outstanding Farm Buildings," released by the Pittsburgh Corning Corp., Pittsburgh, Pa.


789—HEAT AND HOT WATER UNIT—"The National Packet," a new automatic oil-fired heat and domestic hot water unit is described and illustrated in a four-page three-color catalog, No. 572, a publication of the National Radiator Co., Johnstown, Pa.

790—STEEL KITCHEN CABINETS—An attractively illustrated consumer folder, "Planning Your Kitchen is Fun," is being offered by the Berger Manufacturing Division of Republic Steel Corp., Canton 5, Ohio. Complete kitchen layouts are shown, as well as individual cabinet features.

791—HARDWARE FINISH AND SYMBOL CHART—A chart listing all the common builders' hardware finishes with symbols as established by U.S. Bureau of Standards is being distributed by the Ajax Hardware Manufacturing Corp., 4351 Valley Blvd. Los Angeles 32, Calif. Also charted are 29 manufacturers with their respective symbols corresponding to those of the Bureau of Standards.

792—TWELVE MACHINES IN ONE—A single machine that will do crosscutting, ripping, jointing, dadoing, routing, boring, sanding, and many other jobs is described and illustrated in a new 4-page brochure issued by The Master Woodworker Manufacturing Co., Brush and E. Fort Sts., Detroit, Mich.

SERVICE COUPON—CLIP and MAIL to CHICAGO

Readers Service Department
American Builder
79 W. Monroe St., Chicago 3, III.

Please send me additional information on the following product items, or catalogs, listed in this department

Numbers
Name
Street
City
State
OCCUPATION*

* Please note that occupation must be stated if full service is to be given.

AMERICAN BUILDER
Cut the time from "framed" to "finished" with a Stanley W7 Safety Saw

Make the most of the skill you pay for. Give a good man a Stanley Safety Saw and discover how much better he can be, how much further he can spread his skill. Handles as easily as a hand saw. Duplex handle and independent trigger switches for use in all positions. Simple wing-nut adjustment for depth of cut from 0 to 2½". Safety guard covers saw teeth at all times. Motor and arbor mounted on sealed ball bearings. Tilting base for bevel cuts. Operates on AC or DC.

This trade mark on electric tools tells you the most important thing you want to know about tools.

When you buy an electric tool you have to take somebody's word about gears, motor, bearings, shaft, switches, power, etc. Whose word about tools could be more reliable than the word of "Stanley" tool makers for over 100 years. On an electric tool the name Stanley means the tool is quality built, thoroughly tested and honestly rated. Covered by a generous guarantee and serviced by a network of Stanley Service Stations. See your dealer or write for complete catalog.

Stanley Electric Tools, 492 Myrtle St., New Britain, Connecticut.

Saberson (Continued from page 91)

tion of an increasingly large segment of the vast army of bureaucrats who insist that Uncle Sam knows best . . . and can do it better.

One reason for the widespread doubt that exists concerning the ability of Uncle Sam to handle a colossal job of this kind stems from the costliness of previous efforts in this direction and from the inefficient, extravagant manner in which other bureaucratic agencies go about their daily duties . . . the Post Office merely being one of the many examples.

It was discussing the subject with a friend only a day or so ago. He was surprised to find that he wasn't greatly concerned.

"It's politics," he said with an alarming display of complacency.

Now it so happens that my friend owns a home in a city that has recently voted favorably on a 2,000-unit project. He complains bitterly about his rapidly increasing tax burden but neglected to go to the polls when the public housing issue was being approved by the pathetically small number of voters who took the trouble to cast their ballots.

In the meantime, homes and apartment buildings are mushrooming in the city to such an extent that it already comes close to having more than it needs of both. My friend, who was offered $22,500 for his twenty-year old home at the peak of the housing shortage, now doubts his ability to sell it for $15,000. He hasn't figured out what will happen when the rapidly diminishing shortage finally turns into an oversupply and the 2,000 subsidized residential units rear their bureaucratic heads to add immeasurably to the confusion which is certain to exist when ways and means are sought for raising taxes on real estate values that unhappily will shrink in direct proportion to the size of the oversupply.

Many a retail merchant by this time has discovered that shortages are exceedingly annoying, to say the least, but that oversupply is far more so. During the war and the boom which still continues in many lines, he has often been impatient with some of his suppliers because of their inability to furnish enough of certain items to meet his full demand. Later on he learned to his dismay that it is practically impossible to make a satisfactory profit when oversupply finally supplants shortages, as they always do in the long run.

Perhaps I am unduly concerned about the zeal of the bureaucrats to take over bigger and bigger projects, even to providing the roofs over our (Continued on page 120)
A room with a view—and plenty of ventilation!

Getty-operated side casements make any picture window complete. They provide as much or as little ventilation as desired. They respond instantly to the slightest turn, anchor securely at any opening. Getty operators thrive on twists and turns throughout their long life, and they’re as trim-looking as they are tough.

That’s why architects, builders, contractors, casement manufacturers, building material dealers, hardware jobbers and dealers specify, use and carry the Getty line. That’s why Getty operators are found on more casement windows than all other operators combined.

Write for our descriptive brochure D. It contains complete information on our three operators (internal gear, external gear, horizontal drive) and our specialty hardware for every type of wood and metal casement.
Now they Buy Convenience

Gone are the days when folks were contented with just a washstand, closet and tub to complete their bathrooms. Now they want fixtures of Universal-Rundle high quality and superior styling and they want ideas for bathroom convenience. With the U-B line of line fixtures and architect Emil Paye's AIA plans you have a most intriguing selling package. Write for information on the Universal-Rundle line of bathroom fixtures and kitchen equipment.

Complete illustration and specifications available upon request.

UNIVERSAL-RUNDLE
for Bathroom and Kitchen
UNIVERSAL-RUNDLE CORPORATION
NEW CASTLE, PENNSYLVANIA

Remember
NATIONAL HOME WEEK
September 10 to 17

AMERICAN BUILDER
Meet 13,000 young men doing their **level best** to serve you

We're proud of these young men. We think you should know about them. They're a hand-picked group learning to do an important job for you, for us, for everyone interested in the building industry.

These lads are the brickmason apprentices now enrolled in a nationwide training program being promoted by SCP in cooperation with the BM&PIL. They are being enrolled at the rate of 3,000 per year. They are learning their trade well.

How well was recently shown in the finals of the 1950 national bricklaying competition held in Philadelphia. Here 45 sectional champions from 44 states went to work with trowel and mortar to demonstrate their skills before a thoroughly impressed audience of almost 400,000.

This competition is just one aspect of the day-in, day-out effort being made by manufacturers, government and labor unions to assure you a continuing supply of skilled craftsmen.

The success of this program is good news to all of us—good news that can be translated into decreased building costs, efficient workmanship, and satisfied buyers, every time you build or design with brick and tile.

Meet the new Champ!

He's William J. Rae, 20 year old brickmason apprentice from Denver, Colorado. His excellent craftsmanship won him the title of Champion Brickmason Apprentice for 1950, a cash award and an all-expense vacation. Young Rae won out over 45 finalists chosen from 13,000 apprentices now in training throughout the country.

14 regional offices to help you—

Structural Clay Products Institute
New Haven, Conn., 341 State St.
New York 17, N. Y.
1949 Grand Central Terminal
Canton, Ohio, 306 Market Ave., No.
Pittsburgh 22, Pa.
503 Benedum Tower Building
Chicago 1, Illinois, 220 N. La Salle St.
Ames, Iowa, 1304 Welch Avenue
Council Bluffs, Iowa
257 Elmwood Drive
Minneapolis 4, Minnesota
206 Wesley Temple Building
Denver 2, Colo., 308 Kittredge Bldg.
Phoenix, Arizona
1538 West McDowell Road
San Francisco 5, Calif.
55 New Montgomery Street
Seattle 4, Wash., Central Building
Clay Products Association of the Southwest
Austin, Texas, Littlefield Building
Oklahoma City, Okla.
First National Building
NOW! PERFECTLY FINISHED DRY-WALL JOBS
with ONE Coat of DRAMEX
Interior Finish
No Sanding! • No Sizing! • No Second Coat!

HERE’S ALL YOU DO!

After wallboard sections have been cemented and taped, simply brush or spray ONE coat of DRAMEX on the surface. That’s all there is to it!

Instantly, wallboard seams, tape, cement, and blemishes disappear. In their place appear new, plaster-like surfaces in beautiful decorator colors.

NO SANDING, SIZING, OR SECOND COAT is required — regardless of what kind of wallboard or plasterboard is used! And, you can paint over DRAMEX later, with all paint, if desired.

Why not make your Dry-Wall jobs this easy? DRAMEX is low-cost and saves you time and labor! Try it on your next Dry-Wall job. You’ll never be without DRAMEX Interior Finish!

DRAMEX HIDES CRACKED PLASTER, TOO!
★ Colors Like Paint ★ Mixes With Water, Stays Mixed
★ Resurfaces Like Plaster ★ Dries Without Blushing in 4 Hours
★ One Easy Coat Does Both Jobs ★ Available In 8 Colors and White
★ Many Decorative Finishes Possible

ASSURE TIGHT DRY-WALL JOINTS WITH REARDON’S JOINT CEMENT AND REARDON’S JOINT TAPE

Reardon’s Joint Cement mixes easily, spreads evenly, feather's to a fine edge, won't burn through or discolor finish coatings. Use it to join wallboard sections and to spot-in millboard.

Reardon’s Joint Tape is a long-lasting perforated paper tape with sanded, tapered edges. It guides smoothly, sets firm, won't wrinkle under the knife. For best results in Dry-Wall, use both fine Reardon products. Order Now.

THE REARDON COMPANY
St. Louis 6, Chicago 9, Los Angeles 21, Bayonne, N. J., Montreal 1

Customer’s Viewpoint
(Continued from page 99)

preceding months and year, and an estimate of what the sales of the item are likely to be during the coming weeks is made. Based upon this estimate, it is decided whether or not an additional quantity of the item should be ordered, and if so, how much.

When an order is made, the quantity of the item ordered is entered in the column “Regular Order” under the month of the order. When the order is received, the quantity is circled. If an order has not been received by the time of the next stock count, a line is drawn through the quantity ordered, and this quantity is entered in the next month column.

Whenever it is necessary to place an order for an item in addition to the amount included in a regular order, this quantity is entered on the “Spot Order” line in the proper month column. When this quantity is received, a circle is drawn around it. If the spot order is not received, a line is drawn through the quantity and the quantity ordered is entered in the next month column.

The quantity of an item on hand at one stock count plus the additional quantity of the item received during the month plus the quantity of the item on hand at the next stock count gives the unit of sales of this item for the month.

For example, assume that an item is counted on the second of each month. On the second of January the item is counted, and the quantity on hand is found to be 50. Between January 2nd and February 2nd, 48 additional units are purchased or ordered as a regular order and are received. No spot order is made. On February 2nd the item is counted, and the quantity on hand is found to be 35. Sales of the item for January then would be 63 units. This is found by adding the quantity on hand January 2nd (50) to the quantity ordered and received during the month (48) and subtracting the quantity on hand February 2nd (35).

"On fast selling items," says Davis, "you will find it desirable, as an aid in preventing out-of-stocks, to make one or more spot checks between the regular stock counts." Usually a quick estimate, not an exact count, of the quantity on hand and on order is all that is necessary. If the quantity on hand and on order appear to be too low in relation to estimated sales, then an additional order in all probability should be placed.

Sales by quarters for both the current and preceding year are posted in the spaces divided by diagonal lines.
Customer's Viewpoint

and designated "Last Year" and "This Year." Sales for quarters for last year should be posted to the current Unit Buying Control pages at the beginning of the year. Davis recommends. This will provide for a more readily available comparison with the current sales figures as the year progresses.

Combined Experience

Long on ideas, Jack C. Davis came into the business in 1937 after his graduation from the University of Oklahoma. Before putting his ideas to work, he followed a practice of tempering them with the judgement of his father, William R., who spent 28 years in the employ of the Long-Bell Lumber Company. 25 of these years as district sales manager. Together the father-son team has built the present organization, with William Davis now in charge of home construction for the company. The firm builds about 12 homes a year.

Dealer Kit is Effective Kitchen Planning Aid

A new Kitchen Planning Kit, now being made available to its dealers by Curtis Companies, Inc., consists of more than 100 units, contained in an attractive leather carrying case. By use of the kit dealers can plan a kitchen to fit customers' needs and means.

In using the kit, the dealer sets up a miniature room which is adjustable to the size of space available. Exact replicas of Curtis kitchen cabinets are then fitted into this room. The tiny cabinets are made of plastic, finely molded to show exterior details. Each piece is stamped with the unit number of the full size cabinet it represents in order to facilitate ordering.

The planning kit includes doors, windows, a floor, and the room walls, to simulate the actual kitchen. Included also are a miniature stove and refrigerator so that prospects may see how Curtis cabinets fit in with other standard kitchen equipment.

MASONRY...
Looks Better * Lasts Longer *
when you specify BONDEX

... the patented cement paint that colors, seals and preserves, all in ONE easy treatment

LOOKS BETTER * because BONDEX dresses up masonry in white or 12 beautiful decorator colors. All BONDEX colors are sunfast and non-fading. Now you can get color—beautiful, long-wearing color with BONDEX and it's simple to apply. It's a fact, clients notice color first—and clients know BONDEX Cement Paint is best

LASTS LONGER * because BONDEX seals dampness out provides maximum protection against erosion, weather and disintegration. BONDEX actually penetrates the surface, becomes part of the masonry. It stays on the job. won't chip, crack or peel. pays for itself in protection. To keep basements dry, exterior walls protected, always specify BONDEX Cement Paint. Then you'll see why.

BONDEX IS BEST FOR ALL TYPES OF MASONRY
INDOOR AND OUT

TO PREPARE CONCRETE FLOORS FOR PAINT, ENAMEL OR VARNISH USE VENOSTONE PRIMER...

Add years to the life of all-pointed masonry walls and floors, avoid costly paint failures. VENOSTONE checks dampness, neutralizes alkalinity and provides a perfect base for even the most delicate colors on floors or other easily worn surfaces. Use the safest surface sealer—VENOSTONE.

THE REARDON COMPANY
St. Louis 6 - Chicago 9 - Los Angeles 21 - Bayonne, N.J. - Montreal 1
Easiest Door to Sell...

because: Home owners are attracted by the ease of operation, incomparable beauty, painted or natural finish, and trouble-free service. Lifetime aluminum means no rust, no rot, no warping, or expensive repairs.

because: Builders appreciate the extreme simplicity of design and installation. The torsional spring motor (A), having a through shaft and mounted on the back of the top panel, is wound for correct tension before shipment. Only six wood screws (B) are required to attach the door to the garage opening and this can be accomplished by two men in forty-five minutes.

because: Dealers prefer a quality product with repeat sales and not requiring service. Also, the single carton packaging reduces warehouse space and simplifies handling. TAYCO standard size doors are adaptable to undersize openings, so that practically any opening can be supplied from stock.

because: Perfect Service is guaranteed by the high quality, rugged components and expert workmanship. Cover Sheets and Braces (C) are .032" thick tough alloy aluminum; Rollers are Ball Bearing, Rubber Tired; Pivot Pins operate in lifetime lubricated Bronze Bushings; the snap type locking device is actuated by Yale Locks; Spring Shaft operates in 5/8" Ball Bearings, and the Lift Cables are Aircraft quality with a safety factor of twenty-five to one.

NEW PRODUCTS
(Continued from page 64)

INTERLOCKING SHINGLES A85020
Asphalt Sto-Lock shingles have exclusive interlocking design which assures 100 per cent double and 42 per cent triple coverage over roof area and permits each shingle to be secured to roof or adjacent shingles at eight separate points. Pattern creates distinctive roof as well as preventing shingle blow-overs. Available in Calitex color blends and deep-grained textures. (Calitex Corp., Dept. AR, 120 South LaSalle St., Chicago 3, Ill.

GARAGE DOOR HARDWARE A85006
Tovant 49 or 50 model hardware for upward-acting garage doors comes assembled ready to install on door and jamb. Requires only eight inches of overhead clearance. Motor is powered by oil-tempered springs. Has no weights, tracks, pulleys or cables. Main pivot revolves in roller bearings. Hardware is made of heavy gauge steel throughout. Tovant Co., Dept. AR, 15134 S. Orizaba Ave., Paramount, Calif.

UTILITY WINDOW A85021
Fenestra utility window is especially designed to fit concrete block construction and is recommended for use along driveways, alleys or street fronts where opening sash do not protrude over lintels. In restrooms, top opening sash provide ventilation with privacy. Also used in commercial buildings, arrowways, exposed basement walls and garages. Unit, standardized in one size only—© feet, 9½ inches wide by 2 feet 6½ inches high, is available completely packaged. Utility window is shipped in three ways. Package A—glazed window with screen and side guards. Package B—glazed window with screen only, or an unglazed window not packaged. (Detroit Steel Products Co., Dept. AR, 3101 Griffin Street, Detroit 11, Mich.

(Continued on page 136)
They're Hanging Their Memory on the Wall

"Puts words in their mouth," this new wall chart which gives penny-lengths of nails. Hung in building supplier's office, it helps clerks and customers. Tells of "Zincled" nails' heavier coating, longer wear, too.

Been in the business a long time, have you? Then, what's the length of a 5-cent nail, or a 10-cent? Today many dealers and their builder customers have all this information in plain sight, hanging right in the building supplier's office. It's a bright, new wall chart issued by the W. H. Maze Company, Peru, Ill., makers of the well-known "Zincled" nail.

Aiding both clerk and customer in ordering, and filling the order, a chart of "Penny-Wise Nail Lengths"—from 2 to 60 penny—gives the answer at a glance. At the same time it briefly tells the story of "Zincled," the "Nail with the Weather-Proof Coat."

Many dealers and builders are still unaware of the big difference between galvanized and "Zincled" nails. They don't realize that galvanized nails are tumbled in a barrel—receiving a coating in the same manner that popcorn is buttered. But "Zincled" nails are actually dipped in pure, molten zinc for complete, uniform coating over every part of the nail surface. As the wall chart points out, this means a heavier coating, a longer nail life, with no rusting, no discoloration!

To emphasize the difference, the wall chart picturizes the 5-lb. "Zincled" carton. Says "Look for Zinc-Dipped on the Top of the Box"—one, sure way to distinguish the dipped nail from other types.

Dealers now requesting the wall chart say it's something long needed for their own use, and their customers, too. "And it might suggest to our customers that being penny-wise is plenty foolish when they're looking for a nail that should wear as long as the material it's fastening."

WEATHER-PROOF NAILS FOR BIGGER SALES!

W. H. MAZE COMPANY

AUGUST, 1950
There are two sides to the Superiority of Paine Rezo Doors

One is the
1 3/4" Standard Thickness
that helps deliver unsurpassed rigidity and strength.

the other is
Dimensional Stability
provided by an interlocking wood mesh core that has been time-tested and time-proven by more than four million installations from coast to coast.

And both sides give you and your customers
An Unconditional Guarantee of Satisfactory Service
a product warranty backed by the world's largest exclusive producer of cell-type flush doors.

Is it any wonder that Paine Rezo is the door most specified, most demanded and most insisted upon by architects and contractors everywhere. See SWEET'S FILE, or write directly for a data bulletin.

NEW PRODUCTS
(Continued from page 134)

FLOAT VALVE
ABB5003
New float valve provides fast refill, putting four gallons of water in tank in about 1 1/2 minutes at pressures ranging from 25 to 150 pounds. Scovill M45C valve is fully adjustable by means of burred regulator flange on top of valve body.

SOLID CORE FLUSH DOOR
ABB5015
New Haska Solid Kor exterior grade flush door has high warp resistance. Solid pine blocks from 1 1/2 to 2 inches wide and up to 20 inches long make up solid core. Wide rails at top and bottom seal and grain and permit up to 1 1/2-inch trim from each end. Selected birch or other veneers are used on faces. Sides are made of same wood as faces. Between faces and core is 1/10-inch layer of hardwood cross-banding. Entire assembly is hot plate press bonded with waterproof glue. Doors, available with cutouts for glazing, are produced in four standard sizes. Haskeite Manufacturing Corporation, Dept. AB, Grand Rapids 2, Mich.
WOOD SCREW ASSORTMENT—
WITH HANDI-SERVE COUNTER
MERCHANDISER

A well-balanced assortment with 18 different sizes and diameters of the most called-for wood screws. Includes Flat Head Cadmium Plated, Round Head Nickel Plated, Flat Head Solid Brass. Screws are packaged in tough cellophane envelopes offering selection by color. Sturdy counter merchandiser has rotating axis for easy inspection of merchandise. A proof-proved assortment available immediately from your jobber. Open stock if desired.

PERIOD FURNITURE TRIM—
AUTHENTIC... WIDELY POPULAR...
SKILLFULLY REPRODUCED

Consists of ten of our finest, selected furniture trim items. These reproductions are authentically correct... richly finished in French Gilt and Antique English. Knobs and pulls are easily applied to old or new furniture. Provided with beautiful walnut display board that suggests actual application. Envelope packaging provides easy identification.

POSITIVE-ACTION LATCH—
TUTCHE LATCH OPENS DOORS
AUTOMATICALLY... WITH A
GENTLE TOUCH

One of the newest, most unique cabinet hardware items on the market. TUTCHE LATCH opens doors automatically with a gentle touch of finger, wrist or elbow. Assures many years of smooth, positive latching action. Easily applied. Envelope packaged. Available with visual counter demonstrator.

SASH HARDWARE—
LOCKS, LIFTS, ADJUSTERS, HANGERS

At National Lock you'll find everything needed for a complete line of sash hardware. Durably built to last for years. Attractively packaged and clearly labelled for quick identification and easy handling.

NATIONAL LOCK COMPANY
ROCKFORD, ILLINOIS • MERCHANT SALES DIVISION
Distinctive Hardware... All from 1 Source
Here's an easy way to get new essential information that will help you increase your income. Every volume a standard work by leading authority. Remember—it's the informed builder who is the successful builder.

**ESTIMATING**

1. **THE BUILDING ESTIMATOR’S REFERENCE BOOK** and **Vest Pocket Estimator** (not sold separately). By Frank B. Walker. Contains latest estimating and cost data on everything that goes into house construction. Most complete compilation of estimating and cost data available. $10.00.

2. **THE BUILDING COST CALCULATOR**. By John B. Smith. A system for arriving at building construction cost by use of schedules giving cost of standard units of construction at varying costs of labor and materials. $10.50.

3. **SIMPLIFIED CARPENTRY ESTIMATING**. By J. W. Wilson and Clell M. Regehr. Everything needed to “take-off” a bill of materials for a frame house—with many helpful quick-reference tables and short-cut methods that simplify the work. $2.50.

4. **THE BUILDING TRADES HANDBOOK**. Ready reference on building subjects—mathematics, architectural drawing, structural design, materials and methods. $1.75.

5. **CONTRACTOR’S MATERIAL LIST**. A 10-column take-off form for complete listing of materials and labor costs. $1.00.

6. **SPECIFICATIONS**. Full set of detailed house specifications (and item index), with spaces for inserting the pertinent description data. 5.50.

**CARPENTRY AND BUILDING**


8. **HOUSE CARPENTRY AND JOINERY**. By Nelson L. Burbank. Every step of carpentry in and around a house, clearly explained and illustrated. Covers every job from foundation to interior trim. $3.85.


**THE STEEL SQUARE**


11. **STEEL SQUARE**. By Gilbert Townsend. This how-to-do-it steel square instruction book provides fundamentals plus step-by-step house construction problems solved by proper steel square use. $2.25.


13. **STAIR BUILDING**. By Gilbert Townsend. S.B. Fully illustrated explanation of every problem in design and construction of stairs. $2.50.
BOOK ORDER SERVICE

PLAN BOOKS
14. AMERICA'S BEST SMALL HOUSES. Exterior and interior views, floor plan sketches, material specifications, and descriptions of 40 new low-cost homes. $3.95.
15. HOUSES FOR GOOD LIVING. By Royal Barry Wills, A.I.A. Photographs and floor plans of 34 fine homes by leading architects. $4.00.
16. SUNSET WESTERN RANCH HOUSES. Authoritative book on the California ranch house, with thorough pictorial descriptions and ground floor and site drawings. $3.00.
17. DUPLEX AND APARTMENT HOUSES. By J. W. Lindstrom. Floor plan sketches and brief descriptions of 25 duplexes, 14 four-apartment buildings, and 5 larger ones ranging from 6 to 20 apartments. Cubic footage given. $1.00.
19. SUNSET CABIN PLAN BOOK. Dozens of how-to-drawings with 30 pages of floor plans and exterior elevations for building and improving vacation homes. $1.50.
20. PREMIER BOOK OF GARAGE PLANS. Full-scale working blueprints and pictures of one and two-car garages. Not new, but only book supplying plans. $3.50.

HEATING AND PLUMBING
21. MODERN METHODS OF HOME HEATING. Standard heating systems illustrated with 17 floor plans showing heating outlets. 40 pictures of equipment and installations. 25 boiler and piping connection diagrams. and 11 heat loss calculating tables. $3.50.
22. HOW TO DESIGN AND INSTALL PLUMBING. By A. J. Matthews, Jr. Every step in the design and installation of the plumbing system, to fulfill requirements indicated in blueprints and specifications, explained and illustrated. $3.50.

PAINTING AND DECORATING
23. PRICE GUIDE FOR PAINTERS AND DECORATORS. Tables covering practically every type of work done by the painter and decorator, with suggested prices based on various wage scales. $1.25.

BOOK ORDER COUPON—MAIL NOW!

BOOK SERVICE DEPARTMENT, AMERICAN BUILDER
SIMMONS-BORDMAN PUBLISHING CORPORATION
30 Church Street, New York 7, N. Y.

Please send me at once the books indicated by the numbers circled below. Remittance plus 15c per book to cover mailing costs enclosed for

1 2 3 4 5 6 7 8 9 10
11 12 13 14 15 16 17 18 19 20
21 22 23 24 25 26 27 28 29
31 32 33 34 35

* No. 35 sent FREE if order totals $5 or more.

Name
Address
City Zone State A.B.

This Book FREE with your order

35 Blueprint Plans. Contains 12 complete blueprints of modern small homes designed by leading architects. Also descriptions and floor plans of 7 other houses, 9 garages, and sketches of building equipment. $1.00. Your copy sent FREE if your Order totals $5.00 or more. Use coupon at left—mail today.

AUGUST, 1950
DEPENDABLE PERFORMERS
\
OF THE MANY

in Paine's complete line of
hanging and fastening devices

THAT GIVE LASTING SERVICE

Whatever the hanging and fastening problem is, Paine has the answer. Whether you need a special size or shape for a special job, or whether it is standard, you get prompt delivery and uniform, top quality from Paine. For Paine anticipates your every need to give you faster, all-around service. Check the three items described below. They are typical of Paine's complete line of dependable devices that help you do a better job.

No. 1 — Hanger Rings and Bolts
(Fig. 600)

Ideal for supporting pipes, conduit and armored cable. Smoothly plated for modern appearance and lasting finish. Bolts are precision threaded and are also plated for easier handling. Each ring is stamped for quick identification. Packed in handy boxes for shelf-storage.

No. 2 — "Snugfit" Pipe Hooks
(Fig. 610)

Paine "Snugfit" Pipe Hooks give these extra advantages: 1. Hook ends are needle sharp and penetrate the toughest materials. Have a hammer head that makes them easy to "drive home". 2. Hooks are "form fit" so that they cover a greater circumference of pipe for full support. 3. Seven diameters are made in four lengths.

No. 3 — Pipe and Conduit Clamps
(Fig. 445)

Especially designed to permanently hold or secure, with or without porcelain bushings, pipe, thin wall or rigid conduit and armored cable. Correct sized stove bolt furnished free with each clamp. Correct size is plainly marked on each clamp. The 1/4" hole in base of clamp allows use of Paine anchor or Toggle Bolt to fasten objects securely to wall or ceiling. Thickness of stock plus rigidity of device withstands shocks or vibrations.

WRITE FOR COMPLETE CATALOG

The PAINE CO. 2959 Carroll Ave., Chicago 12, III.

Offices in Principal Cities

The Best Craftsmen Always Take PAINER'S

NEW PRODUCTS

(Continued from page 136)

TRACKLESS RECESSED DOOR A885054

Flo-Dor trackless unit for recessed doors provides free-floating action without tracks or aligning problems. Door is supported by two angle brackets on inner edge and "rides" on bracket sup-

port, arms and rotary gear arms. Complete installation fits within standard 2x4-inch stud. Extra-thick walls not required. Units are produced to fit all standard door sizes. Mechanism slides into grooved base plate and is locked in position with one screw. Ease of installation saves construction time. Flo-Dor, Inc., Dept. A8, 4051 Exposition Blvd., Culver City, Calif.

CONCRETE DRILL BIT A885010

Ko-Krete Kora drills are of "centerless" design and are furnished in sizes from 3/16 to 7/16 inches. Because it has no center point to act as pivot, new drill penetrates concrete at speeds up to six inches per minute with less pressure than required for ordinary drills. Pulverized core particles escape through side exhaust slot. Used with ordinary electric drills or speeds from 500 to 1200 r.p.m. Drills up to 30 feet without re-sharpening. Tilden Tool Manufacturing Co., Dept. A8, 1995 W. Foothills, Pasadena 3, Calif. (Continued on page 142)
Duty-Designed

TIMKEN Silent Automatic

To Help You Build Better Homes Within Your Construction Budget!

More and more alert architects and builders are gaining important design advantages—and making major construction savings, too—thanks to the matchless heating experience of Timken Silent Automatic. For some of the results of 25 years devoted to the development of fine heating equipment at realistic prices, look below.

COMPACT DESIGN — Close attention to every detail of design engineering has held required floor area to a minimum. All the finest modern features are combined in a complete line of ultra-compact units ideal for small homes.

QUIET OPERATION — The truly exceptional quietness of the famous Wall-Flame Burner—a sound level so low it can scarcely be heard—has proved its value in hundreds of thousands of installations, especially near living quarters.

EFFICIENT PERFORMANCE — For many years Timken Silent Automatic oil-fired equipment has produced fuel oil savings of 25% or more. Now modern design has also made Timken Silent Automatic gas-fired equipment outstanding for economy in its field.

COMPETITIVE PRICE — Timken Silent Automatic heating equipment is priced to compete with other makes of comparable quality—or even less than comparable quality. Best proof is its widespread installation in the most strictly budgeted housing projects.

FACTORY ASSEMBLY — Every feasible assembly operation, including all essential wiring and plumbing, is completed before each Timken Silent Automatic unit is shipped from the factory. Installation is greatly simplified and speeded by truly unified construction.

Write today for full details and performance data!

93 MODELS OF FINE HEATING EQUIPMENT FOR OIL, GAS AND COAL

PLANTS AT: DETROIT AND JACKSON, MICH. • OSHKOSH, WIS. • UTICA, N.Y. • ASHTABULA AND KENTON, OHIO • NEW CASTLE, PA.

AUGUST, 1950
NEW PRODUCTS

(Continued from page 140)

GARAGE DOOR HARDWARE AB5008

Holmes series 800 upward-closing garage door hardware fastens to side of door jams, requires only eight inches of overhead clearance and operates doors up to seven feet high weighing up to 300 pounds. Easy balance adjustment with turn buckle speeds installation. Unit is delivered 95 per cent assembled. Holmes Manufacturing Co., Dept. AB, 211 N. Madison Ave., Los Angeles 4, Calif.

GYPSUM WALLBOARD AB5005

Firestop Bestwall gypsum wallboard has certain incombustible ingredients added to gypsum core which alter characteristics under heat. Single layer 1/2-inch thick, applied on both sides of load-bearing wood stud partition, has fire-resistance rating of one hour. Single layer of 1/2-inch thickness on similar construction has 45 minute rating. Board and bundles carry Underwriters Laboratories seal. Board is made with recessed edges. High-quality tape and joint finisher is supplied by manufacturer. Sheets four feet wide, six to 12 feet long, are 1/8-inch and 1/2-inch thick. Certain Need Products Corp., Dept. AB, 120 E. Lancaster Ave., Ardmore, Pa.

ELECTRIC HAND SAW AB5013

New Sioux electric hand saw has two-inch depth-cutting capacity with saw blade 6 1/2 inches in diameter. Unit has adjustable rip scale drive, base adjustment, and cut bevels 0 to 45 degrees at 1/4-inch depth. Powered by 115 volt, 6 ampere motor, runs at 5300 r.p.m. free speed. Ball and roller bearings are used throughout. Blower keeps cut free of sawdust. Saw switch is double pole, momentary safety type. Units come complete in case with blade and wrench. Albertson and Company Inc., Dept. AB, Sioux City, Iowa

(Continued on page 144)
The customer watching REMOVABLE demonstration feature of R•O•W Windows has made it the largest selling wood window in the world. Women—the real force in home buying—decide to BUY when they see an R•O•W wood sash REMOVED. "So much easier for washing both sides indoors—and painting, too", they say.

The exclusive spring cushion construction (cutaway view at left) not only makes the removable feature possible, it automatically adjusts to suit the weatherman. Gives in warm damp weather—expands in cold dry weather. Wood sash travel in metal sash guides for smooth operation.

R•O•W WINDOWS Are Now Featured Exclusively in the Good American Home Program. Tie-in with this program when it comes to your town.

R•O•W is waiting with tie-in merchandising pieces that sell the wonderful R•O•W removable feature that SELLS HOMES! For complete information—including sizes and prices from your nearby distributor—fill out and mail the coupon today. No obligation, of course.

R•O•W SALES COMPANY
1332 ACADEMY • FERNDALE 30, MICHIGAN
PLEASE Send more information on R•O•W—the window with sales appeal.

Name: ______________________________________
Company: ____________________________
Address: ____________________________
City: ___________ State: ___________
Mail in coupons here!
Which Wall Facing Should You Sell?

HASTINGS

alumatile

CHECK THESE SALES FEATURES!

COMPARE WITH ALL OTHERS...

Features listed below have an important bearing on the amazing success dealers, contractors and architects are experiencing with HASTINGS alumatile, the exciting, modern, new wall facing. You, too, can enjoy increased profits from handling and recommending this well-known line.

1. Alumatile is formed glue it is painted—an unusual feature. Won't chip, crack, peel or curl. Enamel finish permanently bonded to aircraft aluminum.

2. Over 25 different shapes and sizes of tile. Count them and compare with the number offered in other makes. Inside and outside corners, bases, caps, stripes, triangles, matching switch plates, etc.

3. Fourteen vital colors, available in tile of various patterns, for attractive tiling and unusual designs. Does the tile you are handling have this "self-decorating" feature? Can you do better with it, as you can with alumatile?

4. Fireproof, rainproof, waterproof. Resistant to common acids. No ugly mortar lines to collect dirt and grime. Easy to clean ... sanitary ... beautiful. Guaranteed long life.

5. Adapted to both interior and exterior use, with a choice of finish. Proven countless times for homes, institutional, commercial buildings. Compare alumatile with other tile for flexibility.

6. Light in weight ... 120 sq. ft. weigh only 37 lbs. Easy to handle, lower shipping costs. Strength without bulk ... requires less storage space. Easy to apply ... saves labor hours.

VERSATILE TILE CUTTER

A handy tool that applicators who have used it would not be without. Trims and makes a perfect factory border. Can be adapted for use on 6", 8" or 10" tile. It is built for tile from 1/8" to 1/2" thick. Does a professional job. Supplies by Metal Tile Products as one of the "extras" for which alumatile is famous.

The St. Joseph Hospital of Barquisimeto, Brazil, writes of HASTINGS alumatile: "We are happy to announce what satisfaction and easy maintenance problems have been cleared right away. The Atlanta Baptist Hospital now uses alumatile tile on the inside and outside walls throughout the whole hospital."

NEW PRODUCTS

(Continued from page 147)

MASONRY WATERPROOFING AR 850024

Tufseal waterproofing for outer masonry walls is a non-hardening mineral gum. Protects against cold climate disintegration and prevents absorption of gases, dirt, soil. Tufseal is easily applied with brush and may be colored. One gallon covers 100 square feet for recommended two coats. Also protects surface from dampness, shrink and efflorescence by preventing moisture from entering pores of concrete, brick, stone and wood. Tufseal Company, Dept. AB, Des Moines, Iowa.

REEL AND PLUMBS 808 AR 85016

Dineson reel and plumber bob has spring bracket attached to reel for building boards which weighs eight ounces—and is made from heat-

treated steel chrome plated. Reels contain 100 feet of No. 18 yellow mason line. Spring brake prevents backlash when line is pulled too rapidly. Cover can be snapped off readily and chalk added. Cesterberg Manufacturing Company, Inc., Dept. AB, 529 South Fourth St., Minneapolis, Minn.

DEBRIS DISPOSAL UNIT AR 85019

Model D-1 Republic "Dash-Way" gas disposal unit has two compartments—one for drying, one for burning debris. Since garbage and similar debris is dried first, burning action is complete...
More strength... More power... More everything

..in the NEW OLIVER "HG"

There's more of everything you want in a crawler tractor in the NEW Oliver Model "HG." This new little crawler tractor is "big" with performance-making features because it was field designed... designed to meet the specifications that users said they wanted.

The NEW OLIVER "HG" Has More Strength
To handle the extra load and strains of mounted equipment, the main frame, transmission case and drawbar bracket assembly have been materially strengthened. No loads are imposed on final drive spacer casting. Power take-off is heavier... stronger.

Front wheels have been increased 50% in material thickness for longer life. Wheel flanges are on the outside of the track rails for better track alignment. New, heavier type track frame guide supports and buffer springs add strength to handle mounted equipment.

Final drive has been redesigned for greater physical strength and durability.

The NEW OLIVER "HG" Has More Power
The new "HG" engine gives you more drawbar horsepower... extra power to handle bigger loads... extra efficiency.

Check the new Oliver "HG" at your Oliver Industrial Distributor's now. It's the biggest little tractor you've ever seen.

THE OLIVER CORPORATION
Industrial Division: 19300 Euclid Avenue, Cleveland 17, Ohio
A complete line of industrial wheel and crawler tractors

AUGUST, 1950
It's the little "extras" that soften up prospects... pave the way for sales. Like the friendly, musical greeting of an EDWARDS DOOR CHIME. Worth far more than its modest installation cost, builders agree, because it starts selling at the front door—where your sale begins!

EDWARDS
Door Chimes
It Costs No More to Have the Best!

Dollar for dollar, there isn't a door chime on the market that can touch an Edwards for decorative value, musical perfection and trouble-free service!

The New WEDGWOOD—

for example... sounds a soft, clear two-note melody for the front door... single note for rear entrance. Designed to grace "problem" walls with beauty. Crystalized ivory plastic with bright gilt ribbing. OVERALL SIZE: 44" high, 7 1/2" wide, 2 1/2" deep. (Also with silent center third tube.)

Edwards Company Inc., Norwalk, Conn.

In Canada: Edwards of Canada, Ltd.

NEW PRODUCTS

(Continued from page 144)

FIRE ALARM A835053
Seaworthy fire alarm system, designed for homes, motels, apartments, cabins and similar buildings. Consists of 12 thermostats, two enclosed bells, one 110-volt a.c. transformer (or 6-volt battery), and 150 feet of plastic-coated, twisted electric wire for an average six-room home. Ten thermostats are set at 135 degrees; two are set at 165 degrees for installation over heating units and in attics. Bells may be located in any part of house or exterior. Bell rings to warn of fire. F. Cecil Brown Co., Dept. AB, 3001 N. Vermont Ave., Los Angeles, Calif.

DRY-WALL PRIMER-SEALER A845027
Pigmented wall primer-sealer designed for interior walls of plaster, masonry or composition wallboard. Provides even coverage in one application and easy brushing to provide firm adhesion. No need for sealing paper. Also permits use of deep-tone flat colors without cloudiness or "shiners" over patched joints in dry wall construction. Primer-sealer can also be used as undercoat in refinishing work or as primer coat for combination masonry and plaster and wood. Made in non-bladed white, product can be tinted. Devore and Reynolds, Inc., Dept. AB, 799 First Avenue, New York, N. Y.

PORTABLE ELECTRIC HEATER A835062
Fully automatic, heavy duty, portable electric heater, built-in thermostat, designated model PA, has only to be plugged in with dial set at temperature desired to get fan-circulated heat. A carrying handle is fastened to top. Silver grey cabinet with chrome trim is constructed of heavy furniture steel, has smooth edges, rounded corners and rubber feet that will not mar floors. Dimensions are 22 1/2" inches high, 17 inches wide and 4 1/2" inches deep. Each heater is supplied with six feet of cord with plug. This Electrohome heater has patented Safety-grid construction and automatic safety shut-off switch which prevents overheating. It has no exposed hot wires or coils. Unit operates on 750 watts and is available in 2000 and 4000 watt capacities. Electrohome Corp., Dept. AB, 45 Crouch Street, Rochester 3, N. Y.

(Continued on page 148)
GIVES YOU

EASY STRIPPING

A paper dam under the sheath, surrounding the conductor assembly, improves stripping. This dam adheres to the sheath when stripped—doesn’t let the saturant penetrate to the paper wrap, assures clean conductor assembly and clear markings.

NO HOT-WEATHER TACKINESS

Pulls from the carton freely in temperatures as high as 125°F—does not stick to your hands.

Maximum moisture resistance
Type R or Type T conductor insulation
Listed by Underwriters' Laboratories, Inc.
Sold through leading electrical wholesalers.
Lowers Masonry Cutting Costs

27% on Housing Project

MASONRY CUTTING

Housing Project

Hugh D. Bauch, Contractor

Reports:

Clipper Masonry Saws have saved us 27% in material and labor! Our Model HD Clipper goes wherever the masons go and when bad weather robs us, the dustless Clipper goes right along inside. Our masons would no more be without a Clipper than a mason's trowel.

For Such a Saving - A Masonry Saw Must Have -

1. One Spot Operation
   From ONE SPOT at the front of the Clipper Saw the Operator performs every cutting operation and makes every saw adjustment.

2. Blank Guard
   An outstanding safety feature that eliminates spray when cutting through the Blank, providing the Clipper Patented feature.

3. Wet or Dry" Pure
   No need to remove belt when cutting dry. No Maintenance. Factory Sealed.

4. Patented Automatic Blade Pressure
   Makes your blades last longer. Beryllium-Copper Spring automatically cushions blade pressure when cutting HARD or SOFT materials. Outstanding for blade economy.

5. Patented Select-A-Mutch
   One man easily adjusts Cutting Head to desired depth - either cutting 1/2" or 1" materials. Operator's hands merely guide - ALL weight is supported by Connecting Bar.

6. Refractory repairs and Free from Dust
   Provides and facilitates ease when cutting steels.

FREE TRIAL
Masonry Cutting on FREE TRIAL, the only positive guarantee of complete satisfaction. Try a Clipper on your job, any one of NINE MODELS.

MAIL THE COUPON NOW!

CLIPPER MANUFACTURING COMPANY
1940 S. WARWICK, KANSAS CITY 9, MISSOURI

MAIL TODAY information on the FREE TRIAL offer and complete literature and prices on the 1940 Clipper Masonry Saws.

NAME
COMPANY
STREET
CITY
STATE
ZIP

NEW PRODUCTS

(Continued from page 146)

MOLDED METAL DOORS AB15057

Molded metal doors, frames and sliding closet doors are made in wide range of standard sizes and styles. Of welded steel construction throughout, hollow metal frames can be quickly set into place. Slipped in a single piece, no assembly on site is required. Trimming and mortising are eliminated. Doors will not warp or shrink. Treated with rust-inhibiting Duradine (a coating which assures good paint adhesion) they have a lasting, chip-resistant finish. Fabricated of 20-gauge steel, they furnish an extra margin of fire safety and security. Diebold, Inc., Dept. AB, Canton, Ohio.

CASEMENT WINDOW UNIT WITH TRIM AB30593

Combining complete outside and inside metal trim, with Fenestrade residence steel casement and hardware, new window unit provides simplified low-cost installation of one complete assembly. Casement window, screen and storm sash have Benderized, prime coated frames and bronze-finished hardware and screen cloth. Trim is galvanized and Benderized and consists of one-piece sections coped and fitted for secure attachment. Some rough opening preparation is satisfactory for frame, brick veneer or stucco. Trim makes ideal stop for buttine frame, brick and stucco on outside and plaster or dry wall on inside. Inside is recessed to provide a pocket for blinds or roller shades. Head members trap panes tightly against right weather-tight connections. These sections are 18-gauge; tilt a 16-gauge, galvanized steel. Outside sill and inside head project 3/4 inch beyond jambs members for appearance and weathering. Detroit Steel Products Co., Dept. AB, 3101 Griffin St., Detroit 11, Mich.

(Continued on page 150)
FEWER SERVICE CALLS . . . Strand Doors are engineered for satisfactory operation . . . their rugged construction and built-in dependability mean satisfied owners . . . save "grief" for the builder.

STRONGER, MORE DURABLE . . . Strand All-Steel Doors are welded throughout. No bolts or screws to work loose. Steel can't shrink, warp, swell or rot. Galvannealed—heavily galvanized for protection, then annealed to hold finish coat of paint. Prime coat not needed.

SAVE INSTALLATION TIME . . . the one-piece door leaf eliminates field assembly of single doors. Hardware is packaged; door is quick and easy to install with simple tools.

LOWER FIRST COST . . . Large scale production in one plant—and standardization on 3 models—explain why this is America's biggest garage door value!

Strand Doors are available in Cantopy and Receding (track) types for 8' x 7' opening; there's a Double Garage Door (track type only) for 16' x 7' opening unobstructed by center post. Order from your dealer, or mail coupon for information and dealer's name.

STRAND GARAGE DOOR DIVISION
Detroit Steel Products Company
Unit A-3, 2242 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: __________________________

City: ____________________________ State: _____________

AUGUST, 1950
NEW PRODUCTS

INTERMEDIATE WEIGHT STEEL WINDOW
A885056

New type intermediate weight steel window has these advantages: increased light effectiveness, marked economy in original cost, superior maintenance factors in terms of window washing and
glass replacement. This Trucan window is custom-built in widths up to 10 feet maximum and in heights up to nine feet. Alternate glazing possibilities, depending on geographical location, climatic conditions and degree of exposure to direct sun rays are: double insulated glass, heat absorbing glass, non-glare glass, and either or both lower panels may be sealed as desired. Trucan Steel Co., Advertising Department A8, Youngstown 1, Ohio.

"CARRY-ALL" TRUCK BODIES A885061

Two new Morrison "Carry-All" models 8-750 (shown above) and 8-910 give greater capacity for heavier payloads and fit all standard 1½, 2½, and 3-ton new and used truck chassis. Heavy gauge steel construction and bridge-type underbody make possible lighter over-all weight. Model 8-750 has 75 cubic foot capacity area, 25 square feet of floor area. Model 8-910 is 91.5/16 cubic foot compartment area and over 30½ square feet of floor area. Bodies measure 48½ inches wide inside and have non-skid 16-gauge floor. Standard optional parts include ladder racks, canvas tops, sliding metal roofs, shelves and side boxes. Morrison Steel Products, Inc., Dept. A8, Buffalo, N. Y.

CABINET PULLS AND KNOBS A885036

Larger finger clearances are offered by these pulls and knobs with high lustre finishes in chrome, brass, bronze, dull brass, and dull

bronze. Pulls are 4½ inches long with three-inch spread between screw holes. Knobs are 1-1/16 inches in over-all diameter, 15/16 inches high. Peer Hardware Manufacturing Co., Division of International Research Corp., 2832 Olympic Blvd., Los Angeles 23, Calif.

WALL COVERING A885030

Wall-Tex fabric wall coverings, in addition to their decorative purposes, help prevent plaster cracking. There are 200 new patterns and colors in the 1950 line. Columbus Coated Fabrics Corporation, Columbus, Ohio.

(Continued on page 152)
A model to fit your needs...

There's a Walker-Turner Machine—designed with industry's special needs in mind—for practically every metal and woodworking requirement.

In the woodworking shop Walker-Turner radial, tilting arbor and band saws, jointers, spindle shapers and lathes quickly repay their modest investment. Drill presses, metal cutting band saws, radial drills, cut-off machines and flexible shafts cut metal working costs.

If you are not taking advantage of Walker-Turner functional design in your plant call in your local Walker-Turner distributor. He'll be glad to show you what others are doing—and what you can do—to save on machine investment and operating cost. Write for new industrial catalog. Address Department AB8.

SOLD ONLY THROUGH AUTHORIZED DEALERS
Fiat Shower Cabinets

- Save labor, speed installation time
- Lower installed cost
- Beautiful, modern, distinctive
- Eye appeal to home buyers

Unsurpassed for beauty and ultra-smart appearance, the new Fiat Built-in Cadet shower will add sales appeal to any home.

It saves considerably on shower installation cost by eliminating expensive tile work on the job. Builders report savings of $40.00 to $60.00 and more per unit.

Check with your plumbing contractor for details on Fiat Shower models. The Built-in Cadet shower is designed especially for medium and high grade bathrooms.

Use coupon for catalog of complete line of Fiat showers.

New Built-in Model 188
Cadet bathroom shower

FIAT METAL MANUFACTURING CO.
THREE COMPLETE MANUFACTURING PLANTS
(Chicago area plant) Franklin Park, Ill.
Long Island City 1, N. Y. Los Angeles 32, Calif.

In Canada, Fiat showers are made by Patrician and Hester Products, Ltd., Toronto, Ontario

Please send catalog of Fiat Showers, Receptors and Doors. Also builders bathroom floor sheet.

Name__________________________
Company______________________
Address_______________________
City___________________________
Zone______State________________

Mail to FIAT METAL MFG. COMPANY • 9301 W. Belmont Ave. • Franklin Park, Ill.

NEW PRODUCTS
(Continued from page 150)

FOLDING BREAKFAST SET ABA 6032
This space-saving set projects only 1 1/4 inches from the wall but opens to form a 30 by 36-inch table with two seats to accommodate four adults. Table top and seats are made of 1/8-inch fir plywood. Top is covered with Formica in choice of colors. Chrome trim is used on edges of table and seats. Unit clips to wall and may be removed for redecorating. Wall space required is 60 inches long and 40 1/2 inches high. Nickel plated steel legs are self-locking. Harmony Manufacturing Co., 504 North Street, S. W. Cedar Rapids, Iowa.

FLUID DRIVE FOR TRUCKS ABA 6040
Dodge is now offering a full line of "Job-Rated" trucks with nominal ratings of 1 1/4 and 1 ton. The housing of the fluid drive unit (shown above) is mounted between the engine and transmission. It contains clutch and fluid drive coupling. Inside, two fan-like members face each other in an air-tight housing partly filled with oil. Oil acts as cushion on power train. By eliminating rigid mechanical connection, fluid drive provides smooth starting, easy ride for trucks and less gear shifting. Dodge Division, Chrysler Corp., Dept. AB, Detroit 31, Mich.

FRAMELESS TENSION SCREEN ABA 6055
Designed for double hung windows, new tension screen can be quickly installed without tedious

Fitting. Screens are easily attached on upper blind stop with sliding fastener and drawn taut at sill with tension screw. Tension is maintained on sides by five-strand selvage edge, and free-floating sill bar at bottom corrects out-of-square sills. Unit is rust and stain-resistant, easy to store and neat appearing. Keystone Wire Cloth Co., Dept. AB, Hanover, Pa.

(Continued on page 154)
For Light
Construction work

TOP
ECONOMY

BIG LOAD
CAPACITY

America's No. 1 Economy Pickup

You get so many extra values at no extra cost in the Ford F-1 Pickup. There isn't another full-size Pickup that carries a lower list price than the 6-cylinder Ford. And it's 10 ways better than the 4 other leading makes.

1. Lowest loading height (34 inches).
2. Up to 15% greater frame section modulus.
3. Up to 18% more brake lining area.
4. 10" Gyro-Grip clutch with needle bearing release levers.
5. Lighter curb weight—only 3,220 lbs.
8. Oil filter (standard).
9. One-quart oil bath air cleaner (standard).

Ford Trucking Costs Less Because—
FORD TRUCKS LAST LONGER

Using latest registration date on 6,592,000 trucks, life insurance experts prove Ford Trucks last longer!

AUGUST, 1950
it pays to FAN-PLAN with EMERSON-ELECTRIC Kitchen Ventilators
to meet your specifications...

Wall Models:
1. Double-rabbit-sealed outer door prevents inside moisture condensation, gives weather protection.  
2. Telescoping adjustable sleeve fits walls 5 1/4" to 13".  
3. Square outside frame, easy to brick or frame around.  
4. Convenient chain actuates fan switch and outer door.

Ceiling Model:
5. Adjustable sleeve joint in ceiling housing fits standard 3 1/2" rectangular duct, for necessary extensions.  
6. Outside grille has angle baffles for weather protection.  
7. Automatic shutter closes duct when fan is not operating.  
8. Can be operated by drop chain from fan or wall switch.

Both Models:
1. Dependable Emerson-Electric induction motors, with thrust bearings.  
2. Quiet-type 10" blade moves 470 CFM, a complete air change every 2 minutes for average kitchen.  
3. Competitively priced.

...and her specifications!

Both Models:
1. Equipped with attractive grille finished in baked white enamel.  
2. Easily cleaned and serviced — fan and grille are hinged to swing down as a unit without dismantling.  
3. Exceptionally quiet operation — built for long, trouble-free service.  
4. Designed to quickly whisk out cooking odors, smoke, steam and heat — protects furnishings from greasy vapors.  

NEW PRODUCTS
(Continued from page 152)

PRESSURE CONNECTORS A882509
Five lug models, comprising "Wide Range" line of medium-priced pressure connectors for use with copper, aluminum or steel wire in sizes from 1/2 AWC to 500 MCM are now available. Assemblies are complete eliminating loose washers or parts. To provide strength for permanent maximum pressure, tightening bolt, guide nut and contact pad are made of steel. Positive conductivity is assured by lug body of hand-drawn electrolytic copper which also resists corrosion tracking. Entire unit is cadmium plated for corrosion and oxidizing protection. Each connector handles a wide range of wire and cable sizes. The three smaller sizes, #6, 10 and 100, are installed with screw driver; larger sizes, #200 and 400, with a wrench. All sizes are made with minimum overall dimensions to expedite installation. National Electric Products Corp., Dept. AB, Chamber of Commerce Building, Pittsburgh 19, Pa.

ELECTRIC HEATER A883063
This Titan electrical wall heater provides both infra-red and fan-forced heat even under low voltage conditions. The 1600 watt 110-125 volt 60 cycle, A.C. model 400 series shown above is finished in white baked enamel or chrome. Unit is as easy to install as an outlet box. Unit is listed under the Re-Examination Service of Underwriters Laboratories, Inc. The front panel measures 10 by 14 inches. The wall box is 3 by 9 by 12 1/2 inches. Heater is ideal for baths and similar rooms. Titan Manufacturing Company, Inc., Buffalo 2, N.Y.

CLOCK-DOOR CHIME A883035
A kitchen clock-door chime is available. Can be installed over a clock or hanger outlet. Unit contains a self-starting electric clock with a silent, sealed-in mechanism and a high-volume resonator type door chime that sounds two notes for front door, one for rear. Clock face measures 4 1/2 inches in diameter. Overall size is 9 by 9 by 3 1/2 inches. Liberty Bell Manufacturing Company, Minerva, Ohio.

GAS WATER HEATER A883064
The White automatic gas water heater is equipped with Robertson-Orion thermostatic controls for accurate temperature settings. Two burners are available for use with either LP, natural and manufactured gas or with natural and manufactured gases only. Hear is

AMERICAN BUILDER
It's a carpenter's pick-up and a family sedan!

The 1951 FRAZER
2-cars-in-1 Vagabond

For work, it's a roomy pick-up vehicle...ideal for hauling tools, lumber and other equipment...everything a carpenter needs on the job. After hours, it's a six-passenger sedan...with all the luxurious riding comfort every family wants.

That's why carpenters say the 2-cars-in-1 Frazer Vagabond is the handiest car they could own!

With the back of the rear seat forming part of the level deck, the Vagabond provides a huge cargo hold of 130 cubic feet. Easy to load and unload, easy to handle, it gives you the convenience of a pick-up van...the comfort and prestige of a stylish sedan.

And in just ten seconds it converts into a handsome family car...powered by the rugged new 115 h.p. Supersonic High-Torque Engine...brimming over with the handcrafted quality that marks all Frazer models.

See your Kaiser-Frazer dealer now. See why the ingenious Frazer Vagabond is the most useful car you can own!

The Pride of Willow Run!

Kaiser-Frazer Sales Corp., Rm. 290 Q, Administration Bldg., Willow Run, Mich.

Gentlemen: Please send me complete information about the new '51 Frazer Vagabond and tell me when I can see one.

name ____________________________

address __________________________

city ____________________________ state [ ]

[ ]
NEW SERIES 500
RITE-LOCK
FOR SLIDING DOORS

NOW—FULLY REVERSIBLE
3 ADJUSTABLE WIDTHS FIT
1\%"-2" DOORS

Here is the most versatile lock for every sliding door application. It is adaptable to any requirement as to hand, security and finish ...while the three standard sizes adjust to fit any door thickness, 1\%" to 2"

The thumb button, emergency or blank disc, or cylinder can be interchanged from side to side on the job. This means that dealers can supply any combination required by merely stocking a few representative discs and cylinders in popular finishes.

Rite-Lock is easily installed by a simple cut-out without any mortising. The escutcheon measures 4\%", x 2\%", All exterior parts solid brass. Write us on your letterhead for the new Adams-Rite Catalog 49.

CYLINDER DEADLOCK FOR SLIDING DOORS

This cylinder deadlock operates by cylinder from one or both sides. Fits all standard cylinders with adapter cores furnished (specify when using Yale or Sargent cylinder). Solid bronze face, strike and bolt. Heat treated aluminum alloy core. Use your own cylinders and trim. Also used as jimmy-proof lock.

ADAMS RITE MANUFACTURING CO.
5234 Almont Avenue
Chicago 34, Illinois

NEW PRODUCTS
(Continued from page 154)

UNIT WELDING permits uniform expansion or contraction of tank walls. White enamel finishes are baked on. White Fiberglas insulation keeps the water hot. Model 30 shown has 30 gallon capacity. White Products Corporation, Middleville, Mich.

SINK AND TRAY COMBINATION
AB5039

Especially designed for homes and apartments. Large laundry cannot be provided, this new unit consists of a sink bowl eight inches deep and a tray bowl 12 inches deep.

The porcelain-on-sink combination, formed from 14 gauge enameling steel, has a removable drainboard that slides smoothly from sink to tray and a fourteen ledge that accommodates a hot and cold mixing faucet and a disappearing spray hose. Can be installed on any standard sink cabinet or with legs. Over-all size is 4\% by 25 inches. Alliance Ware, Inc., Alliance, Ohio.

HARDWARE DISPLAY
AB5031

American new convention display, being shown or leading hardware and lumber dealers in conventions during 1950, features matched cabinet hardware in chromium and color as well as brass items, bronze items, and the new "Colonial" patterns in weathered old black iron finish. Displayed Wintie sash lock has both complete lock and seating action. A motor driven door demonstrates smooth, positive action of rubber roller spring catch with shock absorber action. American Cabinet Hardware Corp., 416 S. Main Street, Rockford, 111.

metal weather strip NAILS

Preferred everywhere by the trade for many years. Made with barbed shanks and suitably plated for maximum resistance to elements. Available in one, two or five pound packages and in bulk. Immediate delivery.

JOHN HASSALL, INC.
182 Clay Street
Brooklyn 22, N. Y.
Established 1850

BRAND NEW
FACTORY
PORTABLE
MULTI-USE
POWER SAW

SAVE $300
WAS $885
NOW $585
FOR MINNEAPOLIS, MINNESOTA

America's greatest saw portable. Cuts lumber to 4" thick, Briggs & Stratton 3\% HP. gas engine. Saw cuts "V" bevel, tenons, box joints, etc. Does work of $1,000 worth of saw equipment. Sharpens tools. Famous make, brand new, original crate. Limited supply. Send for literature.

ENNIS SUPPLY CO.
1141 S. 11th St.
Minneapolis 1, Minn.

AMERICAN BUILDER
A KITCHEN divided into two clearly-defined centers—food preparation and cleaning—and so arranged that the extremities of the center being used are only two steps apart is proving a valuable step-saver in the home of Mr. and Mrs. H. E. Olson of Seattle.

- Over-all size of the room is 13-6x14 feet. Running water is available on both sides of the center peninsula which divides the two centers. The distance between the range and counter on the food preparation side or the dishwasher and counter on the opposite side is only about 42 inches, almost entirely eliminating steps, yet providing ample work room.

The home was designed by Stuart and Durham, architects, and built by Nels Hedin and Son. The kitchen cabinets were constructed by Elmer and Moody under the direction of Mrs. Olson, who also worked with the architect in planning the kitchen. Olson is associated with the Elliot Bay Lumber Co.

**Divided Work Centers**

**Save Steps in Kitchen**

**CENTR: “island” is formed by separation of centers**

**Yes, you can get lumber like this!**

**Just ask your lumber dealer for**

**CROSSETT LUMBER PRODUCTS**

✓ They’re well manufactured
✓ They’re seasoned right
✓ They’re big mill quality
✓ They’re dependable

NOW AVAILABLE TO YOU IN:

**ARKANSAS SOFT PINE**

Satin-like Interior Trim
Soft Textured Sheathing
Nail-holding Dimension

**ROYAL OAK FLOORING**

See them at your dealer’s

**CROSSETT LUMBER CO. CROSSETT ARKANSAS**

**MANY conveniences are contained in 100 square foot area**

**AUGUST, 1950**
NOT "PIPE DREAMS"

...BUT FACTS!

Facts that Prove Bermico Can Slash Your Building Costs

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

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

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

For the full story of how Bermico Sewer Pipe can cut costs, boost profits, streamline your effort, write to: Dept. A-18, Brown Company, 500 Fifth Ave., N.Y.

BERMICO
SEWER PIPE
A PRODUCT OF BROWN COMPANY

NEW PRODUCTS
(Continued from page 156)

UNIT KITCHEN A885038
Self-contained kitchen unit furnishes all equipment for kitchen work in one package. Two sizes are available: a seven foot, six inch unit and a six foot unit. Smaller unit contains refrigerator, sink, range, and cabinets. Larger unit holds refrigerator, sink, range, washing machine, and air conditioner. Earl's Kitchen Unit Company, 116 E. 63rd St., New York, N.Y.

ELECTRIC RANGE A885033
This deluxe model Tar electric range, model 790, is being introduced with two other electric ranges this month. The model shown has four, seven-heat, double element surface units; full length top lamp, electric clock with automatic timer which controls the oven or electric appliance outlet. Range has a full-size oven with temperature control, warmer drawer, and two service drawers. Automatic door stop facilitates broiling. Detroit Vapor Stove Company, Detroit, Mich.

CABINET HARDWARE A885024
"Steamalite" rocket-shaped drawer and cabinet door pulls are fabricated of solid die-cast metal, finished in chrome plate, plated finishes or in synthetic metal coatings to harmonize with wood colors. Units are made in two companion models, identical in contour but differing in size. Model P-1050 measures two inches overall length; model P-1051 is three inches long. Burkhard Manufacturing Company, 7306 Tan-Mile Road, Centerline, Mich.

(Continued on page 157)
Makes Space Work Overtime!
ONLY Westinghouse Rancho HAS IT

The new Westinghouse Rancho Range accommodates a roll-out table. In effect, you are adding 7 1/2 square feet of table-top and shelf-area storage in addition to big range cooking capacity... without construction cost.

This combination offers house prospects flexibility of use. The table can be moved anywhere, can be used as a teacart. They'll like the extra-large True-Temp Oven, the four, fast Surface Units, too.

You'll like the price! It's less than any other range of the same size. You'll also like its zero Underwriters' rating. That means it can be butted against surfaces of any kind to gain space.

Phone your Westinghouse Distributor for full particulars on the Rancho ... and roll-out table.

WESTINGHOUSE ELECTRIC CORPORATION
Appliance Division  Mansfield, Ohio

YOU CAN BE SURE... IF IT'S Westinghouse
"Modernfold" Doors Big Factor in Success!

If you want to know how to sell houses fast...listen to what Schleicher's Forsythe Corp., Gary, Ind., builders, say.

6 weeks after our Model Home Opening, we had sold out our entire subdivision of 125 homes under the $15,000 class. "Modernfold" doors throughout the house were a vital factor in this success. Buyers were enthusiastic about the beauty and space-saving ability of these accordion-type doors...the flexibility offered by the "Modernfold" partition.

Actually Saves Builders Money!

And "Modernfold" doors can actually cost no more than conventional doors because they eliminate trim, painting, hardware...Schleicher's Forsythe Corp. adds the extra thought that "Modernfold" doors saved them additional sales expense because houses sold faster. No wonder builders specify more and more "Modernfold" doors. For full details, look up our installing distributor in your classified telephone book under "doors"...or mail coupon.

NEW PRODUCTS

(Continued from page 158)

AUTOMATIC CLOTHES DRYER AR85040

In this unit, clothes are ultra-violet treated and dried at 90 degrees Fahrenheit to protect them against contamination. Heating units may be either electrical or gas. Dryer has capacity to dry six pounds of clothes in 15 to 25 minutes ready for ironing. For bone dry clothes, 30 to 35 minutes are required. Finish is white, high-luster baked enamel with red plastic trim and handle. Overall dimensions are: height—39 inches, width—31 inches, depth—27⅛ inches. Hamilton Manufacturing Company, Two Rivers, Wis.

HORIZONTAL GAS FURNACE AR85033

Especially designed for installations where space is at a premium, new horizontal gas furnace has an 80,000 B.T.U. input. Larger units are in pro-

RANGE VENTILATOR AR85057

This kitchen range ventilator consists of a canopy-type hood to go over a kitchen range.

It has a built-in fan and light unit. Model shown is 42 inches wide with a six-inch exhaust pipe. Other sizes are available. Bar-Brook Manufacturing Co., Inc., 6132 Linwood Ave., Shreveport, La.

(Continued on page 162)
TYPE R CONVECTORS DESIGNED Exclusively FOR RECESSED INSTALLATION

Type R Convectors are designed exclusively for recessed installation. They are important homeowner appeals. However, if ordinary cabinet type convectors are recessed, there is a good possibility that sooner or later, the wall plaster around the unit will crack and mar an otherwise satisfactory job.

Exclusively designed for recessed installation, Tuttle & Bailey Type R Convectors solve this problem. Constructed with a front panel that extends beyond edges of the recess, sufficient overlap is provided to cover the wall plaster line . . . and your customer is sure of a permanently neat, trim installation.

ASK YOUR JOBBER TUTTLE & BAILEY INC
NEW BRITAIN, CONNECTICUT
NEW PRODUCTS

(Continued from page 160)

HORIZONTAL AIR CONDITIONER

AB85044

Climatrol type 155 gas-fired horizontal winter air conditioner is designed for attics or crawl space installations with perimeter, zone control, radiant or conventional forced warm air sys-

tems in basementless or ranch style homes. It is available in 60,000, 90,000 and 150,000 B.T.U. input capacities. A similar new Climatrol unit, the type 151, is a blower unit heater available in four sizes, 60,000, 90,000, 120,000 and 150,000 B.T.U. input capacities. L. J. Mueller Furnace Co., Dept. AB, 205 W. Oklahoma Ave., Milwaukeee 15, Wis.

EJECTOR PUMP

AB85041

New type horizontal ejector pump is automaticaly self-priming with water at 25 feet. Pump was designed to give maximum capacity at a depth of 20 feet for which this unit is especially recommended. Has no unnecessary

openings or narrow passages and requires no special adjustments to put into service. It has but one moving part and no leathers, belts or valves to replace. Impeller and built-in jet ma-

sicle and vential are made of bronze. A self-

aligning rotor seal on the motor shaft pre-

vents water escape and eliminates packing

glands. Comes equipped with eight-foot cord

and plug wired to switch and motor ready to plug in. Fairbanks, Morse & Co., Dept. AB,

600 South Michigan Ave., Chicago 5, III.

SOURCE-SEALING REFRIGERATOR DOOR

AB83047

Two-door combination refrigerator and home freezer has self-sealing magnetic doors. One-

inch Alonie magnets lining plastic door gaskets pull doors shut eliminating latch mechanism, a common source of service problems. This new model also features an unusual ice-cube tray which permits the user to remove one cube at a time—on the whole tray full, a foot-pedal door opener, and improved fruit and vegetable drawers. If the householder's arms are loaded, she can open the fresh-food compartment of

(Fond on page 161)
KENTILE FLOORS
suit every type of store

Unlimited variety of design effects with this low-cost, long-wearing flooring.

Kentile's 23 colors... plus feature strips and special inserts... give wide latitude for design effects. This floor blends with any type of interior... and lends itself particularly well to open front store design.

Yet for all its decorative appeal, Kentile is outstandingly low priced and famous for resistance to wear. Despite constant foot traffic Kentile keeps the fresh attractive appearance that builds business for the retailer. Cleaning is a simple matter with this smooth-surfaced, dirt-resistant asphalt tile. Colors go through the material—can't wear off.

Kentile can be installed on any smooth firm underfloor—no expensive sub-base necessary. You can specify it for use on concrete below grade or on sound double wood floors with top tongue boards not over 3" wide.

KENTILE SIZES FOR EVERY INTERIOR. Kentile is made in 9" x 9" squares. Also in special sizes—3" x 3", 3" x 6", 4" x 4", 4 1/2" x 4 1/2", 4 1/2" x 9" and diagonal tile of all sizes. Standard Kentile is 3/8 inch thick with 3/32 inch also available.

David E. Kennedy, Inc., 58 Second Avenue, Brooklyn 15, N. Y.
330 Fifth Ave., New York 1, N. Y. • 705 Architects Bldg., 17th and Sansom St., Philadelphia, Pa. • 1211 N. B. C. Bldg., Cleveland 14, Ohio • 225 Moore St., S.E., Atlanta 2, Ga. • Kansas City Merchandise Mart Inc., 2201-5 Grand Ave., Kansas City 6, Mo. • 1440 11th St., Denver 4, Colo. • 4532 South Kolin Ave., Chicago 32, Ill. • 1113 Vine St., Houston 1, Texas • 4501 Santa Fe Ave., Los Angeles 58, Calif. • 93 Market St., Oakland, Calif. • 452 Statler Bldg., Boston 16, Mass.

August, 1950

KENTILE
The Permanently Beautiful Asphalt Tile
NEW PRODUCTS  
(Continued from page 162)

this refrigerator by stepping lightly on a pedal extending three inches from the kickplate at the base of the unit. Fruit and vegetable drawers are mounted on a bicycle frame equipped with rubber-tired wheels which roll along grooves to keep drawer from slipping, and assure quieter operation. New refrigerator is available in both white and tan cubic-foot models. General Electric Company, Dept. AB, Bridgeport 9, Conn.

HOUSE NUMBERS  A83042

Luminous plastic numerals are made in red fluorescent, gold and silver finishes, and Black Lucite Numbers, 4½ inches high, will glow in the dark for several hours after being saturated with light (either artificial or natural sunlight). Each numeral is packaged separately in a protective wrapper, complete with stores for mounting. Gems Molding Corp., Dept. AB, 400 West Huron Street, Chicago 11, Ill.

TESTING MACHINE  A83043

With copy—by for handling blocks up to 12 by 16 inches, the Black Buster has flexibility to meet requirements of most concrete producers. It is constructed of heavy, welded steel plate and tubing, carefully machine. Over-all dimensions are 54 inches high, 15 inches deep, 29 inches wide. Shipping weight, 1250 pounds. A large easy-to-read dial registers the compressive strength in tons. Attached charts convert direct reading into pounds per square inch. W. E. Dunn Manufacturing Co., Dept. AB, 551 W. 24th Street, Holland, Mich.

AMERICAN BUILDER
Private Firms Launch
1,000-Unit Military
Housing Development

A 1,000-unit military housing project is currently being built by private firms at one of the nation's largest Army installations, Fort Bragg, N.C., under the provisions of the 1949 Military Housing Act.

The $10,000,000 Fort Bragg development will consist of 100 six-family garden type apartments, 400 single-family two-bedroom houses and a shopping center, all on a 160-acre tract. Prefabricated house parts are being supplied by American Houses, Inc., New York City, from its Lumberton, N.C., plant.

SIX FAMILY garden-type apartment being built at Fort Bragg, N. C. Prefabricated units are supplied by American Houses, Inc.

The project will be built and managed by W. H. Weaver of the Weaver Construction Co., Greensboro, N.C., and C. B. McNaury and Raymond Bryan of the T. A. Loving Construction Co., Goldsboro, N.C. J. C. Taylor, president of American Houses, Inc., said that the first units will be ready for occupancy in August, 1950, with completion of the whole project scheduled in from 12 to 18 months.

Structural Corrugated Glass...
(Continued from page 62)

wood fillers, gypsum casting plaster, putty or glazing compound. Wood mouldings should be primed before setting, and material used to fill the contours should be colored to match the finish trim.

(d) Setting Without Moulding: This glass is sometimes set with pegs or blocks shaped to fit one or more corrugations. Installations of this type require ground edges. Care must be used to fit the pegs to insure a firm setting; it is often necessary to adjust the opening to fit the glass by the use of fillets or furring.

EXTERIOR SETTING PRACTICE: (a) Butt Joints: All butt joints, including miter joints, in exterior installations should be made waterproof by using a filler such as show case cement.
(b) Division Bars: Weatherproof tape should be used between the division bars and the glass, both inside and outside.
(c) Mouldings: The glass should be bedded in glazing or caulking compound, colored to match the moulding, at bead, sill and side jambs. Plaster filling should not be used for exterior installations.

Data and drawings by courtesy Mississippi Glass Company

NATIONAL HOME WEEK
September 10 to 17

AUGUST, 1950

165
COMPARE!

SEE FOR YOURSELF WHY

GLIDE-AWAY

IS THE OUTSTANDING

OVERHEAD-TYPE DOOR

- LIFETIME PROTECTED AGAINST RUST AND CORROSION because Glide-Away Doors are made of paint-lock steel which is Bonderized and zinc coated...and for EXTRA protection they are covered with a prime coat of infra-red-baked paint at the factory.

- EASIER TO INSTALL because the one-piece jamb strip and weather seal is pre-assembled.

- CABLE-CONTROLLED DOUBLE DOOR LOCK permits finger tip operation from the garage interior without disturbing outside lock.

- ONLY ½" OF HEADROOM is required.

- GREATER RIGIDITY because of the heavier gauge inside structure and double hat channel section construction.

STEEL DOOR DIVISION
STAMPING PRODUCTS AND MFG. CO.
14001 INTERVALE • DETROIT 27, MICH.

NEW PRODUCTS
(Continued from page 104)

HORIZONTAL SLIDING WINDOW
AB85048

Particularly adaptable to ranch-type and modern-type houses, this window can be used as a single opening and set high in wall, in multiple openings or in combination with fixed lights.

Aluminum sliding windows are manufactured in one standard size: 45-½ by 25-½ inches to fit standard, multiple openings. Both sash are easily removed for cleaning. Window has stainless steel lock and continuous pull on both sash. Specially designed screens and storm sash are available. Units are shipped with frame assembled and sash knocked down. General Bronze Corp., Dept. AB, 88, Stewart Ave., Garden City, N.Y.

PUSH-PULL PLATE
AB85050

This device is a gently curved plate 5½ inches wide and 9 inches long that mounts in place of the flat push plate to enable one to "pull" or "push" a swinging door. Made originally in decorative laminated plastic, it is now also available in clear plastic with sandblasted texture and in bronze and aluminum brushed. Freda Koblitz, Dept. AB, 107 Clay Street, San Francisco 11, Calif.

SHORE CLAMPS
AB85051

New shore clamps cut shoring costs in half. Clamps may be used with 4 by 4's or paired 2 by 4's. These shore clamps will support 6000 pounds safely and can be used for any temporary structure such as ramps, scaffolding. Farmers Tool and Supply Co., Dept. 051-AB, 4615 Washington St., Denver 16, Colo.

(Continued on page 165)
The application of Stained Shingles alternated with Stained Shake walls can be specified so that no two adjacent homes of a project are alike in color, weather exposure or surface texture. Variety of Stained Shingle roof colors adds further distinction to each home. The table below recommends a typical set of roof and wall modifications out of hundreds of practical combinations.

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th></th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROOF</td>
<td>Shingles (Green)</td>
<td>Shingles (Red)</td>
<td>Shingles (Oiled)</td>
<td>Shingles (Brown)</td>
<td>Shingles (Red)</td>
<td>Shingles (Blue)</td>
<td>Shingles (Brown)</td>
</tr>
<tr>
<td>WALLS</td>
<td>Shakes [16&quot;]</td>
<td>Shingles [16&quot;]</td>
<td>Shakes [16&quot;]</td>
<td>Shingles [18&quot;]</td>
<td>Shakes [24&quot;]</td>
<td>Shingles [24&quot;]</td>
<td>Shakes [16&quot;]</td>
</tr>
<tr>
<td>Exposure</td>
<td>12&quot;</td>
<td>8&quot;</td>
<td>12&quot;</td>
<td>14&quot;</td>
<td>18&quot;</td>
<td>18&quot;</td>
<td>18&quot;</td>
</tr>
<tr>
<td>Color</td>
<td>Green</td>
<td>Red</td>
<td>Oiled</td>
<td>Brown</td>
<td>Red</td>
<td>Blue</td>
<td>Brown</td>
</tr>
</tbody>
</table>

VARIATIONS are virtually limitless, as walls may be applied at any desired exposure between 6½" and 16". Application details are available in Sweet's File 167.

ECONOMICAL because both Shingles and Shakes are available in a wide variety of colors and pre-staining greatly reduces cost of color application after construction.

EASY APPLICATION is important in project construction. For exposures greater than 8", double-couring application is simple and economical. Combines use of Stained Shakes over inexpensive grade of cedar shingles as shown below. Details in Sweet’s File 167.
THE NEW
LOW-COST
SAFWAY
“4 BY 4” Steel SCAFFOLDING
FOR LIGHT DUTY JOBS WITH
HEIGHTS TO 40 FT. AND
LOADS TO 50 LBS. PER SQ. FT.

Here's a new STEEL scaffolding costing so little that you don't even have to consider outmoded, dangerous wood horses and pole-and-crossbar scaffolding!

Priced surprisingly low, Safway “4 by 4” Scaffold is strong, rigid, versatile and safe—can be used profitably for all light duty jobs. Learn how you can benefit with the new Safway “4 by 4”! Check these features:

ADVANTAGES OF SAFWAY “4 BY 4” SCAFFOLDING
- Lowest cost scaffold for loads to 50 lbs. per sq. ft., heights to 40 ft.
- Made by the originators and leading manufacturers of metal frame scaffolds!
- Approved by Underwriters' Laboratories, Inc.
- Safe welded tubular steel construction. No splitting—no nails—no flux hazard!
- Can be re-used indefinitely in other combinations!
- Speeds work... saves time in assembly and dismantling!
- Permits work platforms at 16-in. intervals with materials always ready at waist level!

PRICED SO LOW...
. . . IT MAKES WOOD HORSES AND POLES OBSOLETE!
GOOD BRICKWORK = GOOD DESIGN + GOOD WORKMANSHIP + GOOD MATERIALS

"SLUSHING" INVITES LEAKAGE IN BRICKWORK

We suggest that—
Brick should always be so laid that when the brick is shoved into place, the head or cross joint will be filled solid with mortar, without slushing. If the joints are not completely filled, water may leak through the voids to the inside of the building.

The photos at the left show the voids that often result when slushing is used to "fill" a joint. Even when mortar has first been spotted on both corners of the brick, slushing cannot be relied upon to fill the voids completely.

The great plasticity of Brixment enables the bricklayer to throw plenty of mortar onto the brick to be placed — to use plenty of mortar in the bed joint — and still shove the brick easily into position, with excess mortar oozing out all around, and with all voids filled.

BRIXMENT

Brixment mortar has greater plasticity, higher water-retaining capacity and bonding quality, greater resistance to freezing and thawing, and freedom from efflorescence. Because of this combination of advantages, Brixment is the leading masonry cement on the market.
This is the way to balance windows... and weatherstrip them too!

ALLMETAL

Combination

SASH BALANCE AND WEATHERSTRIP UNIT

Do two jobs at once on any double-hung window. Here is an installation on an economy frame giving an all metal sash run. Or simply “cap” old or new wood porting beads. Allmetal Sash Balance give stable sash — provides finger-tip control — cuts labor and material costs and provides better windows by weatherstripping as well as balancing. Send for complete information now.

ALLMETAL WEATHERSTRIP CO.
2243 North Knox Avenue, Chicago 39, Illinois

Gentlemen: Please send me complete information and prices.

Name

Address

City State

170

We Acknowledge
with Thanks...

WHEN the Chicago Business Papers Association recently presented the American Builder with a Certificate of Award “for the excellence in the design and purpose of its magazine’s covers” the staff was happy that the ingenuity and effort expended by Lyn E. Arent, our managing editor, and George Clark, our art director, in creating our covers had received public recognition.

Our readers, we felt, would be interested to know how their magazine earned the award. So we called on Lyn Arent to give us the facts.

“Certificate of Award

American Builder

Chicago Business Papers Association

For excellence in the design and purpose of the magazine’s covers submitted in competition during May, 1950.

June 12, 1950

L. A. Young

“One of the first considerations in planning a front cover for a magazine like the American Builder,” said Arent, “is to consider the subject matter that will be treated on the editorial pages in that issue. A direct tie-up between the cover and the editorial content is always desirable because it gives the reader an insight into what the issue contains.

“A cover is a poster—the wrapper or attention-getter of our product, the magazine. So we attempt to create one that will attract the attention of our subscribers. To do this a cover should be strong in design, easy to understand, convey a message, and stimulate reader interest. This latter is what we consider the second function of a cover—that is, having induced the reader to look at it, the cover should carry something that leads him into the inside of the magazine. Thus you will find descriptive catch phrases on our covers that refer to the theme or lead features.

“For example, our July cover, a Kodachrome picture of a kitchen, carried the advice ‘127 ideas on how kitchen and bathroom features aid home sales. . . .’ On our November cover last year we called attention to both its commercial and residential stories. To illustrate, we used a line drawing of a store front and put in women and children to suggest the residential aspect of building. The front cover, as you know, is very valuable space, and we try to make it as attractive to our readers as possible.”

That the combined efforts of Lyn Arent and George Clark fulfill this ambition is attested in the award from the Chicago Business Papers Association.

—M.C.
Exteriors get complete protection from paints based on VINYLITE Resins. There's no chipping or peeling and little chalking. Attractive appearance is maintained longer.

Walls wink at work and wear...finished with coatings based on VINYLITE Resins

You can't beat coatings based on VINYLITE Brand Resins for easy upkeep and lasting good looks!

That's because VINYLITE Resin coatings do not deteriorate when brought in contact with water, alkalies, most acids, and petroleum products. They cling tenaciously to masonry, concrete, or metal without chipping, cracking or peeling. They seal out moisture, resist mildew, are unaffected by corrosive fumes. They are easily applied with conventional equipment— succeeding coats can be applied immediately because they dry dust-free in 5 to 10 minutes. They can be made available in a wide range of colors. These longer-lasting paints will cut maintenance costs for your clients... provide lasting satisfaction. Investigate them now! Write Dept. IT-64 for names of suppliers.

Interiors stay beautiful because paints based on VINYLITE Resins can be washed repeatedly without color fading. They can be applied directly to fresh plaster.

Data courtesy Plastic Coating Corporation, P.O. Box 13127, Houston 19, Texas.

BAKELITE DIVISION, Union Carbide and Carbon Corporation

30 East 42nd Street, New York 17, N. Y.

August, 1950
Are Homes Too Small?

By Martin C. Huggett
Chicago Metropolitan Home Builders Association

Public housing and federal public health groups are circulating propaganda to the effect that the modern snug and well planned home is inadequate in space provisions and are utilizing as examples the old fashioned rambling structures of our forebears. In issuing such propaganda they appear to be at complete cross purposes with the much touted accomplishment of one of their strongest adherents, namely the Tighe Wood house containing around 600 square feet of livable area.

At Cross Purposes with Chicago Dwellings Association

Their expressions also cross swords with the sort of home that the Chicago Dwellings Association was attempting to foster upon the veterans of Chicago—a concrete block house containing less than 700 square feet of livable area placed on lots of a size that have been taboo in Chicago for the past ten years. The Chicago City Council promptly threw the whole project in the ash can.

Today's Budget Home a Model of Design

The small home of today, call it the "Budget Home" if you so desire, is the result of more research and study than any other factor of modern living. It is neither too large nor too small for comfort. In some of its elements it promotes comfort and convenience by its very compactness. Taking a leaf from the book of dining car design the 10' x 10' or 9' x 12' kitchen provides more downright convenience, utility and scientific operation than one four times as large in the olden days.

Accomplishment without Effort

One housewife with an apron over her best dress can accomplish more in today's compact kitchen than a hot sweaty housewife assisted by two scullery servants in the olden days. A slight education in the handling of mechanical conveniences plus the turning of switches and pressing of buttons does the job today with astounding facility and few steps.

Waste Room—and How!

The home of our ancestors contained a musty front parlor dressed up for company and opened only when guests appeared. It was a stuffy, formal and unflyable room that now has been completely eliminated. Then there is the dining room—still on the table for discussion—used for an hour or less, three times a day or less. The dining room has been growing smaller and smaller until its destiny appears to be an alcove off the living room generally usable at all times and becoming a dining space when the drop-leaf table is pulled out and set for a meal. A similar alcove is often in the kitchen because the modern kitchen is no longer a scullery. Cooking fumes and heat as well are exhausted by electric fans and the atmosphere is cool and wholesome.

Every Square Foot in Constant Use

The modern living room is ample and really a living room, the center of family activities. The bedrooms are compact but every space is used. The tendency is to have them on the main floor, so that they can be utilized during the day as part of the living area. At the same time adequate storage is a matter of the most careful planning.
Eye appeal for prospects with sharp pencils

Houses that “look like more than they cost” are a feather in the cap of any builder. And when good looks and economy are backed up by real durability, you're offering a value that can't be beat.

To do just that, more and more builders are using the Keystone System of Stucco Application. Architects are specifying it. Buyers recognize it as a real sales feature. Let us send you the facts, in the new 44-page “Keystone System” booklet today. Write Keystone Steel & Wire Company, Peoria 7, Illinois.
You handle more jobs per year with a Comet. This excellent radial power saw does all the cutting needed from start to finish on a building. Table or trailer mounted, a Comet is easily moved from job to job and lumber to lumber. Incomparable versatility, superb field performance, rugged construction and modern design make Comets real profit builders in your business. Available in five sizes. Write for literature and prices.

ARCHITECTURAL STUDENTS
CHOOSE SPLIT-LEVEL HOUSE

An experimental project in Los Angeles—the construction of a model home sponsored by the University of Southern California and firms connected with the building industry in the area—has proved very successful for all concerned. Valuable practical experience was gained by the four senior students of architecture who designed the home after consulting with experts in building, financing and selling homes; profits of the sale of the house went to the University for architectural research; and much favorable publicity was given the participating business organizations.

The attractive ranch-type house contains 1484 square feet of floor space. A design feature is an arrangement of levels which places sleeping quarters a few feet above the living space, completely separating the two yet permitting a compact plan. The design also stresses outdoor living: an entire glass living room wall including glass door faces the patio; and the kitchen is situated to provide a view of the garden.

(Continued on page 176)
High Style on a Budget

In WESLOCKS you get the ultimate in hardware design, yet priced to meet the most modest budgets. Their many quality features such as five-pin tumbler and key-in-knob construction, split-spindle operation and factory assembled units are usually found only in the most expensive locks.

You also get a wide choice of types and finishes. Standardize on WESLOCKS, the budget-priced quality line for every door in the house. Send today for a complete catalog.

WESTWOOD
MANUFACTURING CO.
1420 So. Evergreen Avenue
Los Angeles 25, California

More WESLOCK installations...

Princess Park Manor, Miami, Florida
174 homes, F.M.A. insured
Architect: Tyress T. Tripp
Builder: Mess & Son, Inc.
Hardware Contractor: Maple Hardware & Paint Co.

Flamingo Village, Miami, Florida
320 homes, F.M.A. insured
Architect: V. H. Mollenkopf
Builder: Superior Home Builders, Inc.
Hardware Contractor: Atlantic Consolidated Builders Supply Co.
ARCHITECTURAL STUDENTS...

(Continued from page 174)

and play area. The yard is completely enclosed with a red-
wood fence in basket weave pattern, a type which originated
in Australia and is sometimes called a Mendocino fence.
To the left of the vestibule are the living and dining rooms
and the kitchen entrance. A flight of stairs on the right leads
up about five feet to the sleeping quarters, and at the right
of the head of the stairs is the combination den-guest room.

PATIO. 15 x 24 feet, is adjacent to indoor living-dining area

This room is open on the hall side, and is in effect a balcony
from which the living room and patio can be seen. When
used as a guest room its hall side is enclosed with curtains.
Exposed 2 x 6 beams are used on the ceiling over the
entry and den. A large glass area over the front door and a
glass panel adjacent to the door admit light to the entry

FIREPLACE is flanked by 6-inch natural-finish redwood boards
and den. The bedroom interior wall and ceiling surfaces are
of plaster. Windows are placed high in these rooms for
privacy and to provide more space for furniture. There are
two baths, one on the upper level and one off the service
porch.
A translucent glass partition, with a redwood frame,
separates the dining space from the foyer. The fireplace
wall of the living room is paneled vertically with 6-inch
redwood boards in natural finish. The house has an all-gas
kitchen, including a range, refrigerator and water heater.
The exterior is of natural-finish redwood boards and
batts. The garage is located under the raised portion of the
house. Vermiculite is used in the built-up roof.

Firms cooperating with the University were: the Walter
H. Leimert Co., which made the land available; the Cali-
ifornia Federal Savings & Loan Co., supplier of the con-
struction money; the Southern California Gas Co., which
installed the "New Freedom Gas"; Kenneth Barker Brishes;
Furnishing: "The Art Smith, contractor, who built the house
of wood...."
The right combination...

for hanging doors perfectly
every time—with
millwork accuracy and speed

Doors hang perfectly when you use a Stanley-Carter HBS Hinge Butt Router and Stanley RD Butt Hinges. Stanley No. 241 and No. 242 Butts with round corners are built to the Stanley quality standard, which is the standard of the world. In plated steel, brass, bronze, and aluminum.

Butt mortise 75 doors and jambs a day

With a Stanley-Carter Template and precision power Router you can cut out for butts at least 6 times faster than by hand. And do a better job! Every mortise is perfect. Use of round cornered hinges eliminates need to square up corners of mortises.

Save time and cut costs with Stanley RD Butt Hinges and Carter Hinge Butt Equipment—the right combination for millwork accuracy and speed right on the job. See your dealer or write for complete information.
New Laboratories Dedicated by Portland Cement Association

AERIAL view of Portland Cement Association’s three million dollar Research and Development Center at Skokie, Ill.

Practicing what it preaches, the Portland Cement Association insisted that its two new laboratory buildings represent the best in economic concrete construction. Embodying no striking innovations or costly departures from conventional construction, the new Research and Development Center dedicated at Skokie, Ill., does, nevertheless, hold many lessons for the large contractor—and for the small builder who can profit from observing the unique uses of masonry units, lightweight aggregates, Portland cement paste, architectural concrete and flat concrete structural beams.

Here in the world’s largest and finest laboratories devoted exclusively to research and development in the fields of Portland cement and concrete, PCA will continue its campaign first launched in 1916 to improve and extend the uses of Portland cement and concrete—supported by voluntary contributions from 67 member companies which produce 9/10ths of the cement manufactured in the United States and Canada.

Kettering Speaks at Dedication

A General Motors Director and Research Consultant, Charles F. Kettering, key speaker during the dedication ceremonies of the buildings, stressed in his interesting address the notable function research and development have played in the industrial progress of the nation, pointing out that the most valuable asset with which the researcher can be endowed is an imagination that never says “no,” is not intimidated by “proof” of impossibilities. As president officer of the occasion, Dr. A. Allan Bates, vice president (Continued on page 18)

AUXILIARY building of PCA Center is seen beyond overhead passageway across court of main building. Testing room right

CUSTOM BUILT SINKS
Help You Plan Tomorrow’s Kitchen TODAY

Whether you are planning a new building project or the modernization of an old one, we will build a “JUST LINE” Stainless Steel

Radiiluxe Sink

to meet your most exacting specifications. Now you can exercise your creative ability to the fullest extent in the planning of the modern kitchen.

TWO EXCLUSIVE FEATURES
Built-in Anti-Splash Rims in bowls prevent the splashing of water on the floors.
Smooth, Double-Pitch Drainboards without grooves reduce to a minimum the danger of breakage of glassware and dishes and assure positive drainage and the utmost in sanitation.

JUST Manufacturing Co.
4610-20 W. 51st Street, Chicago 30, Illinois

Write today for illustrated Literature II-3 and send us your specifications. Our engineers will gladly cooperate with you in submitting blue prints and estimates.
Better 5 Ways With Chase Copper Tube

FOR SOIL, WASTE
AND VENT LINES

You'll find that Chase Copper Tube can be installed quicker, lasts longer and does a better job for soil, waste and vent lines.

It comes in 20-foot lengths so you need fewer joints—and the joints you do need are quickly made with solder-joint fittings. You can speed installation even further by pre-assembling—and still have rugged units that withstand plenty of rough handling. And tube and fittings will fit within standard wall partitions.

Chase Copper Tube is resistant to corrosive action, has a smooth inner surface that does not hamper flow of wastes, solder-joint fittings that prevent formation of pockets.

Write for complete information on Chase Copper Tube for drainage lines to Dept. AB-850.
HAR-VEY ROLLING DOOR HARDWARE

introduces an Economical

New Hanger for Wardrobes

Exclusive new features that save time, trouble, and money!

Quick, simplified installation
Doors are hung from the outside, can be easily shipped in place after the hanger is installed.

Space between doors can be varied
... no limit on number of doors

Less Headspace is required

Track can be used for Trim in cabinets and show-cases, because open side of track faces in, smooth side faces out.

Economically designed for lower cost!

Quality-made of 100% rustproof materials with extruded aluminum track

This new Har-Vey Hardware* is ideal for cabinets, wardrobes and similar installations. Learn all the advantages today — mail this coupon now.

*On display at Booth 34 N.C.H.A. Exposition

Address: Hardware Division 0

Metal Products Corporation

807 N.W. 30th St. Miami, Florida

Please write me on free folder on your new Wardrobe Hardware

NAME
COMPANY
STREET
CITY STATE

YOUR DEALER'S NAME

PORTLAND CEMENT ASSOCIATION...

(Continued from page 178)

for Research and Development, PCA, introduced PCA's president, Frank T. Sheats, who spoke on the mission of the association, and Walter C. Russell, chairman of the board of directors, who, with his associates, cut the ribbon, marking the official opening of the center. Dr. Bates also spoke during the program on the fields of research of PCA and relations to the practical world, making public PCA's progress with soil-cement and prestressed concrete (discussed below).

**Inverted Reinforced Floor**

One difficulty faced by Carr and Wright, Inc., architect and engineer, and Turner Construction Company, contractor, in building the Center was the high water table of the land. Spread footings support the auxiliary building, but concrete piles 35 feet long with a 30-ton bearing capacity were used under the main building. To resist the pressure of the high water table, the eight-inch concrete floor is constructed as an inverted reinforced slab.

**SWITCHBOARD** enclosure is faced with precast terrazzo

The concrete walls, reinforced concrete frame and floors and masonry partitions of the laboratories enclose 98,000 square feet of floor area—four times that formerly occupied by the laboratories in the PCA headquarters building near Chicago's loop.

Designed for concrete with 3000 psi compressive strength, the buildings were constructed using all brands of cement available in the Chicago area with aggregate from South Beloit and Elmhurst, Ill. Water ratios were 5.7 gallons per sack of air entraining cement and 6.0 gallons per sack of regular cement. Tests were made on each 75 cubic yards of concrete although specifications stipulated only one test per 400 cubic yards of concrete. During cold weather construction, the temperature in the working areas was kept at 55 degrees F. with the use of portable heating-blowing units. Vertical joints at 22 feet intervals (to control cracking), formed with two-inch strips of wood tapering to 3/4-inch and extending 15/4-inch into the wall with 3/4-inch protrusion for removal, were filled with mastic—and carried through adjoining masonry furring.

**Variety of Forming Used**

At least five kinds of forms were used in building the Center: wood and plaster molds; 4 x 8-inch chamfered-edge, center matched Douglas fir boards left a distinctive architectural pattern on the exterior walls formed on the interior by 4 x 6-inch yellow pine; 3/4-inch plywood formed undersides of floors and beams.

(Continued on page 182)
8-FOOT BLANKET TYPE

ROCKWOOL BATTs

Provide the protection and economy of seamless, floor-to-ceiling, blanket-type insulation. Made with vapor barrier on one side and creped Kraft on the other, Barrett Rock Wool Battts are available in various thicknesses and lengths (up to 8 feet) to meet every building requirement. Barrett offers you a complete line of Rock Wool Insulation Products—granulated, loose, blankets, and batts. Available promptly in mixed deliveries from your nearest Barrett distribution point. Resilient, clean, lightweight, and quickly applied, Barrett Rock Wool combines excellent thermal and acoustic properties with modest cost. And the Barrett name is kept prominently before the public by constant and extensive advertising.

WON'T LUMP UP. Firm, springy Barrett Rock Wool doesn't "drift" or get lumpy. High resilience assures uniform density of insulation over all areas.

FIRE-SAFE. Barrett Rock Wool is a fire-proof material—functioning as a barrier to the spread of fire. A blow-torch won't burn it.

NO STORAGE CASUALTIES. Battts can be stored for long periods and will spring back to specified thickness when removed. No "Battles" at the bottom of the pile!

QUICK DELIVERY. Barrett's conveniently located distribution points assure immediate attention to your orders. No lost sales through empty shelves.
Portland Cement Association...

(Continued from page 110)

Exposed Masonry Interiors

Most walls in the Center are exposed masonry units finished with portland cement base paint, for in addition to their economy and appearance, concrete masonry units have a 40 to 50 per cent sound-absorbing capacity. (Exceptions:

angles four feet long spaced four feet apart were fastened to ceiling and integrated with walls. This and other metal fastening was done with fastening guns using .22 calibre cartridges. Mesh used in joints and reinforcing bars in units above openings furnish additional strength to walls constructed of three sizes of masonry units: three-inch for furring; four-inch for partitions between rooms; six-inch for corridor walls. When approaching the lobby, one is confronted with many uses of cement, for here exterior walls reflect achievements in cast-in-place architectural concrete matched in appeal by the cast stone with granite and quartz aggregate used on lobby walls. Ornamental panels on the underside of the entrance canopy were precast as were the art marlite facings of the reception desk and stairway. Marble chips were employed in the patterned terrazzo floors of the lobby while adjacent corridors have asphalt tile floor coverings as do the offices and auditorium. Although suspended ceilings in halls conceal conduit, all other ceilings are exposed concrete.

During construction, John H. Banker, construction superintendent of Structural and Railways Bureau and R. E. Phillips, assistant research engineer of Field Research Section represented the owner on the job. The special committee on building facilities of PCA included M. Moss Alexander, chairman; Emory M. Ford; Joseph S. Young; and ex officio, Walter C. Russell and Frank T. Sheets. The technical advisory group included Henry P. Reid, chairman; E. A. Ledyard; Myron A. Swayze; L. A. Wagner; G. L. Lindsay; G. E. Warren; Roy N. Young.

Thirty Laboratory Sections

In one of the 30 laboratory sections of the Center, the triaxial testing machine aids research in soil-cement while

(Continued on page 114)

367
something really new!

COLOR-MATCHED MOULDINGS

...for MARLITE

New color harmony for Marlite walls and ceilings in every type of residential and commercial interior is now possible with this brand-new line of Marsh Color-Matched Aluminum Mouldings! Featuring the same durable plastic finish as genuine Marlite panels, they need only an occasional wiping with a damp cloth to keep them spotless. The baked finish seals out dirt, grease, moisture...seals in all the striking beauty!

Pleasing over-all effects—A complete color range is available to match all of the standard Deluxe and Velvetex Marlite colors. Exact matching makes Marlite walls present smooth, beautiful, uninterrupted color. And where contrast is desired, the new Color-Matched Mouldings give free reign to the designer's imagination.

One for every customer—With the new Color-Matched Mouldings available for Deluxe and Velvetex Marlite, there is now a Marsh Moulding to suit every customer's taste. Special Mouldings complement Wood Pattern and Marble Pattern Marlite, and the regular Marsh Aluminum Alloy Mouldings are available for those who prefer bright metal trim.

Put this complete line to work for you now. Plan Marlite interiors that will please your most fastidious clients—with Marsh Color-Matched Aluminum Mouldings! Mail coupon for complete details.

*Yellow, Cream (Eggshell), Blue, Coral (Flamenco), Green, White, Persian Red, Pearl Grey, Royal Blue, Black and Maroon.

MARSH WALL PRODUCTS, INC.
Dept. 803 Dover, Ohio
Subsidiary of Masonite Corporation

Please send complete details on the new MARSH COLOR-MATCHED ALUMINUM MOULDINGS.

NAME__________________________
TITLE_________________________
FIRM__________________________
ADDRESS______________________
CITY__________________________
ZONE__________STATE___________

AUGUST, 1950
The beautiful
UTILITY HARDWOOD
PLYWOOD
with
One-Piece Face!

Mengelbord® is a low-priced 3-ply utility hardwood plywood, ¼" thick. It is made from beautiful White Gum (Tupelo), has a one-piece face, with no joints or oval patches to mar its appearance.

Mengelbord is ideal for all interior uses:
- DRY WALLS
- PARTITIONS
- CABINETS
- STORE FIXTURES
- FURNITURE

Write today for descriptive literature. No obligation, of course.

Where fine wood panels of Mahogany, Oak, Birch or Walnut are desired—ask for Mengelux®.

Literature on request.

THE MENGEL COMPANY
Plywood Division • Louisville 1, Ky.


Portland Cement Association...
(Continued frompage 182)

in another the extensometer measures linear variations up to 10,000ths of an inch. PCA’s sonoscope developed by engineers John Guthrie and James Kennedy “penetrates” 50 feet of concrete with sound waves, the elapsed time of transmission and receipt of which furnishes data for analyzing the concrete’s interior. Also surprisingly delicate is the 1,000,000-pound testing machine, one of six ranging in size, whose power and instruments will measure the compressive strength of a concrete beam—or an egg shell.

Heavy, noisy, dusty operations are performed in the auxiliary building where cement and aggregate are stored—where pilot plants, kilns and vibrators are installed from which dust is drawn by a 9,600 cfm dust collector installed on the roof. In the main building, special laboratories are assigned to soil processing, concrete batching, and cement and mortar testing with rooms of controlled temperature (20 below to 130 degrees above) and relative humidity (up to 100 per cent). In special rooms with brine tanks and other testing equipment, concrete specimens are subjected to heating-drying, cooling-soaking, freezing-thawing cycles for analytical data.

Offices with their sound-absorbent walls are conveniently located near laboratories in the Center, but the library in a less trafficked portion of the main building, offers thousands of documents to research workers, covering the vast array of groundwork already done by scientists the world over also interested in this vital stuff—concrete—the chemical formula of which is still one of the world’s unknowns.

As new advances are made, as new announcements are pronounced, interested audiences will gather in the Center’s auditorium decorated in pastel shades with continuous horizontal and vertical joints casting faint checkerboard shadows. Here, too, in one corner that can be enclosed with a folding wall, a dining room serves workers and guests with good food and pleasant coffee for those minutes of relaxation from the un-ending task of making this building product, already one of the most versatile in the

(Continued on page 186)
SPENCER
THE QUALITY LINE OF
HEATING BOILERS
backed by more than 60 years' leadership

VERSATILE
Boilers for all types of fuel and all methods of firing. Capacities from 290 to 45,000 square feet, steam.

DEPENDABLE
Precision-engineered and manufactured to give superior, guaranteed service.

Construction in accordance with ASME requirements. Fully approved by Steel Boiler Institute or Institute of Boiler and Radiator Manufacturers.

Write for free catalog today

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

76 DEPENDABLE MODELS TO CHOOSE FROM

SPENCER

AUGUST, 1950
industry, an even better servant of the nation’s builders and the nation’s home owners.

Association Objectives

With 26 district offices in 45 states, Washington, D.C., and Canada, the Portland Cement Association pursues with thoroughness its five objectives: scientific research, development of cement-using products, promotion, education and technical service and accident prevention in member companies. To these ends, the sections of administrative offices, ten technical and promotional bureaus and research and development division employ a headquarters staff of 180 employees and a field organization of 300, handling 300,000 inquiries annually, distributing (during the past 10-year period) 25,011,000 pieces of literature on 400 subjects.

Safety Promotion

One of PCA’s assets is a sand library in which 3000 samples of sand are filed to speed queries about use of soil from any part of the United States. A further service has been PCA’s promotion of safety and accident prevention among the industry’s plants, for each year the PCA Safety Trophy is awarded to the member company mills that qualify with an outstanding safety record.

Over one million dollars have been spent by the organization during the past generation on fundamental research to insure that the 300,000,000 tons of concrete used annually in the U.S. are the best available to the consumer. Its outline, current and past projects of PCA include: water-cement ratio principle, air-entraining portland cement, pressure grouting for railroad track stabilization, acoustical and insulation values of concrete, design for pavements, analysis of stresses in reinforced concrete, house building, colored concrete, precast concrete products and long-time studies of cement performance. Officers of PCA (others not mentioned above are: Carl D. Franko, vice president in charge of promotion; W. D. M. Allan, director of promotion; Hubert Woods, director of research; H. F. Connerman, assistant to vice president for research and development) insist that all PCA patentable inventions are dedicated to the public—all discoveries are available for common use.

Soil-Cement

What are the newest—or at least two current—interests of PCA’s research and development staff?—soil-cement and prestressed concrete. Today, although few city dwellers are aware of it, 3,800 miles of secondary roads are paved with soil cement—23 million square yards of soil-cement furnish landing areas for modern airplanes. In all these uses, 90 per cent of the paving was completed with soil found on the site. Seven to 16 per cent mixtures of portland cement can convert practically all common American soils into hard, durable pavement for roads subject to light traffic and runways. With a total of 66 million square yards of soil-cement in use today, PCA is plugging, with full use of its soil testing equipment, to expand this figure as it works out the problems of soil mechanics in its special laboratory. What happens to soil mixtures when subjected to traffic, weight, weather? These are only a few of the practical questions that find solution in this Center where “how” and “why” are constant queries.

Prestressed Concrete

What about prestressed concrete? It’s an old subject; the first patent was, in fact, issued to an American, P. H.

(Continued on page 188)
The two **MOST IMPORTANT** rooms in the house

People want beauty in their bathrooms and kitchens—lively colors and exciting patterns. That's why so many dealers are profiting with Tylac and GE Textolite surfacing materials. Here's a double-barreled answer for the great public demand to dress up those two most important rooms.

GE TEXTOLITE! A plastic surfacing that wears like iron, cleans like glass. It's beautiful, easy on the eyes, and requires no upkeep. It's heat resistant, scratch resistant, and stainproof. It's tops for table tops, kitchen work surfaces, desks and bars. Available in a wide variety of colors and patterns.

MIRACLE WALLS BY TYLAC! Gay and cheerful—new Hi-Baked Plastic Enamel Surface For Walls. It is finished when installed. No painting or varnishing required. Will not crack, craze or chip. Four modern distinctive patterns in eighteen colors. Dealers find Tylac a fast-moving profit item.

There's real sales volume here! General Electric Textolite and Miracle Walls by Tylac are tailored to meet public demand. Dealers the country over are filling big orders with this double-barreled answer in modern surfacing material.

Contact your nearest Roddiscraft warehouse for prices, descriptive literature and information about fabrication and installation methods.

---

**NATIONWIDE Roddiscraft WAREHOUSE SERVICE**

Cambridge 29, Mass. 229 Varick St.
Charleston, W. Va. 112 E 37th St.
Chicago 22, Ill. 2045 W. Armitage Ave.
Cincinnati 7, Ohio 437 E. Sixth St.
Dallas 10, Texas 2900 Meddill St.
Detroit 14, Mich. 11651 E. Jefferson Ave.
Houston 10, Texas 7333 S. Shepherd Dr.
Kansas City 3, Kan. 33-53 Southwest Blvd.
L. A. City, N. Y. 2210 E. Olive St.
Los Angeles 11, Calif. 2960 E. 5th St.
Louisville 10, Ky. 1201 S. 10th St.
Marshall, Wis. 119 S. Park Ave.
Minneapolis 5, Minn. 4601 N. 3rd Ave.
Milwaukee 2, Wis. 4611 W. Shore St.
New York 35, N. Y. 130 E. 48th St.
Philadelphia 6, Pa. 130 Market St.
Richmond 14, Va. 1134 N. 12th St.
St. Louis 1, Mo. 3344 North 24th Road
San Antonio, Texas 737 H. Cherry St.
San Francisco 29, Calif. 345 Williams Ave.

AUGUST, 1950
Portland Cement Association...

(Continued from page 156)

Jackson of San Francisco, in 1888, but the American builder's concern for mass, his impatience to learn new techniques of subtle thinking and the ready availability of materials let the invention atrophy—to be capitalized on by European engineers who, especially in recent decades, face crippling material shortages and who must build to calculated stresses, who must make every pound of material count. It is in France, England and Belgium that prestressed concrete is fast finding acceptance.

In prestressing concrete, super-imposed compressive stresses are set up in the concrete unit with steel wires or rods (cast integrally with the unit in PCA's experiments) to neutralize tensile stresses. The unit is compressed like bricks held together with compressive strength in a stacking clamp.

Advantages of Prestress

Prestressing means more economical concrete construction—longer, unsupported spans and greater tensile strength—and will likely lead to...new principles and forms of architecture..." according to Dr. Bates. New forms have already evolved in Europe where prestressed units have been used in longer unsupported spans for roofs, bridges, ceilings with lighter structural members.

In England prestressed "sleepers"—railroad ties in our language—are gaining favor and prestressed precast reinforced beams were used in 1946 for the railroad bridge at Wigan and across the 60-foot span of a bridge in Lincolnshire in 1948. In the United States, engineers are watching with interest this exciting undertaking: the Walnut Lane Bridge, Philadelphia, which will span a 160-foot ravine without intermediate supports, using prestressed concrete structural members.

How these new fields will affect the portland cement market is not known. The present market breakdown is as follows: structural—28 per cent; paving—22 per cent; housing and small uses—22 per cent; conservation—16 per cent; farm—12 per cent. Of course, it's the market that PCA is, ultimately, working for, but PCA is working to build a bigger cement market, as President Sheets said, "...in the public interest and to build a greater America."

FNMA Transfer Would Check GI Housing, NAREB Witness Asserts

President Truman's proposal to transfer the Federal National Mortgage Association (FNMA) to the Housing and Home Finance Agency would, in effect, another the veterans' housing program, according to a recent statement before Congress by Calvin K. Snyder, secretary of the Realtors' Washington committee of the National Association of Real Estate Boards.

Snyder testified before the Senate Committee on Expenditures in the Executive Departments, in support of Senate Resolution 299. The measure, introduced by Sen. Walter F. George (Dem., Ga.), calls for Senate disapproval of the President's Reorganization Plan 22. This plan would transfer FNMA from the Reclamation Finance Corporation to the HHFA.

Asserting that HHFA "has steadily been increasing in power and political influence since its formation in 1947," Snyder predicted that the proposed transfer of "Fannie May" would give HHFA control of the secondary mortgage market, resulting in a serious impairment of the GI home building program by allowing HHFA to dominate the Veterans Administration on housing matters.
Whether you build one house a week...
or 1,000 A YEAR...

National Homes offers the MOST to Dealer-Builders!

Since August, 1949, National Homes has doubled its number of dealer-builders. Why? Because our houses yield greater profits to dealers. AND because our strategically located plants at Lafayette, Indiana, and Horseheads, New York, offer the utmost in uniform quality and dependable deliveries. AND because trained field men help solve dealer problems of financing, selling, erecting. AND because we back up our dealers with color ads in leading magazines — the most powerful national advertising program in the housing field. Investigate NOW. Your area may still be open for dealership! Sound financial resources required.

NATIONAL HOMES CORPORATION • Lafayette, Indiana
EASTERN PLANT . . . HORSEHEADS, NEW YORK

AUGUST, 1950
Raynor offers YOU a COMPLETE LINE of Wood Sectional Overhead DOORS

DESIGNED - Built and Proven to be the BEST!

**INDUSTRIAL...**

The Finger Tip Control, outstanding beauty and moderate cost built into every Raynor door, regardless of size, means lasting satisfaction to the buyer and profit to the builder.

**COMMERCIAL...**

Three-Way Stress Construction, the finest material and the most modern production methods used in building Raynor doors, guarantee lasting quality to the user and profit to the builder.

**RESIDENTIAL...**

Designed by Raynor engineers - built complete in the Raynor plant - when you sell and install the complete line of Raynor doors you are offering your customers the BEST in wood sectional overhead door equipment.

Please send COMPLETE INFORMATION
Name
Street
City

Raynor MFG. CO.
River St., DIXON, ILL.

New 300-Home Eastern Project
Is in $10,500-$14,000 Range

THREE model houses, including a four-bedroom home with two baths priced below $14,000, were recently opened for public inspection in a 300-home Long Island, N.Y., development.

Located in the village of Albertson, Nassau County, the homes were built by Joseph Carillo, Joseph Wanen and Samuel Levin, who completed a 217-house subdivision in New Hyde Park a few months ago. Two of their model homes in the new Hillside Terrace project at Albertson were decorated by the New York designers, Nardin and Radocy. Some built-in furniture, designed by the decorators is also used.

Currently, 97 of the 300 houses priced from $10,500 to $13,900 are under construction in the new $3,500,000 project at Albertson on a 55-acre site. All the homes have full basements and expansion attics and are on landscaped plots of 6,000 square feet and larger. They were designed by William P. La Valle, Jamaica architect.

Most popular of the three models is “The Regent” which contains a center hall and five rooms, including two first floor bedrooms, in its 944 square feet of living space. It is priced at $11,090. Nearly 100 of these houses have been sold from a pilot model in the builders’ New Hyde Park development.

No down payment is required from war veterans. With (Continued on page 192)
"I make sure my houses sell by putting in proved HEATILATOR FIREPLACES!"

says Herold Bradley, prominent Pittsburgh Architect and Builder

NEW 60-HOUSE HARPER VILLAGE IN PITTSBURGH SUBURBS. Good design, careful detailing, quality living features. Herold Bradley’s 2-story houses with their genuine Heatilator Fireplace Units sell for only $13,000, including garage.

Mr. Bradley insisted on Heatilator* Fireplaces because he knows they help sell houses faster...and are trouble-free. As Mr. Bradley puts it, "Heatilator Fireplaces won’t smoke...they circulate heat...and they add little to the cost of the fireplace." Heatilator Fireplaces are important sales features of Mr. Bradley’s new 60-house development, where careful designing has cut construction costs $2 a sq. ft. below current prices.

You can attract customers with the assurance of smokeless, trouble-free fireplaces when you specify genuine Heatilator units. Even inexperienced masons can’t go wrong because the Heatilator unit provides all vital fireplace parts in one compact form. No extra parts to buy or build. It saves on expensive firebrick. It saves mason time and labor because all designing is done.

The Heatilator unit takes heat that is ordinarily wasted and circulates it to every corner of the room...and to adjoining rooms as well. On cool Spring and Fall days, furnace operation is unnecessary. In mild climates, it’s the only heating source needed.

People recognize the Heatilator name...it’s been advertised in national magazines for over 23 years!

HEATILATOR FIREPLACE
Sells Houses FASTER!

AUGUST, 1950
TEMCO'S Gas WALL FURNACE Completes Home Planning Flexibility

First - The TEMCO Gas Furnace brought automatic heat within the reach of every home builder. Now - TEMCO offers a Gas Wall Furnace for installation with any type of construction. The TEMCO Gas Wall Furnace requires no basement, can be installed on first or second floors or where slab type foundation is used. Check the possibilities of a TEMCO Gas Furnace before you specify the heating system for any home. And - weigh carefully these TEMCO Gas Wall Furnace Features:

- Easy to install — Fits between Standard 16" o. c. stud construction.
- Lasting Porcelain Enamel Heat Chamber.
- Readily accessible control assembly.
- Cabinet finished in Hammer Tone and styled to Harmonize with Modern Home Furnishings.

TEMCO. the Division of 2:215, Nashville, Tenn. Please forward complete specifications on TEMCO Gas Wall Furnaces.

Four Bedroom two-bath house for $13,990. Additional rooms were obtained by finishing expansion attic of $11,080 "Regent" finished to show prospective buyers the possibilities of additional space contained in an expansion attic, and at the same time provide a four-bedroom house with two baths at a moderate price. This house contains a total of 1,336 square feet. One of the second floor bedrooms is 11 x 13 feet and the other is 11 x 14 feet 6 inches.

The lowest priced house in the development is "The Albertson" model selling at $10,590. It contains 804 square feet and is of modern ranch-type design with a 9 x 6-foot picture window in an 11-foot bay of the living-dining room overlooking the rear yard. The stairway to the expansion attic rises at one side of the 22 x 12-foot 6-inch living-dining room.

All three models have colored ceramic tile bathrooms with plastic-topped vanity-style lavatories, large plate glass wall mirrors, medicine chest and built-in clothes hamper. Purchasers have a choice of bathroom colors. The second floor bath in the four-bedroom model has a conventional lavatory.

(Continued on page 194)

Now 300-Home Project . . .

(Continued from page 190)
a full mortgage, monthly payments of approximately $69.50 cover principal amortization, interest, taxes, fire insurance and water. Veterans' mortgages are for 30 years at 4 per cent interest and are financed by The Dime Savings Bank of Brooklyn. Non-veterans pay $1,640 down and payments total approximately $71.50 on a 4 ¼ per cent 25-year FHA-insured mortgage.

The four-bedroom house, priced at $13,990, is simply "The Regent" with its expansion attic finished into two bedrooms and a second tiled bath, with a linen closet in the large upstairs hallway. The additional rooms were

WIDE vanity-type lavatories with colored plastic tops and large plate glass mirrors are standard equipment for baths in project
*Nu-Style*

MULTIPLE-USE CABINETS

...for Kitchen
...for Laundry
...for Bathroom

For Cabinets that are flexible in use, in color finish, in installation simplicity and that fit any size or shape of room, select Nu-Style Multiple-Use Cabinets.

Comparison proves why Nu-Style Cabinets excel!

1. An exclusive Nu-Style feature is the door with "the Famous Profile" . . . in perfect harmony with latest ranges and refrigerators.
2. Nu-Style is the strongest cabinet made . . . drawers are dovetailed. Solid standards are ¾" thick and the frame is mortised.
3. Nu-Style Cabinets can be scribed or sawed to join plastered surfaces.
4. Nu-Style can be enameled any color or finished in natural wood.
5. Nu-Style Cabinets are produced by experts trained in latest scientific manufacturing methods.
6. They are made from thoroughly seasoned, Kiln-dried Ponderosa Pine . . . the best base for a wide variety of finishes.

Nu-Style Cabinets are distributed throughout the 37 Eastern States. Write for name of the nearest distributor.

CARR, ADAMS & COLLIER CO. Dubuque, Iowa
When you buy Douglas Fir from the Western Pine region you can go the limit in recommending it to your customers. For the member mills of the Western Pine Association go the limit in manufacturing, seasoning, and grading this many-purpose wood to the exacting Association standards.

So remember this—Douglas Fir from the Western Pine Region is your best buy when you buy Douglas Fir.

For more information about Douglas Fir from the Western Pine region send for free illustrated 52-page book.

**WILLIAM SMEYLL**

Yeon Building • Portland 4, Oregon

**THESE ARE THE WESTERN PINES**

Idaho White Pine, Ponderosa Pine, Sugar Pine

**THESE ARE THE ASSOCIATED WOODS**

Larch, Douglas Fir, White Fir, Engelmann Spruce, Incense Cedar, Red Cedar, Lodgepole Pine.

**WOODS FROM**

**THE WESTERN PINE REGION**

WELL MANUFACTURED

THOROUGHLY SEASONED

CAREFULLY GRADED

---

**New 300-Home Project...**

(Continued from page 192)

The houses are built on 10-inch poured concrete foundations with more than seven feet of headroom throughout the basements. They are fully insulated with non-combustible rock wool in all walls as well as above the ceilings. Oak flooring is used throughout except in the kitchen where the buyer is offered a choice of colors of linoleum. Flush-type doors in natural wood finish are used throughout.

The heating system is an oil-fired Bryant warm air furnace in the basement. Air is humidified and filtered before passing through the ducts. In summer the ducts can be used to circulate cool air through the house. Heating ducts have been extended into the attic and catted, ready for use whenever it is desired to finish the second floor.

![House Plan](image)

310.500 home features an open plan of living room, dining area and kitchen with picture window overlooking the rear yard. All houses have full basements.

Included in the selling price of all homes in Hillside Terrace-at-Albertson are a 30-gallon automatic gas water heater and stationary laundry tubs in the basement, a table-top gas range, automatic electric ventilating fan and wood cabinets in the kitchen, and door chimes in a telephone niche near the front entrance.

The master bedrooms in all three models have sliding-door closets. In “The Regent” this closet is seven feet long and has built-in shelves in the center. In “The Albertson” model the sliding door closet is four feet long, but a second closet is provided in the opposite side of the room.

Although all houses are built on two standard plans, purchasers are able to select numerous variations in window treatment, exterior finishes and roof styles. Variations afforded by stone, brick or varicolored shingle or clap...
Announcing
THE MOST HANDSOME
DOORS IN AMERICA!

ALL-ALUMINUM
FLUSH DOORS
BY KAWNEER

Ideal for:
Stores, Restaurants,
Theatres, Hospitals,
Schools, Offices,
Hotels, Apartment
Buildings, Homes,
Factories, etc.

Rich modern beauty dramatizes any exterior or interior with Kawneer All-Aluminum Flush Doors. Their lustrous finish and simplicity of styling makes them unequalled in striking eye-appeal.

An exclusive Kawneer method (Patent Pending) locks the doors together as a rugged integral unit with no bolts or welds visible. Precision-made and carefully balanced, they'll operate smoothly and easily through the years.

Write Department AB-52 at 1105 North Front Street, Niles, Michigan, or 930 Dwight Way, Berkeley, California.

THE
Kawneer
COMPANY
ARCHITECTURAL METAL PRODUCTS

Store Front Metals
Aluminum Roll-Type Awnings
Modern Entrances + Aluminum Facing Materials
Flush Doors

AUGUST, 1950
FROM ANY ANGLE
IT'S CONVENIENCE — ECONOMY — REFINEMENT
Key-in-Knob Tubular Locksets

With — Corbin time-tested pin tumbler security — at low cost — designed for use in residences and apartments. Reflecting prestige of CORBIN, a name identified with quality hardware for more than one hundred years.

STANDARDIZE ON CORBIN MADE TUBULARS — THERE IS ONE FOR EVERY DOOR FUNCTION.

P. & F. CORBIN DIVISION
The American Hardware Corp.
New Britain, Connecticut

New 300-Home Project . . .
(Continued from page 194)

board fronts, together with roof dormers, gables and different styles of windows.

Because the houses are located on landscaped plots with minimum frontages of 60 feet, there is adequate space for attached garages. These are supplied by the builders for an additional $1,000.

The standard house exterior has a front of colored wood shingles and vertical siding stained and shellacked in natural color. Six color choices of wood shingles are offered purchasers. Brick or stone fronts are provided at a slight additional cost. The ends and rear of the houses are of white asbestos shingles, but several early purchasers have paid a small additional amount to have colored wood shingles substituted.

The Hillside Terrace-at-Albertson development is laid out with winding paved streets. One part of the development extends to within 300 feet of the Albertson station of the Long Island Railroad, while the other side of the development is passed by a bus line which provides a connection with the subway at Jamaica. Plans are now being made to locate a new grade school at one corner of the project. Stores and shops are located within a block of the subdivision and plans are under way for the erection of additional stores in the nearby area.

EXTENDED cupboard with shelves forms separation between kitchen and dining area of one of model homes in Hillside Terrace development. Finish of kitchen cabinets blends with cupboard wood shingles and vertical siding stained and shellacked in natural color. Six color choices of wood shingles are offered purchasers. Brick or stone fronts are provided at a slight additional cost. The ends and rear of the houses are of white asbestos shingles, but several early purchasers have paid a small additional amount to have colored wood shingles substituted.

The Hillside Terrace-at-Albertson development is laid out with winding paved streets. One part of the development extends to within 300 feet of the Albertson station of the Long Island Railroad, while the other side of the development is passed by a bus line which provides a connection with the subway at Jamaica. Plans are now being made to locate a new grade school at one corner of the project. Stores and shops are located within a block of the subdivision and plans are under way for the erection of additional stores in the nearby area.

Report Gain in Prefab House Sales

James R. Price, president of the country's largest prefab house company, National Homes Corp. of Lafayette, Ind., reports a sales gain of 181 per cent this year. National has turned out 2,634 units in five months compared to 939 in 1949. "We have orders on our books for 10,000 units for all of 1950; last year we sold 4,435 units," the 38-year-old official declares.

—Wall Street Journal
From Every Angle
A Homelite Carryable Generator
Is the Power Unit for You...

1. PERFORMANCE. Once you begin to use a Homelite...yes, even when you use it demonstrated..., you immediately appreciate its outstanding performance. Light enough for one man to carry, a Homelite packs the power needed to keep hand tools running at full productive capacity...and floodlights burning at full brilliance...at any time at any place in all kinds of weather.

2. DEPENDABILITY. Every Homelite Generator though light in weight is a heavy duty unit. No baby stuff about it. For more than a quarter century Homelite engineers have specialized in building carryable gasoline engine units...close to three hundred thousand of them...and they know that to keep a generator going on the job they have to use the finest materials and apply the highest engineering skill.

3. SERVICE. Like all pieces of machinery, a Homelite Generator needs, in the long run, a certain amount of servicing...a minimum to be sure. But the availability of Homelite service by nationwide exclusive service shops...completely stocked and manned by experts who can service your Homelite right at your door...makes a whole of a difference when it comes to having a generator that will give you instant power not only where you want it, but also when you want it.

Homelite Corporation

How to Build a Garage

Work Bench and Cabinet

Too often the excess space in a garage is no-man's-land, when it might just as well be put to purposeful use. Since there always is tinkering to be done in the garage, whether it concerns the automobile, house, yard or garden, this location is excellent for a narrow workbench and a tool board.

There usually is room at the end of the garage, or at one side, for a small workbench like the one illustrated.

Constructed of 2-inch by 2-inch and 2-inch by 4-inch lumber, the workbench is 34 inches high, 4 feet long and 2 feet wide. The latter dimensions include a 3-inch overhang of the working surface.

Inside the workbench are two shelves, each constructed of Masonite 1/4-inch Temperite Preswood. The same material is used, because of its hardness and resistance to wear, as the working surface and the sides. Under the Preswood top are 1-inch by 6-inch tongue and groove boards. The storage space underneath is closed with two Preswood doors built on a frame of 1-inch by 2-inch lumber. The doors may be locked with a hasp and padlock.

Six pieces of 2-inch by 4-inch lumber provide sturdy support.

(Continued on page 207)
He's on your staff but not your payroll

It was a tough heating problem. But the builder who faced it knew of a proved source of engineering aid on heating. And the Bryant distributor brought in the answer.

Yes, Bryant distributors welcome such opportunities. Complete and thorough factory engineering assistance is at their call. Thus, thinking of the industry's largest staff of gas heating engineers becomes an extra Bryant service for builders from coast to coast.

Other plus factors of the Bryant program are the opportunity of getting most everything in gas heating equipment from a single source . . . a near-by distributor with adequate warehouse stock . . . a nationally famous brand name that clients recognize for its quality.

If you are one of those builders who likes to get more than just the product when you put it into your homes . . . check with Bryant!
How to Install the NEW CHROMTRIM fold-down type sink frame...

Align CHROMTRIM sink frame over opening. Embed it in Werner waterproof adhesive and screw down permanently. Frames are pre-drilled with countersunk holes. Use screws supplied.

Cut covering material to fit over frame. Spread Werner waterproof adhesive evenly over sink top and press or roll down covering material to smooth out all air bubbles.

Fold down lip over material, starting with wood block and hammer. Continue with block and hand pressure until adhesive squeeze out at edges. Clean off excess adhesive immediately.

CHROMTRIM preformed, fold-down frames are available in 13 popular sizes. Fold-down lip grips all covering materials ... makes tight waterproof joint on plastics, linoleum, etc. from 1/16 in. to 1/8 in. thick. Available with square back or tapered flanges. For extra beauty, finish outer edges of sink top with CHROMTRIM fold-down underface nosing.

How to form your own sink frames on the job

Use CHROMTRIM straight face nosing, edging or fold-down type nosing. Slit the flange or underface shapes as shown, to form rounded corners. Saw one slit only for square corners. Write in for complete information.

A complete line of over 200 metal mouldings, aluminum, some stainless steel. There's a CHROMTRIM shape for every need. See your distributor.

Fuel Saving Method

The installation of a tempering tank between the water meter and the water heater will save fuel in the heating of the domestic water supply for the kitchen, laundry and bathroom, according to the Plumbing and Heating Industries Bureau. The tank, which should be left uninsulated and placed under the ceiling at the warmest point in the basement, kitchen or utility room, will have the effect of bringing the water to room temperature before it enters the water heater.
MORE FARM HOMES

Have been added to the
4-Square Building Services

HELPING BUILDERS SERVE A RICH MARKET

Special interest is being focused on modern farm homes. The desires of farm families for convenient, comfortable housing . . . and the creation of favorable financing for farm homes, are developing a rapidly growing rural market.

More and more builders are seeing in this market a rich field for the sale of new homes. These homes must, however, be special homes . . . homes specially designed for farm living.

As a timely and effective addition to its 4-Square Building Services, Weyerhaeuser offers 3 new designs of farm homes, including blueprints and condensed material lists.

Agricultural extension specialists, architects and engineers collaborated in designing these homes. They have provided modern kitchens, bedrooms, baths, a high degree of privacy . . . plus that modern essential of farm homes . . . the service room . . . the buffer between the kitchen and the farm yard.

Advertised in state farm papers from coast to coast, 4-Square farm homes have stimulated tremendous interest. Thousands of requests for details have been received from farm families.

With specially designed farm homes, Weyerhaeuser is helping builders serve the profitable farm market. See your 4-Square Lumber Dealer for complete details.

Weyerhaeuser

4-SQUARE LUMBER AND SERVICES

WEYERHAEUSER SALES COMPANY, ST. PAUL 1, MINN.

Build for Greater Value with the
4-SQUARE BUILDING SERVICES
Here is the metal tile that is easily installed on existing walls or ceilings without expensive alterations or disconnection of fixtures. On new construction VIKON TILE permits economically erected walls or wall boards to be used as a satisfactory base. Can be applied over any smooth surface. Recommend Individual Vikon Metal Tiles, your guarantee of client satisfaction.

- 27 fade-resistant decorator colors and stainless steel
- will not warp, crack or craze
- resists heat and household chemicals
- fire-resistant, waterproof, resists out insects
- particularly adaptable to remodeling

"The Original Individual Metal Tile" Established 1926.
See our catalog in Sweet's File.

STEEL • ALUMINUM • STAINLESS STEEL

VIKON TILE
BEAUTY • ECONOMY • DURABILITY

MAIL THIS COUPON TODAY

VIKON TILE CORPORATION  Dept. 46
Washington, New Jersey

Please send me, without obligation or cost, a full-color descriptive brochure and sample of Vikon Metal Tile. I am interested in tile for:

- My home [ ]
- As a dealer [ ]
- As a contractor [ ]

NAME:

ADDRESS:

CITY 【 】 ZONE 【 】 STATE

THE RAKE

Wood Handle

1/4 Flat Head Wood Screw

Brick Face

END VIEW

"The Rake" used in conjunction with brick laying when taking out mortar joints in a brick wall, will produce an even and uniform appearance. The slot in the center of rake allows the excess mortar to drop away. If the rake is used extensively it will wear out a screw a day. The size of screw used will depend entirely upon the size of the mortar joint. Rake can be made of 3/4 inch material. Any tough wood will do. To operate, the rake is pushed back and forth until mortar is removed. Helper can operate.—Submitted by C. D. Robb, Frankfort, Ohio.
QUALITY THAT WINS DEMAND . . . means more profit for you! CHAMPION Homes withstand all climatic conditions because of rugged construction and quality-inspected structural materials. They are available in 3 sizes and 30 designs . . . varied colors . . . enough architectural variation for many combinations in large group developments, with no two homes alike!

QUICK, EASY ERECTION . . . that SELLS the CHAMPION! Expertly engineered, CHAMPION Homes can be erected and under roof in one day! Interim financing is available to qualified Gunnison dealers! Orders are shipped by truck within 350 miles, or by freight (2 in a car) anywhere in the U. S. This simplified building method means CHAMPION Homes earn more PROFIT FOR YOU!

The letter on the right TELLS THE STORY! This dealer's experience with CHAMPION Homes is POSITIVE-PROOF that CHAMPION Homes earn more PROFIT FOR YOU!

Write Dept. A-4 for dealer information
ONLY RUSCO OFFERS THESE DESIGN AND CONSTRUCTION FEATURES...All working parts are of strong, tubular, hot-dipped galvanized Armco Ingot Iron Zinc-grip, Bonderized and finished with baked-on enamel. No field painting required, (except wood trim when used). Glazing and on-the-job refitting are all completely eliminated. Design permits installation in less than half the time required by ordinary window units. A quality product, competitive with the lowest price window unit on the market.

OFFERS YEAR ’ROUND BENEFITS:
1—A year ’round unit—no screens or storm sash to buy ... 2—Built-in ventilation control ... 3—Glass and screen panels removable from inside for easy washing ... 4—No weights, cords or balances ... 5—Waterproof felt weather stripping ... 6—No binding or sticking ... 7—Lumite plastic screen cloth—permanent—no deterioration or streaking ... 8—Automatic locking in closed and ventilating positions.

RUSCO GIVES YOU a complete, factory-assembled, factory-painted metal unit ... contains glass, screen, weather stripping, installation members (wood or metal), self-storing insulating sash.* *optional

Get the facts about Rusco Prime Windows. You’ll see why they save on-the-job costs ... help sell houses. See the Rusco distributor in your locality, or write direct.

THE F. C. RUSSELL CO.
Department 7-AB80, Cleveland 1, Ohio
Manufacturer of the famous Rusco all-metal, self-storing combination screen and storm sash.

TECHNICAL GUIDE
for Builders and Craftsmen

How to do a Better Roofing Job With Asphalt Strip Shingles

When sheathing has been applied and roof is ready to shingle, start at gutter line with one course of 16 inch Red cedar shingles as indicated in illustration. Project the wood shingle approximately one to one-and-one-half-inches beyond edge of roof sheathing. Start double course of asphalt shingles about 5/16 inch beyond edge of red cedar shingle. This produces a stiff edge which will not break or sag.—Submitted by C. D. Robb, Frankfort, Ohio.

How to Prevent Drill From Wandering in Wood

Drill is prevented from wandering in soft grainy wood by applying a strip of metal on the wood as shown in illustration. Metal strip should be about 12 inches long with a hole of the desired diameter drilled through the exact center. Metal strip is secured to the board by a C clamp on either end so that the bored hole in metal will occur directly over the area where hole is to be bored in wood. Drill through the hole already in the metal. The bit will not wander.—Submitted by Herbert E. Fey, New Braunfels, Texas.
this year in a neighborhood development competition sponsored by the National Association of Home Builders, was Solheim's first FHA Title 608 project, and Nebraska's first such project. After completion, Solheim bought out complete interest in the Sweeney-Solheim Corp. which built the apartments, and began devoting full time to architectural work. So popular were Nebraska's first 608's that adjoining states began to demand his plans, and Solheim, now called the "flying architect," has clients in four states, and goes from job to job in his privately owned airplane.

Among a long list of clients are retired policemen, lawyers, and common laborers, who in many cases, acted as their own builders. One owner four years ago with no previous construction experience built on of the apartments with the architect's supervision, then built another, and is today a successful builder in Lincoln. Small builder clients are particularly interested in rental units designed by the architect, mainly because large investments in materials, labor and time are not required.

Big Kansas City Project

One of Kansas City's biggest apartment projects, consisting of 666 units, costing $5,000,000, was started around July 1. The garden type residential development is located on a 60-acre tract of flat wheat land. There will be 600 two-bedroom apartments to rent for less than $75 a month.
Ideas for Apprentice Craftsmen

How to Make a Joint for Screens

The illustration above indicates a corner joint for screens and screen doors that has proven satisfactory.—Submitted by H. J. Priehs, Ideal, Ga.

How to Replace a Broken Hammer Handle

Buy a small bottle of glycerin. Soak new handle in solution for one week. After removing from solution file handle carefully with rasp so it fits head tightly. Drive to point marked on illustration. Heat hammer in oven until head is hot; then drive handle all the way in and wedge as usual. Hammer will be better than new.—Submitted by J. G. Caldwell, San Mateo, Calif.
Now you can have the complete facts about finishing floors—right at your fingertips—in this handy new 3-foot chart prepared by American! Helpful in estimating coverage, drying time, selection of materials and other data for all floors. Gives data and recommendations on 15 quality materials for treating floors, including penetrating floor seal finishes, surface floor finishes, floor cleaning and maintenance materials, and rapid drying special finishes. This chart will be sent free to contractors and architects upon request. Also, a complete new A.I.A. file on preparation, finishing and maintaining all types of floors is available to you without obligation.

New—a complete line of American finishes now offered for all kinds of floors! This gives you the correct material—in the finest quality—for each type of floor, and for each desired result. There are American seals, finishes, waxes and cleaners for every requirement—glossy or satin—fast-drying or normal drying—on wood, cork, linoleum, terrazzo, asphalt tile, rubber tile, concrete, plastic, and other types. The right materials for long life and easy maintenance!

Send for the free 3-foot chart showing all materials for all floors... also ask for the new complete file of specifications on finishing floors. The American Floor Surfacing Machine Co., 311 So. St. Clair St., Toledo 3, Ohio.
BOSTROM LEVELS FOR HALF A CENTURY
Have been the most economical precision leveling instruments on the market.
Used and endorsed by contractors and builders everywhere. Sold on guarantee of satisfaction or money back.
Carried in stock by distributors from coast to coast. Write today for literature, prices, and name of our distributor near you.

No. 6 BOSTROM Convertible Level Detectable Compass when desired

Bostrom - Brady Mfg. Co.
535 Stonewall St., S.W. ATLANTA, GA.

BARRY STEEL DOORS
Last Longer-
Yet Cost Less Than Wood!
Available single or double, steel or aluminum.

- Fully recessing
- Electronically zinc plated
- Prime coated at factory for extra rust protection
- Heavy, rugged hardware
- Double latches for security; seals both sides of door
- Ball bearing rollers provide "Feather-lite" action
- Welded and stress point riveted— to last a lifetime
- Attractive horizontal grooving
- Easy to install; a woman or child can easily operate it

SEE YOUR DEALER OR WRITE
ALUMINUM PRODUCTS CORPORATION
175 South Paddock St., Pontiac, Michigan

AMERICAN BUILDER
HERE'S real news, Mr. Builder.
The low cost of the new Gold Bond Mat-Thick Sealed Blanket enables you to give even your lowest-price homes the benefits of fireproof, top quality insulation. These rugged, lightweight blankets are completely enclosed with breather cover on three sides, and a vapor barrier on the fourth side. Designed for today's competitive market! Available now in most territories at Gold Bond Lumber and Building Supply Dealers.

Sealed blankets fill usual 8 ft. wall height from floor to ceiling in one operation. Heavy duty nailing flange. Greater lengths on special order. Meets F.H.A. and Building Code requirements in nearly all areas.

NATIONAL GYPSUM CO.
BUFFALO 2, NEW YORK
Levitt does it again for 1950

"ES-nails are cutting construction costs for us to the tune of $250,000 a year," says Alfred S. Levitt.

Cost-conscious, quality-conscious Levitt & Sons are making important savings on every house by using gypsum siding for sheathing, instead of boarding. ES-nails make these big savings possible.

ES-nails are the first "POSITIVE LOCKING" nail to let you take full advantage of all the savings and construction advantages of non-wood sheathing—lower unit cost, faster application, less waste, real weather tightness.

ES-nails are easy to apply. No special tools are required; use a regular shingling hatchet or carpenter's hammer. They are self-locking, attaching wood or asbestos shingles directly to gypsum or insulation sheathing. They can be driven at any convenient point—no need to locate studs.

For more information about the value of ES-nail construction—and the savings it will mean to you, call your supplier, or write: Elastic Stop Nut Corporation of America, 2330 Vauxhall Road, Union, New Jersey.

Stud Welding Speeds Roof and Siding Installation

STUD welding, a high-speed, warm technique that saved shipbuilders an estimated 100 million man-hours in six years, has enabled the contractor installing 18,000 squares of corrugated aluminum roofing and siding at Aluminum Company of America's new Ponce Comfort Works in Port Lavaca, Texas, to break all records on his job.

SPECIAL templates are used by members of Jamar-Olman Co., Chicago, turned his stud welding crews loose on one of the big aluminum reduction units at a time, as fast as paint on the steel was dry. Working from swinging scaffolds with one Lincoln generator for every four Nelson stud welding guns, they installed all of the 35,000 composite aluminum and mild steel Rivweld studs for a single building before the first sheet of corrugated material was applied. Stud welding quartets completed installation of all studs required for 500 squares of roofing in six days, while a double quartet handled stud- ing for 900 squares of siding in five days.

Sheeting crews then moved in, with four men in each roofing gang working directly on purlins and three at work on siding, which was erected from tubular steel scaffolding around the outside.

A 7-man team, four stud welders and three sheeters, hit a steady stride of between 2,500 and 4,000 square feet of siding per day, while 8-man roofing teams, four stud welders and four (Continued on page 212)
ADVANCE-DESIGN TRUCKS

POPULARITY LEADERS Chevrolet trucks are the favorites by far in every postwar year truck users have bought more Chevrolets than any other make. And that's proof of the owner satisfaction they have earned!

PERFORMANCE LEADERS Chevrolet trucks give you high pulling power over a wide range of usable road speeds...cut down total trip time with high acceleration on the straightaway.

PAYLOAD LEADERS Careful design and rugged construction permit you to haul more goods more miles—at lower cost per ton mile! You enjoy real savings on operating and repair costs.

PRICE LEADERS You're money ahead with Chevrolet trucks! Chevrolet's rock-bottom initial cost—outstandingly low cost of operation and upkeep—high-trade-in value, all add up to the lowest price for you.

Packed with VALUE... Primed with POWER

Chevrolet Advance-Design trucks have everything it takes—and plenty to spare. Rugged construction to withstand the wear and tear. Handling ease and comfort to lighten the load of a day's work. And more power than ever! Two great Valve-in-Head engines—the Loadmaster 105 h.p. and the Thriftmaster 92 h.p.—make these the most powerful trucks Chevrolet has built! Yes, these new jobs bring you peak value—and at a low price. They cost surprisingly little to buy, to run and maintain. That's why Chevrolet trucks outsell them all!

CHEVROLET MOTOR DIVISION, General Motors Corporation, DETROIT 1, MICH

AHEAD WITH ALL THESE PLUS VALUES

- TWO GREAT VALVE-IN-HEAD ENGINES: the New 105-h.p. Loadmaster and the improved 92-h.p. Thriftmaster—to give you greater power per gallon, lower cost per load
- THE NEW POWER-JET CARBURETOR: smoother, quicker acceleration response
- DIAPHRAGM SPRING CLUTCH for easy action engagement
- SYNCHROMESH TRANSMISSIONS for fast, smooth shifting
- HYPOID REAR AXLES—5 times more durable than spiral bevel type
- DOUBLE-ARTICULATED BRAKES—for complete driver control
- WIDE-BASE WHEELS for increased tire mileage
- ADVANCE-DESIGN STYLING with the “Cab that Breathes”
- BALL-TYPE STEERING for easier handling
- UNIT-DESIGN BODIES—precision built.
SAVE SPACE +
ADD FLEXIBILITY + ADD BEAUTY

“Swing” is old fashioned!
The “pleats” the thing in doors!
America’s new pleat-type door closure with the cornice that gives it a “finished look.”
foldDoor is the answer to space saving, to an unheard of flexibility of room arrangements, to new, up-to-the-minute beauty.
foldDoor is the best looking door closure you ever saw. Folds into beautiful pleats into an unbelievable small space, can be operated by a child . . . and open or closed, retains its beautiful pleated lines to add charm to any room.
Built on a rugged, rust-resistant steel frame, foldDoor comes in a wide choice of beautiful, colored plastic fabrics to harmonize with any color scheme and is topped off with an attractive, formed cornice that gives it a “finished look.”
foldDoor is the ideal closure for closets, rooms, alcoves, and can be used to excellent advantage for partitions . . . fits into all homes, modern as well as period . . . just the thing for stores, schools, offices and institutions.
Available in STOCK and MADE TO ORDER sizes. Write for descriptive literature and specifications.

Excellent Installing Distributor Territory Still Open. Write for Information.

1465 van Buren Street, Indianapolis, Indiana

SEAL-ALL CLIPS
A simple sturdy clip designed to interlock shingle sections and prevent raising of asphalt shingle tabs. The perfect clip for hexagonals, 3 in 1 strips and individuals laidup Dutch Lap method.

- Made of solid copper wire — pliable yet strong enough to anchor single sections.
- Cannot rust out.
- Hammer is only tool necessary.
- Easy to handle.
- Beauty of roof unmarred.
- Perfect on repair jobs to correct leaky, unsightly roofs.
- Millions in use since 1935.

BUILDERS AND DEALERS! For complete information and free samples, write today.

SEAL-ALL CLIP COMPANY
BOX 3020
FLINT 1, MICH.

ROBOT OPERATORS
Electronically OPEN CLOSE LOCK GARAGE DOORS AND GATES

Approved by Underwriters Laboratories
Residential, Commercial, Industrial

THOUSANDS IN NATION-WIDE USE . . . MANY OVER 20 YEARS!

ROBOT OPERATORS can open the doors to extra profits for YOU!
Write for details to Dept. AB

Manufactured by:
ROBOT APPLIANCES, INC.

STUDS for siding material are installed before erection of corrugated aluminum sheeters, completed between 4,000 and 6,000 square feet every day.

“On many occasions, working under ideal conditions, one roofing crew installed better than 5,000 square feet, and the peak day on siding was considerably better than 4,000 square feet,” Mr. Wilson said.

“We used special templates, 20 to 24 feet in length, which were clamped to the steel struts to speed the layout

AFTER Installation of studs, aluminum-colored asphaltic-base paint is applied around studs for long-term protection

CORRUGATED aluminum sheet is positioned over studs, and extensions are drawn through sheet, burrs or washers are applied, and rivet set and hammer used

(Continued from page 214)
You can make building dollars go further—to provide more value—if you use Masonite Hardboards. These smooth, rigid grainless panels, made from exploded wood fibers, come in 19 types and thicknesses—each with special uses and advantages. Here's why they provide more house per dollar:

**HOW to Provide Crackproof Walls.** These super-smooth living room walls will never crack, dent or scuff! They'll hold paint or other finishes indefinitely because they are made of Masonite ¼" Panelwood®. The cabinets have doors of Leatherwood—a Masonite Hardboard with a surface that simulates Spanish-grain leather.

**HOW to Specify a Luxury Bathroom—at Low Cost.** In this bathroom, Masonite Temprtile® was used for the lower walls and Masonite ¼" Tempered Presdwood® above. Masonite Temprtile is tempered for extra durability and moisture resistance—score lines are pressed in the surface to form a 4" tile pattern. The built-in cabinets are made with ½" Tempered Presdwood.

**HOW to Multiply Kitchen Efficiency.** No need to stint on kitchen cabinets, even in the lowest cost home. These cabinets are built with economical Masonite Hardboards, ends and backs of ¾" Standard Presdwood—cabinet doors and counter tops are of Tempered Presdwood for extra wear resistance. Walls are Temprtile.

There are 19 Types and Thicknesses of Masonite Hardboards for 1000 uses
6 REASONS WHY
Rittenhouse DOOR CHIMES
ARE YOUR BEST BUY

1. UNEQUALLED, DISTINCTIVE TONE
The melodious, cathedral tones of Rittenhouse Door Chimes make them the finest money can buy.

2. STYLED FOR CUSTOMER ACCEPTANCE
Stylished with grace-of-line beauty to suit any home interior.

3. TROUBLE-FREE PERFORMANCE
Engineering design, materials, and expert craftsmanship in Rittenhouse Door Chimes enable you to spend your time serving—not servicing.

4. A MODEL FOR EVERY TYPE HOME
There’s a model Rittenhouse Door Chime for every type home from cottage to mansion.

5. OVER A MILLION SATISFIED USERS
Wide popular acceptance of Rittenhouse Door Chimes assures added sales and profits.

6. POPULARLY PRICED FROM $3.95 to $94.50
A complete line. Every model is crammed with big value.

WRITE TODAY. Get the merchandising facts about the full line of Rittenhouse Door Chimes. Also our complete line of doorbell and chime transformers.

THE RITTENHOUSE CO., INC.
12 Owen St., Honeoye Falls, N.Y.

Hotpoint Completes Installations For Commercial Cooking Equipment

Hotpoint, Inc. has completed the tooling and machine installations of its 500,000 square foot electric commercial cooking equipment plant at Chicago Heights, Ill., and is producing a new line of heavy duty ranges and bake ovens, James J. Nance, president, recently announced. The plant was acquired shortly after the war as a part of the company’s $35 million Chicago area postwar expansion of facilities for the manufacture of complete kitchens and laundries for home installation and the production of institutional equipment.

The first production from the Chicago Heights plant was planned to coincide with expansions of electric utilities which are now reaching completion in many parts of the country and bringing these companies into the selling and promotion of commercial equipment for the first time since the war.

Hotpoint's new commercial cooking equipment

Stud Welding . . .
(Continued from page 212)

work,” Wilson said, “We found that since the variation in the corrugated sheets (10 feet high by 33 inches wide) never exceeded 5/16-inch, we could install all the studs before applying any sheathing with perfect safety.”

Operation of four stud welding guns with one welding generator was accomplished with leads of 90 cable, which was held to be less than 250 feet. While simultaneous operation of any two or more guns at the same instant would obviously result in an incomplete weld, experience showed that this never happened more than once or twice a day, so that the loss of time and materials was negligible compared to the savings on equipment.

“By having 50 per cent more stud welding equipment available than was required for actual operation,” Wilson explained, “the job was carried through without any delays or time loss for equipment maintenance.”

WEATHER-BLOC

Weather-Bloc is 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 required and replace with Weather-Bloc. All parts can be cleaned or replaced from inside the room.

AVAILABLE THROUGH YOUR GLASS BLOCK DEALER ORJobber

Also Nationally Distributed by WINCO VENTILATOR CO., INC.
533 Bittern St., St. Louis, Missouri

WEATHER-BLOC

Product of AIR RECTIFIERS, Inc.
3724 Southport Avenue, Chicago 13, Illinois

SOLVAY Calcium Chloride

PREVENTS DUST

Dust control is easy and inexpensive with SOLVAY Calcium Chloride. Anyone can apply SOLVAY Calcium Chloride . . . no special tools or equipment are needed! This clean, colorless, odorless material eliminates dust efficiently—and economically. Be sure to order SOLVAY Calcium Chloride.

SOLVAY SALES DIVISION
Allied Chemical & Dye Corporation
40 Rector Street
New York 6, N.Y.
Your Money from # in Faster WORLD-FAMOUS BOAT BUILDERS

There's a lot behind the rich beauty of Higgins Bonded Mardwood Block Flooring that doesn't meet the eye—features that give you a decided advantage on any quality hardwood flooring job.

1. You buy Higgins Hardwood Blocks by NET measurement—each one precision cut to 9" x 9" face. No dimensional loss allowance to make for tongues and grooves.

2. You install Higgins Blocks quickly and easily over steel, concrete, or any type subflooring. Can be laid in adhesive—or blind nailed.

3. No "lefts" or "rights" to slow you down: pick any Higgins block at random. and it fits. No waste by splitting when blind nailed. Tongues are integral part of block. cross-grain-reinforced.

4. Blocks come with final luxury finish—no on-the-job finishing. Housewives like the easy, low-cost maintenance of a Higgins floor. These are just a few of the many profit features.
Fred C. Walters knows what they want, and it takes ADEQUATE WIRING.

Millions spent in national advertising have convinced the American public that Electrical Living is for them. Make their conviction your selling point! You must wire anyway. Adequate Wiring is one of the least costly "plus values" you can add to attract tenants or buyers.

With Adequate Wiring you get all these advantages:
- Faster, better loans
- Promotional helps
- Better occupancy
- Easier sales
- Reputation for quality

For information, or help in applying this selling tool to your operation, Just use the handy coupon.

Selling's Less Tiring With Adequate Wiring

JUST before sailing for Europe, Elizabeth Graham Bell stops in New York to pass final inspection on a miniature model of a General Electric kitchen in the first-prize-winning home she designed for the recent contest for women architectural students sponsored by the American Builder and the National Association of Home Builders. Miss Bell, of Carnegie, Pa., a student of Carnegie Institute of Technology, is using her prize money to study European architecture this summer. General Electric Co. distributors across the country are working with local builders to construct and display her modern five-room house this fall.

Study Marketing Costs Of Building Materials

A study of the marketing of building materials will be made by the University of Pennsylvania under a research contract with the Housing and Home Finance Agency. Raymond M. Foley, HHFA administrator, has announced. The project is part of the economic and technical research program authorized under the Housing Act of 1949.

The study will be carried out in the Philadelphia metropolitan area and in the greater region. Dr. Richard U. Ratliff, director of HHFA's Division of Housing Research, said cooperation of builders, lumber dealers and manufacturers will be sought by the University. In connection with the study, information on prices, margins, dealers' expenses and other pertinent matters will be collected and analyzed as a part of the long-range program designed to reduce housing costs.

SYMONS FORMING SYSTEM

SAVES TIME
Next shows how Symons System saves time in erecting and shaping forms. Bell passes through 2 x 3 1/4 stud and to loop. Wedge secures the assembly. This simple device cuts framing time 50%.

SAVES LABOR
Harry G. Dilling, Foreman, Taylor Brothers, South Bend, Ind., states: "Seven men set up the forms for a 24' x 27' foundation in one hour and fifteen minutes."

SAVES COST
With Time and Labor cut in two...Costs drop to a new low.

RENTED WITH PURCHASE OPTION
WRITE TODAY FOR FREE CATALOG

SYMONS CLAMP & MFG. CO.
4261 DIVERSEY AVENUE
CHICAGO 14, ILLINOIS

Need a Chimney?
VAN-PACKER
PACKAGED CHIMNEY

BUILDERS
- SAVE MONEY
  Costs up to 50% less than brick.
- SAVE SPACE
  Range from ceiling or below joists.
  Use space underneath.
- SAVE TIME
  Install in 3 man hours or less.
- AVOID JOB DELAY
  Immediate delivery to job of complete chimney.
  Meets FHA requirements

Underwriters' Lab. tested
and approved for use with
all leaks.

VAN-PACKER CORPORATION
136 S. Clark St.
Chicago 3, Ill.
CLAY PIPE...fused by fire for EVERLASTING service

Vitrification — the heat-bonding process that makes Clay Pipe tough, corrosion-proof, and everlasting — takes place at temperatures exceeding 2000° F. Under carefully controlled firing, the minute particles of rock that have been formed into Clay through centuries of nature’s purification are fused permanently together. Vitrified Clay Pipe needs no coating to protect it from the corrosive action of sewage, ground waters, soils, or industrial waste. It’s chemically inert, completely safe from the acid attack that destroys so many materials. No other pipe offers all the necessary advantages of Vitrified Clay Pipe. That’s why cost-conscious builders rely on it — to keep profits up and protect their reputations. Clay Pipe is low in original cost; there’s no price-premium on its outstanding quality. It can be installed quickly — and it lasts forever.

NATIONAL CLAY PIPE MANUFACTURERS, INC.
1105 Huntington Bank Bldg., Columbus 15, Ohio
703 Ninth and Hill Bldg., Los Angeles 15, Calif.
100 N. LaSalle St., Rm. 2100, Chicago 2, Ill.
200 Connally Bldg., Atlanta 3, Ga.
Plasterers Know ...

... that to do their work best they must have a finishing lime that’s easy to work, smooth, and far spreading.

That’s why the plasterer’s hawk, above, carries Hawk Spread (or its twin brand: Ohio White Finish), wherever quality plaster is demanded.

You too may rely on Ohio Hydrate’s brands of finishing lime, scientifically processed from hand picked, kiln burned rock, always of uniform good quality, 99% pure.

The OHIO HYDRATE & SUPPLY Co.

WOODVILLE, OHIO

FLOW diagram showing relation of air recovery unit to typical air circulating system. In this application an air recovery unit has been installed to purify conditioned yet odorous air in order that it may be re-used thus saving the conditioning energy that has been expended upon it.

"Recovering" or Saving Conditioned Air

By J. E. Orr

W. B. Conner Engineering Corporation

HOW OFTEN have you entered an air conditioned place and been met by a blast of cool, yet dank, musty, smell-laden air, an odor characterized by air conditioning men as system “halitosis”? The reason is simply poor ventilation. Regardless of how carefully air has been heated or cooled, humidified or dehumidified, its “quality” or freshness will suffer unless adequate ventilation is provided. The purchaser of an air conditioning system all too often either fails to realize the importance of this element or is unwilling to pay for it.

Good ventilation may be described...
Easily installed in frame or masonry homes, VENTO Steel Casement Windows save time and money on the job.

VENTO Windows have the lifetime sturdy construction of heavy hot-rolled "T" bars and provide double weathering contact to block wind and rain. They stand firm and swing true. Beautifully designed, smoothly operating roto-hardware opens and extends window to permit cleaning from inside. Every VENTO Steel Casement Window comes prepared for the application of storm sash and screens.

Many Sizes and Shapes Available!
- Add beauty and distinction to any home by using VENTO Steel Casement Windows in attractive design variations.
- Send Coupon TODAY!

VENTO STEEL PRODUCTS CO., INC.
247 Colorado Ave., Buffalo 15, N.Y.

(Continued on page 220)
ASK FOR PROOF THAT REZNOR GETS BUSINESS FOR YOU!

Shout "...more business" just once, and Reznor is on the job with its highly salable, profitable 1950 heaters and plenty of selling helps. Sold every day by thousands of dealers for stores, offices and industrial plants. Write now for full information on Reznor heaters—the world's best seller.

Gas Unit Heaters Since 1877

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

(Continued from page 219)

Conditioned Air . . .

(Continued from page 219)

... What gives activated carbon its adsorptive efficiency is its enormous surface area. The microscopic pores or crevices in a cubic inch of activated carbon are so numerous that their total surface area has been estimated to be approximately equivalent to five acres.

Hence by simply relieving indoor air of its tiny burden of impurities, without otherwise changing it in the slightest, such air and its heating and cooling effect is conserved. As less unconditioned air is needed the less will be the conditioning capacity required. In other words, instead of

reaching outdoors for a constantly renewed supply of air, the same effect is obtained by converting indoor air back to its original state of freshness.

The savings that can be made by using "recovered" air in lieu of outside air are in direct ratio to the need for ventilation. Where occupancy and odor generation are low in comparison to the size of the space, as in a large store, there is nothing to be gained by air conservation. The new air necessary to offset infiltration will more than likely be sufficient to perform the extra duty of dilution. It is in the small, crowded places like small restaurants, bars, grills, nightclubs, etc., that this development is of the most value.

Savings in capacity of equipment can be made only, of course, when the recovery unit is made part of the original installation. Obviously once the system is in its size can't very well be reduced. However, it is often possible to expand the capacity of an existing system. For instance, where it is desired to heat or cool an additional room or area and capacity is lacking, the necessary heated or cooled air can often be obtained by purifying indoor air that would otherwise be exhausted to the outdoors. Again, where systems are in use, upkeep, that is, fuel, cur-

3 DOORS to Greater Profits

CAPITOL PRODUCTS now offers you 3 fine garage doors that enable you to reach every market — to help you sell profitably, confidently and competitively. These doors give:

- Complete Protection
- Harmonious Beauty
- Greater Economy
- Easier Installation
- Fingertip Operation
- Longer Life

CAPITOL FLUSH PANEL

Beauty and utility plus Taper Seal. Panels electronically bonded (not nailed) to frame — insures rigidity — prevents warping — stronger, lasts longer. Sizes: 8' x 7'; 8' x 9'; 8' x 8'; 9' x 7'. Thickness: 1½".

CAPITOL TAPER SEAL

The door for your average customer. Beauty with long, trouble-free life at reasonable cost — means faster sales for you—greater profits. Sizes: 8' x 6'; 8' x 7'; 8' x 9'; 8' x 8'; 9' x 7'; 9' x 9'; 10' x 7'; 10' x 8'; 10' x 9'; and 10' x 10'.

CAPITOL EASY LIFT

An attractive, competitively priced door with great appeal. "Timber Tex" treated — termite and rot proofed. Balanced, feather touch operation—long life. Sizes 8' x 6" and 8' x 7'.

See your lumber dealer or Write us for prices!

CAPITOL PRODUCTS
P.O. Box 1240 Springfield, Illinois
What CUPRINOL DOES FOR LUMBER
Means Better Results for You!

CUPRINOL is the original naphthenate wood preservative of over 40 years successful use in many parts of the world for stopping wood rot and insect borers.

NOW... after several years of tests with added ingredients Cuprinol provides water-repellency to directly benefit every user of wood for building construction.

CUPRINOL... is most practical for on-the-job application. It is harmless to the skin, and can be used like paint without rubber gloves, goggles or protective clothing. Applied by brush, spray or dip, it penetrates quickly and dries within a few hours.

FOR PROTECTION AGAINST

1. WARPING, SWELLING AND SHRINKING OF SEASONED WOOD

2. GRAIN RAISING

3. ROT AND TERMITES

4. MILDEW

5. DISCOLORATION

1. Windows that stick, doors that warp—too often the builder is blamed for poor workmanship or inferior material when one coat of Cuprinol would have prevented complaints. With untreated mill work every window, door, frame and sash after fitting should be given a coat of Cuprinol on every side before painting. And, even with pre-treated mill work, when a surface is planed for fitting it can lose its original protection. Treat it with Cuprinol.

   For example, an exterior door is exposed on one side to warm, dry room temperature, on the other side to out-of-doors dampness and rain. Cuprinol helps stabilize the moisture content of the wood to prevent warping, swelling and shrinking.

2. Cupboards and panels of plywood, even with two or three coats of paint, frequently show the grain, for the fibre and grain of the wood absorb liquids to different degrees. A coat of Cuprinol before painting will reduce this difference in absorption and prevent the unsightly raising of the grain.

3. Rot and termites are frequent causes for repairs and replacements of lumber today. In all such repairs the owner, who now appreciates the cost of rot or termites, will welcome your use of Cuprinol in treating the new lumber.

4. In many places mildew forms as a result of dampness and dead air. This is not so commonplace in home construction as in storage rooms, laundries, and edifices such as churches and meeting halls that are closed much of the time. Cuprinol treatment, either beneath or over paint, has been found most effective for preventing the formation and accumulation of mildew.

5. The combination of water-repellency and rot-proofing with Cuprinol reduces materially the weathering and discoloration of wood, as for example in ranch type houses where it is desired to have the wood show the grain and original color.

   Cuprinol is sold by lumber dealers. See Sweet’s File for Builders 28-4, or write us for information on types of Cuprinol for specific uses.

CUPRINOL Division, Darworth Incorporated
56 Maple Street Simsbury, Conn.
Conditioned Air . . .
(Continued from page 220)
recent, water, etc., consumption, can often be reduced by substituting purified air for outdoor air.
Although relatively recent, this development is already well established. Several thousand installations are now in use. Recovery units are standard equipment in almost all of the new railroad passenger cars. Due to weight and space restrictions the condition-
ing equipment of each car can only handle a certain percentage of new outdoor air without losing control of temperature. By purifying the air that must be recirculated within the car air quality is improved almost threefold, a welcome advance in passenger comfort.
The Fifth Avenue Brass Rail Restaurant in New York is as much concerned with its atmosphere as with food quality and service. With accommodations for 853 persons, each patron receives fresh, odor-free air at the rate of 20 cubic feet per minute. However, only 7,000 cubic feet per minute is brought in from the outdoors, the remaining 10,000 CFM is reclaimed indoor air. Excellent atmospheric conditions are maintained yet a considerable saving in cost and operation was made. The outdoor air supply could be cut still further were it not for the fact that a certain volume of new air is needed to dilute tobacco smoke haze. Activated carbon soaks up the irritant gases in tobacco smoke but the visible haze, being a solid, is not removed. As an alternative to outside air for this purpose dust filters with the efficiency of the electrostatic type could be used.
The Hotel Sherman in Chicago lacked the space in which to locate a conditioning plant for its new “Well of the Sea” seafood restaurant and the central system lacked the capacity to handle the additional load. However, by taking “used” air from other areas and putting it through air recovery cells the problem was readily solved.

BUILDERS!

CONTRACTORS!
COMPLETE NEW HOME PLANS
Have the advantage of perspective drawings and floor plans to show future homebuilders. Give your clients the opportunity to choose from these latest design plan books. Plans utilize builders newest cost cutting and latest construction methods. Complete working blueprints of 200 FHA approved homes are available. Wide variety of contemporary and traditional designs styled for comfort, beauty and convenience. Includes starter homes, four- to ten-room home sizes—in ranch styles, modern design, Cape Cod and duplex plans.
Order 2 books for only $2.00 (one book for frame and one for block masonry construction). Then when you order your first set of working blueprints—4 blueprints included in set—$25.00 for frame construction, $35.00 for block construction—your original $2.00 investment will be credited to your order. Order books today—let these amazing plan books sell home contracts for you.

HOME BUILDING PLAN SERVICE
2454-2 NE Sandy Boulevard
PORTLAND 12, OREGON
ONE of the main attractions at the Chicago Fair of 1950, which opened June 25 is the "Avenue of Homes" exhibit, featuring eight homes sponsored by builders, trade groups and shelter magazines.

The official theme of Chicago's latest major exposition is the dramatization of the nation's achievements in science, industry, commerce and agriculture. According to Crosby Kelly, executive manager of the Fair, the American home can be singled out, much as any other feature, of what the people of the United States have accomplished.

The eight exhibit homes are classified in four architectural categories—Cape Cod, Colonial, Ranch-type and Modern. Three are of frame construction and other ma-

Avenue of Homes
Is Chicago Fair Feature

terials include brick, concrete, stone and gypsum products. Floor area is from 800 to 2,000 square feet. All are completely furnished and decorated. All sites are completely landscaped.

The two homes classified as "futuristic" are partially constructed of materials and furnished with appliances not now in mass production but proved practical in research laboratories.

The sponsors are: the J. E. Merrion Co., Chicago builders; Portland Cement Association, Mason Contractors Association of Cook County and the Structural Clay Products Institute, Better Homes and Gardens magazine, Living magazine, Parents' magazine, Popular Home magazine and the Chicago Plastering Institute.

In charge of the exhibit is Grover McDonald, Dixon, Ill. A veteran home show developer, he has directed 150 similar projects in various parts of the country. Assisting him is Joseph Sheehan of Philadelphia.

New NRLDA Public Relations Pamphlets

A series of three new public relations pamphlets have been prepared by the National Retail Lumber Dealers Association for distribution by members to the public. The titles are: "Taxes Can Come Down," which states that taxes constitute one-third of the cost of a new home; "No Charge for the Extras," an account of the services rendered the public by retail lumber dealers; and "The Truth about Housing," which tells of the accomplishments of the private builder and answers charges made against the industry. There is a small charge for the pamphlets which are distributed by the National Building Material Dealers Service Corp., 302 King Building, Washington 6, D. C.
We have spoken of the Barcol OVERdoor as “the choice of buyers who investigate,” because it is “an improved overhead door” that thrives on comparison. The use of the Barcol OVERdoor is not limited to residence garages — its extra quality, strength, durability, and minimum maintenance make it ideal for commercial and service garages, institutional and municipal buildings, industrial plants, and for a number of interior as well as exterior applications. Your Barcol representative is well-equipped, by experience and factory training, to give you full information and sound recommendations on any use you may contemplate.

**Two Useful Versions...**

**Model 31 and Model 50**

Without going into mechanical detail, we can classify these two general types as Model 31 for light duty and Model 50 for heavy duty. In addition, you have a wide range of sizes both stock and special, numerous accessories and special arrangements for added convenience or protection, and regular or special design to suit your taste in appearance. Consult your Barcol representative and let him give you the full story. (Look in the Yellow Pages of your telephone directory for his name.)

**SALES AND SERVICE REPRESENTATIVES IN PRINCIPAL CITIES**

BARBER-COLMAN COMPANY

104 MILL STREET • ROCKFORD, ILLINOIS

The Only Manufacturer of All Three...

GARAGE DOORS • ELECTRIC OPERATORS • RADIO CONTROL

**Produce Combination Windows By Belt Line Methods**

Increasing use of combination storm and screen windows has resulted in the adoption of modern production line methods by a number of manufacturers.

The Alumatic Corporation of America, manufacturer of aluminum combination windows, typifies the industry’s progress in the methods used in their Milwaukee plant. Alumatic also operates a branch factory at Windsor, Ont.

Alumatic windows are custom-fitted and installed to the size needs of the...
IN CONTRAST to the windows which are shipped “knocked down,” combination doors are shipped set up in the large boxes shown above. Below: At dealer’s shop combination windows are assembled from proper sizes. Only simple tools are needed for these operations, including the making of screen panels.

aluminum combination doors, aluminum screen door and house screens.

The accompanying photographs illustrate some of the advanced techniques of the Alumatic Milwaukee facilities now being employed by the industry.

New Aluminum Siding Marketed by AlSCO

The marketing of a new aluminum siding on a national scale by AlSCO, Inc., makers of AlSCO aluminum convertible storm windows and doors, has been announced by the firm’s president, Harry Sugar. Ben Sugar, vice president of AlSCO, heads the siding division, and is now appointing dealers and distributors throughout the country.

Most important improvement in the new product, the manufacturers said, is its exclusive Weather-Lock. AlSCO is an 8-inch weather-lock lapped siding. Other features are a self-sealing all-aluminum corner and “hidden clip” aluminum nailing. In installation, metal clips are used to hold each panel in place, the clips then being nailed to wall sheathing. The nails and clip are then covered by the next panel. Painting and enameling of the sid-

(Continued on page 226)

Touch a Button...to Open the Door

The magic of radio brings you this modern convenience! With BARBER-COLMAN RADIO CONTROL, you can open or close your garage doors by simply touching a button in your car. The car can be moving, or standing still, anywhere (and in any position) within approximately 75 feet of the garage. The equipment operates on FCC-assigned frequencies, hence can use maximum power in the transmitter and a minimum of tubes in the receiver. Barber-Colman, a pioneer in the radio control field, is a reliable source for practical equipment, with over 20 years of experience in this specialized field. Ask your Barcol representative for a working demonstration of the amazing Radio Control.

ELECTRIC DOOR OPERATORS

Soundly engineered and ruggedly built for dependable and durable performance—Barcol Electric Door Operators are made in a variety of models for swinging, sliding, overhead, and steel rolling doors, and for sliding gates. They can be actuated by any of various switches, by electric eye, or by Radio Control. Get a demonstration!
Aluminum Siding...

(Continued from page 225)

ing are done by the "Ankorweld" process. The panels are painted before being formed, with each panel receiving a rigid test for performance of finish.

The Ankorweld process includes an exclusive method of pre-treating aluminum to provide millions of tiny anchors for holding the special enamel paint. Also panels are treated on both sides with this process after which the specially developed enamel is applied, and baked thoroughly in temperature-controlled ovens. The paint will not chip, crack, peel or fade, according to the manufacturers, and the Ankorweld "bath" also prevents pitting and oxidation. Cleaning can be done with an ordinary garden hose.

The panels are formed to provide maximum rigidity and require backing strips only at the joints, windows, and doors. They can be installed quickly over clapboard, stucco, brick, shingles or other sidings.

The marketing of the new AlSCO siding is being accompanied by a heavy newspaper advertising campaign. A complete merchandising and advertising package is available which includes dealer mats, door hangers, four-color brochures and a four-color presentation book for AlSCO dealer salesmen. Theme of the book, ads and printed material is "The Freedom House—lifetime freedom from Repairs, Paint, Drafts, Cold, Heat, Fire, Termites!"

Porcelain Enamel Cabinets
Gain in Both, Laundry Use

Although primarily designed for kitchens, the use of porcelain enameled cabinets to provide storage and table-top working space in bathrooms and laundries is on the increase.

Qualities of this type of cabinet which make it adaptable for these additional uses are cleanliness, resistance to heat, shock, abrasion, and corrosion, and ability to take continuous hard service.

Porcelain enamel was found to be unaffected by a number of rigid tests, recently conducted by an impartial commercial laboratory. These included use as cutting boards for slicing bread; exposure to regular household iron, at normal pressing temperature, which was placed on porcelain enamel for periods of 2½ minutes, and dragged back and forth across the material's surface; and the dropping of a standard can opener point-first against the material nine times.
Prefabricated Showers
Add Selling Appeal, Cut Installation Costs

It is a recognized fact that shower baths have a tremendous attraction for home buyers.
Long preferred by men over other methods of bathing, they are now becoming preferred by women as well. To operative builders, important features of prefabricated shower cabinets are those that provide great utility and value while saving construction dollars.

Prefabricated cabinets have floors that are precast as separate, independent units. Walls are joined to these cement floors by means of a waterproof bond, and the walls themselves have leakproof corner joints. The result is a cabinet that can withstand the strain of shifting or settling without any ill effects. Builders confronted with small or odd-shaped rooms will find that metal cabinets offer a complete range of types and sizes from which to choose. There are three basic classifications: 1—The built-in cabinets; 2—the corner model; and 3—the free-standing, square cabinet.

The built-in type cabinet, as now produced, is designed so that it can be recessed into the wall and plastered clear up to the door frame. This is an advantage where bathrooms must necessarily be small, since it provides luxury and utility without detracting from available floor space. The cabinet itself can extend into a neighbor-

Corner shower stalls occupy minimum floor area in the bathroom. This model is made by Fast Metal Manufacturing Co.

(Continued on page 228)
NOW
Easier reading, longer wearing

STANLEY
"Green End"
RULES

with
Five Star
Features...

★ Easier Reading — Large jet-black Gothic numerals and gradations — plastic coated for permanence.
★ Longer Wearing — Solid nickel silver joints and strike plates — rustproof, stainless — assure smooth action.
★ More Accurate — Concealed joints with "bell socket" action — prevent stretching — hold rule rigid.
★ NEW Protective finish — Extra-tough, water-resistant plastic coating on all sticks — 4 times longer wearing.
★ Selected Sticks — Straight grain solid Rock Maple — tough and flexible.

By any rule the best buy is Stanley. Your local dealer carries Stanley Zig-Zag Rules in a wide range of sizes, markings and finishes.

STANLEY TOOLS • NEW BRITAIN, CONN.
THE TOOL BOX OF THE WORLD

Ask for a "BESSLER" when buying a
DISAPPEARING STAIRWAY

With a Bessler Disappearing Stairway it is possible to finish off the space above for use as either storage or added sleeping quarters.

Constructed of the finest materials, it is easily and quickly installed in old or new homes. Saves floor space in the room below and is easily operated.

Conferring Specifications
For Aluminum Nails

Data required in fixing specification for non-corrosive aluminum nails that may be flown in government planes for use in installations in Alaska and other points were submitted at a recent conference of government officials and representatives of the aluminum industry at the Nichols Wire and Aluminum Co. plant in Davenport, lowa.

Attending the conference were O. M. Mader, Pittsburgh, research engineer for the Aluminum Company of America; Charles Walte, manager of the Farm Development Division, Reynolds Metal Co., Louisville, Ky.; and John A. Scholten, research engineer for Forest Products Laboratory, Madison, Wis. Forest Products Laboratory is operated by the U.S. Department of Agriculture.

Also taking part in the conference were Frank R. Nichols, president, and Frank Leahy, executive vice president, of Nichols Wire and Aluminum Co.

Data presented will be assembled and classified, after which it will be submitted to aluminum producers and other manufacturers of aluminum nails for their approval. Final certification of the specifications will be made by the Specifications Board in Washington.

Prefabricated Showers
(Continued from page 227)

where there is not sufficient depth in the bathroom to accommodate a square type shower. Back walls of corner type models fit snugly into a corner while the door frame and the side walls occupy a minimum of room floor space.

Square type shower cabinets can be used almost anywhere, as long as there is adequate provision for concealing the necessary water pipes and connections.

To supplement the air of luxury supplied by shower cabinets even more, builders are offered a choice of attractive shower doors. Framed in aluminum or chromium-plated steel, glass doors provide safety and convenience.

But the real value of shower cabinets as part of the complete home package is an intangible one. It is the force that impels prospects to buy — an extra value that makes one home worth more than another.

Photographs and data courtesy of Plat Metal Manufacturing Co.
Association News.

(Continued from page 69)

ststitutes and divisions of NAREB will also have displays depicting the activities of the member real estate boards.

A village of model homes, both prefabricated and built at the site, will be erected adjacent to the Spoorama and the auditorium. The entire exhibition area will be fenced in, and the grounds typically landscaped.

Gunnison Homes, a subsidiary of the United States Steel Corp., has already contracted with NAREB for sites for two of its prefabricated homes on the grounds. Other members of the Prefabricated Homes Manufacturers' Institute are negotiating for sites.

Another feature in the village will be the Futurama Home, incorporating the newest products and features, including built-in television. The model homes are expected to be of particular interest to Realtors, as it is estimated that 20 per cent of the membership of NAREB are builders, constructing about 200,000 homes annually in the present market, Walthamade said.

The exposition will be a closed show for NAREB delegates and invited guests for the first four days of the convention, Nov. 12 through 15, and will be open to the public for the last four days, Nov. 16 through 19, under the auspices of the Miami Beach Real Estate Board.

National Realtors Exhibits, Inc., has been organized to manage the convention exposition, following action of the board of directors of NAREB at their semi-annual meeting May 12 in Chicago.

Other members of the convention and executive committee, in addition to Walthamade, are F. Poch Waguespack, New Orleans, vice president; George F. Nixon, Chicago, vice chairman; David D. Bohannon, San Mateo, Calif., vice chairman; Earl S. Anderson, Los Angeles; Fritz B. Burns, Los Angeles; William J. Campbell, Kansas City; Mr.; Damian P. Ducy, Pueblo, Colo.; Matthew G. Ely, New York; Jack Justice, Miami Beach; Frank MacBride, Jr., Sacramento, Calif.; Donald T. Pomeroy, Syracuse, N. Y.; John J. Roache, Milwaukee; Herbert U. Nelson, Chicago; and Lowell Baker, Chicago.

800 Attend Detroit Picnic

Approximately 800 persons attended the annual picnic of the Builders Association of Metropolitan Detroit at the Forest Lake Country Club June 28. Bill Clark was entertainment committee chairman.

AUGUST, 1950

"THE MASTER"

JUT WHAT THE NAME IMPLIES

Not a Toy—Saw Rig or a Cut Off-Saw, but a complete mill that you can take right on the job and do all of your tough and finish cuts with one machine.

* * *

OVERHEAD RADIAL SAW
UNDERLUNG RIP SAW
3-Knife Jointer

Operated with only 1 Power unit, either electric motor or gasoline engine drive.

* * *

JOINTING
CROSSCUTTING
RIPPING
MITERING
BADOING
TENONING
BORING
MOULDING
SANDING
MORTISING

and many other cuts. There is no cut TOO difficult for the Master.

* * *

SEE the MASTER in operation in your locality or get Full Information from your dealer TO-DAY.

ACCURATE—DEPENDABLE and the most powerful machine on the market.

SELF-ALIGNING—requires no adjustment for wear or accuracy. Compare MASTERS construction—Simplicity and easy operation. Built in 5 sizes up to 6” cutting capacity.

MASTER WOODWORKER MANUFACTURING COMPANY
Brush and Fort Sts., Detroit 34A, Michigan

Originators and Manufacturers of Universal Woodworkers Since 1917

HOME BUYERS LIKE THE KITCHEN-AIRE EXHAUST FAN BECAUSE IT’S DIFFERENT

Different, because it is FIRE-SAFE, grease laden air is NOT drawn over motor.

Different, because intake grill may be mounted above cooking range even on inside wall.

Different, because ordinary 6” stove pipe will serve for making connection between intake grill and exhaust fan.

Different, because it is QUIT, operating mechanism is mounted OUTSIDE the wall.

Different, because it is weatherproof, both draft damper protects against heat loss, operating

Yes, the Kitchen-Aire is different. Electrically operated, easily installed, the Kitchen-Aire adds that plus-value which makes new homes valuable. It is the last word in Kitchen ventilation, a feature your buyers will like. Underwriters Approved. Advertised in Better Homes and Gardens.

STEWART MANUFACTURING CO.
3204 E. Washington Street, Indianapolis, Indiana
HOW TO MAKE ACCURATE ESTIMATES

NEW REVISED
TAMBLYN BUILDING LABOR CALCULATOR

You, too, can make accurate estimates. Forty years of on-the-job cost analysis has produced the factors given in the Tamblyn Building Labor Calculator. Use these factors and make your estimate right!

HOW TO USE THE TAMBLYN BUILDING LABOR CALCULATOR
...simple multiplication of figures

To figure the cost of laying 8" x 8" x 16" cinder block analyze the cost of 100 square feet as follows. (Wage rates and material prices assumed.)

- 111 Pcs. 8" x 8" x 16" cinder block
  - @ $4.50 = $495.00
- 4.4 C.F. Mortar
  - @ $4.50 = 1.98
- Total Material Cost
  - $516.98
- 4.0 Hrs. Mcq. @ $3.00 = $12.00
- 4.0 Hrs. Tend. @ $1.75 = $7.00
- 4 Hrs. Foreman @ $3.50 = $1.40
- Total Labor Cost
  - $20.40

Or $23.60 per square foot for material and $30.40 per square foot for labor.

Figuring for all the trades is as easy as this example—and accurate!

WHAT CONTRACTORS SAY ABOUT THE TAMBLYN SYSTEM

"I think it is the best system I have seen."
"...just the thing I wanted..."
"...I want to congratulate you upon an excellent piece of work."

THE TAMBLYN SYSTEM
1119 So. Pearl St., Denver, Colo.

FREE EXAMINATION OFFER

(Continued on page 231)

Abridged Building Code’ Accepted in Printed Form
At BOCA Convention

Acceptance of the first printed copy of the “Abridged building Code” highlighted the 35th annual convention of the Building Officials Conference of America, Inc. in Indianapolis, June 5-8. The new standardized "performance" code for municipalities was approved by the conference in December, 1949, after more than five years of study by building commissioners from all parts of the United States. It has already been approved by the National Association of Home Builders and the Producers’ Council.

Charles E. Bacon, left, Indianapolis building commissioner, chats with Mayor Al Feeney at recent BOCA convention in Indiana capital. Bacon was convention chairman and is an BOCA executive committee.

Data for the code was compiled, correlated and prepared for publication by George E. Strehan, New York consulting engineer. It was presented at the convention by Joseph P. Wolff, of the Detroit building commission, president of BOCA and board chairman of the Building Officials Foundation, financial sponsors of the code.

This code together with a Basic Building Code due for publication next month emphasizes "performance" of materials instead of specifying certain materials for certain uses. This type of code has been advocated by the Federal Government since the first World War.

In pointing out that the new code paves the way for introduction of many new materials by virtue of their performance alone, Albert H. Baum, BOCA president, commented: "Herefore, manufacturers, producers and

...with MODULAR SIZED UALCO Lifetime ALUMINUM CASEMENTS

With the increasing popularity of modern structure particularly brick, brick veneer and concrete block...MODULAR SIZED casements are a must...and Ualco windows are the ONLY modular sized aluminum casements windows available in the world, today!

These Ualco Lifetime Aluminum Casements are made to sizes based on the modular system of dimensional coordination of building products. This specification conforms to the modular standards for masonry openings and exiting glass panes, thus, greatly saving construction time...reducing building costs...making you more popular and demanded builder in your vicinity! Ualco Lifetime Aluminum casements and window units are available for all sizes and types of Ualco Lifetime Windows.

Take a few minutes of your time now...clip, fill in and mail coupon, today...get complete details. See our catalog in Swee's Files.

Write for this FREE CATALOG Today!
Boca Convention ... (Continued from page 218)
contractors have had varied experience in securing acceptance of their products from city officials under one code or another.

"Products and new application methods have failed often to receive interpretations where the local code was not clear."

The code is designed for cities below 30,000 population. Because of standardization and adaptability to all sections of the country, these cities can adopt it without incurring the added expense of making their own regulations, Baum added.

Strehan pointed out there are more than 2500 conflicting specification codes now enforced throughout the country, 80 per cent of which are 10 years or more old.

"They are reread with antiquated provisions, often kept alive by local prejudice or fostered by selfish pressure groups," he said.

"They service communities from 5000 inhabitants to municipalities of more than 8 million. To aggravate the confusion for manufacturer, builder, designer and the public there are more than 15,000 political subdivisions, large and small communities, clamoring for new building codes or appointing commissions to attempt the task.

"At least 14,000 of these political subdivisions of from 100 to 5000 population have no code at all.

"The cost of technical expert services, elaborate legal procedures involved, plus the expense of public acceptance, not because of inherent shortcomings, but because of varying interpretations where the local code was not clear."

NOW! BETTER INSULATED ON-THE-GROUND FLOORS
Cost Less...Easier to Install

Jemeline concrete beams prevent condensation — block heat of heat into the earth, and by maintaining heat log, permit more accurate and immediate response to thermostatic control. Because of these qualities Jemeline concrete rides two of the problem of cold, clammy floors.

What's more, your prospects know that Jemeline is their best buy. Through continuous national advertising in the Saturday Evening Post, American Home, Better Homes and Gardens, and regular nationwide publicity, they have learned to look and buy where the Jemeline Job Signs are displayed!

Jemeline costs less to install too! Light and easy to handle, it can be poured right on the ground. Write today for construction details, absolutely free!

* Jemeline is a registered trademark.

FOR LONG RANGE CUSTOMER SATISFACTION, YOU WILL ALWAYS WANT TO RECOMMEND SPOT SASH CORD. SPOT CORD IS INEXPENSIVE TO INSTALL, REQUIRES NO MAINTENANCE, REPLACEMENT OR ADJUSTMENT. IT WILL NOT GET OUT OF ORDER.
Boca Convention...

(Continued from page 231)

hearings, repetitive printing of original and amended drafts involved in the formulation of a building code entails a prohibitive investment for most communities.

"Thus the control of building construction is either haphazard, discriminatory or harmful to the public welfare and the efficient development of a community. But the need for a code is evident and imperative."

The basic concepts stressed in the code as explained by Strehan include:
1. A comprehensive classification of use groups of buildings based on the inherent fire hazard peculiar to each.
2. A classification of types of construction covering both traditional and new developments.
3. A plan for controlled and ordinary materials procedures which intimately concerns the professional engineer.
4. A code based on functional performance standards providing an open door for all methods of construction.
6. Height and area limitations to secure a uniform degree of fire safety for all "use groups" and all "types of construction."
7. Minimum safe live load requirements consistent with functional requirements.
8. A comprehensive treatment of all building service equipment necessary for safe and livable housing conditions.
9. A plan for co-ordination of inspection and control which will eliminate overlapping jurisdictions both locally and nationally.

Provision for a "building code fund" for the exclusive purpose of building code enforcement can be...
GILSON Mortar and Plaster Mixer

Works Better, Wears Less
Self-aligning shaft
Simplified maintenance

The GILSON mortar mixer does the good job you want on every batch — and is built to stay on the job. You can depend on this mixer more than on any other because the precision, self-aligning ball bearings keep running true despite the pull of big and heavy loads. Even more, you easily change any part of the mixing unit without disturbing the shaft or bearings. . . no need to have your Gilson torn down in a repair shop. Grates have narrow openings to safeguard hands—a safety feature that you want to protect your men and yourself. Model 6-P-PT is one of 39 mixers now serving contractors coast to coast. Write for the 6-P-PT bulletin and the name of your Gilson distributor.

GILSON BROTHERS CO., FREDONIA, WISCONSIN
Manufacturers of Contractors’ Equipment Since 1877

Here’s the amazing Calcinator disposal unit . . . AT NEW LOW COST!

CALCINATOR
Gets rid of ALL GARBAGE
— ALL BURNABLE TRASH!

★ NO SEWER PROBLEMS!
★ TAKES ALL BONES AND STRINGY VEGETABLES!
★ INSTALLED ANYWHERE ON MANUFACTURED, MIXED OR L. P. GAS, OR ELECTRICITY!
★ COMPLETELY AUTOMATIC!

Don’t build grief into your homes with a disposal unit that won’t do a complete job, may cause sewer or septic tank trouble. Assure lasting satisfaction with Calcinator—the only completely automatic unit that disposes of all garbage completely! More space in kitchen, basement or utility room, too—Ccalcinator disposes of all burnable trash, too!

Send for complete information, specifications, new low price, at no obligation. . .

CALCINATOR DIVISION
VALLEY WELDING & BOILER CO.
DEPT. 68, BAY CITY, MICH.
Booce Convention ... (Continued from page 233)

ards Monthly." It was also recommended that, after publication in the magazine, action of the committee on such changes finally be presented for determination in open convention at the annual BOCA meeting.

Revisions will be classified as "desirable"—minor corrections which do not affect the provision of the code; and "actual"—all other types of changes.

The procedures committee urged that "actual" changes be reported on by the code changes committee sixty days prior to the annual convention and that the reports be published at least 30 days prior to the annual convention. It was also suggested a schedule of fees be made up for "partially defraying the expense of making the necessary tests, investigations involved in the changes."

Also recommended by the procedures group was a full-time secretary to function as clearing chief of the code changes committee.

Following adjournment of the conference, the Joint Committee for Unification of Building Codes, representing 11 building code writing and enforcing agencies, held their seventh meeting since February, 1947, in an effort to consider suggestions made about the various codes in relation to occupancy of buildings, fire resistance values, floor loads, classification of buildings and fire resistance in buildings.

The codes studied were the uniform code of the Pacific Coast Building Officials Conference, the code of the National Board of Fire Underwriters, the code of the Southern Building Codes Congress, the basic code of BOCA and the various standards of the American Standards Association and the National Fire Protection Association.

Attending were representatives from these groups as well as from BOF, the Housing and Home Finance Agency, National Bureau of Standards, Underwriters Laboratories and the construction division of the U.S. Department of Commerce.

Plan Color Scheme Change

The intention of changing the color scheme of their kitchen cabinets was expressed by more than half of the housewives questioned in a recent Ponderosa Pine Woodwork survey. Of this number, 39.7 per cent said they would change in less than five years and 53.3 per cent set the time at between five and 10 years.

better concrete
more concrete per wage dollar with----

Jaeger 11-S
Mix n-discharging, skip is loaded, ready to shaka next batch into drum

Jaeger 11-5 with Power-Shaker Hopper
You load it while a batch mix — delivers 12 to 15 more yards daily.

THE JAEGER MACHINE COMPANY

Write for this FREE CATALOG Today!

better concrete
more concrete per wage dollar with----

Jaeger 11-S
Mix n-discharging, skip is loaded, ready to shaka next batch into drum

Jaeger 11-5 with Power-Shaker Hopper
You load it while a batch mix — delivers 12 to 15 more yards daily.
Glass Slab Edge Insulation Used in Levitt Development

One of the construction features of Levitt and Sons homes in Long Island, N.Y., is the use of sections of glass insulation around concrete perimeters to block heat loss through floor slab edges. The material used is Fiberglass Slab Edge Insulation, manufactured by the Owens-Corning Fiberglas Corp., Toledo, Ohio.

William J. Levitt, president of the organization, which is currently building approximately 4,000 houses a year, said the glass insulation was also chosen for its resiliency, which permits it to expand as an expansion joint between slabs and foundation walls. Other advantages he cited were non-absorption of water and resistance to damage from rot, vermin and termites.

FIBERGLAS Slab Edge Insulation being placed around perimeter of Levitt house. 12x48-inch boards are installed vertically

In the Levitt homes the insulation used consists of individual 12x48-inch boards, ¾-inch thick, coated on one side and edged with asphalt to which stout Kraft paper is adhered. These glass insulation units are set vertically to 12-inch ground depth around

(August, 1950)

Balanced design — easy operation

Zip! Zip!
Fast as you grip!

With HANSEN in Your Hand —
you can do all kinds of tacking and fastening jobs. Thirty-six different models. Eighty staple lengths. For screens, ceiling tile, insulation, metal lath, etc. Ideal for all types of building and construction.

HANSEN — the Tacker with 1001 uses —
Tacks insulation, ceiling tile, metal lath, etc.

CONCRETE is poured over top and on top of two rows of the insulation to enclose it

For bricks, blocks, mortar in buckets, sand, roofing, lumber, boxes, dirt, sacks, etc.

One man can handle and operate... easily trailed up to 35 miles per hour.

Clutch and Brake Assembly (own design).

Request Booklet
A. L. HANSEN MFG. CO.
5003 Racemoon Ave.
CHICAGO 40, ILL.

BUILDERS • CONTRACTORS

CUT COSTS
With MULKEY'S
All-Steel PORTABLE ELEVATOR
It's Balanced

★ For bricks, blocks, mortar in buckets, sand, roofing, lumber, boxes, dirt, sacks, etc.

★ One man can handle and operate... easily trailed up to 35 miles per hour.

★ Clutch and Brake Assembly (own design).

SAM MULKEY COMPANY
1621-DD Locust Kansas City 8, Mo.
LOW-COST HOME COOLING IS HERE!

Easily installed attic unit gives cool comfort in hottest weather

No investment can give home owners as much comfort and pleasure as a Hunter Attic Fan. This modern convenience is now being used in thousands of houses and apartments throughout the nation. Low in initial cost and with no upkeep expense, the Hunter Attic Fan is practical for homes in all price ranges.

Installation of Hunter’s new, compact package fan is simple and inexpensive. Fan, motor, suction box and shutter are all in one unit that requires only a ceiling opening in hallway and 17” clearance in attic. Four models, ranging from 4700 CFM to 9500 CFM, to fit any home size and climate. Quiet, powerful, dependable. Manufactured by Hunter, exclusive fan makers for 64 years.

Glass Slab Edge . . .
(Continued from page 215)

NEXT step is to smooth the concrete over insulation and radiant heating coils in each house. When the complete perimeter has been formed, concrete is poured on either side and over the top of the insulation barrier to enclose it.

Luminous Ceiling Used To Modernize Drug Store

A completely illuminated ceiling suspended to conceal unsightly beams and old-fashioned scrollwork was the major alteration in modernizing the Brunsdale Drug Store, Muskegon, Mich. The new ceiling system which raised illumination from eight foot-candles to approximately 70, is the “Flexi-Module,” developed by the Sylvanite Electric Products, Inc., New York City.

Aluminum louver panels, each composed of 32 individual cells, are suspended from the original ceiling by means of adjustable hanger straps which support them. The luminous ceiling conceals 47 single-lamp Slimline fluorescent lighting fixtures spaced 24 inches O.C. throughout the store’s 2,100 square feet of floor space.

Additional fluorescent lighting concealed above the wall cases along the sides of the store call attention to packaged goods on the shelves.

Send for These VALUABLE BOOK LISTS

For Builders

You can quickly locate the up-to-date book on almost any building subject if you have the right book on the shelf. Uniform format, 8½ x 11¾, 8 to 16 pages, all dressed for a pop brochure or filed for future reference.

1. HOUSE PLAN BOOKS. Describes 225 house, summer home, farm and other plan books of all publishers. Most complete list ever compiled.


3. CARPENTRY AND BUILDING BOOKS. Describes 104 books on carpentry, steel, concrete, steel, masonry, joy, blueprint reading, building construction and related subjects.

Free on Request
Book Service Department
AMERICAN BUILDER
30 Church St. New York 17, N.Y.
Frantz offers a sectional-type overhead door that is 14 ways a better buy. For example: a two-point spring adjustment gives such perfect balance that door opens itself when lock is released, yet can be closed with a finger! Other features include the adjustable brake (patent-applied-for) which stops door at open position instantly, quietly; jimmie-proof dual latches with chrome auto-type handle; brass cylinder lock; etc. Available in the following sizes: 8'x7', 8'x6'6", 9'x7', 9'x6'6", 10'x7' and 10'x6'6".

"Over-The-Top" Equipment permits custom styling of garage doors.

Design your door, build it on the job, and apply "Over-The-Top" Equipment. You'll have a job you'll be proud of and one you can install and forget. Table below lists sets available for any size and weight residential, commercial, or industrial door.

---

### Table: Over-The-Top Equipment

<table>
<thead>
<tr>
<th>Model</th>
<th>Weight</th>
<th>Height</th>
<th>Door Wt. (lbs.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Light</td>
<td>87</td>
<td>6'7&quot;</td>
<td>45 to 95</td>
</tr>
<tr>
<td>Weight</td>
<td>80</td>
<td>6'7&quot;</td>
<td>100 to 150</td>
</tr>
<tr>
<td>Series</td>
<td>69</td>
<td>6'7&quot;</td>
<td>150 to 250</td>
</tr>
<tr>
<td>Medium</td>
<td>74</td>
<td>6'7&quot;</td>
<td>150 to 250</td>
</tr>
<tr>
<td>Weight</td>
<td>74</td>
<td>6'7&quot;</td>
<td>150 to 250</td>
</tr>
<tr>
<td>Series</td>
<td>74</td>
<td>6'7&quot;</td>
<td>150 to 250</td>
</tr>
<tr>
<td>Heavy</td>
<td>74</td>
<td>6'7&quot;</td>
<td>150 to 250</td>
</tr>
<tr>
<td>Series</td>
<td>74</td>
<td>6'7&quot;</td>
<td>150 to 250</td>
</tr>
<tr>
<td>Heavy</td>
<td>74</td>
<td>6'7&quot;</td>
<td>150 to 250</td>
</tr>
<tr>
<td>Series</td>
<td>74</td>
<td>6'7&quot;</td>
<td>150 to 250</td>
</tr>
<tr>
<td>Heavy</td>
<td>74</td>
<td>6'7&quot;</td>
<td>150 to 250</td>
</tr>
<tr>
<td>Series</td>
<td>74</td>
<td>6'7&quot;</td>
<td>150 to 250</td>
</tr>
<tr>
<td>Heavy</td>
<td>74</td>
<td>6'7&quot;</td>
<td>150 to 250</td>
</tr>
<tr>
<td>Series</td>
<td>74</td>
<td>6'7&quot;</td>
<td>150 to 250</td>
</tr>
<tr>
<td>Heavy</td>
<td>74</td>
<td>6'7&quot;</td>
<td>150 to 250</td>
</tr>
<tr>
<td>Series</td>
<td>74</td>
<td>6'7&quot;</td>
<td>150 to 250</td>
</tr>
</tbody>
</table>

---

FRANTZ MANUFACTURING CO., STERLING, ILL.
Correction in Recommended Vermiculite Mixtures

Numbers games are not what the reader expects to find within this publication's pages. But reading page 222 of the July issue might have planted suspicions in someone's mind. The American Builder wishes to inform its readers that the chart (concerned with vermiculite) on that page was inadvertently scrambled. Strengths and insulation values of vermiculite concrete vary with the amount of cement used in the mix; the chart, a tabulation of various mixtures, should have read as follows:

<table>
<thead>
<tr>
<th>Mix by Volume</th>
<th>Compressive strength in pounds per sq. in., 1-inch cylinders</th>
<th>Thermal conductivity (k) in B.T.U. per sq. ft. per hour per degree F.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bags of portland cement</td>
<td>Concrete aggregate</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>4</td>
<td>240</td>
</tr>
<tr>
<td>2</td>
<td>6</td>
<td>115</td>
</tr>
<tr>
<td>3</td>
<td>16</td>
<td>11</td>
</tr>
</tbody>
</table>

*11.6%, and 44 gallons of water used in these mixes, respectively. Density in pounds per cubic foot of the mixes above are 30, 24 and 16 respectively.

Tension strength, one inch disc on 3x12x12-inch slab of the mixes above is 352, 160 and 28 respectively.

In addition, an error was committed in a photograph caption and in the body of the article by referring to a 1:6 mixture of vermiculite and cement for concrete masonry wall insulation. Although the 1:6 mixture is recommended for use in floors on the ground, for radiant heated floors and for other usages where higher compressive strengths are needed, the 1:16 mixture is advised for filling masonry unit cores and cavity walls for insulation purposes.

The American Builder expresses its apologies for these errors.

New Building Blocks Require No Mortar

New building blocks developed by Hydro-Forged Stone Associates, Inc., of Cleveland, Ohio, are made entirely from waste materials and eliminate mortar in constructing homes, commercial buildings or frame structures.

The block resembles cut stone, granite or marble, and is made in a patented tongue and groove design within tolerances of five one-thousandths of an inch. When laid, these molded stones lock into each other to form a wall of high strength. In order to insure against seepage of moisture, a mastic material applied with a hand-operated gun is spread on the grooves as the blocks are assembled. The tongues and grooves are molded into the building blocks as they are formed on a hydraulic press under 150 tons pressure. Accuracy and uniformity with which the blocks are made make it possible for an unskilled worker to build a perfect wall merely by laying one block into another, G. P. Dooley, president of the Hydro-Forged firm said.

The standard block, which measures eight inches wide, four inches high and 16 inches long, is hollow in the center. That provides about 75 per cent of the volume of the block as dead air space for insulation.

Dooley pointed out that although any unskilled person is capable of laying his company's blocks, a union worker and a helper will lay 600 Hydro-Forged stones per day, equivalent to 311 square feet of eight-inch-thick wall.

The newly formed Hydro-Forged company is now prepared to grant franchises throughout the country and abroad for the purpose of manufacturing the patented stone blocks. The machines will become the property of the owner and his territory will be on an exclusive basis only.
Association News,
Cortright, cont'd.

ton by the National Association of Home Builders and other industry groups with the various agencies of government responsible for the planning. Upon the adequacy of the solutions will depend in time of war the production of material and the morale of the civilian population.

It is indeed a depressing but nonetheless essential task and one which must be undertaken if we are to avoid repeating the mistakes and confusion of 1942. Who can forget the constant stream of regulation and counter regulations—the rapid inflation of priorities for war housing until they became valueless—the nine months' construction period resulting from inability to secure materials and all of the other faults stemming from the lack of intelligent and adequate preliminary plans for an unexpected emergency? None of this must happen again. The segments of the industry, cooperating with the government, can do no less than anticipate the worst and pray for the best!

Nearly 100,000 Visit Washington Show

Between 80,000 and 90,000 persons attended the recent 10-day Home Show sponsored by the Home Builders Association of Metropolitan Washington, at the national capital's Armory.

Principal speaker at the opening ceremonies was Thomas P. Coogan, Miami, Fla., NAHB president, with brief talks being made by President Clarke Daniel of the Washington association and Show Chairman Clyde Veehle. Mrs. Clarke Daniel cut the ribbon at the ceremonies.

Among the show's special features were a radio program, "Salute to the Home Show"; a contest for "Home Show Queen"; a demonstration of color television; and a design competition for students of Washington high schools covering two categories, plans and models.

Advertising Drive Launched
By Wood Window Group

A vigorous advertising campaign for its product was launched by the American Wood Window Institute at the annual convention June 15 in Memphis, Tenn. A large number of members signed up to set the program in motion.

New officers elected at the convention were F. R. Weddington, Waco, Tex., president; Fred Bissell, Dubuque, Iowa, vice president; M. C. Davidson, Houston, Tex., treasurer; and Clark E. McDonald, Memphis, secretary.

The institute's meeting came at the conclusion of the annual meeting of the Southern Sash and Door Jobbers Association.

Elmer Wheeler, noted lecturer on salesmanship, neatly emphasizes the importance of dramatizing outstanding points of a product, when he declares: "Don't Sell the Steak -- Sell the Sizzle!"

Builders throughout the country tell us that the Auto-Lok weatherstripped Aluminum Awning Window is providing the very "sizzle" that they need to move their product (houses) faster. The tightest closing window ever made is quick to register a favorable impression on prospects.

Home purchasers or remodelers readily visualize why Auto-Lok affords maximum draft-free ventilation during the warm months -- why it assures positive protection against all climatic extremes.

The first and only effectively weatherstripped awning window is equally suitable for small or large homes, for schools, hospitals and institutions. It's tops for ventilation, for visibility and for protection! Close more sales with the aid of the tightest closing window ever made!
Window Wall Adds to Room Size

The sooner you can get a contract completed, the sooner you can turn the job into cash... the sooner you can get started on your next building.

Glued Laminated Wood Arches and Trusses help you do just that... without hiring a lot of extra labor or adding specialists to your payroll.

Rilco structural members come to your job site ready to be assembled and swung into position. There isn’t a saw cut to be made... not a bolt hole to be drilled. Every piece fits perfectly... and goes together fast. Your regular carpentry crew does the work without special tools of any kind.

There are standard sizes and types for practically any sort of building... and Rilco engineers will be glad to work with you to develop special designs for any specific structure. Write for money-saving details.

DESIGNED for the American Builder Plan Service, this one-story house has much to offer the family of limited means whose needs require three bedrooms.

The compact and convenient floor plan utilizes every foot of the interior for living space. It eliminates unnecessary hallways and achieves a feeling of spaciousness through the generous use of windows which permit an abundance of light and air within.

By locating the dinette and kitchen between the living room and the bedroom-bathroom wing, the designer achieved a degree of privacy for the latter. Further the plan makes the bathroom and bedrooms readily acces-

(Continued next page)

THE ONE SURE WAY TO cut building time and payroll cost

Odin Zion Lutheran Church, Minneapolis, Minnesota
Architect: Ernest Schmidt
Contractor: William Olsen

Prairie City, Iowa, High School Gymnasium

RILCO Laminated PRODUCTS, INC. 1607 FIRST NATIONAL BANK BLDG.
SAINT PAUL, MINNESOTA
AMERICAN BUILDER
Window Wall . . .
(Continued from page 240)

A wall of floor-to-ceiling windows increases the depth of the 15 by 12 foot 9 inch living room, as well as enhances the exterior appearance of this frame dwelling. The use of a partition, wainscot high, to separate the living room from the dinette serves the dual purpose of creating a feeling of roominess in these areas while providing privacy for the dining room. The Broken-L layout of the kitchen permits installing the sink under the window where it is handy to the range and the work counter. Long closets with space-saving sliding doors provide adequate storage in the bedrooms.

Designed for basementless construction, the house has locker and storage rooms adjoining the utility room for the storage of items normally kept in basements. Besides the heating unit, the utility room provides ample space for laundry equipment including stationary tubs under the window.

Over-all the house contains approximately 1275 square feet. As pictured, the horizontal lines of the siding, repeated in the pattern of the window, topped with a low-pitched roof give it a "close-to-earth" appearance which is appealing.

To obtain a complete set of blueprints, drawn to 1/4-inch scale, write American Builder Plan Service, 30 Church St., New York 7, N.Y.

Materials Made to Scale 
For Model Buildings

A service which provides materials for the construction of a large variety of correctly-scaled model buildings is being offered by Architectural Models, Inc., of Chicago. The materials include nine types of brick, clapboard siding and shingles, made of plywood by a patented process; and 40 different types and sizes of doors, door frames, windows, shutters and flower boxes, fabricated of white plastic.

Steps in using the made-to-order model building materials were listed by the manufacturers as follows:
1. Make working drawings and determine scale; for example, 1/4-inch or 1/4-inch to the foot. 2. Select roofing and siding materials in the proper scale. 3. Make a list of the requisite roofing and siding and the sizes and quantities of windows, doors and other millwork.

A COMPLETE CHIMNEY IN A PACKAGE

VITRROLINER TYPE "E" FLUE
Attention Builders and Architects

Completely fabricated and attractively designed to fit and take care of all home heating equipment—available individually or in any quantity. This modern and complete Chimney is used extensively in FHA construction. Underwriters listed for all Fuels—ideal for oil or gas.

The Vitroliner Flue is time tested—proven practical and successfully used by large national builders (names on request) as well as thousands of small contractors.

LOWER INITIAL COST—NO MAINTENANCE PROBLEMS
QUALITY BUILT OF FINEST MATERIALS
SHIPPED IN 2 CARTONS—INSTALLED IN 3 HOURS
LIGHT WEIGHT—10-15 LBS. PER FT.—LONG LIFE
EQUIPMENT PERFORMANCE IMPROVES HEATING
SAVES FLOOR SPACE—PROVIDES ATTIC VENTILATION
Write today for details—Dept. A.B-1

CONDENSATION ENGINEERING CORPORATION
5755 MEDICINE AVE. CHICAGO 7, ILL.
Mechanical Spreader Cuts Mortar Waste 50 Per Cent

A mechanical mortar spreader of an unusual type, designed for use on standard building blocks, has been invented at the Washington State Institute of Technology, Washington State College, by Jack J. Wegner, staff chemical engineer.

Wegner estimates a 50 per cent mortar saving with the use of this unit. Essentially, the invention consists of a hopper body 16 inches long, 7½ inches deep and 9½ inches wide. Two horizontal augers extending full length in the bottom of the hopper pass through openings in the rear of the hopper body and force mortar through these openings when rotated. A rotating crank turned by hand actuates the mechanism.

The hopper body is supported on the masonry by wheels in front and wheels or skids in the rear. The rub-

PARALLEL augers, spaced to match face shell of concrete block, spread even bed of mortar on operating crank of mechanical unit is turned.

INVENTOR Jack J. Wegner demonstrates use of mortar spreader designed to reduce waste in laying concrete block up to 50%.

(Continued on page 244)

Above—Measure tread or riser in 10 seconds. Below—Mark board with gauge for perfect fit.

ELIASON STAIR GAUGE

in 10 seconds gives you BOTH correct length and angle of stair treads, risers, closet shelves, etc., ready to mark boards. Each end pivots and locks at any angle automatically. Adjustable from 30° up. Saves a day or more. Increases your profit $80 or MORE on each staircase. Fully guaranteed. Circular on request.

Only $12.95 cash with order, or C. O. D. plus postage.

ELIASON TOOL CO.
2119 E. 56th St., Minneapolis 17, Minn.

Dealers and Agents Write Us

Made

$900 In Spare Time

“I did very well last year with my Foley equipment, about 950 saws and 240 lawn mowers, in my spare time. About $900 for me.” — Leo H. Mix

Carpenters make up to $2 or $3 an hour in spare time. With a Foley Automatic Saw Filer you can file hand, band and circular saws better than the most expert hand fiber. Cash business—no canvassing. No eye-strain no experience needed.

FREE BOOK

“INDEPENDENCE AFTER 40” shows just how you can start at home in spare time, with small investment, no overhead—and develop into a full-time repair shop. Send coupon today for this practical plan. No salesman will call.

FOLEY MFG. CO., 624-D Foley Bldg., Minneapolis 14, Minn.

Send FREE BOOK—“Independence After 40.”

Name

Address
Let us send you this book of HOME BUILDERS SHORT-CUTS for FREE five-day trial

More than 800 “practical job pointers” that save time, expense and labor on building jobs.

Now! Carpentry, building construction and building repair jobs are made easier with the practical methods shown in this big 211-page book. Every one of these methods has been TESTED in actual use; every one saves time, saves work, saves money.

Contents include: 88 handy ways to use tools; 37 ideas for work benches and attachments; 62 work-saving ways to use portable equipment; 39 suggestions on excavations, foundations and forms; 32 methods for making sills, girders, joists and sub-flooring; 49 hints on exterior and interior wall construction; 36 short-cuts in roof and bay construction; 19 tips on making cornices and porches; 54 ideas for interior wall covering and trim; 27 helps on stair construction; 37 window suggestions; 54 ideas for installing doors; 19 tips on closets, shelves and built-in equipment; 24 flooring pointers; 38 aids in installing sanitary equipment; 44 shortcuts in laying out work; etc. etc. etc. More than 700 illustrations show you exactly “how-to-do-it.” All items indexed so that any particular idea or short-cut you want can be located instantly.

SEND NO MONEY Examine 5 Days FREE

J ust fill in and mail coupon below to get practical Job Pointers” for 5 DAYS FREE TRIAL. If not fully satisfied, return the book and owe nothing. If you keep it, send only $3.96 plus few cents postage in full payment. You take no risk. Mail coupon below now.

FREE TRIAL COUPON MAI L TODAY

Simmons-Boardman Publishing Corp., 30 Church St., New York 7, N. Y.

Send me for 5 DAYS FREE TRIAL, “Practical Job Pointers.” I will either return it in 5 days and owe nothing, or send only $3.96 (plus shipping charges) in full payment.

Name ____________________________
Address __________________________
City __________ State ____________

August, 1950
New Garage Doors Are Attractively Designed

Two designs of wood sectional overhead-type garage doors which are proving popular are the raised panel and flush doors produced by the Raynor Manufacturing Co. of Dixon, Ill.

The firm's raised panel doors are made in a variety of designs, including a selection of figured panels and combinations of figured and plain panels. They are produced in 1/4-inch and 1/3-inch thicknesses with the raised panels 11/16 inches in thickness.

The flush door is produced without nails by a new electronic bonding process used for flush doors, fabricated with plywood process, the manufacturer says, with a waterproof glue dielectrically heated under heavy pressure creating a fusion or bond of both frame and fir plywood panel. Windows in third or top section are optional. The over-all thickness of this door is 1/4 inches, and it is made in standard one- and two-car garage sizes.

**Mechanical Spreader**

(Continued from page 242)

ber-tired front wheels move the spreader forward as the operating crank is turned.

Operation of the unit is continuous and rapid. The spreader, filled with mortar, is set on a previously laid course of masonry units. As the crank is rotated the unit advances along the wall, distributing a proper quantity of mortar on each face-shell. Head joints are buttered by running the spreader along a row of up-ended blocks.
A. I. A. Names Secretary
To Promote Advancement of Modular Co-ordination

William Demarest, Jr. of New York City has been appointed secretary for modular co-ordination in the department of education and research of the American Institute of Architects in Washington. Creation of the new position is a major step in a plan, drawn up by the joint committee of the A.I.A. and the Producers' Council to promote the further advancement of modular co-ordination.

In announcing the appointment, Edmund R. Purves, A.I.A. executive director, said that Demarest, through work with architects, schools of architecture, builders, building materials manufacturers and the Housing and Home Finance Agency, will provide a much-needed unifying factor for the further development of modular standards and the more general acceptance of the principles of modular co-ordination.

Serving as co-ordinator of promotion, education and service in the modular movement, Demarest will work closely with Committee A-46 of the American Standards Association and the HHFA, which is promoting standardized dimensions on all building materials. Other construction industry groups and the architectural profession will be encouraged to adopt the modular plan which is based on a 4-inch module.

Van Packer Chimney Gets
Underwriters Approval

Use of vermiculite in the new Van Packer "packaged" chimney has helped win Underwriters Laboratories' approval for the chimney, revising the earlier Laboratories' decision, according to spokesmen for the Van Packer Corp., Chicago. Recent tests of the product with an improved insulating wall and fire safety features, sponsored by the National Board of Fire Underwriters, found the chimney acceptable for use with all fuels in residential construction in which the chimney comes in direct contact with floor, ceiling and roof joints.

The product is made with a refractory fire clay liner and a three-inch wall of vermiculite concrete encased in an aluminum jacket.

With a steady flue temperature of 1,000 degrees Fahrenheit in the test, thermocouples against the outside of the chimney registered only 90 degrees above room temperature, according to the laboratories' report.

FEET WIDE!
THE NEW STANDARD WIDTH GARAGE DOOR

In this TAYLOR exclusive (patent pending) the door face is an integral part of frame making a stronger, lighter door. Sturdily constructed of rust-resistant galvannealed steel, this door requires no primer coat. Galvannealed steel costs 20% more, but we sell at competitive prices.

Write now for prices and further information. We can make IMMEDIATE DELIVERY.

Fully receding-track type door. Notice how even the widest car leaves so much extra space for getting in and out.

Door has distinctive horizontal lines. Two lock catches on either side of door assure tight closure. Windows available.

Doors also available in 8' x 7' single and 16' x 7' double sizes.

R. L. TAYLOR INC.
12480 EVERGREEN ROAD • DETROIT 28, MICHIGAN

TELEVISION SELLS HOMES

We supply TV sets to builders and contractors at the LOWEST PRICE IN THE INDUSTRY! 111

INTERNATIONAL TELEVISION CORP.
DEPT. AB
238 WILLIAM ST., N.Y. 7

AUGUST, 1950
The appointment of J. E. L. McCall as advertising manager of the American Lumber and Treating Co. has been announced by J. F. Linticum, president of the firm. McCall began working for this company as assistant advertising manager in 1948, following two years in the advertising and sales promotion divisions of the General Electric Co. McCall will be responsible for the advertising campaigns on “Oilmanized” pressure-treated lumber and for the sales promotion programs of the regional offices of the company.

Harry T. Kendall, general manager of Weyerhaeuser Sales Co., St. Paul, has been elected chairman of the board. His place as general manager has been taken by R. S. Douglas, a vice president, who has been with the company since 1923 and in recent years has been manager of sales for West Coast mills of Weyerhaeuser Timber Co., Tacoma, Wash., the parent organization.

The election of J. B. Faegre as president and of C. T. McMurray as executive vice president of the Minnesota and Ontario Paper Co., Minneapolis, has been announced by R. H. M. Robinson, chairman of the board. Faegre has been associated with the firm since 1930 and has been a director and member of the executive committee since 1941. In his new capacity, McMurray, who joined the company in 1918, will be in charge of all sales and operations.

The Parks Model K Planing Mill Special is a low-priced, multi-purpose, moneysaving machine that is ideal for almost every shop. It offers a Cast Iron Double Table Rip and Crosscut, 22-Inch Band Saw, Swing Cut-Off Saw, 12-Inch Jointer, Tenoner, Upright Hollow-Chisel Mortiser and Borer, Reversible Spindle Shaper, and 18-Inch Sanding Disc.

Write for free descriptive literature.

MANUFACTURERS OF QUALITY WOODWORKING MACHINES SINCE 1887

The PARKS Woodworking Machine Company
Dept. 30-VV, 1546 Knowlton St.,
Cincinnati 23, Ohio
The appointment of George R. Seidlitz as vice president and general manager has been announced by the Seidlitz Paint and Varnish Co., Kansas City, Mo. Seidlitz was formerly vice president in charge of sales. Joe C. Huntoon, Jr., has been named vice president and sales manager.

The 1950 convention of the structural clay products industry will be held at the Broadmoor Hotel, Colorado Springs, Colo., Oct. 23-26. It has been announced by W. J. Goodwin, Jr., president of the Structural Clay Products Institute. Special convention trains will be arranged to pick up convention-goers from New England, the Eastern seaboard, and through the Midwest.

The promotion of James G. Badger, formerly secretary and assistant to the president, to vice president and treasurer of Hines Lumber Co., Chicago, was recently announced by Charles M. Hines, president.

INDUSTRY BRIEFS

Curtis Companies, Inc., Clinton, Iowa, has taken over the cutting plant at Baker, Oregon, formerly operated by Baker Wood Products. The plant will be operated by a subsidiary under the name of Curtis Wood Products Co.

The election of Thomas I. Byrd as vice president in charge of sales has been announced by the Lau Blower Co., Dayton, Ohio. Byrd has been sales manager for Lau Blower since September, 1943, before which he was department manager in the Market Development Division of Armco Steel Corp.

The appointment of C. S. Davis, Jr., as president of the Borg-Warner Corp. Norge Heat Division, Chicago, Ill., was announced recently by Roy C. Ingersoll, corporation president. Davis, formerly vice president and general manager of the division, succeeds G. P. F. Smith, who now will devote full time to his duties as president of the Norge Division.

The Mighty Midget

SCOUT CUTTER

ASBESTOS SIDING and SHINGLES

The SCOUT is a small utility cutter for asbestos siding and shingles, with front and nose punch.

The cutting blade is made from a high grade steel, heat-treated, has sharp serrated teeth machined by a milling cutter. Overall length 16", height 6", width 2½".

Approx. wt. 3½.

The base of the Scout Cutter is high-grade aluminum casting, having the proper amount of weight necessary to perform the best operation by the applicator.

MONARCH CUTTER

NOW, AT LAST

MALLEABLE IRON CASTING

The Monarch Asbestos Siding and Shingles Cutter in malleable iron gives you 100% guarantee against broken castings. Because of its metallurgical structure, malleable iron is the ideal material for this cutter. The Monarch gives greater toughness, higher resistance to corrosion and will stand up to heavy and repeated impact.

WRITE FOR FREE DESCRIPTIVE FOLDER

TRI-STATE BUILDING MATERIALS CO.
P. O. BOX 1476, FORT WORTH, TEXAS

AUGUST, 1950

Free to Builders...

Two New Planning and Idea Books

"Sales Features for Electrical Living Homes" shows the "most wanted" sales features in homes...features that have proved their appeal to home owners. Has 52 pages of illustrations, diagrams...on kitchens, laundries, electric bathrooms, and smart lighting ideas for every room in the house. Also gives simplified data to help in planning an adequate wiring system.

With each Sales Feature, you'll find a brief summary of Selling Points to help you and your salesman turn prospects into buyers.

"Design Details for Electrical Living Homes" fills a real need for construction details on valances, cornices, cove, soffit, pinhole spot, under-cabinet and other unusual lighting effects. Kitchen and laundry plans, with complete dimensions, are also shown.

Photographs of actual installations illustrate the planning ideas, and construction details show exactly how to build them.

To get these books, send coupon below to Better Homes Bureau, Westinghouse Electric Corporation, Dept. AB-8, Box 688, Pittsburgh 30, Pennsylvania.
Now!

CARPENTRY
ESTIMATING

...QUICK
...EASY
...ACCURATE

with this simplified guide!

Here is everything you need to know to "take off" a bill of materials from set of plans and specifications for a frame house. Saves you time figuring jobs, protects you against oversights or mistakes that waste materials and cost money. Nothing complicated—just use simple arithmetic to do house carpentry estimating with this easy-to-use ready reference handbook.

SIMPLIFIED
CARPENTRY ESTIMATING

Shows you, step by step, how to figure materials needed for (1) foundation, (2) framing, (3) exterior finish, (4) interior finish, (5) hardware, and (6) stairs. Gives definite "take-off" rules, with many quick-reference tables and short-cut methods that simplify the work.

TURN TO CHAPTER 8, when you receive this book, and see the "Estimating Short Cuts" you can use for quick figuring of board footage. Here are simplified ways to estimate lumber needed for floors, walls, ceilings, roof, door and window frames, inside trim for these frames, inside trim for inside doors, and drawers and cabinets. This chapter alone can be worth the entire price of the book to you!

MAIL THIS COUPON

SIMMONS-BOARDMAN Publishing Corp.
30 Church Street, New York 7, N. Y.

Send me for 10 DAYS FREE TRIAL, "Simplified Carpentry Estimating." I will either return it in 10 days and owe nothing, or send only $3.50 (plus shipping charges) in full payment.

Name
Address
City & State

Examined - 10 days Free
SEND NO MONEY

Just fill in and mail coupon at right to get "Simplified Carpentry Estimating" for 10 DAYS FREE TRIAL. If not fully satisfied, return the book and owe nothing. If you keep it, send only $3.50 plus few cents postage in full payment. You take no risk. Mail coupon now.
Automatic low-cost heat that helps sell low-cost homes

**Coleman Floor Furnace**

Here's the way to keep construction costs low and yet be sure of the best in heating equipment. The Coleman Floor Furnace is the modern heating unit designed especially for low-cost homes. It needs no basement, no air ducts, no expensive plumbing. Installation is quick, simple and low-cost. Coleman engineering reputation backs these heaters, insures user satisfaction. The Coleman Company, Inc., Wichita 1, Kansas.

**Coleman's Space-saving Shallowflow for Gas and LP-gas**

Fits in floor, extends only 22½" below and is floodproof to 19" below. It's a small-size furnace with big-furnace heat production.

**Coleman's High-performance Water Heaters**

Fully automatic. Gas, Oil and LP-gas models. Fully insulated and rust-resisting. 20- to 45-gallon capacities with fast recovery rate. Beautifully finished, incorporating the latest Coleman advancements for fast, low-cost hot-water service.

Available for Gas, Oil, LP-gas. Coleman Floor Furnaces are made for all these fuels. Not an adaptation but a complete engineering job throughout for each. Coleman Floor Furnaces meet building code requirements and FHA specifications. Finest automatic heating. In sizes from 25,000 to 70,000 per hour BTU. Models for flat register and dual wall installations. The Coleman name helps sell Coleman equipped houses. Use coupon to request catalog of all models with specifications.
EVERYTHING HINGES ON HAGER!

C. Hager & Sons Hinge Mfg. Co. • St. Louis, Mo.
Founded 1849—Every Hager Hinge Swings on 100 Years of Experience
Kwikset Locks to be distributed by Kwikset Sales and Service Company

BEGINNING IMMEDIATELY YOU WILL ENJOY DIRECT SALES AND SERVICE WITH

★ one standard of quality
★ one reliable source of supply
★ one responsibility

KWIKSET PROMISES... To architects... Advanced engineering and authentic styling in the field of residential locks... To jobbers... Best possible service plus sound, friendly relationships... To builders... Ease of installation, nation-wide distribution... To the trade in general... Augmented manufacturing facilities, highest quality in our price class, precision-fabrication and advanced styling.

IN SUMMARY, with KWIKSET you will enjoy satisfactory service and pleasant relationships with plus values in every KWIKSET lock you buy!

This is the famous and popular KWIKSET 5-pin tumbler lock with die-cast parts and wrought bronze or brass knob and trim—a plus value.

NOW send your orders for Kwikset locksets direct to KWIKSET SALES AND SERVICE COMPANY ANAHEIM, CALIFORNIA
new 1951 model!

THE "OVERHEAD DOOR"

TRADE MARK

new Beauty! new Strength! new Ease of Operation!

For Residential, Commercial and Industrial Buildings

- Miracle Wedge
- Salt Spray Steel
- Manual or Electric Operation

Nation-Wide Sales - Installation - Service

OVERHEAD DOOR CORPORATION

Hartford City, Indiana, U. S. A.

MANUFACTURING DIVISIONS

GLendale, California
Oklahoma City, Oklahoma
Detroit, Michigan
Portland, Oregon
Kennebunk, New Jersey
Allentown, Pennsylvania
Cortland, New York
Dallas, Texas
NATIONAL TROLLEY DOOR HANGERS are ideal for several types of heavy door installations including single and curved track and double track for passing doors.

No. 52 Trolley Door Hanger has a flexible hinge-joint and is for use with No. 51 Trolley Rail. When the door is hanging in its normal position, the hanger is absolutely rigid; should anything bump against the door the flexible joint allows it to swing out.

The wheels are of pressed steel, 2½ in. diameter with large hardened roller bearings. The drop strap is of heavy gauge steel, deeply embossed for rigidity. The connecting bolt of automobile steel distributes the weight equally on all four wheels. Simple lateral and vertical adjustments can be made with wrench which is furnished with hanger. Adjusted for 2-inch doors when assembled. Finish: Japan or Hot Galvanized.

No. 50 Trolley Door Hanger has the same mechanical features as No. 52 Trolley Door Hangers except that it is not equipped with flexible hinge joint. Furnished in Japan or Hot Galvanized finish.