National Home Week Wins Acclaim
HERE'S actual proof of "Pin-Point" control for panel heating—actual results obtained from independent scientific tests during installation of a typical domestic radiant floor paneling application. Room temperatures were held within a fraction of 70°F, despite extreme variances in outside temperatures!

At the slightest temperature change, every sensing element in Honeywell's Electronic Modulflow responds instantly. There's no time lag—no chance that room temperature will fluctuate as with mechanical controls. Overcome is the slow response that occurs when any radiant panel is enclosed in concrete.

Electronic Modulflow means dependable automatic comfort from every radiant panel, properly designed and installed. It means the ultimate in accurate control.

Two interesting booklets about Electronic Modulflow have been prepared by Honeywell. They are entitled: "Electronic Modulflow," and "Electronic Modulflow in Radiant Panel Heating." Send for your copies, today! Minneapolis-Honeywell, Minneapolis 8, Minnesota. In Canada: Leaside, Toronto 17, Ontario.

FREE

To get the booklets offered above, simply ask for numbers 5 A 1487 and 1499. Phone your local Honeywell office or address Minneapolis-Honeywell, Minneapolis 8, Minnesota.
4-Step Fenestra Door Installation

Saves On-the-Site Time and Money

Fenestra Door—Frame—Hardware Units are Low Cost. Although beautiful Fenestra® Hollow Metal Door Units are mortised, drilled, splayed and prime painted for you by the manufacturer, the first cost is remarkably low. For Fenestra’s great plant is set up to run out so many doors and frames... with such smooth efficiency.

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Because they’re rugged, yet beautiful... because they’re packed with insulation for quiet performance—they’re perfect for stores, service stations, offices, apartments, schools, hospitals... almost any building.

So order now for quick shipment. You can also get Fenestra Doors with the Underwriter’s B Label. Call your Fenestra representative (listed in your Yellow Phone Book) or write Detroit Steel Products Company, Department AB-10, 2260 East Grand Boulevard, Detroit 11, Michigan.

Detroit Steel Products Company
Doors Division
Dept. AB-10, 2260 E. Grand Boulevard
Detroit 11, Michigan

Please send me, without obligation, information on Fenestra Stock Hollow Metal Doors.

Name
Company
Address

DETROIT STEEL PRODUCTS COMPANY
Door Division
Dept. AB-10, 2260 E. Grand Boulevard
Detroit 11, Michigan

WHEN THE CUSTOMER SAYS:

YOUR BEST ANSWER IS

BECAUSE:

Upson Kuver-Krak Panels have a long record of satisfaction in re-covering cracked ceilings!

No other material makes such beautifully modern home-style ceilings!

No material produces such trouble-free, long-lasting ceilings!

No other material is designed for use with Upson Floating Fasteners which eliminate visible face nailing!

No material decorates more effectively.

No other material is so widely advertised to homeowners for re-covering cracked ceilings!

No other ceiling material has greater sales appeal.

Upson Kuver-Krak Panels are scientifically processed under an exclusive formula. Laminated! A full 5 plys thick! Crackproof! Pressure-sized! Attractively pebbled surface!

Install them with confidence. Their time-proved qualities produce unusual ceilings of enduring beauty—steady jobs through the years. For Instruction Sheets, mail the coupon!

Only Upson Panels can be applied with this unique Upson Floating Fastener. It anchors panels securely from the back. Eliminates visible face nailing. Designed to compensate for normal structural movement.

THE UPSON COMPANY

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☐ Send me Instruction Sheets for application of Kuver-Krak Panels.
☐ Have your Representative call to give me more information on the cracked ceiling market.

NAME

MAKE OF FIRM

STREET ADDRESS

CITY

STATE

AMERICAN BUILDER
IN YOUR NOVEMBER ISSUE

Gypsum Products — Where and How to use them in remodeling and new construction. A graphic 16-page editorial feature that will contain many new ideas and give factual data on the use of gypsum products in the building field. A guide book for the alert reader.

Modernization "know-how." Read how new materials are being utilized to serve the vast modernization market that exists for builders today. Actual modernization jobs will be featured, illustrated with "before" and "after" pictures.

American Builder's Blueprint Plan, drawn to 1/4 inch scale and fully detailed, will give you a practical home for the average middle class buyer. Don't miss this house which was designed by one of American Builder's most popular contributing architects.

Editorials, How-To-Do-Its, Better Detail Plates and news from all segments of the building field will be contained in this big November issue.

OCTOBER, 1950

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This St. Louis sales riot is not an unusual event. Rather, it is the typical success pattern of builders all over the country. From Maryland, Colorado, New York and other sections come similar enthusiastic reports of builders who install General Electric Kitchens. Why not let General Electric help sell your houses faster, too?

**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.
- Assistance in designing and improving kitchen layouts for your houses.
- One source of supply for matched equipment...a full line of cabinets and appliances.
- And most important: G-E equipment is world-famous for its dependability! Remember, you can put your confidence in G-E!
a sales riot!

"Rather than spend money to sell our houses, we installed complete General Electric Kitchens so that people would buy. Result: We sold 109 houses the very first day!"

Mr. N. R. SCHUERMANN of Schuermann Building & Realty Co., St. Louis, Missouri

Today, more than ever, people want houses that include all-electric living.

They want low-priced homes that have kitchens in which dishes are washed and double-rinsed automatically—where there's a Disposall® for food waste.

They want plenty of hot water at all times . . . and they want an electric range that takes the trouble and guesswork out of cooking, and a family-size refrigerator.

What Schuermann did

The Schuermann Building and Realty Company offered the people of St. Louis, Mo., that kind of a house for the full price of $899.50 . . . with less than $1000 down!

You can see from the photograph at the left what happened. Hundreds of people were waiting to enter the General Electric equipped house at 10:00 a.m. More than 7000 people came out to see the Schuermann home on opening day. 109 people bought houses the very first day!

A suggestion for you

We would like to work hand-in-hand with you to achieve similar results for you in your area. We can help you pre-sell your houses just as we have for so many other builders throughout the United States.

Get complete facts about the G.E. "Kitchen Package" through your local General Electric distributor, or write to the Home Bureau, General Electric Company, Bridgeport 2, Connecticut.

As little as $4.80 more a month!

You can include General Electric Kitchens in your houses for as little as $4.80 a month extra when the G-E "Kitchen Package" is included in the long-term realty mortgage.

Furthermore, the slight increase in monthly payments may be offset by the economical operation, low maintenance and long life of General Electric appliances!

You can put your confidence in—

GENERAL ELECTRIC

OCTOBER, 1950
Home buyers say: "That's what I want!"

Bruce Ranch Plank Floor has created more interest than any hardwood flooring introduced in the past twenty years. Here's why:

1. It's a distinctive hardwood floor at moderate cost.
2. Alternate 2¾" and 3¾" widths, walnut pegs and new "Decorator Finish" gives the effect of an expensive, custom-laid floor.
3. It's nationally advertised, in full color, in leading magazines.

This distinctive floor will give your homes so much extra style and beauty. Yet, when you figure how much time and labor the prefinished feature saves you, the cost of Bruce Ranch Plank Floor is little more than that of regular oak floors finished on the job.

Ask your dealer for color booklet and prices. Or write E. L. BRUCE CO., MEMPHIS 1, TENN.
The Twin Dangers—Communism and Inflation

The government of this country and our free economy are being threatened with destruction by two tremendous forces—Communism and inflation. And yet there are so many fools or traitors in government that almost nothing is being done by government to prevent this destruction.

But those having important places in government are by no means entirely responsible for the danger. The people themselves are much more responsible. The people directly put and keep in office all the fools or traitors, who adopt ruinous policies, and do not condemn the policies enough to cause them to be changed. A powerful uprising of public sentiment against these policies would soon drive from office the politicians and bureaucrats who sponsor them and destroy the policies. But a great majority of the people sit by ignorantly and stupidly while their country is being pushed toward ruin.

The Communists are organized and active throughout the world, including the United States, with the avowed purpose, first, of breaking down the economy of the United States, second, overthrowing our government by force and violence, and, third, publishing a government and economy patterned after that of Russia. Who says so? Every Communist and organization of Communists in the world! One of the most important books published in our time is that of Louis F. Budenz, entitled "Men Without Faces—The Communist Conspiracy in the U. S. A." Budenz was long a communist leader and editor of the Daily Worker, the official organ of the Communist party in this country. A few years ago he left the Communist party and returned to the Catholic Church. In his book, the authoritative nature of which cannot be questioned, he completely exposes the Communist conspiracy in the United States, proves that it is directed and financed by Stalin from Moscow, through agents of Stalin in this country—most of them of foreign birth—and that every member of the Communist party and of its many "front" organizations composed of "fellow travellers" is a party to this conspiracy and is working day and night to carry it out.

The Communist leaders of all countries recognize in the economic system of the United States their greatest obstacle to extending the domination of Communism throughout the world. They are also good enough economists to know that the surest way to wreck our economy is for our government to weaken it by excessive spending, resulting in heavy taxation and in increased government indebtedness, the latter of which must in time inevitably result in uncontrollable inflation and the complete collapse of the economy. And they are supported in their promotion of excessive government spending by almost every fool, whether business man or not, who believes that he will gain something by any form of government spending.

Meantime it is part of the Communist conspiracy to commit every act of sabotage in any American industry that will cripple even slightly our war effort in Korea and in every other country where we may become engaged in hostilities.

Why should hundreds of thousands of such known and dangerous traitors be allowed to stay at large and carry on their work of destruction? There is absolutely no good reason for it. They should all be arrested and, if proved guilty, put in jail or in concentration camps. Why is this not done? Because some politicians fear it might lose them a few votes and a lot of intellectual molly-coddles cry out that it might cause injustice to some citizens. But if a citizen has associations and conducts himself as to cause reasonable suspicion that he is a traitor, why should he not be put on trial and opportunity be afforded to prove his guilt or innocence? Is not the paramount consideration the welfare and safety of the entire American people? If so, it is high time that the Communist conspiracy and menace in this country should be attacked and destroyed.
ARCHITECTS and builders are using more radiant heating—and more Chase Copper Tube for radiant heating installations—every day!

Why? Chase Copper Tube is flexible, easy to bend by hand, needs no fittings at bends. Its long lengths—60 and 100 feet—cut number of connections. Few needed joints are quickly made with solder-joint fittings.

Chase Copper Tube is light, easy to handle. Its small diameter means ceiling installations without extra plaster depth. Its resistance to corrosion means long service life.

HERE'S WHY
you too will want Chase Copper Tube in your Radiant Heating installations!
• EASY TO BEND
• LONG LIFE
• LONG LENGTHS
• SOLDERED FITTINGS
• LOW COST
• LIGHT IN WEIGHT
• SMALL DIAMETERS

FREE BOOKLET
Just mail the coupon for free book, packed with helpful design information and data tables on radiant heating design.

Chase Brass & Copper Co., Dept. AR-1050
Waterbury 20, Conn.
Gentlemen: Please send your "Suggestions for Designing Radiant Panel Heating with Copper Tube."
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STATE

Chase is the Nation's Headquarters for BRASS & COPPER

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WESLOCKS provide you with lock sets and decorative trim of the most advanced design and highest quality for every door in the home. For example, The NEW Lyric escutcheon shown gives any home an outstanding touch of luxury, yet the cost is so low that it can be included in the most modest budgets. Quality construction, beautiful design, low cost and wide selection are all reasons why WESLOCKS are accepted by Architects, Builders and Lending Institutions. Send for the latest catalog today.

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5,000 Norwalk Manor Homes,
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85% of all prospective home owners want oak floors

"When I show one of my homes, I just let the oak floors invite the prospects in. Since 85% want oak anyway, I know the floors speak for themselves and set the stage for the rest of the inspection trip.

"The men want oak throughout because it lasts a lifetime and makes the resale value higher. Women like it because it looks wonderful with any furnishings and it's so easy to take care of. It is this universal acceptance of oak flooring that makes selling my homes so much easier.

"No wonder I put oak in all my houses to lead prospects to a sale."

NATIONAL OAK FLOORING MANUFACTURERS' ASSOCIATION - Dept. 5-10, Storick Bldg. - Memphis 3, Tenn.
GOOD BRICKWORK = GOOD DESIGN + GOOD WORKMANSHIP + GOOD MATERIALS

WET THE BRICK TO SECURE A WATERTIGHT BOND

When placed flat in ½-inch of water for one minute, a brick should gain not less than 5 grams (1/5 oz.) and not more than 25 grams (1 oz.)

A good bond was not secured here because the brick on which the mortar was spread had sucked the mortar dry, before the brick was laid.

A good bond was secured here because the mortar was not sucked dry too fast.

WE SUGGEST THAT—

Brick taken from the scaffold should be tested for rate of absorption, as illustrated at top left. If the tested brick gains more than 1 ounce in weight, all brick should be thoroughly wet just before they are used.

A good initial bond between brick and mortar depends (1) upon the suction rate of the brick, and (2) the water-retaining capacity of the mortar.

If the absorption rate of the brick is too high at the time they are laid, they will suck the water out of the mortar too fast, even though the mortar has high water-retaining capacity. A thorough wetting of the brick just before they are laid is the only way to be sure they will have a low enough rate of absorption.

BRIXMENT

Brixment mortar has higher water-retaining capacity and stays soft and plastic longer when spread on porous brick. This helps secure a good, watertight bond.
BECAUSE IT'S PRICED RIGHT... BECAUSE IT'S BUILT RIGHT... BECAUSE IT'S EASIER TO INSTALL... BECAUSE IT'S LIFETIME WARRANTED

Be Careful!  MORE FOR YOUR MONEY!

USE

DEXTER

the lifetime lock

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.

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AMERICAN BUILDER
HUSKY BIG BEARING BETWEEN KNOB AND ROSE, FOR HEAVY DUTY SERVICE!

NO "POT METAL" ALL WORKING PARTS ARE COLD ROLLED STEEL!

LARGEST HOLE TO BORE 1/4" INSTALL IN 6 MINUTES!

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 1/4" 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

OCTOBER, 1950
The best in modern living includes the best in modern cooking. To assure wholesome, full-flavor foods, easily prepared, every Manhattan House kitchen contains a distinctive new ROPER Gas Range. Here's proof again that ROPER is the choice of discriminating buyers who demand the finest. Shown at left is a typical Manhattan House ROPER installation.

Manhattan House
owned and operated by the
NEW YORK LIFE INSURANCE COMPANY
Equipped Throughout with ROPER Gas Ranges
"America's Finest Gas Range" Used Exclusively in Unique 582-Unit New York Apartment Building

A practical new idea for modern living is Manhattan House, recently completed New York apartment building owned and operated by the New York Life Insurance Company. Twenty stories high and covering an entire block, Manhattan House comprises 582 apartments of from two to seven rooms each.

Planned from the beginning to offer the finest facilities available, Manhattan House chose ROPER Gas Ranges exclusively for its livable, workable kitchens. This fact is doubly important. First, it demonstrates forcibly the preference for gas cooking . . . and second, it illustrates dramatically that Manhattan House kitchen-equipment experts recognize ROPER as one of America's foremost gas ranges.

More Features to Talk About

No other line of ranges provides such a wide choice of exclusive features. ROPER'S "Center-Simmer" Top Burners . . . "Staggered" Cooking Top . . . "Bake-Master" Oven . . . "Roper-Glo" Broiler . . . and many other "Crowning Achievements" open the door to sure customer acceptance.

With ROPER, you offer the ultimate in fast cooking . . . clean cooking . . . economical cooking. You offer the carefree convenience of completely automatic oven performance, when desired. For top-of-range feasts, oven delights and tasty broiled treats, nothing can match a modern ROPER Gas Range.

More Real Value

No other line of ranges gives you such a wide choice of models . . . so many different ovens, broiler and top burner arrangements. From the magnificent 58-1/2 in. "Town and Country" to the compact 21-5/8 in. "600" Series, ROPER makes a gas range to exactly meet every need and fit every pocketbook.

Decide now to investigate the advantages of ROPER. You can specify these distinctive ranges for use with any gas, including liquefied petroleum (bottled) gas.

"Manhattan House" Homemakers Enjoy Fast, Clean, Thrifty Gas Cooking with these Modern ROPER Ranges

Specify ROPER

America's Most Complete Line of Gas Ranges

GEO. U. ROPER CORPORATION

Plant—Rockford, Ill. . . . Offices and Warehouses in Principal Distribution Centers
Mack says... Check the Weather

**Numetal WEATHER STRIP**

**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, and plugs. Individually packaged — ready to hand to your customers — ready to install!

**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 opening, lock keeper strip, screws, nails, and instructions. Perfect for over-the-counter sales!

**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", 36", 42", and 48" doors. Also available in special lengths. Packed 1/2 dozen same length in each carton.

**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-shrunk, 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 a home-owner’s prayers! Beautifully designed, door bottom keeps form contact with floor when door is closed. Saves fuel—stops drafts under door. When door is opened the angled face section automatically raises clear carpet. All working parts and cover shield are made of high quality Alacrome metal. Installed easily. Furnished in 96", 48", and 36" lengths. Available in brassy or Alacrome finish. Packed in individual cartons, each individually packaged and labeled.

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 brassy or Alacrome, with holes drilled, screws furnished—each individually wrapped and labeled.

On-GARD Bronze Coil Weather Strip

Here is the perfect coil strip! Patented nailing jum feature eliminates buckling and forms weather-tight edge. Double turned outer edge forms a butproof, 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-Calk Speed Load

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

Nu-Glaze Glazing Compound

Sells better because it does the job better—really stays put! Won’t crack or peel off. Perfect for all glassing. Packed in attractive cans from 3/4 pint to 12½ lbs.—in drums from 25 lbs. to 550. Order now!
these beauty spots PAY OFF!

first impressions
are mighty important in creating owner satisfaction. A Curtis entrance like this—design C-1755—adds that extra touch of quality because it is correctly styled—beautiful in its simple lines. Yet Curtis entrances—and there are many for your choice—are priced for even the most modest homes.

the place where they linger
Nothing like a Curtis mantel to give a living room grace and appeal. This Curtis mantel, for example—design C-6099—is suitable for several styles of architecture, yet it does not sacrifice beauty and good detail. Many other Curtis mantel designs are available for your choice.

especially women
respond to the charm and convenience of a well-placed Curtis china case. This one—design C-6599—is made either for flat wall or corner installation. Curtis cases, available in many designs, are quickly and easily installed in any room.

men too
appreciate the additional value of Curtis Prespine doors. Curtis Prespine—the new Curtis wood product—won't warp, shrink or mar. Its surface duplicates the natural grain of ponderosa pine—takes natural finishes beautifully. Curtis doors with Prespine panels are available in several styles for any desired finish.

Curtis makes a complete line of woodwork for homes of all types and sizes. Make your next house "all Curtis."

Curtis Companies Service Bureau AB-10W Curtis Building Clinton, Iowa
Gentlemen: Please send me literature on Curtis Architectural Woodwork.
Name:
Address:
City... State... I am ( ) Architect ( ) Contractor ( ) Prospective Home Builder ( ) Student. (Please check above).
For the 1951 Homes You Are Planning NOW...

NUTONE DOOR CHIMES
GET RID OF
NOISY BELLS

Home owners hate nerve-wracking door bells and buzzers. Give them the warm, peaceful tones of a NUTONE DOOR CHIME...it's the friendly welcome!

NuTone makes life more pleasant for the whole family. Plan now to sell your new 1951 homes easier...faster. Install a NUTONE DOOR CHIME in every one of them.

There are 14 models that range in price from $3.95 to $69.95 list. Some with Telechron clock movements and hand-rubbed mahogany cabinets. Attractive designs in both long tube and short tube door chimes. Tubes are satin-brass, tarnish-proof.

NUTONE VENTILATING FANS
GET RID OF
KITCHEN SMELLS

Sweet, fresh air in the kitchen...all year long! That's what new home owners are looking for! Especially when kitchen and dining are combined. Give your new home this added sales attraction with a NUTONE VENTILATING FAN.

NuTone is easiest to install...easiest to clean. Most NuTone models are guaranteed for 5 years.

The finest in ventilating fans. Wall and ceiling models. Housewives love the removable center grille. Engineered for quiet, effective operation. Designed for perfect blending with any interior. Five models that range from $26.50 to $39.95 list.

Write for complete details and literature.
PUBLIC SCHOOL 177, Flushing, Queens, N. Y.
Owner: CITY OF NEW YORK, BOARD OF EDUCATION
General Contractor: CARISTO CONSTRUCTION CORP.,
Brooklyn, N. Y.
Architect: ERIC KEBBON, Board of Education
Ready-Mix Lone Star Concrete:
METROPOLITAN SAND & GRAVEL CORP., New York
Lone Star Masonry Cement: J. P. DUFFY CO., INC., New York

LONE STAR CEMENTS COVER THE ENTIRE CONSTRUCTION FIELD

LONE STAR CEMENT CORPORATION

LONE STAR CEMENT, WITH ITS SUBSIDIARIES, IS ONE OF THE WORLD'S LARGEST CEMENT PRODUCERS: 15 MODERN MILLS, 27,300,000 BARRELS ANNUAL CAPACITY

---

New York City's Board of Education handles the world’s greatest school problem with consummate skill... 835 school buildings provide modern facilities for 866,725 children... 50 new school buildings have been completed since the war... this year another 26 will be ready... with 24 more in advanced planning stage.

Typical of these well-designed, fire-safe structures is P.S. 177 in Flushing, L. I. The frame is Lone Star Cement concrete... brick-work is laid up with Lone Star Masonry Cement mortar—assuring watertight walls that will protect the grandchildren of the pupils of today.

This rich, extra-fat, buttery mortar is uniform in texture, gives sustained high yield. Retains water, keeping thirsty brick or block from sucking water from the mortar. Remains plastic... assures firmly bedded units and better bond. Here, indeed, is mortar with might—the kind of mortar it is important to know about—and to use.

---

LORNE'S MIGHTY IMPORTANT!
—when Quality Standards are as High as This
Government To Study Residential Building

JULY was the best home building month in history. A total of 144,000 new dwelling units were started in July bringing the total for the first seven months of 1950 to almost 839,000. By the end of July, new housing activity was 54 per cent above last year's January-July volume. In the first four months of the year rental housing showed a gain of 32 per cent over 1949 and the 1950 volume of single family starts was greater by 68 per cent.

With this volume of starts it would be expected that there would be an increase in the cost of materials and labor, without the impact of the Korean War and increased defense preparations. As a matter of fact, the price increase has been under way since March. The price of sewer pipe advanced 17 per cent in a single month from June 15 to July 15 in Atlanta. Please note prices have advanced 17 per cent, mineral wool rose 8 per cent, gypsum board 5 per cent and nails 4 per cent.

In the long run, government debt is the outstanding factor in a permanently increased price level such as the one experienced from 1941 through 1946. The Korean War and increased defense preparations have not been factors for a long enough period to cause a rise due to the monetary inflationary level. The present price rises can be attributed primarily to the unprecedented demand for building materials caused by the tremendous increase in building starts.

Several studies of interest to builders are being undertaken by the Housing and Home Finance Agency under the provision of the Housing Act of 1949 which included an appropriation for studies of the building industry to improve efficiency and to reduce costs.

It will be interesting to see the final results of the cost study which the Housing and Home Finance Agency has employed the Massachusetts Institute of Technology to make. HHFA's Division of Housing Research contends that "some types of organizations have demonstrated their ability to sell houses at lower prices, but not enough is known about the factors that produced the results." The Institute will therefore study the cost reduction advantages of different types of house-producing organizations from the small builder of ten houses a year to the factory-produced and dealer-erected system.

The study will analyze, among other factors (1) general organization pattern; (2) size of supervisory staff in relation to the number of workmen; (3) methods of ordering, scheduling and delivering materials; (4) degree of mechanization; (5) methods of financing, and (6) sales organization and promotion. HHFA states that the results will serve as a guide for present organizations in analyzing the efficiency of their operations and indicating the direction in which improvements could be made.

Another study, to be made by the University of Illinois, will gather data on what families need in houses, as a guide for builders in planning developments. HHFA contends that "we know that we are capable of producing dwellings that better meet the needs of our present manner of living with no increase in cost, but many builders are prevented from improving their houses because of a lack of knowledge of what various families need and the lack of time for developing more contemporary plans."

The Georgia Institute of Technology will study "within the city" demand for housing. This will be a study of land planning with relation to community facilities.

Harvard University will develop an accurate basis for measuring and analyzing the costs of municipal services and for evaluating the relative locational advantages of residential developments. HHFA states "A more thorough and exact knowledge of housing costs will provide a more accurate basis for estimating the long run cost of housing to potential buyers, particularly in rapidly developing suburban areas."

The University of Michigan will develop a standardized cost accounting system for possible use by home builders. HHFA states "A standardized cost accounting system is a basic requirement of our housing research program as it is the means through which the elements of costs can be identified and defined."

Harvard University will study the concepts and methods of housing market analysis and the nature and effects of residential mobility.

Other studies under way include a contract with Tuskegee Institute to extend Tuskegee's research into production of houses in rural areas for small cost outlay. The Bureau of Labor Statistics will study cooperative housing. American University will make a survey of a potential residential area in Washington, D.C. It would not be surprising to see develop from this multitude of studies a sort of county agent system whereby Government advice would be available to builders.
MORE AND MORE BUILDERS are cutting their costs with low-cost Kentile. They find, too, that Kentile speeds construction because it can be walked on right after installation—doesn’t hold up other work. It’s easily and quickly installed over any sound underfloor or directly on concrete in contact with the earth...ideal for non-basement homes or for use with radiant heating methods.

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It's easy to be different just for the sake of being different... but it's big news when being different means a better product.

Eljer Closet Combinations are different and better. For example, the overflow and ground-in valve seat in all Eljer Closet-tanks are made of Vitreous China... they are integral parts of the tank itself, and cannot corrode. This Eljer construction eliminates the commonly used thin metal tubes and valve seats... parts which wear and corrode and must be replaced. These exclusive features have proved their worth in the homes of millions of satisfied Eljer customers.

Eljer Closet Combinations... like all other Eljer Fixtures... are quality-built to give greater value to those who buy them and to create good will for those who sell them. If you want to make new friends... and hold old friends... choose Eljer Fixtures and Fittings for your next job.

For information on the complete Eljer Line of top-quality fixtures and fittings, see your Eljer Distributor or write Eljer Co., Ford City, Pennsylvania.

It pays you, it pays us... because we specialize in Plumbing Fixtures and Brass
Can Supply War Housing, Builders Tell Government

The National Association of Home Builders' executive committee, meeting in Washington, D.C., August 10-11 with leading Federal housing officials, said the industry could be counted on to supply whatever housing was needed for the successful prosecution of the war effort.

"The present shortage of lumber and other major building materials is a temporary condition caused by seasonal factors, the high volume of construction and a freight car shortage. Plenty of lumber will be available shortly," said Thomas P. Coogan, NAHB President.

Military purchases of lumber, estimated by Coogan at 1,500,000,000 board feet after talks with Department of Defense, will not upset the lumber market, since it is only one week's production of the industry.

NAHB's executive committee told the Federal housing officials that the recent credit curbs requested by President Truman would, in due course, bring the present record-smashing building volume into balance with defense requirements.

The officials, including Administrator Raymond F. Falcon of the HPHA, Franklin L. Richards, FHA Commissioner, and T. B. King, Chief, Loan Guaranty Service, VA, were told that, because of the momentum of the current housing market, mortgage credit restrictions would not be apparent in the volume of housing starts until late fall.

NAHB urged the officials to initiate no further controls, before the credit curbs or restrictions were known. If further controls were to shackle the industry, the NAHB cautioned, a serious breakdown in housing production would result and a very low volume of new homes would be started next winter and spring.

A survey of NAHB's 17,000 Home Builders in 140 cities revealed that the curbs in credit would eventually produce an estimated 25% to 50% less homes started. The curbs call for a minimum of 5% cash down on home loans for veterans and an increase in 5% cash payments on FHA-insured mortgage loans.

The builders pledged President Truman their whole-hearted support in the current Korean crisis. The President was told the industry was prepared to produce whatever housing, civilian or military, was needed.

Coogan pointed out that the NAHB was preparing a master plan whereby NAHB members could quickly produce prefabricated housing for use either at home or abroad in record pace.

Basic factor in the plan is the prefabrication of materials in small housing plants which could be set up quickly and economically by merchant builders.

The building industry presently is one of the major supports to the Nation's booming economy, Coogan said, using an estimated two million workers, with additional millions in allied industries such as home furnishings, banks, title companies, home equipment manufacturers and other industries.

Doyle Top Detroit Executive Officer

Earl C. Doyle, general secretary of the Builders Association of Metropolitan Detroit and editor of its official publication, the Builder, has assumed the post of association chief executive officer.

Doyle, a member of the Detroit staff since 1945, succeeds Wallace A. Colwell, former executive secretary. Colwell left the association to join the Abstract and Title Guarantee Co., with which he was associated from 1923 to 1942.

NHW Proclaimed in Michigan

GOVERNOR G. Mennen Williams of Michigan Signs Proclamation for National Home Week as Representatives of Sponsoring Organizations Watch with Approval. They are (from left) William V. Louks, president, Detroit Real Estate Board; Roland Fisher, executive vice president, Detroit Real Estate Board; A. R. Boudreaux, executive vice president, Michigan Real Estate Association; Edward Eshleman, vice president, Michigan Association of Home Builders; Russell A. Painter, president, Michigan Real Estate Association; Hunter Gaines, secretary-manager, Michigan Retail Lumber Dealers Association; and Charles A. Bowser, president; John D. Harrison, regional vice president; A. W. King, treasurer; and Hirtus E. Allen, executive secretary, all of the Michigan Association of Home Builders. Proclamations of governors and mayors give impetus to national drive
Cy Sweet Says-

C. B. SWEET. President. National Retail Lumber Dealers Association

“Business as Usual”

The question that is uppermost in the minds of retail lumbermen these days is, “How is this national emergency going to affect business in the coming year?”

It is obvious that there can be no ready answer to such a question and that there is no foreseeing what the months ahead have in store for us, but all of the signs point to a situation similar to the one in which we found ourselves some years ago. At present the Administration in Washington seems completely confused and there appears to be little likelihood of its coming to grips with the chaos in the immediate future.

Of particular interest to our industry is the information that apparently the Administration is not trying to cut back private housing construction by more than 20 or 25 per cent, using credit restrictions as the means of limiting the demand. If necessary, it is prepared to stiffen housing credit still further in order to ask more buyers out of the market and thus hold down demand, in balance with materials supply.

Conditions being what they are at this writing, it looks to me to be impossible that the nation’s economy can be kept in gear without all-out controls: the dangers of inflation, excessive wage demands, dislocations in supply, and selfish greed for personal gain unfortunately can be controlled only by such drastic measures. This power has been given to the President and I think he will use it when he thinks it politically expedient.

When the Budget Committee of the National Retail Lumber Dealers Association met in Chicago in mid-July the decision was made to go ahead with the present worthwhile activities of the Association until we had good reason to change or modify them, taking on additional emergency programs as new developments dictated. It should be gratifying to all of us to know that in the trying days and, I fear, years ahead we have strong, experienced trade organizations to help us by keeping us accurately and speedily informed of all the new laws, orders, directives, and regulations under which we will operate.

Until that time when all-out controls are in effect, the safe and cautious course in every day retailing seems the only wise course we can follow. We should willingly assume the responsibility of doing all we can to discourage excessive prices, and of getting materials to those who need them most. If we all do our part we can avoid much grief for ourselves and simultaneously perform a real service to our country.

Richardson New Portland Executive Officer

John M. Richardson, veteran Portland publicity writer and newspaperman, was recently appointed executive secretary of the Portland Home Builders Association, Inc., succeeding L. W. Byrne who resigned to enter the real estate and appraisal field.

Richardson was a member of the editorial staff of the Oregon Journal for nearly 20 years, including 14 as real estate and building editor. During the recent war he was affiliated with the Department of the Interior. As a free lance public relations man he served for two years with the Board of Park Commissioners of Portland.

He is an alumnus of Oregon State College and a Marine veteran of World War I.

Onondaga Activities

Recent activities of the Better Builders Association of Onondaga, Inc., Syracuse, N.Y., were the annual clambake Aug. 24, and a dinner meeting Sept. 6.

Pittsburgh Picnic Committee

MEMBERS of the picnic committee of the recent annual picnic of the Home Builders Association of Allegheny County (Pittsburgh) are, left to right, W. B. Tseuom, E. E. Gavoch, Jr., and W. B. Dixon. Their sports shirts, which had the pattern of a house blueprint in blue with white lines, were the official uniform of the committee.

Take it Easy’ and Await More Facts. Richards, Coogan Advise Builders

“Take it easy” until the current housing situation has become clear, the nation’s home builders were advised by Franklin D. Richards, Federal Housing Administration commissioner, and Thomas P. Coogan, president of the National Association of Home Builders, at an “Emergency Dinner” of the Chicago Metropolitan Home Builders Association in the Hotel Sherman Aug. 24.

The two leaders, authoritative spokesmen for the government and the home building industry, were in agreement that if the limited credit restrictions made effective in July are supplemented by voluntary common sense controls on the part of builders—in respect to new starts and purchase of materials—there is a good chance that home building can continue at a normal and substantial pace.

Richards called on home builders to concentrate their efforts on needed housing, to finance soundly and to purchase materials only as needed. It is up to the industry and government,” he said, “to direct a large part of residential construction into the lower-priced market where the need is greatest and so that the results will have the least possible disrupting effect.”

Coogan announced that NAHB would hold meetings throughout the country to promote builder self-controls. He said that the industry’s aim was to find out what housing is needed and to obviate the necessity of wide government restrictions by supplying it in an orderly manner. Emphasizing that normal operation of the construction industry was vital in supporting the national economy, he also declared that the availability of adequate housing was of first importance to “combat Communism and other ills.”

Joseph L. Strong Dies; Was Lumberman 50 Years

Joseph L. Strong of Chicago, who had been actively identified with the lumber industry for more than 50 years, died Aug. 14 after a long illness. He was 81.

Mr. Strong served as secretary of the Lumber Trade Association of Cook County (III.) from 1939 until his retirement in June, 1948. He was also secretary and treasurer of the Landmen’s Golf Association of Chicago for 17 years.

He leaves his widow Mrs. Estella Strong, and a daughter, Mrs. Dorothy Parsons.

N. Y. Builder Outing

The Home Builders Association of Schenectady, Inc., was host to its members at a steak dinner and sports outing in August.
FRANK W. CORTRIGHT Executive Vice President National Association of Home Builders of the United States

New Homes for Less than Old Ones

America's Home Builders have passed a new milestone of tremendous significance. It is as great a tribute to the progress of our private building system as ever has been achieved.

Boiled down to its essentials, it is simply that we have produced and marketed a typical new home at a price less than it costs to buy a comparable existing house.

This startling fact is revealed in figures recently released by the FHA covering its operations in 1949. In the undramatic fashion of federal statistics, FHA's annual report quietly revealed that in 1949 the median valuation of new homes was less than the median valuation of existing houses for the first time on record.

For new homes, the valuation was $4,700. Thus it cost purchasers $200 less than it did to buy an existing one.

The private home building system has broken all world records for production. It has put more new homes into the hands of more people than the world has ever seen. Now it has proved that it is capable of adjusting its production so that average families can get a new home at less cost than they can buy a used product. And this remarkable feat has been achieved at a time of inflation and constantly rising prices.

Some other interesting facts are shown by review of the FHA figures. For one thing, the record completely explodes the claims of the critics who assert private builders cannot provide new housing for families of middle income. With production going well beyond a million units last year, four out of every five houses built were bought by families with incomes ranging from $2,000 to $5,000. The bulk of these houses went to families in the $3,000 to $4,880 bracket. The median income of home-buying families was $5,880.

If that isn't middle-income home buying, what is?

Thus, private builders have established another great record—one that compares well with any of our great industrial achievements in other fields. Now, in a time of crisis, we have a tough job on our hands to hold these great gains. What ultimately happens will be determined by the course of the war and the extent of the controls that are put on our economy.

But there is much that the Home Builder can do to ease severities that may develop. If we are calm, if we use common sense, if we avoid panic buying and stockpiling, if we discourage panic buying by our customers, we can avoid creating conditions that will encourage drastic controls.

Washington experts have a habit of appealing for "statesmanship." Actually, however, this is a time for statesmanship on the part of our great industry to match our technical progress. We have made great gains undreamed of ten years ago. Let's protect those gains by using common sense in all of our operations. If we can get our suppliers, our manufacturers and our customers to work with us, the outlook will be a lot better for the Industry, the Economy and the War effort.
Junior Home Builders Charter in Chicago

Under the name "Junior Home Builders of Chicago," 35 of the younger members of the Chicago Metropolitan Home Builders Association formed the first official junior group of home builders in the nation in a meeting Aug. 10. The junior group accepted a charter from the parent association and adopted a constitution and by-laws conforming to those of the local and national associations.

Each charter member, in addition to his junior membership, became a member of the parent association as well as the national.

Designated as leading objective was the coordination of fresh trends in design, young and vigorous ideas and first-hand knowledge of wants and needs of the younger generation with the experience of more mature builders. An educational program is planned where lectures and discussions will be held on essential home building subjects.

A nominating committee was named at the meeting to choose seven directors, four of whom will be designated as officers.

Selected Products Show
Set for '51 A.I.A. Meet

A feature of the 1951 convention of the American Institute of Architects will be an exhibit of selected products—the first in the group's 53-year convention history. The meet will be held in May at Chicago's Edgewater Beach Hotel.

The exhibit will not be a conventional trade show, according to Paul Gerhardt, Jr., F.A.I.A., city architect of Chicago and chairman of the display committee, but is designed to provide architects with educational information on noteworthy product developments and trends in construction techniques.

Gerhardt said space would be granted only to building products or methods recently introduced or scheduled for early commercial introduction, and capable of achieving improved construction at moderate cost. The number of exhibits will be limited to 50. Invitations to submit applications for participation will be sent to sponsors of products or methods believed to be eligible and A.I.A. hopes through publicity to bring lesser known developments to its attention.

Detroit Builders Clamp Down on Vandalism

Because of a critical shortage of building materials, John Weinhardt, president of the Builders Association of Metropolitan Detroit, has advised association members to prosecute all persons apprehended in violation of construction site materials. He also recommended stern action against vandals caught damaging buildings or materials.

He urged cooperation from parents to maintain the current Detroit building record, Weinhardt said that one of the major problems was damage done by children playing near construction sites.

The association is offering rewards up to $500 for information leading to the arrest and confession of persons who have stolen or damaged property and materials belonging to members, and has warned that stiff prison sentences can be exacted for the conviction of offenders.

For additional Association information turn to page 242
And on every cut SKIL Saw balance and power make the job easier!

Try SKIL Saw on the tough cuts. Learn what easy-handling really means. Take SKIL Saw with you up on the job. On overhead work SKIL Saw's two handles mean safer, more positive control. On the simple cuts, SKIL Saw leaves one hand free for materials handling. And SKIL Saw, not you, does the work.

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Home buyers get custom-designed floors of Texfloor ... the luxurious linoleum with the textured look. You offer the extra of colorful, individualized interiors!

It means work-saving for home buyers! Texfloor ... the linoleum that wears for years ... is easy to keep clean, spotless and sparkling.

Home buyers save money! They save the cost of room-size rugs with the wall-to-wall beauty of Texfloor.

YOU CUT COSTS! Easy-to-install Texfloor costs up to 30% less, installed, than ordinary flooring! It's your new way to offer more for less!

here's how!

Put Texfloor in your model home. Let prospects see how it makes your home more attractive ... adds the newest decorating effect of sparkling room-to-room color coordination.

Tell your prospects how Texfloor saves them work and money... gives them long-wearing, easier-to-keep-clean floors.

Let your home buyers custom-design their own floors, selecting colors and patterns for each room from your Texfloor samples.

Texfloor GIVES EVERY ROOM A GUEST ROOM LOOK!

SLOANE-BLAbON CORPORATION
295 FIFTH AVENUE, NEW YORK 16, N. Y.
A PREVIEW OF THE SALES BUILDING OPPORTUNITIES TO BE FOUND IN THE NOVEMBER ISSUE OF HOUSE BEAUTIFUL REACHING YOUR BEST CUSTOMERS ON OR ABOUT OCTOBER 20th

The above sketch, reproduced from a November House Beautiful editorial on good low-cost house design, illustrates how a maximum of privacy can be insured even on a small development lot. No important windows face the street. The location of the garage frees the entire fenced-in rear of lot for outdoor living.

CLIMATE CONTROL

12 QUICK TRICKS

November House Beautiful brings you and your prospective customers a "quickie course" in Climate Control, boiled down to twelve easy-to-understand design and building "tricks":

1. Best location of house on site.
2. Protection against wind.
3. Proper roof overhang.
4. Use of exterior shade.
5. Best location of windows.
6. Importance of roof color.
7. Sunken living efficiency.
8. Best ventilation results.
10. Efficient heating control.
11. Inexpensive air-conditioning.
12. Significance of room sizes.

More and more of your best new-home prospects will be demanding some or all of these good-sense principles because more and more are being educated to their practical significance through the pages of House Beautiful. So watch for this new "quickie" version of a tremendously important subject . . . and keep it handy as a manual! You'll find it invaluable in closing those transactions you've been hoping for!

A PACE-SETTING SALES-BUILDER FOR YOUR LOW-COST HOUSING

A 3-bedroom house with 1950 pace-setting features such as Climate Control and privacy—all for $12,650! That's one of the progressive presentations in November House Beautiful, brimming over with profitable ideas for your local low-cost building problems!

Watch for it! Its up-to-the-minute principles are adaptable to your locality. It demonstrates that a merchant builder's development house can concentrate on basic values and good design. (The sketch reproduced on this page illustrates how privacy is acquired.) It proves that "Americans have a talent for making a little go a long way." It sets standards of real living value which you can offer your new-home prospects at prices they can afford . . . of real extra profit for your business!

CLIMATE CONTROL

SILENT SALESMAEN

are yours for the asking. Turn the page for complete details.

OCTOBER, 1950
SURFACING MATERIALS

a. Wall & Ceilings

1. STRAHAN FINE WALLPAPERS
   THOMAS STRAHAN CO.
   Variety keynotes the STRAHAN 1951 wallpaper line in design, from authentic representation of early papers to the most "in" styles of modern color, from cool shades to warmest hues. This is the largest and most complete in America in 68 years, advertised consistently in leading national consumer magazines.

2. "TREND OF THE TIMES" WALLPAPERS
   C.W. STOCKWELL CO.
   "Wildflower" is the gay, California-inspired wallpaper design featured in Stockwell's November ad for "Trend of the Times Wallpapers." Stockwell wallpapers, carried by leading dealers throughout the United States, are preferred by decorators because of their crisp freshness, their appealing color schemes, and livable designs.

3. UNITED WALLPAPERS
   UNITED WALLPAPER CO.

4. VITROLITE
   LIBBY-OWENS-FORD GLASS CO.

b. Floorings

5. AMTICO RUBBER FLOORS
   AMERICAN TILE & RUBBER CO.
   Pearl Gray is 23rd AMTICO color. Most complete line of decorator-styled colors available in rubber floor tile is featured by AMTICO - product of AMTICO. Complete line in rubber flooring exudes the ideal combination of beauty, comfort, warmth, fire resistance, ease cleaning, lifetime wear. Full-color ads monthly in consumer magazines.

6. BRUCE HARDWOOD FLOORS
   E.L. BRUCE CO.

7. FREMONT RUBBER TILE DUO-CUTS
   FREMONT RUBBER CO.
   Fremont Rubber Tile Duo-Cuts, offering the effect of custom floor installations without the added cost of labor work, have interchangeable "diamond-shaped" corner Duo-cuts are available in all of the 17 face-resistant Fremont Rubber Tile colors.

DOORS, WINDOWS & EQUIPMENT

8. BURROUGHS HEALTH-GUARD COMBINATION WINDOWS
   THE BURROUGHS CORPORATION
   Season in, season out Burrougs sells more combination multi-paned windows people. Current national advertisement is selling over 3,000,000 prospect the health, draft, comfort and convenience features of famous custom-fit Burrougs All-Aluminum Combination Storm and Screen Windows. Name paper mail, direct mail material and television available.

9. CINC "STO-A-WAY" COMBINATION WINDOWS
   CINCINNATI FLY SCREEN DIV.
   F.C. RUSSELL CORP.

10. MODERNFOLD DOORS
    NEW CASTLE PRODUCTS CO.
    Builder presents housewife with more usable counter space by using "Modernfold" accordion-type door instead of swinging door. That's the theme of New Castle Products November advertisement in HOUSE BEAUTIFUL. It portrays only one advantage which builders can give buyers with "Modernfold" doors - more usable houses more appealing, faster to sell. Literature available.

11. BUSCO ALL-META COMBINATION WINDOWS
    F.C. RUSSELL CO.

12. SUNAIRA VENETIAN BLINDS
    KIRSCH COMPANY
    Kirsh leadership is cultivated by aggressive advertising and publicity - just as it is carefully maintained in the design and quality of Kirsh products. You share, in the frame of the Kirsh name when you tie-up with it in your advertising, and when you mention Kirsh on your sales floor.

* WARNER WEATHER-MASTER COMBINATION WINDOWS
* WARNER MFG. CO.

PAINTS

13. RAMUC ENAMEL FOR POOLS
    INERTOL CO., INC.

14. LECTRO-WELD PAINT REMOVER
    LECTRO-WELD, INC.

15. MAGIKOTER PAINT APPLICATOR
    THE KENWILL CORPORATION

SANITARY EQUIPMENT

a. Plumbing

16. ELIER PLUMBING FIXTURES
    ELIER CO.

17. PERMUTIT WATER SOFTENER
    PERMUTIT COMPANY
    New even families of moderate income may enjoy the benefits of soft, clear water in every faucet in the home. Permunit's amazing new automatic water softener system costs $80; less than previous models. The periodic addition of salt to the unit of a switch operates it. Choice color territories now open.

b. Dishwasher

18. G.E. AUTOMATIC DISHWASHER
    GENERAL ELECTRIC COMPANY
    New design features keep General Electric dishwashers among the highest selling automatic dishwashers for higher wash-time tem-

- Modern simplicity on a 150-year-old foundation, as pictured in November House Beautiful. The south wall of this climate-wise house, built on the site of a typical old New York farm house, now open to the countryside, thanks to modern controls for mastering excessive sun and glare, insects, blowing snow and winter cold. A screened balcony protects an entire glass wall, the lower half of which slides open like a barn door.

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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!

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ACCURATE ESTIMATES nois, which has probably done as much practical research in kitchen planning as any other private institution in the world.

For Better Bookkeeping

Sirs: With reference to the story, "Charts Can Save You Money," in your September issue, I wish to commend Mr. E. T. McMurray for his well-organized operation. I read the American Builder each month and find that it is down-to-earth for a man in the building business. Any information that you pass on to builders which will impress upon them the importance of a good bookkeeping and cost estimating system will be of great value to them, because it is surprising how few small builders have an adequate bookkeeping system.

W. W. Burns
Ass't Vice President
Home Federal Savings
and Loan Association,
Des Moines, Iowa

Kitchen Suggestions

Sirs: Most of the houses built today have greatly improved average architecture—combined with faults that will punish the owners when better homes are built. A glaring fault is the crowding of kitchen equipment under the kitchen window above the sink. This seems to be a hangover from the days of the lamps and gas fixtures which gave inadequate light; the days when people had to have windows facing east if the dishes were clean. Housewives don't want to have to stand or sit on a high stool to look out of the window. Nine out of ten prefer the largest possible window, and a generous place for table and chairs, so that the kitchen becomes more than just mere cooking space.

Let's put larger windows in the kitchens, and a nice plan for the table and chairs by these larger windows, and not crowd this most desirable space with the sink and other kitchen equipment. Let's make the kitchen a gay and colorful room of many uses, instead of mere cooking space.

Guyon L. C. Earle, President
Earle Kitchen Unit Co.,
New York 21, N. Y.

EDITOR'S NOTE: Greater convenience, for the kitchen, or any other part of the home, is a prime goal for builders and designers of homes. Progress in that direction is constantly encouraged by American Builder, as our July Kitchen and Bathroom issue points out. That issue presents the latest kitchen planning research completed by The Small Homes Council of the University of Illi-}

nois, which has probably done as much practical research in kitchen planning as any other private institution in the world.

For Better Bookkeeping

Sirs: With reference to the story, "Charts Can Save You Money," in your September issue, I wish to commend Mr. E. T. McMurray for his well-organized operation. I read the American Builder each month and find that it is down-to-earth for a man in the building business. Any information that you pass on to builders which will impress upon them the importance of a good bookkeeping and cost estimating system will be of great value to them, because it is surprising how few small builders have an adequate bookkeeping system.

W. W. Burns
Ass't Vice President
Home Federal Savings
and Loan Association,
Des Moines, Iowa

Kitchen Suggestions

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Installed over 13 years ago...these windows still perform perfectly today

 Getty-operated casements grow up without ever seeming to grow old. Through years and years of twists and turns, they continuously render troublefree, faithful service—starting as quickly, moving as gracefully, stopping as suddenly and as securely as the day they were installed. Their original cost is reduced to a negligible minimum over their lifetime span of service.

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 B. 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.
The Richmond Shelton
Plate No. 2113. A flat-rim sink with double compartments for counter-top installation. Drilled for supply fittings. Sizes 32" x 31" and 42" x 21".

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Sinks in rugged enameled cast iron!
Durable cast-iron base with easy-to-clean, acid-resisting enamel for lasting beauty.

Sinks in rich, new pastel colors!
Now—in addition to the famous Richmond "whiter-white" a choice of four new beautiful pastel shades. Azure Blue, Bermuda Coral, Fern Green and Oriental Ivory.

Sinks that are sure to satisfy!
Richmond's reputation for quality sinks assures customer satisfaction, whatever type you install. Specify plumbing fixtures that carry the Richmond guarantee.
Comparison proves NU-STYLE CABINETS excel in Beauty, Durability and Utility

Here's why:

1. Exclusive Nu-Style door with "the Famous Profile,"... in perfect harmony with latest ranges and refrigerators.

2. Nu-Style... strongest cabinet made... dovetailed drawers. Solid (3/4" thick) standards and mortised frames.

3. Nu-Style Cabinets can be scribed or sawn to join plastered surfaces.

4. Enamel any color or finish natural.

5. Produced by experts trained in latest scientific methods.

6. Made from thoroughly seasoned, kilndried Ponderosa Pine... the best base for a wide variety of finishes.

Nu-Style Cabinets are sectional units in graduated sizes offering the utmost in flexibility of Color, Size and Layout.
X-RAY HOUSE—Elsewhere in this issue is a story dealing with an incomplete house, purposely left that way for purposes of demonstrating the construction.

NATIONAL HOME WEEK—When NHW was instituted it was urged that project builders provide a house similar to the X-Ray house along with the completed units for exhibit.

NOT DONE—As far as we have been able to determine, no one has taken the suggestion. Generally, the reason advanced is that it would look pretty bad, and probably no one would be interested.

MEN—The reasoning behind the original suggestion was that men really are interested in the structural values of a house they consider buying, and that showing them the structural qualities would speed up the sale.

IT'S TRUE—Experience with the X-Ray house indicates that there is truth in the supposition. More than that, however, the X-Ray house has demonstrated that women are equally interested. Far from being an eye sore in a project of completed and decorated houses, the X-Ray house has proven to be a focal point of interest.

PARTICIPATION—Wider participation in National Home Week, especially by manufacturers whose materials are structural, and usually covered by finish materials, can be expected if builders all over will adopt the cutaway principle of the X-Ray house for the next NHW.

DEALERS—The X-Ray house offers something new for the consideration of retail dealers who, with several of their builder customers, participate in NHW in communities where there may be no house for exhibit purposes. It suggests the feasibility of constructing full size or scale sections of houses to show the best in construction details.

DEMONSTRATION—Such a program would require a script to be read by someone who understands the construction. It is safe to predict, without committing anyone to a task that would not be onerous, that officers of NAHB and NRLDA would be glad to formulate such a program and provide the script.

NOTHING NEW—In principle, there is nothing new about the use of the X-Ray house for small builders and/or their suppliers. Many retailers have used full structural sections or scale models in selling for years. Wherever used they have been successful.

KNOT-HOLDERS—The success of the X-Ray house as detailed in this issue, or as proposed for small builders or dealers could have been predicted by anyone who has ever passed a big city construction job. Usually the safety enclosure is lined with men peering in through knot holes in the enclosure boards. That there is widespread interest in construction operations and techniques has long been known. Why home builders have not capitalized on it as an asset is not easily understandable.

BIG BUILDERS—Many of these, the builders who erect the skyscrapers, have long ago gone as far as to erect grandstands on the sidewalk, thus changing the knot-hole gauges to sidewalk superintendents.

PROFIT?—No such builder has ever been heard to say that he gains anything from providing comfort for the interested laymen. Oddly enough, however, several of them have been on the receiving end of some very valuable suggestions coming from the sidewalk superintendents.

ASSUMPTIONS—The people with the X-Ray house have been amazed by some of the assumptions, all wrong, that prospective buyers have been laboring under. One of them is mentioned in the story referred to in this issue. There have been many others. If builders want to minimize sales resistance, and give the public some genuine appreciation of what is being offered, there is no better way than to take them into complete confidence, and show them what lies behind the walls, under the roof and foundation.

HIGH PRICES—These are much more readily understandable when the prospect is shown all of the work and planning that precedes the finished floors and walls. Usually, he thinks he could have done much of the finish work himself, but when he sees the hidden work, and understands what really makes the house stand up, he begins to see why the costs are there.
NOW YOUR PLANS CAN

AT LITTLE OR NO EXTRA COST!

OFFSET ITS COST WITH THESE ECONOMIES IN DESIGN

As you plan a building around Servel All-Year Air Conditioning, you'll realize that many of the conventional features of a house no longer have any function. You can use fixed glass, dispense with fireplaces, fans, screens, etc. This way you can often save enough to make up the extra cost of installing the Servel system. Your client will be delighted, for he's exchanging comfort that he enjoys only occasionally for all-year comfort. What's more, air-conditioning adds considerably to the resale value of a house—and helps to keep it high.
Of all the elements that can enter into modern home design, no single one makes such a difference as Servel All-Year Air Conditioning.

When you design a home... or office or store... around Servel Air Conditioning, it's almost as though you were building it on another planet—a planet where the scorching heat of summer and the bitter cold of winter do not exist. For the amazing new Servel system automatically keeps the temperature and humidity within the building at a comfortable point the whole year round, no matter how hot or cold the weather is outside.

In summer, the Servel cools the air and removes wilting humidity. In winter, it warms the air, adds just the right amount of humidity for comfort. Year-round dirt and irritating pollen are filtered from the air, and it is circulated evenly, without drafts, through every room. Hay fever and pollen asthma sufferers enjoy blessed relief.

The whole process is completely automatic. Once the Servel Selectrol is set at the desired temperature, no other adjustment need be made all year long. The Servel switches automatically from cooling to heating—within the same day, if necessary—to maintain the desired temperature.

You can offer your clients all this year-round comfort at practically no extra cost by eliminating from your home design the details that all-year air conditioning makes obsolete. These include things like fireplaces, attic fans, screens, windows that open and close. The saving will almost cover the cost of the air conditioning.

You can adapt the Servel to any home, any fuel. Ask your Gas Company for details, or write to Servel, Inc., 1010 Morton Street, Evansville 20, Ind.
Efflorescence in Masonry Construction

Efflorescence is the white, powdery substance, generally water soluble salts, which often appears on the surface of masonry walls.

The appearance of efflorescence on a masonry wall should be a matter of concern since it is an indication that unwanted moisture is present within the wall itself. Such moisture, if permitted to continue to collect, will, in certain conditions, eventually contribute to the deterioration of the masonry.

Causes of Efflorescence

These water soluble salts, present in the materials used to construct walls, are dissolved in water and deposited on masonry surfaces when the water evaporates. Some of the salts frequently found in efflorescence are calcium sulfate (gypsum), magnesium sulfate (epsom salts), sodium chloride (table salt), sodium sulfate and potassium sulfate.

Second-hand brick, because of previous contact with mortar or plaster may be a source of efflorescence. The ingredients used in mortar and plaster sometimes contain soluble salts and are frequently a cause.

Determining Source

If efflorescence appears only at the edges of the masonry unit, it is likely the mortar that contains the soluble salts. If the entire unit is covered it is likely that both mortar and masonry units are the source. If near the center and not near the edges, it is likely that the units themselves are responsible. While such observations are valuable guides, only through testing all materials can it be determined whether salts are present in sufficient quantity to cause efflorescence.

Controlling Moisture

In the case of a uniform coating of efflorescence on a newly-constructed building, an excess amount of water used in the mortar mix may have carried the salt to the surface. During the process of gradual evaporation this excess moisture will carry any soluble salts that may be present to the wall surface.

The location of efflorescence often provides a clue to the source of trouble.

For example, exteriorization streaking down from the top of a wall, or patches some distance from the top would indicate defective coping, gutters, or roof flashings. Patches under windows are evidence that the sills or caulking around the window frame should be investigated. A single spot on a wall, with no apparent relation to masonry openings, coping, gutters, etc., may be the result of a defective mortar joint or a projecting course of masonry forming a water table. If it appears on the foundation wall near the ground, especially when rather porous units have been used, it could be caused by ground water drawn up by capillary suction. In every case, the general principle is that this spot of efflorescence indicates a portion of the wall unduly wetted.

Correcting Construction Faults

When causes are apparent, corrective steps to prevent recurrence should be taken before efflorescence is removed. Faulty flashings, gutters and downspouts should be repaired. If copings or joints are at fault they should be taken up and relaid with thin but well-filled mortar joints with troweled concrete. Non-corrosive metal or bituminous flashing should be placed directly under copings, cornices, chimney caps and any projecting masonry courses.

Improperly filled mortar joints in exposed walls should be raked out and repointed with a plastic mortar of approximately the same mix as used in the original work. In order to elimi-

(Continued on page 52)}
THAT BRICK, CONCRETE, OR BLOCK WALL—

Give 1" Space

2" DRY Insulation

Value!

FOR LESS THAN *7½c SQ. FT.,

MATERIAL WITH LABOR

*In new construction between furring strips.

Use 2 Aluminum sheets ½" apart...

Permanently separated, with 4 reflective surfaces, and 4 reflective accordion spaces; they have zero permeability, are non-condensation forming, non-moisture retaining, will force out fortuitous vapor.

Invaluable under cement floors or floor radiant heating panels—1" space is so economically created. R factor for Down-Heat Flow is 10.30, equal to 3½" dry rockwool. A must for shallow spaces around air ducts and for pre-fabricated buildings, trucks, trailers, railroad cars, ships and planes. Heat flow through air spaces in walls is 65% to 80% radiation. Two such aluminum sheets absorb only 3% of heat rays, and radiate only 3%. They are impenetrable by convection; conduction is insignificant. This construction is technically called Type 4 Jr. Infra.

INFRA INSULATION TYPE 4 JR.

Thermal Factors in 1" Space

Down Heat C.097, R10.30, equals 3½" Dry Rockwool
Wall Heat C.194, R 6.66 equals 2½" Dry Rockwool
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YOU CAN MAKE a small room look larger, a narrow one appear wider, dark corners seem brighter, with well-placed wall mirrors. Pittsburgh Mirrors are available for every structural and decorative need. Made from genuine Pittsburgh Plate Glass, they have superior reflectivity. For unusual effects, they're obtainable made from blue, flesh tinted or green (Solesx) Plate Glass. They're available with the regular silver backing, or with gold or gunmetal backing. And, where protection against moisture is required, Pittsburgh Copper-Back Mirrors are obtainable.

NOW YOU CAN OFFER your customers all the advantages of Twindow, "the window with built-in insulation," plus a high degree of ventilation. This is made possible with the Vita Automatic Window—"the only picture window that opens electrically!" These windows are offered by Vita Automatic Windows Inc., 101 Park Avenue, New York 17, N. Y.

TWINDOW consists of two or more panes of Pittsburgh Polished Plate Glass. There's a layer of air trapped between them and hermetically sealed to keep out dirt and moisture. This air space provides effective insulation which minimizes downdrafts, cuts heat loss through windows, reduces condensation. The entire assembly is encased in a stainless steel frame to protect the glass edges and seal and to simplify installation. Forty-seven standard Twindow sizes are available, adaptable either for wood or steel sash.
SUCCESSFUL BUILDERS choose Carrara Structural Glass in the construction and decoration of homes in every price class. They know that it's the finest wall covering available for bathrooms, powder rooms and kitchens; that it's unsurpassed in quality, permanence and beauty. Carrara Glass is ideal, too, for window sills, niche linings, mantels and fireplace surrounds. It's easily installed. Architect: Henry W. Johanson, Roslyn, N. Y.

A COMPLETE LINE of Pittsburgh Products for store modernization is at your disposal. It includes Plate Glass, Carrara Structural Glass, Mirrors, PC Glass Blocks, Doorways, Paints and Pittco Store Front Metal. The illustration shows an ingenious use of Pittsburgh Polished Plate Glass and a Pittsburgh Doorway to create a showroom that permits open-view in its broadest sense. Merchants know all about the quality and dependability of Pittsburgh Products. So, when you're bidding on a job, let them know that you're using these products. It's a big help in selling them. Architects: Marsden & Son, Charleston, W. Va.

BUILD IT BETTER WITH—

Pittsburgh Glass

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

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PITTSBURGH PLATE GLASS COMPANY

OCTOBER, 1950
What are they saying about the houses you build?

Your future as a builder depends to a great extent upon word-of-mouth advertising. Satisfied customers become loyal, enthusiastic boosters. They spread the word that the houses you build are a solid investment in good living. They not only help you sell . . . they create an active demand for your houses.

How WRIGHT RUBBER TILE builds goodwill for you

One of the surest ways to gain satisfied customers is to pay special attention to the "extras" you put into a home.

Take floors, for example. Floors that fail to stand up under normal use — floors that quickly become shabby and worn-looking — reflect unfavorably on you, influence what people say about the houses you build.

Today's builders are avoiding this pitfall by installing floors of WRIGHT RUBBER TILE in kitchens, living rooms, hallways and baths.

WRIGHT RUBBER TILE imparts a warmth and radiance to every room that makes your houses easier to sell. Still more important, WRIGHT RUBBER TILE retains its gleaming beauty after years and years of hard service. It resists stains and damage of every kind like no other floor covering made. Every feature has been proved by over 28 years of successful service.

You have the assurance when you install WRIGHT RUBBER TILE that your customer will be proud of his floors long after the mortgage has been paid. He'll be grateful to you — and he'll tell others about you!

Gain the assurance of lasting customer goodwill by installing floors of WRIGHT RUBBER TILE in every house you build. Then you can be sure what people say about the houses you build will make other people buy them!

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Floors of Distinction

- WRIGHTEX—Soft Rubber Tile
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- WRIGHT-ON-TOP Compression Cove Base
Engineered to Meet Every Heating Need!

93 MODELS

OF FURNACE-BURNER UNITS, BOILER-BURNER UNITS and CONVERSION BURNERS from which to SELECT the RIGHT MODELS for the HOMES YOU BUILD

No matter which style or size of home you design or build, there's a Timken Silent Automatic designed to fit your specifications — priced to fit your construction budget! Twenty-five years of heating experience — and a nation-wide reputation — stand behind these quality-built units. Whether your plans call for oil, gas or coal heating equipment, specify Timken Silent Automatics for your satisfaction and for the owner's satisfaction.

WRITE FOR FULL DETAILS AND PERFORMANCE DATA!

The exceptional quietness of the famous Wall-Flame Burner has proved its value in thousands of next-to-living-quarters installations.

Close attention to every detail of design engineering has held required floor area to a minimum — saving space, saving costs.

For many years Timken Silent Automatic heating equipment has been the accepted standard for economy of operation.

Timken Silent Automatic heating equipment is priced to compete with other makes of comparable quality — or lesser quality in many instances. Every feasible assembly operation, including all essential interior wiring and plumbing, is completed on most models before shipment is made from the factory.

PLANETS AT: DETROIT AND JACKSON, MICH. • OSHKOSH, WIS. • UTICA, N.Y. • ASHTABULA AND KENTON, OHIO • NEW CASTLE, PA.

OCTOBER, 1950
Installation Features
Of Metal Basement Doors

THE OUTSIDE cellar door, which has long been recognized as a convenience and safety feature for homes, is currently receiving increased attention from manufacturers, with the result that several styles of compact, easily-installed doors are now available to builders.

One of the manufacturers, the Bileo Co. of New Haven, Conn., produces the door in 12-gauge copper-steel or aluminum. Four styles are made, with three sizes in each. Overall widths are 3 feet, 11 inches; 4 feet, 3 inches; and 4 feet, 7 inches.

CONSTRUCTION FEATURES

1. Automatic safety catch. Holds doors open so they can't be blown or knocked shut. Easily unlatched by hand or foot.
2. Head flanges, "H" type, bolted under lintel for frame or masonry construction.
3. Head flanges, "U" type, fastened to sheathing and siding or under shingles.
4. Head flange, "H" type, set into masonry joint and caulked with mastic.
5. Head flange, "D" type, bolted to face of masonry lintel and caulked.
6. Rounded, "R" style, top edge with bottom set in mastic and bolted to concrete.
7. Square, "S" style top edge.
8. Flange construction and sliding bolt lock make doors weatherproof and burglarproof.

How to Make Square with Compass

If no other tool is available, a perfect square can be made with the aid of a compass in this manner: Scribe a complete circle about a foot in diameter with the compass. Mark two intersecting straight lines through the exact center of the circle. Finally, draw two straight lines across the points where the original lines and circle meet and the result will be a perfect square.—Submitted by Herbert E. Fey, New Braunfels, Texas.

Efflorescence...

(Continued from page 46)

nate as much of the original shrinkage as possible, the tuck-pointing mortar should be pre-hydrated by mixing with only a portion of the mixing water one or two hours before using, after which it may be remixed with sufficient added water to produce satisfactory workability. The use of cement, lime, sand or water which might tend to cause efflorescence should be avoided.

If the caulking around door or window frames was completely omitted, all such cracks should be filled with a good elastic caulking compound placed with a pressure gun. If the original caulking has become dried out, cracked, peeled or separated, it should be removed and replaced with new compound under pressure. Raking and repointing mortar joints in sills may also be necessary.

Dampness in foundation and lower parts of walls above grade may be caused by lack of, or faulty: (1) footing drains, (2) damp proofing on outside of foundation walls, and (3) damp proofing in masonry course immediately above grade. Causes (1) and (2) may be corrected after construction, although at considerable expense.

With watertight wall and good flashing installations, efflorescence which appears on the walls soon after erection or repair of a building will quite often disappear after a few rains. If not, water applied with a stiff scrubbing brush will often do the job. In case neither of these procedures completely removes the efflorescence, the wall should be wetted, then scrubbed with water containing one part of muriatic (hydrochloric) acid to nine parts water. Immediately thereafter, the wall should be thoroughly rinsed with plain water.

It is very important that the recommendation regarding water rinsing both before and after acid washing be followed. All frames, trim, sills or other installations adjacent to the masonry should be carefully protected against contact with the acid solution. Workmen should avoid contact with the acid by wearing rubber gloves. It is also desirable to give the surface a final washing with water containing approximately 5 per cent of household ammonia.

There is as yet no standard method for the testing of mortars or mortar materials for efflorescence. In an attempt to improve this situation, a subcommittee on efflorescence of ASTM Committee C-12 on Masonry Mortars was formed several years ago and has been devoting considerable study to the problem.
 Those ten points above tell the facts about Tex-Lok. They sell Tex-Lok to home and farm owners. These interlocking type shingles have been tested in every weather and have weathered every test. They are designed and built to stay put in high wind areas. There's no better shingle value on the market today!

☆ ☆ ☆

Tex-Lok Shingles are available in the areas currently served from Texaco's roofing plants at Lockport, Illinois and Port Neches, Texas.

...and... Tex-Latch

Available in the areas served from the Edge Moor, Delaware roofing plant—another top-performing Texaco asphalt shingle! Heavy duty, double coverage and interlocking—similar to Tex-Lok but slightly different in method of locking tabs.
She liked the architecture, the big windows, the light friendly rooms—but, she had a doubt that kept them from saying "yes". He liked the location and the looks, but knew what she meant.

Then—the salesman showed her how simple it was to remove the R-O-W windows by pushing each window to the left. That was the convenient extra they were looking for. So—

She tried it. They both agreed. They bought.

That story, multiplied over six million times, has made R-O-W the world's largest selling wood window.

The exclusive spring cushion construction (cutaway view at right) not only makes the removable feature possible, it automatically adjusts to suit the weatherman. Gives in damp weather—expands in dry weather. Wood sash travel in metal sash guides for smooth operation.

For information on R-O-W Removable windows and sales aids that sell the woman who buys the home—fill out and mail the coupon below.

R-O-W SALES COMPANY
1334 ACADEMY # FERNDALE 30, MICHIGAN

PLEASE Send more information on R-O-W—the windows with sales appeal.

Name __________________________

Company _______________________

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City ___________ Zone ___________

State ___________________________

Architect  Builder  Contractor

Dealer  Carpenter
NORMAN MASON, North Chelmsford, Mass., retail lumber dealer, former president of NRLDA, and currently a delegate to the U.S. Chamber of Commerce, appeared recently on the radio program "America United."

HIS COHORT on the program was Howard C. Cook, Ford Motor Co. Both were in agreement regarding the theory that the automotive and home building industries form the basis of our economy.

AN INTERESTING SLANT, however, was advanced by Mason. He suggested that while statistically building may seem to be in a house-to-house period, several factors distort the statistical picture. Among these is the comparative sizes of dwelling units now and prewar. A greatly increased number of smaller families require a greatly increased number of dwelling units.

THEREFORE, Mason concluded, competitive conditions at the marketing level indicate to him that while the home building industry is enjoying a good volume of business, there is no out-of-hand boom.

THE SPECULATION makes sense, and is worth analysis on the part of someone whose business it is to analyze marketing conditions.

OF COURSE, it is known that some of the demand for new houses is based on the unavailability of rental units, due to rent controls. Nevertheless, a valuable contribution to programming future home building operations could be made through a careful study of Mason's theory.

AFTER THE FIRST reaction to the Korean war, tangible evidences of hoarding of some building materials are disappearing.

MOST SECTIONS of the country report shortages of gypsum, cement, millwork, bricks, and in some places, nails. The nail situation seemed to be clearing up in late August. Gypsum and cement shortages were seasonal. Millwork and brick shortages probably were due to the extraordinary number of starts in the late spring months, and throughout the summer.

FREIGHT CARS were hard to obtain due to heavy crop shipments, overcrowding at the terminal storage points, and military movements.

(Continued on page 39)
Nature splashes color with carefree abandon in the glorious, glamorous outdoors. Here, with her magic brush, she paints dazzling scenes—breathtaking views. And they are truly enjoyed through Ceco Picture Windows of Steel because more view gets in. Slender frames and muntins do the trick. So, bring window wonderland to the homes you build—bring nature's murals in motion right into every room. There are other reasons you'll want to provide these better-than-ever windows. They're engineered
Advantages of Ceco Steel Casements

- Controlled ventilation up to 100%
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- Easy to install covers and operate windows from inside

Wonderland...

to assure tightest weatherseal. Then, too, they are extra strong with sections 1½" deep. Yes, when you use Ceco Steel Windows—you know you've used the very best—you're sure of economy too.

CECO STEEL PRODUCTS CORPORATION
GENERAL OFFICES: 5601 West 26th Street, Chicago 30, Illinois
Offices, warehouses and fabricating plants in principal cities

makes the big difference
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.

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SPENCER

THE QUALITY LINE OF HEATING BOILERS

SPENCER

THERE IS A SPENCER FOR EVERY BUILDING . . . FOR EVERY FUEL

76 Dependable Models to Choose from
EDITORS’ Round Table

(Continued from page 55)

UNFORTUNATELY, large military movements came at a time when harvest crops were ready for shipment. That created a bad situation in itself as far as cars for lumber and building materials were concerned.

ON TOP of this the crowded condition of terminal storage facilities for new harvest crops was so bad that there were many cases of reshipment back to the country. This was waste shipment and wasteful though apparently unavoidable dissipation of freight cars.

SHORTAGES of freight cars due to harvest conditions and storage conditions is temporary, but no real relief can be promised until it becomes known just what military requirements are and will be.

TO THOMAS P. COOGAN, president of NAHB, orchids or a salute or both. He has been working unstintingly since the Korean war started to formulate a pattern for home building operations that would be consistent with public needs, and at the same time flexible enough to accommodate itself to possible increased military needs for men and materials.

CURTAILED building programs were among his recommendations, and he has secured the word of operative builders to cut back. He also expressed approval of tightened credit as an automatic means of decreasing starts.

WHETHER tighter credit will accomplish that end or not remains to be seen. It depends upon whether the building public becomes discouraged with the demand for higher down payments or concludes that it will sacrifice somewhere else to find the money for construction as the best hedge against inflation. The answer probably will not be known until the August figures on building starts become available.

THE ONE THING everybody hopes is that there will be no reinstatement of wartime controls like the ones that prevailed until 1946. It is to this end that Coogan is working heroically and patriotically.

IF THE WAR in Korea spreads, and develops proportions akin to the spread of World War II, some means will have to be worked out to continue

(Continued on page 65)
Your Market is here... and Your Profits are here...

with Roddiscraft Hollow Core Flush Doors

Flush doors are profits items these days! Residential building is booming. Dealers are cashing in on the Roddiscraft line of flush doors. They sell in large lots at superior construction and lasting beauty of Roddiscraft Hollow Core Flush Doors.

Three different types of Roddiscraft Hollow Core Flush Doors fill all your customers' needs. Each measures up to a quality standard that brings customer satisfaction and repeat business. Study the doors below. See why your customers prefer Roddiscraft quality.

RODDIS/CAST Housemart Door (veneer core)

- Specially selected strips of veneers spot glued at intervals and stretched within the frame form an accordion design core with the rigidity and strength of bent veneers.
- 5-ply construction ensures against the core pattern showing through the face after application of finish. Ply face panels supply added resistance to distortion.

RODDIS/CAST Housemart Door (Hollow block core)

- Specially machined blocks forming the core are veered to give the door the maximum strength and minimum weight. Identical to the veneer core Housemart door in every other construction detail.

RODDIS/CAST Ply-Kor Door — Plywood strips, vertically caressed as shown with two Poplar cross members form the core of the Roddiscraft Ply-Kor Door. Available in Core only, the Roddiscraft Ply-Kor Door is widely used on jobs where economy is of prime importance. 5-ply construction with 1/20" faces and 1/8" crossbandings.

NATIONWIDE Roddiscraft WAREHOUSE SERVICE

AMERICAN BUILDER

RODDIS PLYWOOD CORPORATION, Marshfield, Wis.
a Variety of outstanding Values from NATIONAL LOCK

Builders Hardware

You provide more real dollar for dollar value when you provide quality NATIONAL LOCK hardware. A wide range of builders items includes butts, hinges, latches, handles, pulls, locks...everything you require. The ball tip butt hinge at right, for example, is made of wrought steel, furnished in a variety of sizes and 6 attractive finishes. Many items are individually packaged.

Cabinet Hardware

Forged brass hardware, die-cast handles, concave knobs, several attractive matched sets with push button catches, a wide choice of finishes including Bright Brass, Dull Brass, Dull Bronze, Bright Chrome and Dull Chrome. All are promptly available to please the most discriminating clientele. Ask us about NATIONAL LOCK cabinet hardware. It's distinctive...envelope packaged.

Sash Hardware

Look to NATIONAL LOCK for the finest in sash adjustments, lifts, locks and other sash hardware items. Sash lift shown is offered in Steel, Brass or Bronze. Finishes include Bright Brass, Dull Brass, Dull Bronze and Bright Chromium. Locks assure positive action.

National Tutch Latch

The newest, most appealing latch on the market. Easily applied to wood cabinets. Opens door automatically with gentle touch of finger, wrist or elbow. Holds door securely. Already installed within many of America's finest homes.

NATIONAL LOCK COMPANY - Rockford, Illinois
Distinctive Hardware - All from 1 Source

OCTOBER, 1950
For economy and beauty

In large-scale housing, or smart individual residences, there are beautifying architectural possibilities available in the combination of Truscon Series 138 Double-Hung Steel Windows and Residential Steel Casements. Each of these windows complements the other. Each has a smart, modern flair... each has distinctive ventilation control features that afford maximum utility. An interesting "change of pace" in architectural treatment is possible with the distinctive designs available in Truscon Series 138 Double-Hung and Residential Steel Casements. And final low cost, equal to or more advantageous than any other type, is a major factor not to be overlooked. Free illustrated literature on request.
ENOUGH HOME BUILDING through the shooting period to avoid the critical shortages that plagued the country and its home builders in the years following VJ Day.

HOME BUILDING, in the event of another major war, will have to be considered a necessary war industry, second in importance only to the business of winning a war.

AUTOMOBILE merchandising, at least in Los Angeles, reaches some new highs. Bill Rodd, our western editor, parked his car on the street, and returning, found a card on the seat. The card said, "I believe I can get you $1,300 for this car in trade on a new 1950... today. Come in and ask for ..." Names omitted. This variation of door to door canvassing might be called curb to curb canvassing.

A LOS ANGELES dealer located several blocks from the downtown area advertises "20-minute station wagon service." You leave your car with him in the morning for servicing, he takes you to your office in the station wagon, calls for you in the afternoon, and delivers you to your serviced car.

ANOTHER DEALER writes on the anniversary of your purchase, "Today your car is one year old—come in and have it washed and lubricated at our expense—as a birthday present." Maybe none of these items has anything to do with the building business, but they are examples of good merchandising and good customer relations.

SUGGESTIONS in Washington for total mobilization in case of all-out war are even more hysterical than anything contemplated up to VJ Day. The socialist planners are having a field day blueprinting procedures for complete control of everything. Some of the ideas are so funny they are actually dangerous. Utmost vigilance and a preponderance of good common sense will have to prevail in case of real trouble to avoid going into a state of regimentation at least equal to what Russia imposes as a regular diet. There certainly could be no point in fighting a war against dictatorship only to set up a bigger and better one while fighting off a foreign one.
Build smart, modern homes like this in less time, at less cost, with "Century" APAC Siding

Built for comfortable living—designed to meet the problems of rising construction costs—this attractive home has clean, smart siding of "Century" APAC Asbestos-Cement Board.

This versatile siding board is ideal for structures of all types—theaters, stores, and industrial buildings, as well as residences. Recommend it for all large exposed surfaces, both interior and exterior. And recommend it too, as an inexpensive material for remodeling existing structures.

"Century" APAC Asbestos-Cement Board is adaptable, easy-to-handle, and profitable for you!

**FACTS YOU SHOULD KNOW ABOUT "CENTURY" APAC SIDING**

**ECONOMICAL**: Initial cost is low; large-sheet application is simple, therefore, quick and inexpensive.

**DURABLE**: Resists fire, weather, rot, rust, rodents, termites, and other destructive insects; never needs protective painting.

**ATTRACTION**: Natural finish is eye-pleasing light gray. Although APAC does not need paint for protection, it takes decorative coatings well, if desired.

**EASY TO APPLY**: "Century" APAC is made in large surface sheets, 4' x 4', 4' x 8'; in thicknesses of 1/16", 1/8", and 5/32". Large areas are covered quickly using simple nail or screw fastenings. Battens for trim come in 2", 3", and 4" widths; in 1/8" and 5/32" thicknesses.

Get the APAC story—ask your Keasbey & Mattison dealer, or write us direct.
Get a better day's work out of your Truck Dollar

CHEVROLET TRUCKS

You invest money in a truck to get work done. And you can prove to your own satisfaction that a Chevrolet truck does more work for every dollar you put into it.

You get more for your money right from the start, because your Chevrolet truck is priced at rock bottom. Chevrolet volume production—far and away the biggest in the truck field—makes possible extra features and extra engineering advantages at lowest cost.

You get more for your money every driving mile, because Chevrolet trucks are economical to operate. The top-rated efficiency of Chevrolet Valve-in-Head engine design saves money on gas and oil day in, day out.

You get more for your money right through the years, because your Chevrolet truck cuts upkeep to the bone. Hypoid rear axles, diaphragm spring clutch, ball-type steering and many other great truck features help keep your truck on the job and out of the shop.

Get the full "more-work-per-dollar" story from your Chevrolet dealer—and get America's biggest selling, best performing truck: Chevrolet.

CHEVROLET MOTOR DIVISION, General Motors Corporation
DETOIT 2, MICHIGAN

These Great Features Help Tell Why CHEVROLET TRUCKS ARE THE FIRST CHOICE OF TRUCK BUYERS EVERYWHERE

TWO GREAT VALVE-IN-HEAD ENGINES: the new Loadmaster and the improved Thriftmaster—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—full complete drum 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.
NEW PRODUCTS
Offered by Manufacturers

WALL VENTS

Western Blakvents are ideal for installations in brick. stone and metal buildings. Where adjustable ventilation is desired. Units are made of heavy cast aluminum with built-in screen. Tilting doors on inside open and close to almost 180 degrees. Exterior

louveres of all Blakvents can be supplied for construction not requiring adjustable ventilation. Made in two sections units can be separated and extended to meet required wall thickness. Aluminum extension strips secure sections together. Westwood Engineering Co., Dept AB, 3118 W. Lake Street, Chicago 11, Ill.

ACOUSTICAL TILE

Simpson "Hematomer" acoustical tile has a "Spline-Lok" system designed to simplify installation. Grooves are on two edges of the tile, and to install, the snug-fitting wood splines are inserted in them. The splines pin-

plitly application, seal the transverse joints, level the corners, permit use of two nails per tile, and aid in holding straight lines. Simpson Logging Co., Sales Div., Dept AB, 1065 Stuart Bldg., New York 17, N.Y.

REVERSIBLE ELECTRIC DRILL

Fair Commons standard duty 1/2-inch drill with built-in toggle-type reversing switch is designed for deep boring in heavy timbers, creosote planking, and all kinds of study, wet lumber. Tool turns in reverse at a flick of the switch.

LAVATORY-WATER HEATER

Combination lavatory and water heater combines Briggs Beautyware white porcelain lavatory with Underwriters approved heater. Lavatory is mounted on aluminum cabinet. Automatic Bowen Electric water heater is insulated with 2 inches of Fiberglas, and fully plumbed to the lavatory. Thermostatic control turns on the current only as hot water is used. It has fast re-


WHEEL TRACTOR-LOADER

"Smart Line" hydraulic loader will dig at either front or rear end of the tractor, dump in front, and leave operator free to select the digging and to fit the job, so that he can do any type of loading without turning the tractor. For use exclusively on the Oliver Model 77 industrial wheel tractors, the "Smart Line" on level surfaces can lift a load of 4,100 pounds to a height of eight feet in front and can swing

2,900 pounds over the top from the rear to front. Combined weight of tractor and loader is 10,200 pounds. The Oliver Corp., Industrial Div., Dept AB, 1900 Euclid Ave., Cleveland 17, Ohio.

WOOD GLUE

Wood-ite glue, a liquid, synthetic wood-working adhesive can be used cold and requires no mixing or special preparation. It has excellent storage stability and is especially suited for edge or joint gluing. Sets in 20 minutes and dries in a few hours. Will operate continuously in automatic glue-spreaders without foaming. Will remain fluid when stored in temperatures as low as 34 degrees F. Millwood Glue Products Co., Dept AB, 1478 S. Madison Ave., Detroit, Mich.

ELECTRIC HAND SAW

Zephyr Model 625 portable electric hand saw has universal 115-120 volt, AC-DC, fan-cooled motor. Has brass, helical gears, self-oiling, sleeve-type bearings. Two-pole trigger switch

in handle. Design of shoe permits adjustment in depth of cut from 0 to 2 1/4 inches, and angular cutting adjustment from 0 to 45 degrees. Telescoping safety guard protects operator. Weight, about 10 lbs. Supplied with 6 1/2-inch combination blade and a 10-foot rubber-covered cord and plug. Portable Electric Tools, Inc., Dept AB, 320 W. 83rd St., Chicago 20, Ill.

TEMPERATURE REGULATOR

Stainless steel ball-type thermostat for temperature regulator, is reported to give safe, reliable trouble-free service even under the

most adverse operating conditions. Has no packing glands, requires no maintenance on the open, under all conditions. Brass type has bronze body, stainless steel trim and brass bulb with heavy bronze capillary arm. Finger tip temperature adjustment is provided on bulb for quick range of adjustment of 60 degrees. Accurate control of temperature up to 350 degrees F. at maximum steam pressure of 150 psi. Farias Sharon Corp., Dept AB, Palisades Park, N. J.

LOW COST HARDBOARD

Panamold, a new low-cost hardboard in 1/8-inch thickness, will not split, splinter, crack or crumble, and can be used for dry-wall construction, remodeling walls and ceilings, partitions and cabinet work. Can be applied directly over studding or framing strips. Will take and hold any applied finish. Masonite Corp., Dept AB, 111 W. Washington St., Chicago 2, Ill.

(Continued on page 70)
MORE BUILDERS ARE BUYING SCHLAGE LOCKS...

SCHLAGE...FIRST NAME IN CYLINDRICAL LOCKS

SCHLAGE LOCK COMPANY
San Francisco, Calif.
You can't beat this Cost-Cutting Team!

For Portability
The Oliver "HG" Crawler Tractor and Imp Dozer can be easily transported from job to job with a light trailer and light truck. Your savings in hauling costs alone over the larger tractors will almost pay for the "HG" in a short time.

For Backfilling
Because the HG-Imp is lighter in weight, you can backfill foundations more with no danger of cracking green concrete. Thus, you can get the job done faster... do more jobs per year.

For Leveling
The HG-Imp is the smallest crawler-dozer on the market. You can get into places you can't reach with a larger unit... you can even level garage floors. Yet it's got plenty of power to handle any leveling job.

For Landscaping
Here again, HG-Imp power and maneuverability pay off. You can landscape right up to the edges of houses and drives... save costly hand labor. The drawbar hitch is left free to do the many other hauling jobs of landscaping operations.

For Any Home-Building Job
The HG-Imp can cut your dirt-moving costs. Remember, the operating costs are low, and crawler traction lets you operate in any kind of ground condition.

For all the facts, see your Oliver Industrial Distributor or write The Oliver Corporation, Industrial Division, 19300 Euclid Avenue, Cleveland 17, Ohio.

THE OLIVER CORPORATION
A complete line of industrial wheel and crawler tractors
You speed construction and cut costs with
Pittsburgh Steeltex Floor Lath

Pittsburgh Steeltex Floor Lath speeds construction and cuts costs because it permits you to pour your floors
while continuing complete operations on the floor below. You get a stronger slab because it is properly
reinforced with welded wire mesh—properly cured
because the moisture is retained by waterproof
backing. For further detailed reasons for specifying Steeltex, see Swee's or write for catalog
D. S. 133, Dept. AB, Pittsburgh Steel Products
Co., Grant Building, Pittsburgh 30, Penna.
NEW PRODUCTS
(Continued from page 66)

COMPLETE WATER SYSTEM AB105011
Jacuzzi Apparatus, a complete water system in one unit, consists of a 10 gallon stainless steel pressure tank under which is con-
ected a close-coupled jet pump and motor unit. Entire unit is 27 inches high, and 16 inches in diameter. The 1/3 H.P. motor is of standard
make, horizontal type, slow speed. Pump is a standard Jacuzzi jet-type unit. Water system,
which will pump 250 gallons per hour from depths to 22 feet, is delivered assembled and ready to plug into a wall socket. Jacuzzi Bros.,
Inc., Dept AB, Richmond, Calif.

BLOWER TYPE UNIT HEATER AB105005
New Ranzor blower unit type heater, modification of firm's recently announced 1950 fan type unit heater, is used where architects
specifications, heating engineers, or local codes call for squirrel cage, centrifugal type or multi-blade blowers. Quiet in operation at
about any noise level. In eight different sizes, the blower heaters are practically the same as the Ranzor fan type suspended heaters ex-
cept that propeller is replaced by a centrifugal type blower. Ranzor Manufacturing Co., Mar-
cer, Pa.

EXPANSION JOINT AB105003
Fiberglass expansion joint, a new product for use in concrete work, is asphalt impregnated, bonded glass wool board, faced on both sides
with heavy asphalt saturated Kraft paper. Designed for use wherever concrete pavements are used in large areas, the product prevents
freezer action from entering joint and rendering ineffective for opening and closing to re-
lease thermal or upheaval stresses. Will recover more than 70 per cent of its original thickness
within one hour. No loss of weight after compression. Owens-Corning Fiberglas Corp.,
Dept AB, 16 East 56th St., New York 22, N. Y.

GLASS OR METAL KNOBS AB105028
New Shurelok line of self-aligning, glass or metal knob units is now available to Tegola dealers. Line includes entry sets, passage, bed-
room, bathroom, exterior, communicating and closet door sets. All metal knobs and roses have a 10-year finish guarantee. Surfaces are protected
by hard, transparent enamelled coating. Units can be installed in 30 to 60 seconds. "Floating snap-on alignment block" automatically adjusts
for incorrect backsets and misaligned holes. Technical Glass Co., Dept AB, 2050 E. 48th St.,
Los Angeles 58, Calif.

NEW PRODUCTS
(Continued from page 66)

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for incorrect backsets and misaligned holes. Technical Glass Co., Dept AB, 2050 E. 48th St.,
Los Angeles 58, Calif.

ADJUSTABLE DADO TOOL AB105013
Quick Set-Glide, an instantly adjustable tool for cutting smooth, accurate dadoes from 1/8 to

13/16-inch in width and up to 1/2-inch in depth, can be easily set for any desired groove width
by turning a dial. Arbor need not be removed. Action is smooth, with no vibration, chatter,
bucking or choking. Built of interlocking aluminum side guides, and a center disc of steel,
the dado has eight cutters. Adaptable for right or left rotation, and available for chisels
1/8, 1/4 and 3/8-inch in diameter. Consolidated Machinery and Supply Co., Dept AB, 2029-33
Sants Fe Ave., Los Angeles, Calif.

PNEUMATIC CONCRETE APPLICATOR AB105015
"Pneumactor," Model 1000 is a dust com-
ponent pressurized hopper that is continuous in operation for applying concrete and other materials by compressed air. With few minor
adjustments it handles various materials with-
out changing parts. Air controls are such that
adjustments can be made while equipment is
in operation. The A-903 and A-904 Pneumactor
guns utilize both a water pressure line and an
auxiliary air line. Air and water enter a mixing
chamber and the water is exhausted into ma-
terial stream in form of atomized mist that hy-

drizes the material instantly. Air Placement
Equipment Co., Dept AB, 2555 Southwest Blvd.,
Kansas City 8, Mo.

BATHROOM CABINETS AB105037
New line of bath model cabinets present an
almost unlimited variety of bathroom and
powder room storage arrangements. Line in-
cudes eight different cabinet models plus a
three-purpose vanity seat. Single cabinets are
available for both sizes of Drayton lavatories
where available space is limited. Side cabinet
and linen storage units are designed for prac-
tical storage space for towels, wash cloths,
guest linens and many other bathroom articles.
Linen storage unit also provides safe place to
keep medicines out of reach of small children.
Convenient kneehole vanity provides attractive
bathroom dressing table. Popular part of laun-
dry unit can be easily removed to carry-soiled
clothing to laundry area. Units have perma-
nent plastic tops. Made of selected hardwood
in various popular colors. Bath Mdl., Inc.,
Dept AB, Andrews, Ind.

KITCHEN VENTILATING FAN AB105031
Model NF-10 NuTone kitchen ventilator is de-
signed for easy and inexpensive installation.
The "Screwdriver Installation" feature—only a
screwdriver is needed to install—cuts down in-
stallation time. Special packing eliminates dan-
ger of loss or damage to parts during rough-

INSERT NUMBERS AND MAIL COUPON FOR
INFORMATION
American Builder, 79 W. Monroe Street, Chicago 3, Illinois

Name ____________________________________________
Address __________________________________________
City ____________________________ State ____________

When you address inquiries direct to manufacturers concerning a new product
described here, please mention that you saw it described in American Builder
A new lock is here...

The New Kwikset "600"

Presenting new standards of beauty, security and economy for tubular locks...all-steel stampings with wrought brass and bronze knobs and trim.
The New **Kwikset 600**

A BRILLIANTLY STYLED LINE OF 6-PIN TUMBLER TUBULAR LOCKS

Today, in the Kwikset 600 you have a lock mechanism and assembly utterly new in concept, design and action. You have steel and finish metals precision-fabricated like a watch and— you have external contour and color of exquisite, modern beauty. You have, in summary, a great new lock! Specify, bid, sell the Kwikset 600 for life-time satisfaction and performance.

---

**THE KIWIKSET 600**
For front, rear, and all external doors requiring key entry— available in Polished and Satin Finish Brass, Chrome and Bronze.

**THE KIWIKSET 610**
For patio, porch and sun-deck doors— available in Polished and Satin Finish Brass, Chrome and Bronze.

**THE KIWIKSET 630**
For closet, and inside passage doors— available in Polished and Satin Finish Brass, Chrome and Bronze.

**THE KIWIKSET 630**
For bedroom and bathroom doors— available in Polished and Satin Finish Brass, Chrome and Bronze.

---

**THE KIWIKSET 600 LOCK WITH 653 HANDLE** for front door— available in Polished and Satin Finish Brass, Chrome and Bronze.

**BEAUTIFUL NEW FULL-COLOR BROCHURE OF KIWIKSET 600 LOCKS** available soon to architects, builders, jobbers, dealers.

**KWIKSET LOCKS, INC., ANAHEIM, CALIF.**
PACE-SETTER in all a closet should be...

ONE-PIECE The modern style first sponsored by Case—with low-level integral tank...

NON-OVERFLOW In no other closet is prevention of overflow so completely developed...

QUIET The strong centrifugal rim flush and tank filling operations are exceptionally quiet...

LOWER BOWL Another new idea—bowl is 14" high, in line with recent findings on posture...

SANITARY PROTECTION Water supply is safeguarded with china channel enclosing riser pipe—open atmospheric vent—and other special design features.

The New Case ONE PIECE*

Here is the perfect fixture for the house of today and tomorrow—a completely new model of a design that has been a favorite ever since Case first introduced the One-Piece Water Closet. In redesigning this fixture, Case engineers and a nationally famous industrial designer have retained the best features of its predecessor and added important new Case developments. The result is the newest and mechanically the most advanced water closet ever offered to the architect, builder and contractor.

Take it from these SUCCESSFUL builders!

Yes, you can accept it as a sound suggestion... when these five successful builders name the same equipment for kitchens in their projects. On a basis of experience over many years... they choose Kelvinator! They like the way Kelvinator products kindle sales... satisfy users on every score... and perform with a dependability that keeps upkeep costs practically out of the picture.

Investigate the dollar-saving advantages of using Kelvinator in your next project. For full information, write to Dept. AB, Kelvinator, Division of Nash-Kelvinator Corporation, Detroit 32, Michigan.
Leadership Is Missing

There has never been a time in the history of the United States when its people have manifested such frustration and confusion as is evident on all sides today. Young men are torn between going ahead with belated starts in business and professional careers, and going back into their old military units without delay. Established business men hesitate to make long range plans or, on the other hand, to curtail operations in anticipation of a long war and its attendant shortages. The reason is that the American public does not know where it stands, and apparently has no way of learning. The answer should come from highly placed officials in Washington, but instead of a clear cut answer all that comes is a series of conflicting statements, which accomplish nothing but to increase bewilderment.

Now, the American public is slowly coming to the conclusion that for the first time it faces some kind of crisis without leadership in any high public office that exhibits any understanding of what is happening or what should be done about it. Already the symptoms of fear are becoming apparent. It is only a step from this point to hysteria and the dissolution of morale. It is not too late, however, for the American people to do several things that will bring a definition of our position and condition, and delineate an intelligent and purposeful course.

If the highly placed elected officers in Washington know where we are, their pronouncements indicate that they are trying to do one of two things—hide from us some unpleasant and possibly tragic facts in the idle hope that somehow nothing very bad will happen, or give to a minor incident the appearance of a potential world shaking crisis. Regardless of which is true, the policy is dishonest. Its proponents should be forced into the light and made to disclose the truth. Nothing can be gained by withholding it. Certainly Russia knows, and if Americans are to act intelligently they also should know.

If, on the other hand, the men to whom the destinies of the nation have been entrusted do not know, it then becomes the duty of every voter to replace them in the autumn elections.

The American Builder has never used its editorial prerogative to engage in partisan politics. It does not do so now. It has no interest in whether elected officials are Republicans or Democrats. But it does have an interest in the kind of men who go to Washington, regardless of their party affiliations.

What is desperately needed today is a brand of leadership that is missing. It is already late, but not too late for business men to begin to make politics a matter of personal interest and attention—for them to send men to Washington who will make it their business to learn where the nation is and where it is drifting, and then courageously state the situation. Indecision or evasiveness in leadership, whatever the excuse may be, can bring nothing but disaster. If official Washington knows the facts it should be forced to state them. If it does not, the voters should send better men to the capital. The appalling lack of leadership is critical, and it is up to American business men to right it while they can.
GAINING momentum in its third observance, National Home Week of 1950 reached a greater number of people than ever before with a demonstration of how private industry has made and kept America the best-housed nation on earth. Early estimates indicated that at least 12,000 homes throughout the country were opened to public inspection; and the event was publicized by special supplements in approximately 100 influential newspapers.

Central theme of the comprehensive building industry promotion was a dramatization of the advantages of home ownership. Heavy emphasis was placed on the fact that American home builders, working with affiliated supplying and service industries, have turned out 5,000,000 homes in the five years since the end of World War II—and that in these homes were incorporated good design, advanced construction technique and permanence.

Climaxed Greatest Building Year

The comprehensive participation in the 1950 Week marked a climax of the greatest home building year in history, a year in which production, prior to the war in Korea, was month by month breaking all previous records for housing starts. Taking part were representatives of virtually every business related to home building—builders, retail dealers, real estate boards, financial institutions, materials manufacturers, trade associations, utility companies, home furnishing stores and others. More cities were represented and observance went farther into the non-urban centers.

A large share of the credit for the expansion of this year’s observance goes to the organizations which worked together on planning at the national level. The National Association of Home Builders, as in previous years, spearheaded the campaign. Co-sponsors were the National Retail
Lumber Dealers Association, the National Association of Home Builders, and the American Builder. Also participating were the American Gas Association and many other national trade groups. Catching on immediately when originated in 1948 by NAHB at the suggestion of American Builder Editor Edward G. Gavin, the Week in 1950 fully achieved its original objective—industry-wide, nationwide observance.

Also increased in number this year were special sections of newspapers featuring home building news and advertising. These are one of the most important phases of NHW promotion, particularly effective for reaching the consumer with both public relations and sales messages. In addition to the 100 of these special supplements published just prior to the opening of the Week, newspapers ran regular releases supplied by sponsoring associations, calling attention to the creditable work the home building industry is constantly doing.

**Increased Dealer, Realtor Activity**

With the national association acting as one of the sponsors, retail lumber dealers were especially active in the 1950 observance. In nearly all cities dealer committees met regularly with home builders in planning the Week’s events. In a number of smaller localities, where no demonstration homes were built, lumbermen provided the nucleus of the celebration by opening their yards to public inspection, displaying and explaining the uses of building materials. In urban centers committees from local real estate boards were also very prominent in working out detailed plans.

Advantage was taken of the growth of television to make wider use of this publicity medium; and millions heard radio programs about home building. Much of this broadcast material was prepared by national sponsors in a form adaptable to local use.

Other attention-getting devices were industry parades, beauty contests to select “Miss National Home Week,” model home competitions, slogan writing and similar types of contests. NHW street banners, public vehicle cards and other types of spot promotion were used in a number of cities.

Retail store window displays came in for extensive use, as did exhibits in utility companies, banks, savings and loan institutions, and appliance shops. These were especially good supplements to other media in spreading the observance to large sections of the population.

Early reports on the success of the week indicate that it was highly acclaimed by all who participated. At the time American Builder went to press, overall statistics and data were not available. A complete, detailed report will be presented in the November issue.
IN developing the potentials of a new home for himself and family, Paul K. Enghauser, a member of the building firm of Enaco, Inc., Minneapolis, Minn., assembled and reviewed a host of ideas that would be acceptable for the needs of their varied activities. The essentials retained were given to Gerhard W. Brandhorst, Minneapolis architect, and the result is an interesting and unusual house in which character is achieved by adroit handling of familiar things, and not by straining for something different.

Among the features of the house is the inclusion of a nursery school unit. This school, attended by about 50 neighborhood children, is a part time project that Mrs. Enghauser has carried.

(Continued on page 80)
HOUSE is placed in the center of a wooded and rolling site—approximately one acre in size. Plan is arranged in the shape of a butterfly to take advantage of site features which include a small lake at rear. Play-yard is placed at end of garage drive. A view of the street front of house is shown at right.

In his practice, Architect Brandhorst has made a special study of custom-designed split-level houses. This was done primarily because of the large amount of rolling terrain available for residential use in this area. In this house, as well as others that he has designed, a new concept of planning has been developed. The formal living area including bedrooms is placed on the upper level of house, while the activity area, including food preparation, dining and playroom, is placed on lower level for immediate access to the out-of-doors. Here main entry is at intermediate level with half flight to each floor.
ried on for the past twelve years. In
relation to the house plan, the nursery
school is located adjoining the garage
and kitchen. This allows cars to be
parked in the forecourt. A fenced-in
enclosure adjacent to this area and the
school room can be used by children
in mild weather; and the kitchen is
convenient for use when necessary.
The position of the nursery school in
relation to the remainder of the house
is such that no restrictions need be
made in the habits of the occupants.

The house, located on a sloping site,
afforded the designer opportunity for
developing a split-level arrangement of
rooms. Starting at the front entrance
corridor, which is placed six inches above
the grade at that point, access is
obtained to all rooms. Living room,
porch, library, bedrooms and bath are
placed one-half level above hall, affor-
ding complete separation for the
living activities of the family and
providing complete privacy for the bed-
room area.

In contrast, the lower level, one-half
level below the entrance hall and one
step above the grade at rear or garden
side, contains the dining room, kit-
chen, playroom, nursery, garage and
utility rooms. The relation of the broad
terrace and swimming pool, which is
on an axis with the inside playroom
and located on the garden side,
concentrates all the recreational activities
in this area. In this way the rest of
the house can be kept in order.

Living room has a continuous bank
of windows on both side walls, with
short hinged sash on one side and
Thermopane set in stops for large
areas overlooking swimming pool. The
massive fireplace of local stone sepa-
rates living room from library and
eating alcove.

Design features are placed at both
ends of entrance hall. Lower or grade
level encloses a large indoor planting
area which follows contour of glass
wall around entry. At upper level the
inside stair wall is built to follow the
contour of grand piano, whose legs
have been removed, and which is
placed permanently in position on top
of horizontal stair rail. This feature,
with the dramatic effect gained by its
location, is the high-spot, design-wise,
of the house. Ceiling of living room
and library follows the contour of the
roof and is faced with birch veneer
plywood.

Playroom in ground floor is approxi-
mately the size of living room above,
and is the recreational center of house.
Bar adjoins large open stone fireplace
at one end of room. Dining room liter-
ally becomes a part of the playroom
with no visible separation other than
an open, ornamental wood screen to
form passage from stair to playroom.

This house, measuring about 24 feet
wide and 108 feet long, cost approxi-
mately $38,600 to build. It is designed
to meet the needs of the owner, with
no thought of adhering rigidly to any
design principle. It can be said that it
conforms to the contemporary style.
A FEATURE which gets instant attention of persons entering the front entrance bay is the arrangement of grand piano at upper level of hall or library. The inside stairwell leading to both upper and lower levels of house follows the contour of piano which has had the legs cut off and is placed permanently upon the horizontal soil rail. Large stone planting area occupies the curved portion of entrance bay. Birch plywood veneer with wood beams over joints in the finish for the ceiling which follows the contour of the roof.

View in dining room looking into kitchen. Glass block is used in exterior wall in area between the top of kitchen counter and under side of cabinets above, providing a light work area. Display of fine china is available in the built-in china case. Note light trough over windows for indirect system of lighting by fluorescent tubes that has gained widespread acceptance throughout the middle west. A combination of local stone, horizontal redwood siding, exterior stucco, and large areas of glass have been employed on the exterior in such a manner as to produce a house of excellent design.

Materials used throughout the construction of the house, have, in most cases, been nationally advertised products. These include U. S. Gypsum Co. products; Pella windows, by the Roll-screen Co.; Armstrong rubber tile and linoleum; Kitchen Maid kitchen cabinets; American-Standard plumbing fixtures; Minneapolis Honeywell con-
Partial view of garden side of house showing window walls in living and playroom. Ventilation of playroom area is controlled by horizontal louvers over window openings, with hinged panels on inside. Balcony overlooks swimming pool at rear.

Partial view of garden side of house, showing window walls in living and playroom. Ventilation of playroom area is controlled by horizontal louvers over window openings, with hinged panels on inside. Balcony overlooks swimming pool at rear.

Two Janitrol gas units are employed to supply moist warm air to all rooms. One furnace supplies heat to the living room, playroom, dining room and kitchen. The other furnace supplies heat to the school, bedrooms and baths. The distribution of heat for playroom and living room is unusual. Warm air is forced through a series of concrete ducts under the playroom floor, heating the entire floor area. It is also controlled by registers in lower level for quick heat in the spring.

Heat in the living room is supplied from the lower level horizontal ducts under playroom floor and is carried through vertical ducts placed in back of piers between playroom windows. Registers are placed at the window sills of living room, thus bathing the entire glass surface with warm air. The air is then recirculated back through the lower level floor area. The system has proven quite satisfactory in performance.

**Window Details**

**Detail** indicates head and sill sections through window frames for fixed sash on garden side of living and playroom. Drawing shows construction of wood louvers and hinged panels over playroom windows, and position of grilles and the vertical heat ducts extending up to living room.
CORRUGATED asbestos-cement sheets are curved by the manufacturer to meet customer specifications. The sheets were used in the construction of this cafe to meet the requirements of a unique design and, in addition, because of their economy and durability.

American Builder Presents . . .

Asbestos-Cement Products —

Two fire resistant materials are used to make better building products in an expanding major industry.

One of the new building materials developed during the present century, few have met with the wide usage and public acceptance accorded the family of asbestos-cement products which, while produced in conventional sizes and thicknesses, have many of the durability characteristics of reinforced concrete.

Asbestos-cement products, in fact, are a form of reinforced concrete, with fibers of the mineral asbestos acting as the reinforcing agent. The other ingredient, of course, is portland cement.

Wartime utilization of these materials helped extend their popularity and as a result, they are being utilized at three times their prewar rate.

Mined either by open pit or tunneling operations, asbestos is both fibrous and crystalline. Heavy, dense and dark in its natural state, it yields white, silk-like threads that can be spun into yarn. These range in length from a fraction to three or four inches. Longer fibers are used in textiles while the shorter ones go into asbestos-cement and other products.

Chemically termed hydrous magnesium silicate, the fibers are extremely fine. Three thousand of them side by side would measure about an inch.

Some asbestos is mined in Vermont and Arizona, but about 90 per cent of that used in the U. S. is from Canada.

Asbestos-Cement

Asbestos-cement building materials usually contain 75 to 85 per cent portland cement and 15 to 25 per cent asbestos fiber. The "discovery" of asbestos-cement was made in 1889 by an Austrian, Ludwig Hatschek. In 1905, roofing shingles were made in Ambler, Pa., by the Hatschek method, now known as the "wet" process. Another method, the "dry" process, was developed shortly thereafter.

In the "dry" process, asbestos and cement are mixed, spread on a belt conveyor and moved to a point where water is added. Rollers press the mixture to the proper thickness. Tremendous hydraulic pressure is then applied through a large weighted cylinder. For textured shingles, a cylinder with an embossed surface is used. After curing for 24 hours, the sheets are cut, punched and steam cured.

In the wet process, cement and asbestos are uniformly blended in water in which the fibers are completely coated by the cement. The slurry is processed through a laminating machine which builds interlocking layers. While still plastic, the sheets are corrugated (or left flat, etc.) and subjected to hydraulic pressure.

Asbestos-cement products are notably distinguished for their fire-safety since both asbestos and cement are incombustible. In addition, these products do not corrode, disintegrate or react to adverse weather.

Principal asbestos-cement products are siding shingles, flat sheets, roofing shingles and corrugated sheets, in that order of volume. Flat and corrugated sheets are made by the wet process, either built up by laminations or formed homogeneously. Siding and roofing are available in colors, made in the dry process by pressing ceramic granules into one surface and in the wet process by adding color pigment to the slurry.

The thirteen companies in the business produced goods valued at more than sixty million dollars in 1949.
EVERY home in this development in Ambler, Pennsylvania, was sided with asbestos-cement shingles—for reasons of economy in maintenance and architectural design. The shingles are available in solid and blended colors for variety. They require no protective coatings.

Asbestos-Cement Siding Shingles

In new building or in repair of old, these shingles add to fire safety and durability.

REQUIRING no maintenance, initial painting or other subsequent treatment for preservation, asbestos-cement siding shingles are nevertheless (like all asbestos-cement products) protection against termites and rodents, adverse weather, salt laden atmosphere and other deteriorating agents. Further, they cannot be ignited, even by a blow torch.

This siding will withstand the effects of extreme climatic conditions such as dampness and alternate thawing and freezing, and it is not affected by smoke, acid fumes or other corrosive agents. In view of these attributes and its low upkeep and initial application costs, asbestos-cement siding is, for many purposes, a wise and economical investment.

Siding is produced in a variety of colors, surface textures and butt lines. White, gray, green and buff shingles, for example, are available in solid or blended tones with wood grain, tapered line or smooth surface textures.

Butt lines are generally wavy, staggered (to reproduce a “thatched” appearance) or straight—as taste dictates.

Not until 1932 was an asbestos-cement shingle developed for specific use as siding. Prior to that year roof...
shingles also doubled as exterior wall coverings. Now, asbestos-cement siding — used in both new construction and repair work — accounts for a major portion of asbestos-cement products production.

In repair undertakings, the siding can be nailed over existing shingles, clapboards or stucco.

When used in new construction, the siding is applied directly over wood sheathing — or over gypsum or insulating boards with special fasteners.

Sold in squares, the siding ordinarily is packed in three bundles per square with about 57 pieces of 12x24-inch size to the square. Backer strips, for use behind vertical joints, and corrosion-resistant face nails are provided by the manufacturer.

When applied, the shingles lap 1/4 inches at the head, leaving an exposed area of 10 1/2x24 inches. Some asbestos-cement plants also make asbestos-cement clapboard.

**Siding Application**

Asbestos-cement siding should be stored carefully on edge, in a dry place or on planks four inches off the ground, and covered with waterproofed paper or tarpaulins to protect it from moisture and dampness. It should also be protected from water drainage likely to carry discolorations.

In order to prevent staining, wood trim is given at least a prime coat before installing siding, and all metal, particularly copper used for flashing, is initially and periodically painted with dilute spar varnish or other protective coating.

Applied in dry weather as quickly as possible, asbestos-cement siding is installed over a layer of waterproof felt or waterproof backing board. Asphalt saturated felt is recommended as an underlayment since others (e.g., tar-saturated) may cause staining. Joints in the siding are protected by using the furnished felt backer strips.

**Starting Work**

The work is started by nailing a 1/4 by 1-inch cant strip to the bottom of the walls to be sided. This gives the siding a slight cant and adds to the finished appearance. Chalkine marks for the top of each course around the building help assure an accurate meeting and mitering of courses and are an aid in avoiding wedge-shaped courses at the eave lines.

The first course, which extends 34-inch below the cant strip to form a drip edge, is started with a whole shingle. After backer strips are in place, the head nails are driven in, as are the specially-coated face nails. At least one nail should penetrate each backer strip. A half-shingle is used for starting the second course, etc.

Asbestos caulking should be applied at all mitered corners, wherever siding butts against trim, masonry or other materials before nailing is used to avoid smearing the face of the siding.

All inside and outside corners are protected with vertical 12-inch strips of asphalt felt behind the shingled. Adequate flashing over all window and door openings must be provided as well as suitable drip edges under all openings. Corner boards are advised for corners likely to be subjected to hard knocks. Prefinished metal corners (installed before shingles) and alternate shingle construction or mitered shingles are also used at corners.

**Needle Point Nails Recommended**

For remodeling work, approximately one pound of two-inch galvanized needle point nails per square are required for head nailing over old siding; for new work, three-fours pound of 1 1/4-inch galvanized needle point nails are needed. During the course of the work, no more felt should be applied where shingles can be covered with siding during the work period.

In re-siding work, care must be taken to ensure that existing wall surfaces are smooth, plumb and as true as possible. All loose shingles, boards and trim are securely nailed before the residing is done. Prefinished strips are used to level-up wall surfaces. Older buildings frequently require bracing and replacement of faulty boards. Siding applied over old work may bring the finished wall surface out beyond door and window frames; in this case, staff molding is installed on the existing framework.

**Use Over Stucco**

When the siding is applied over stucco in good condition, nailing strips (1 1/2 or 1 1/3 inches) are used over the stucco. However, when the stucco is not in good condition, it must be removed. Nails, wires and other portions of the stucco work must also be cleaned from the sheathing before the felt underlayment is applied.

Nailing strips, whenever used, should be installed only as the job progresses to insure proper spacing. When asbestos-cement siding is installed over gypsum or insulating board sheathing, nailing strips are first applied to the sheathing.

**Painting and Cleaning**

While asbestos-cement siding does not require painting for protection against weathering, it may be so treated if desired. Before painting, shingles should be wire-brushed to remove dirt and loose surface fibers. Paint is applied only over dry shingles.

Chlorinated rubber paint gives excellent service. It is put on by brush, without special primer or undercoater, following the manufacturer's specifications. Two or three coats are required, depending on the color.

Brick and stucco paints also are satisfactory. They dry to a flat or semi-gloss surface.

Regular exterior house paints may be used. One method is to use the regular three-coat system, self-primed according to the directions of the manufacturer. Another system consists of an oleo-resinous or chlorinated rubber primer, followed by one or two coats of regular exterior oil paint.

Soiled spots caused by finger prints or smearing during application usually can be removed by dry-brushing or with a clean cloth. Soap and water also may be used. For the removal of dirt and stains accumulated over a long period, it is advisable to consult the shingle manufacturer's representative for specific instructions.

**ASBESTOS-CEMENT shingles with a staggered butt line simulate shingling"**

**OCTOBER, 1930**

**ORE of four types of shingle butts is the wavy line—used on gable and below**
Asbestos-Cement Roofing Shingles

Proof against chimney sparks, these shingles also defy heat, sun and a salt-laden atmosphere

In addition to their ability to withstand the effects of sun, salt, wind, rain, snow and fire, asbestos-cement shingles have other desirable qualities; for example, they contribute to structural savings by making possible the use of lighter roof decks and supporting rafters than are required for heavier types of rigid shingles. Their rotproof characteristics and freedom from maintenance are noteworthy.

Made in four types—American method, multiple unit, Dutch lap and hexagonal, equally adaptable for use on new or old buildings—these shingles present a variety of designs for architectural needs.

The American method (the designation refers to the shape and finish) is laid in rectangular patterns as are wood or slate shingles. Made in colors such as gray, red, black and brown, this shingle has a butt thickness that produces a deep shadow line.

Although appearing to be the size of standard shingles, individually laid, the multiple-unit asbestos-cement shingle is made in large sizes that cover the area of two to five ordinary shingles. These, too, are available in colors and are generally self-aligning—which simplifies their application.

The Dutch lap (sometimes called Scotch type) shingle, larger than conventional shingles and lapped at top and at one side, saves material and labor in application. Also in colors, this unit can be laid with one-fourth or one-third side lap with a three-inch head lap. The one-fourth lap requires fewer shingles per square and less labor, but the one-third lap technique is recommended on roofs of low pitch or in areas of severe winds.

Hexagonally shaped (French type) shingles are applied in a diamond pattern. Overlapping of the top and bottom points gives a hexagonal or honeycomb appearance.

Accessories such as eave starters, hip and ridge shingles and ridge rolls purchased separately, are available for all types of asbestos-cement shingle roofs.

Storing

In storing, asbestos-cement shingles are kept dry since moisture trapped between bundles might cause efflorescent discoloration. The bundles should
be stacked on edge on planks at least four inches off ground under waterproof coverings. Shingles should not be laid up on a wet or damp roof deck but are properly installed in dry weather. New buildings are vented if plaster is drying in them to remove damp air which might cause roof decks to warp. When a job is left partially completed, felt should be placed over the upper courses to prevent rain from running underneath the shingles installed.

The minimum roof pitch usually specified is five inches per foot. Lumber used in the roof deck should be well-seasoned, of uniform thickness, tightly laid and—preferably—tongue and groove boards not over eight inches wide. A clean, level roof deck is a prerequisite to maximum serviceability.

On new jobs, or on re-roofing jobs where old roofing has been removed and sheathing made solid, roof boards are covered with one layer of asphalt-saturated felt (not less than 15 pounds weight), with a 2-inch horizontal lap, a 6-inch end lap and a 12-inch lap at hips and ridges.

In localities subject to extreme winter weather, eave flashing is recommended. This extends back at least 12 inches up under roof beyond the inside wall surface and downward to the edge of the deck.

**Use Cant Strip**

A wood cant strip applied along the eaves, flush with the lower edge, gives the proper pitch to the shingles. Starter courses are placed under the felt; the first course is laid on the felt. Chalk line marks for each course are assurances of workmanlike jobs.

Nail holes are punched in the shingles by the manufacturers. Approximately 1/2 inch thick, the shingles are held in place with galvanized needlepoint nails—1 1/2 inches long for new work, 2 inches long for re-roofing over old shingles. Portable shingle cutters that can be used on the roof are generally at dealers’ offices for the use of customers. When mechanical cutters are not available, shingles can be scored and broken (see section on cutting asbestos-cement flat boards). Shingles can also be cut with a crosscut saw or with a coarse hack saw. Irregular holes may be made by punching out an outline and breaking out the disc Alonso. A drift punch is recommended since it is less likely to split the asbestos-cement material.

Nails are not given a “last lick” when the shingles are laid up since tight nailing may cause cracks or cocking; loose nailing must also be avoided since it causes, rattling. To provide for thermal dimensional changes, shingles are spaced not less than 1/4 inch apart at end joints. The installing mechanic must not leave exposed pieces of metal protruding between shingles if corrosion streaks are to be avoided.

**Over Old Roofs**

Removal of old shingles and installation of underlayment (except at hips, ridges and valleys, etc.) is not required when re-roofing unless the old shingles are in bad condition. In re-roofing over wood shingle roof, missing and decayed shingles are replaced and the surface is “trueed up” with wood beveled strips or with lath. Old boards at hips and ridges should be removed and replaced with two-inch strip to which hip and ridge shingles are nailed.

Old valleys are filled in with wood strips to bring them flush with the old wood shingles. At eaves and gables old shingles may be cut away for a width of three to four inches and a wood strip of the same width as the cut-out inserted and securely nailed. Asphalt felt is laid over hips, ridges and in valleys before roofing.

**Point-Up Valleys, Ridges**

In new or old roofing work, it is necessary to point up valleys, flashings, hips and ridges with plastic cement. Valleys, gutters and crickets are leveled out with lath and roof cement to eliminate sharp corners and to provide a smooth even base for the underlayment of felt. Continuous felt strips should be used for this work whenever possible, laid so that the water runs over laps, never against exposed edges.

The use of copper or other non-corrodible metal for the lining of valleys and for flashing is recommended. Copper for valley sheets should be not less than 16 ounces in weight and not more than eight feet in length. They should extend out on the roof deck well beyond the edge of the overlapping shingles and well up on underlayment of shingles on both sides. Sheets are nailed at the top edge only. Succeeding sheets are lapped six inches, leaving laps unsoldered. Closed valleys are recommended only for grades of 45 degrees or more. The separate flashing pieces to lap each other three inches are woven into each shingle course placed just short of the overlying shingle butt and nailed through the upper end.

Specially made hip and ridge shingles, cut to a taper or flare, are available. Their use saves much time. It is necessary to nail a furring strip along each side of hips and ridges, butting the strips at the apex of the ridge, to provide a nailing base.

**ASBESTOS-CEMENT** shingles protect all surfaces of this barn building from fire.

**WHEN** covering new work or existing roofs, as seen in photo above, the surface is first sheathed with a felt underlayment. Self-aligning, multiple unit shingles speed nailing work, reducing installation costs.

**PARTICULARLY** for larger buildings such as this barn, corrugated sheets are an excellent roofing. Specially formed units are used to protect the hips and ridges.
Asbestos-Cement Flat Boards

Like other asbestos-cement products, the flat sheets are incombustible. They are rated "0" in combustibility, "0" in flame spread and "0" in smoke production by Underwriters' Laboratories. In addition, they are weatherproof, rodent proof, and free from corrosion and rot.

An attractive stone gray in color, asbestos boards are hard and smooth on one side and slightly textured on the other. They are a practical material for structural wallboard use and are highly serviceable for exterior surfaces as well as interior walls. They are well adapted for many interior uses such as wall and ceiling finishes in laundries, storage rooms, furnace rooms or wherever any possibilities of fire hazards exist.

In commercial building boards serve such diverse purposes as dance floors, outdoor movie screens, billboards and store fronts. Ease of cleaning and fire safety make them a favored material for milk house interiors and other farm building jobs.

Boards are Easily Handled

Made in sheets ⅜ to ¾ inches thick, four feet wide and eight feet long, the boards are light enough to be handled easily. Nailing is the usual method of application, although they can be put on with a special adhesive, supplemented by nails, moldings or other overlapping devices. As an alternate to nails, polished, round-head wood screws may be used.

Asbestos boards should be protected against impact shocks. It is recommended that sheets be unpacked and allowed to stand separated at the job for 24 hours prior to application. When stored, they should not be stacked on edge but on flat platforms under waterproof covering in piles not exceeding four feet. The platform should be at least an inch wider and longer than the sheets to protect the edges.

The boards may be cut by sawing, shearing or by scoring and breaking. Special cutting jigs also are available. When cutting the finish side is placed up so that any roughness will be on the underside. A carpenter's 10-point saw with little set will cut satisfactorily. Mechanical saws with abrasive blades also are used effectively.

Scoring and Breaking Boards

Scoring and breaking is one of the simplest ways to cut the thinner boards. The sheet is scored against a straight edge, deeply on both sides, with a tool such as a knife, ice pick or awl. A scoring tool can be made from a 12-to-14-inch flat smooth file set into a heavy wood handle. Shape it like a wood chisel, then "relieve" the back of the point by grinding the long face edge of the file at about 30 degrees so that a face about ½-inch wide is
produced across the back of the cutting edge. Improvised "C" clamps hold the sheet in place on a cutting table while it is snapped across the scored line.

All 34-inch thick boards may be nailed directly. Other thicknesses may require drilling or punching of holes to receive nails. Manufacturers vary in their recommendations as to the maximum thicknesses that can be nailed directly. Nails are driven in straight, snug against the board but are not sunk into the surfaces. Nail spacing recommendations vary somewhat with different makes of boards and manufacturers' instructions should be obtained on that point. The same applies to spacing of nails away from the edges. Nails first are driven near the starting edges of the sheets, working toward the opposite edges.

**Barbed Nails Recommended**

Barbed or ring shanked nails having sharp needle points are recommended. They should be long enough to penetrate well into good, sound wood. For inconspicuous interior work, small countersunk head nails may be used. For ordinary interior work, and for nailing against wood sheathing or studding, use a hot dipped galvanized asbestos shingle nail. Galvanized head-headed nails are employed for exterior work. Large headed nails should be used for ceiling work.

Any punch used for steel or metal work having a female die and male punching bit will work with asbestos-cement sheets provided the "hold-down" is not tight. Cold or drift punches that do not taper at the end are satisfactory. Holes also can be drilled with standard twist bits in hand or electrical drills. The holes are formed slightly larger (1/2-inch) than the nail or screw to allow for expansion, except when using countersunk fasteners, in which case the hole is countersunk slightly smaller than the head of the fastener to assure a neat, tight job.

**Three Kinds of Joints**

Asbestos-cement sheets are used as an exterior covering with three kinds of joints: vertical battened, horizontal lapped and butted vertical and horizontal joints.

When using the horizontal lap joint, asphalt felt is applied to the sheathing before each individual sheet is applied. The felt for upper courses should overlap the asbestos sheet below by about an inch. The asbestos sheets themselves are then overlapped 1 1/2 to 3 inches at the horizontal joints and are nailed, not through the lap, but immediately above the top edge of the under sheet.

Vertical battened joints may be made by using two- or three-inch strips cut from asbestos-cement sheets. Waterproofing felt gaskets are placed under the battens. Battens on upper courses overlap the battens below.

For horizontal butted joints, metal flashing is used at the joint. The flashing (non-corrodible and non-staining) extends up under the top sheet at least 1 1/2 inches and down over the exterior of the sheet below for about 34-inch. Backer strips are used behind the vertical butted joints, extending over the interior lip of the flashing.

An alternate method to the use of asphalt felt underlayments or backers strips for exterior work is to apply asphalt plastic cement under the edges of sheets and under battens and between lapped joints. Gray asbestos putty or high grade caulking compound should be used over exposed nail heads or in visible places. Either material must be applied in continuous strips—not dabs here and there. On lapped joints apply the plastic cement near the top of the under sheet.

In applying battens, the nails are driven through the batten and into the joints between the sheets—not through battens and both undersheets.

**Co-ordinate Studding**

Studding to receive asbestos-cement sheets should be on not more than 16-inch centers. All nails must penetrate into solid wood. If the framing or type of sheathing used does not provide such nailing bases, headers must be installed.

Sheets are not placed tightly together when installing since allowance must be made for expansion and contraction.

Asbestos-cement sheets on exteriors may be painted in the manner described under "Painting and Cleaning" in the section on asbestos-cement siding shingles.

For interior work, painting systems which are suitable for application over plaster walls are satisfactory for painting asbestos-cement sheets. These systems call for a special primer, followed by a flat, semi-gloss or gloss finish. The primer should be applied according to the paint manufacturer's directions for thinning, drying time, etc.

For interior work where severe moisture conditions prevail, the recommendations for exterior painting should be followed.

**IN THIS column at right are shown five steps of scoring and breaking asbestos-cement board. Held in place on a flat working table with "C" clamps, the board is scored deeply against a straight edge with a chisel,awl, ice pick or specially "ground down" file. Grasped firmly at its extremities, the protruding section is broken off with a quick, strong, downward thrust. If desired, the edge can be finished with a file or with sandpaper.**
Asbestos-Cement

Corrugated Sheets

One of the strongest asbestos-cement products, corrugated sheets are also widely used for architectural effect.

For many years asbestos-cement corrugated sheets, light cement-gray in color and of uniform texture, have been used as roofing and siding over skeleton frames. The light-reflecting and diffusing properties of this material are an aid in vision in interiors; on exteriors, corrugated sheets help reflect solar heat.

These sheets have many attributes: they are incombustible, non-corrodible, weatherproof, economical and good looking. Their uses are many. On the farm, narrow strips are used in corn cribs. They serve on garages and hangars, fair and exposition buildings, railroad buildings, chemical buildings and for decorating the interiors or airline terminals, hotels, display rooms and art studios.

Stronger than flat board, corrugated sheets are adaptable to quick and easy methods of construction. The material is drilled with twist drills and fastened with screws or bolts, sawed with a hand saw or a portable power saw with an abrasive wheel. Special fasteners are supplied for uses over various types of frameworks, and manufacturers always furnish detailed application information.

Variety of Lengths

Corrugated sheets are 42 inches wide and made in lengths ranging from 3 to 12 feet long, in 6-inch multiples. The average thickness is about 1/4 inch. As made by some manufacturers, the corrugations have an overall depth of 1 1/2 inches and a 4 1/2 pitch (center to center), with 10 corrugations to the sheet. Sheets are also made with 2 3/4-inch pitch, with 16 corrugations to the sheet.

Sheets are made in three types: (1) square corners, (2) one clipped corner, (3) two diagonally opposite clipped corners. These sheets with clipped corners are used in certain construction techniques discussed below.

A variety of fasteners are used with the sheets—such as bulldog clips, drive screws, "S" clips, hook clips, seam bolts, pipe clips and ridge toggles, all galvanized and complete with washers. Although head-head bolts need no putty, round head bolts or drive screws should be covered with putty or with a heavy coat of white lead when used on exteriors.

On wood construction, four-inch lead headed drive screws are used. Two drive screws are used per sheet per purlin or girt or at approximately 18 inches O.C. Three drive screws per sheet are recommended for use on eave purlins at approximately 12 inches O.C.

Methods of Applying

Two methods are used in installing corrugated sheets: (1) clipped corner method, and (2) staggered edge method.

In the clipped corner method, the cut corners butt together and are overlapped by the uncut corner of the next sheet. This produces straight vertical lines and is preferred by many builders for appearance reasons.

In the staggered joint method, using the 4 1/2-inch pitch material, several sheets of the first course are fastened in place, with a one-corrugation lap at the side. The second course is started with a sheet from which one corrugation has been clipped. It is laid with a six-inch end lap. Two corrugations are trimmed from the first sheet of the third course. Subsequent courses are applied in the same manner, overlapping the first sheet of each course one corrugation from the preceding course.

The procedure is the same for 2 3/4-inch pitch sheets, except the sides are lapped two corrugations.

Preformed Rolls for Ridges

Preformed enclosure strips for use on top of or under the corrugated sheets may be obtained from manufacturers. Special ridge rolls and corner rolls also are made to simplify construction work.

For the standard 4 1/2-inch pitch corrugated sheet the maximum purlin spacing is 41 1/2 feet and the maximum girt spacing is 5 1/2 feet. For 2 3/4-inch pitch sheets the corresponding maximums are four feet and five feet.

The minimum pitch advised for corrugated asbestos-cement roofs is three inches to the foot. An overhang at the eaves of six to nine inches from the outside of the lower roof purlin usually is sufficient. At the gables, sheets should not overhang ends of purlins more than two corrugations.

The weight of the sheets in place is approximately five pounds per square foot.

American Builder
Cutaway Demonstration Sells Houses

Builder exhibits incomplete house to permit explanation of all structural features to home seekers

ON THE THEORY that most prospective buyers are as much interested in how a house is built as in how it looks, Milton Kaufman, Inc., Los Angeles builders, include an X-Ray house with the fully furnished demonstration homes in their new Foster Park development.

The X-Ray house is simply an uncompleted structure which enables the prospect to see every material used everywhere in the house. It includes cutaways of the appliances, and even permits a study of the ground on which the house rests. The idea was conceived by Norman C. Corkhill, sales-manager, as the best means of answering questions as well as stimulating interest in the quality of construction. It was thought that the X-Ray house would interest men only, but after 30 days experience, Corkhill has found somewhat to his surprise that women visitors evince a profound and intelligent interest. Corkhill's complete story on construction details is told in language easily understandable by the layman. It begins with the ground on which the house is built and ends with an exposition of roof framing details and roof covering. As Corkhill tells the story it is extremely informative and interesting. His regular salesmen are equally good, but the 15 or 20 extra, part time salesmen who work on Sunday have been unable to learn all of the details and master the technique of delivering the story. He is considering the employment of an experienced lecturer to tell the story on Sunday afternoons when the crowds are at peak.

At one side of the X-Ray house there is a pit about 12 feet
square, extending several inches below the foundation. It is here that the story begins, with an account of how ground is prepared to receive foundations so there will be no settlement. Nature, Corkhill explains, never made ground level and uniform in density, so modern developers have to begin by actually manufacturing or fabricating the lots. The first step is to establish slopes for drainage. When the audience has that point fixed firmly in mind, Corkhill explains how the ground is then compacted with a heavy tractor, a sheepfoot with rugged iron fists, to prevent settlement. In this compacted earth trenches for the foundation walls are dug with machines. It is then explained that the exposed footings are 14 inches thick, and that the foundation walls, also exposed, are a full six inches. Here the narrator digresses to explain briefly why ready mixed concrete is used. If the narrator is doing his job well he notes at this point that he has succeeded in dramatizing what is ordinarily the least dramatic feature of home building, and from that point on he has an avid, interested audience. He hears comments such as, "Never knew there was so much to this," and, "Say, these fellows really know how to build, don't they?" Comments such as these, and the expressions on the faces of those in the audience tell him that he is converting prospects into customers.

Next, 2x4 No. 1 common Douglas fir roof rafters are pointed out, and their bracing with 2x4 purlins and 1x6 collar ties is explained. These are easily shown from the ground, and the cutaway construction permits a demonstration of how 210-lb. asphalt shingles are applied over 15-lb. asphalt felt laid over solid sheathing. From the same position the visitors are shown how 15-lb. asphalt felt waterproofing is applied to the studs, followed by wire mesh, then the stucco in scratch, brown and finish coats, completed with a fourth brush coat of color. Attractive signs indicate every step explained in case no salesman is present when a visitor arrives, and to enable others to check the points that were made.

A wall in the living room is left without lath or plaster to show the studs, their spacing and their bracing. In another part of the living room several floor joists are exposed. Again, the cutaway principle shows Douglas fir sub-floor nailed diagonally at each bearing, and the application of 1/4x2 oak finish floor. Another wall of the living room shows Gripath nailed to the studs. The narrator now explains how the plaster keys through the openings in the lath. The cutaway shows the application of two coats of plaster and two coats of oil paint for the final wall finish. Here, the Holly Stubby heater installation is explained along with the principle of its operation.

In the kitchen the cutaway principle is applied to the range, refrigerator and washing machine to show how they are constructed. Part of the G.E. Textolite sink is cut away. Transite flues, metal corner beads and the exhaust fan are explained, and kitchen cabinets are cut away. Another exposed section shows how plywood is laid over the sub-floor and finished.
with linoleum laid in mastic. Many people, Corkhill says, thought that the linoleum was just laid over the plywood with no binder. Interlocking thresholds and weatherstripping for the front and rear doors are shown.

In the bathroom wiring and plumbing details are fully exposed. The prefabricated plumbing tree is explained, and the salesman points out why the kitchen and bathroom are back to back for economy purposes.

The cast iron bathtub and its advantages are explained. Here, too, the 4x6 headers over windows and doors on exterior walls are pointed out. Fire-safe wiring and the reasons for it are explored, and questions are invited.

Part of the floor in one bedroom is entirely omitted, and steps lead to the ground under the house. This is to demonstrate how the house is raised 18 inches above the ground to protect the living area from dampness. It shows the nailing and blocking of 2x6 Douglas fir floor joists. The vents are pointed out, and attention is called to the presence of light and air as protection against dry rot and termites. Two

(Continued on page 332)
A 12-FOOT-HIGH fence was built around a new model house, being introduced in this community, to stimulate public interest and curiosity. It is shown here with gate open as power roller finishes the driveway.

AT AN announced date and time the 12-foot fence was removed to reveal the completed house, fully equipped and furnished. The first week it was open more than 11,000 persons visited the highly publicized home.

TO CAPITALIZE on the inherent curiosity people have for any construction job, a builder in the Hartford, Conn., area succeeded in developing an inestimable amount of interest in his development by building a model house behind a 12-foot-high board fence. Tagged the "Mystery House," the idea was picked up by the Hartford Times and after Real Estate Editor Richard Henderson saw the plans for the low-priced ranch-type home, he decided to sponsor it as part of the newspaper's real estate promotion.

The builders, Green Acres, Inc., of which Louis Beckenstein is president, had already completed about 250 dwellings of conventional New England Cape Cod and Colonial Design in the architecturally conservative Hartford area when it was decided to introduce the ranch type. Land was acquired and plans prepared for about 70 of the houses. There was some doubt, however, about what acceptance the new house would receive from prospective purchasers. Because of the traditional reluctance of New Englanders to adopt modern designs in housing, Beckenstein decided to build up some public curiosity and interest while he was constructing the first model house by screening it from public view with a high board fence. A large gate, through which equipment was moved and deliveries were made, was kept closed to emphasize secrecy surrounding the structure.

As soon as it could be determined, a completion date was set and the time when the public would be able to visit the Mystery House publicized in newspaper advertising and in news stories. The morning of the opening day, the Hartford Times published a six-page special section of tie-in advertising and publicity on the house, which was completely equipped and furnished. The first day of the showing, at the announced time, the 12-foot-high board fence was removed by workmen and the public admitted. Crowds were so great that it took all the personnel available from Green Acres, Inc., plus extra persons to properly route visitors through the house and to answer their questions.
This promotion-minded builder erected a high board fence to completely screen from public view a new and different model house erected to open a 70-house development. By cooperating with his local daily newspaper, the builder staged an outstandingly successful model-home showing which paid handsomely in sales.

The house was open to the public for two weeks from 2 to 9 p.m. daily except Sunday when it was open from 10 a.m. to 9 p.m. The first week more than 11,000 persons went through it and the second week the average was about 1,000 a day. As many visitors as possible signed a guest book with their addresses. This became the best prospect list the Green Acres firm ever had. Needless to say the 70 houses of this model were sold in a few days.

When Beekenstein decided to deviate from traditional house design in his project, he made an extensive trip throughout the United States to study first hand what other operative builders were doing with ranch type and modern designs in the low price market. He returned with a host of ideas which he laid before Architect Irving W. Rutherford in Hartford, who was requested to hold the price of the completed house with lot under $12,000.

Rutherford first designed a basic house as the minimum and then prepared several alternate plans incorporating more space and more refinements which provided Beekenstein with a good variety to offer home buyers in a price range between $11,900 and $15,500. All the designs were for one-story frame houses with trussed roofs. The houses were built on radiant heated slabs without basements.

The basic plan offered two bed-rooms. (Continued on page 158)
PRESSURE helps hold hose erect while shooting. Steps in process are: (1) air on, (2) blow off area to be shot, (3) wet area, (4) water on, (5) dry-mix materials on at pump, (6) materials and water on at nozzle, (7) shooting, (8) materials off, (9) water off, (10) air off. Nozzle is held at right angle to reduce rebound. Workman, above, is shooting Dairy Congress Fair Building.

CONCRETE reinforced with steel mesh was shot against Masonite sheathing to form.

EXPERIMENTATION in search of better building methods is a regular activity of one of the oldest construction companies in Iowa in terms of age, and one of the youngest in terms of ideas. Founded in 1895 by John G. Miller, Sr., the John G. Miller Construction Company of Waterloo is one of the country's leading pioneers in the field of pneumatically applied concrete by which dry-mixed concrete, with water added at the nozzle is carried at high velocity through hoses to be "shot" into place.

Although Mr. Miller, Sr., is still an active supervisor in the company, four additional partners have been acquired—sons of the founder (Robert, Ruben, John and Aaron), all of whom attended an engineering college and are interested in the engineering and mechanical aspects of construction work.

The Company owns shops in which all of its equipment is repaired—equipment that includes two power shovels, tractors, concrete mixers, as well as smaller items such as pumps and portable saws. In these shops, mechanics are employed to fabricate jigs to speed work of particular undertakings. Currently, the company is perfecting an impact cutting tool for cutting stones used on stone veneer work. More important experiments and innovations, however, have been made in conjunction with pneumatically applied concrete.

For Building Rejuvenation

Employing the "Jetcrete" gun that is manufactured by the Construction Machinery Company, the Miller Construction Company, for the past four years, has engaged in the repair and rejuvenation of old buildings and in the construction of new work.

A local church, a local savings bank and numerous other commercial and industrial buildings have been rehabilitated with this system. New work has included school construction, the Waterloo airport administration building, an exposition building and groups of Waterloo housing projects. Currently, the firm is using pneumatically applied concrete in repairing the Iowa State College stadium and in construction of nine housing projects located in Waterloo (3), Mason City (1), Dubuque (1), Fort Dodge (1), Davenport (2) and Cedar Falls (1).

In these housing units, the Miller Construction Company is using pneumatically applied concrete to "stucco finish" the wood-framed buildings.
The concrete is applied in three coats against a Masonite sheathing and is reinforced with steel mesh. The first coats are screeded and scratched for following coats, the last one being a thin "flash" finish. This last coating is floated but not steel-trowelled since the rougher texture is preferred.

Generally the company uses only one coat in the rejuvenation of the walls of old buildings, especially industrial units. For this purpose, it has been shot over concrete and brick masonry walls in need of repair, producing a stronger section than the original. Such walls are first thoroughly cleaned, dampened and then "shot." One problem encountered, however, in rejuvenation work has been that of variations of thermal expansion between the old and new concrete, although the experience of the Miller Construction Company has been that the bond formed with pneumatically applied concrete is stronger than the old concrete or masonry units over which it is applied.

Another use to which this technique has been put by the company is the repair and leveling of old sidewalks. Since it can be shot to a feather edge, it has been found infinitely superior to any other method of repair work for walks, except replacement.

**Need for Clean, Sharp Sand**

John Miller, Jr., a general superintendent for the firm, has pointed out that a clean, sharp, well-graded sand is essential to the operation. The gradings are generally as follows, although minor variations are utilized to achieve varied textured finishes:

- Passing No. 4 sieve 98 to 100%
- Passing No. 8 sieve 70 to 95%
- Passing No. 16 sieve 60 to 85%
- Passing No. 30 sieve 45 to 65%
- Passing No. 50 sieve 15 to 35%
- Passing No. 100 sieve 0 to 5%

This sand with its normal moisture content of five to eight per cent is mixed in a semi-dry state with portland cement. Manufactured aggregates must be slightly dampened since this

(Continued on page 208)
Department Store of Building Supplies

Material dealers who want to make it easy for customers to buy, and render as many services as possible, are turning to more modern ideas in store layout. The new Grossman store is a good example of the trend.

Arrangement of materials in a new building supply store in Malden, Mass., makes it easy for builders to buy.

The store, one of 16 in a chain owned in the New England states by L. Grossman Sons, Inc., is completely departmentalized. Building materials are displayed like merchandise in a department store, but as a whole, to more advantage.

Front part of the two-story building is a customer showroom with typical store items which may easily be seen from the street through wide glass areas. Items such as kitchen cabinets, appliances and paints, are displayed in special departments. Cabinets are integrated into full-size kitchen walls, with sinks, plumbing fixtures, drain boards, hardware and back splashes set off against attractive kitchen wall treatments. Bathroom fixtures are displayed in a like manner, in complete bathroom units.

"Ashes of Roses" plaster board extends down about three feet from the ceiling in the main showroom. Customers can see that proper handling of this material makes it satisfactory for decorative purposes. No joints or patches show, and the surface is smooth.

All the interior show rooms and finishing materials offered by the store to good advantage. Below the plasterboard there is a band of beveled mahogany plywood as a border. This is in contrast to the walls of knotty pine, finished in a semi-gloss platinum blond stain. Wall racks, display counters and cabinets are made of 6' plywood to show uses of this material. All interior materials used in the construction of the store are available from the store, and Grossman salesmen are on hand to explain methods used in applying paints and materials.

Display counters for power tools are mounted on roller casters, and roller platforms are used for heavy items such as refrigerators and hot water heaters. This allows great flexibility in display arrangements.

(Continued on page 140)
Building Industry Gets A New Material

Lightweight aggregate panel that can be sawed, nailed and drilled with woodworking tools, is made for a wide variety of uses.

A NEW building material manufacturing concern in Chicago, the American Bildrok Company, will produce lightweight aggregates, principally perlite, for plaster and concrete, and manufacture them into a variety of insulating, acoustical and structural building panels. Important among the products is a lightweight, insulating wall panel for residential, farm and commercial buildings. This panel incorporates the structural and insulating requirements for a wall in one material. The company claims great savings in cost for materials and erection time.

The basically new type building material to be manufactured by the company resists fire and rot, and provides great flexibility in use. It can be cut, sawed, nailed, drilled and handled with woodworking tools. It can also be manufactured in a wide variety of shapes, sizes, designs, colors and finishes. A similar material will be used to make precast floor and roof panels so that the company will be able to provide the complete shell for a building. It is expected that the panels will be used extensively for farm structures because of their ease

(Continued on page 134)
Homes Make A Difference

by R. E. Saberson

Before you feel sorry for the G.I. in today's low cost housing projects, have a talk with him. He may be much happier than you think.

FOR several years on my way down town I had been driving past two or three blocks of vacant lots and had never regarded them as especially desirable home-building sites. Then shortly after V-J Day somebody took over and within a year the first house began to take form.

At first it seemed like rather a poor excuse of a home. Too small. Poor lumber. Shoddy construction. And, of course, the price was exorbitant. At least these were the appraisals that were most frequently heard, not only about this particular house but practically all postwar homes . . . at least at that time.

However I was favorably impressed by the fact that the contractor didn't go in for speed. He never had more than two of three houses under construction at one time and the "SOLD" signs invariably went up before any of the homes were actually completed.

By the end of the year, a dozen or more had been finished and sold. In the spring the contractor was on the job early and had something on the opposite side of the street.

The thing that interests me most about this unspectacular undertaking is the extent to which my thinking has changed about the whole project. It isn't at all what I thought it was going to be. Whereas I once looked upon it as nothing less than a bright and shining example of what was being done to the helpless vets, I now am looking at it in an entirely different light. I missed my hasty appraisals in a dozen different ways and I now find myself wondering on practically every count.

Remember I am referring specifically to a certain group of houses that as far as I was concerned had three strikes against them before they were even sold. I didn't like the location or the homes or the price.

Fortunately for the "buyer" and his customers, they all felt differently about the whole thing. That much was proved by the rapidity with which the houses were sold. Nevertheless I continued to feel more or less sorry for the purchasers until just recently when I began to realize that the whole set up had turned out to be exceedingly worthwhile for all parties concerned.

The location which had failed to interest me favorably now commands my respect. The vacant lots in adjacent blocks are filled with neat little homes. The unsightly hump that stood in the middle of the area was bulldozed as a swamp and a dump of minor proportions. This leveling off process worked wonders.

But it was the houses themselves and the carpet-like yards that contributed most to the remarkable change which has taken place. Naturally the houses are no larger than when they were built, but they no longer seem small since they conform to the postwar pattern as to size. Awnings, shutters, backyard fences, flowers, fast-growing young trees have helped to erase the once-draff picture.

Saturday afternoon I stopped in front of House Number One. The owner was mowing the lawn. I explained my interest in his home and in the others up and down the street.

"Homes make a big difference in an area," I concluded after telling him my earlier impression, not only of the location but of my doubts concerning the wisdom of his purchase and how I had gradually changed my mind.

"Several of my friends felt the same way about it," he replied. "As a matter of fact they came pretty close to talking me out of it after I had agreed to buy the place. Think I might have followed their advice if we had been able to find some place to live. They pointed out how much more I was paying for a smaller house than theirs and insisted that within three or four years I would be able to buy a better house for less money than I owed on this. They insisted that materials would get better and cheaper. It all sounded very plausible but there wasn't much I could do about it. So I took the plunge."

"Like to take a look at the backyard?"

We sat in the shade and visited. A friendly cocker slept at our feet in the cool grass. Colorful flowers in an old-fashioned garden nodded their heads in the gentle summer breeze.

"You said something about houses making a big difference in an area," the home owner said after we had talked awhile. "That's true but they do far more than that. . . . They make a big difference in practically every phase of the life of the families who live in them . . . or at least ours did."

Then he went on to tell how they had decided to find out in advance how they would come out if they bought a home.

"That called for far more figuring than you would expect," he explained. "We took no chances, especially after our friends told us how foolish we were for taking on such a large obligation. We studied every angle of the situation and measured the cost (Continued on page 192)."
MODERN Design as expressed in this house provides economy construction to meet the needs of owner with a limited budget.

Three Bedrooms and Split Bath in Economy House

GETTING three bedrooms and a "decent size" living room in a house built on a very limited budget was the problem posed to Norman R. Johnson, St. Paul architect, in the design of this selected home. The family consists of the parents and two teen-age daughters, and the budget, in addition to other limitations, did not provide for two complete bathrooms. It was necessary, therefore, to design and locate a split-type bath. The bath is divided into two sections separated by a louvered door. Each section has a lavatory, with the tub in one and stool in the other. Entry is from the hall and from the dressing closet off one bedroom.

Over-all dimensions of the house are 50x30, including the double garage under the living room. Actually the living room is 14 feet, by about 21 feet. The dining area, however, not partitioned from the living room, adds an L, increasing the width of the living room to 20 feet. Closet space is well planned with 8½ feet in one bedroom and 4½ feet in each of the others. In addition there are two guest closets and another at the rear entryway.

The exterior is ½-inch weatherproof plywood with vertical 1x3 batten boards spaced 16 inches O.C. The roof is one plane with a ⅜ pitch. Finish is pitch and gravel. The main view is southwest, and the living room and dining area face that way. Since the house is built on a knoll, the sidewalk is pitched up to the front entrance to minimize the declining slope of the ramp to the garage space. Windows are all Andersen Corp. horizontal gliding type, and the house in insulated with Balsaam Wool. The garage ceiling is insulated with double thick Balsaam Wool and plastered on metal lath. The price in St. Paul not including the lot, was $17,500 early in 1950, but would be considerably more today.
DESIGNED to complement the lines of the ocean's shore, this West Coast home has a glass wall extension that protects it from the prevailing northerly winds. The extended eaves and side walls also protect from sun.

DESIGNED as an outdoor extension of the living and dining space, this terrace is sheltered by its enclosing glass wall. Douglas fir cover.
WALLS of solid brick were used at the north and south end of house. The extra length of Roman ruffle brick accentuates horizontal lines. The shed roof has a built-up covering topped with crushed tile.

**A Beach House for Year-Round Living**

Solid brick and glass walls help protect this "shadow box house" from prevailing sea wind and sun.

In his intriguing beach house at Malibu Beach, California, Welton Becket has found a way to tame the tormenting elements of the sand and ocean winds without depriving himself and his guests of the delights of oceanside living. The projecting arm of wood and glass that extends 43 feet from the north side of the home protects the enclosed terrace from the prevailing north winds without cutting off the view or infringing upon the feeling of outdoor living, for this is a house designed to complement and to meet the impositions of its setting. This is not a house that requires "tailoring" of the surrounding landscape to fit its architecture.

The entire west wall of the house proper is also glass, although the enclosed rooms are sheltered by the extended walls and overhanging roof. The end walls are of solid Roman ruffle brick construction. The house itself is built on a concrete slab with conventionally framed interior partitions and a shed-type roof with a built-up covering topped with crushed tile. Redwood is used for exterior trimming.

Throughout the house, Weldtex (United States Plywood Corporation) is used for wall finishes with birch doors and trim under ceilings of exposed Douglas fir beams and rafters. The floors are finished with rubber tile.

Birch was also employed in the construction of the kitchen cabinets, although the counter has panels of Weldtex. This counter, topped with Formica, separates the kitchen from the living-dining area. However, the brick barbecue pit of the kitchen makes it one of the chief points of interest in the house. Kitchen equipment includes a GE dishwasher and a GE Disposall. There is also an automatic washer located in the combination bath-laundry. The bathroom is located adjacent to an outside door in the bedroom area, and, in addition, an exterior shower has been installed next to this door for the convenience of swimmers so that they can wash off sand before entering the house.

Two of the three bedrooms have doors opening on the beach; one is equipped with built-in bunks for four children.

The architect-owner, Welton Becket, associated with the West Coast architectural firm of Wardeman and Becket, calls this his "shadow box house" because of the unique front elevation with the projecting eaves and side wings. The home was constructed by Frank Sheldon, builder. The main portion contains 1,275 square feet.
Prize Home Modern and Easy to Build

This modified modern house was designed by Elizabeth Graham Bell, architectural student at Carnegie Institute of Technology. It was awarded first place in the competition among women architectural students in the contest sponsored jointly by American Builder and National Association of Home Builders in February 1950.

Victor Cikkin, A.I.A., collaborating with Miss Bell, made some minor changes in the fenestration and kitchen layout, and produced full working drawings. Complete details of the revised kitchen layout were presented in the July issue of American Builder.

Despite the low roof line of the house, an appearance of squatness is dispelled by the use of random width vertical siding. A continuous line of windows along the front elevation, which might have been monotonous, has been separated into three batteries of three, two and three sash, respectively, with weatherproof plywood between the batteries. Roof projection over and beyond the monitor sash above the living room is four feet. This minimizes the time that drapes must be drawn to eliminate direct sunlight in the room. Roof overhang of the flat roof parts of the house is three feet. Note the glass wall of the exposed side of the living room.

A particularly desirable feature of the layout is the location and size of the utility room, and the spacious storage cabinet for garden tools and miscellaneous items.

The treatment of the approximately square kitchen is especially interesting. The working section of the kitchen is actually a well-proportioned L. This was accomplished efficiently and economically with the use of a 210-degree circular arc breakfast settee and circular table in the far corner. Note the efficient use of space for a convenient broom closet.

The plate glass wall on the side of the dining room, with the living room glass wall, provides excellent opportunity for beautiful views with effective landscaping.

Note that while the plan calls for three bedrooms of moderate size, chambers one and two or one and three could be easily combined to provide one large master bedroom, and a small second room. With this suggested layout, restoration to three bedrooms could be done at any time, and at small cost. Location of the heating plant at the approximate center of the house provides desirable economies.

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.

AMERICAN BUILDER

Blueprint House No. 47

Elizabeth Graham Bell, Designer
First Prize Design
American Builder Prize Home Competition

DESIGN NO. A B 160

AMERICAN BUILDER BLUE PRINT SERIES
Designed by
Elizabeth Graham Bell
Kings Highway, Rosslyn Farms, Carnegie, Penn.
C O M B I N I N G some of the best features of the traditional Cape Cod and current mid-century ranch type houses, Fritz Bros., Inc., home builders of Minneapolis, produced this house for a relatively small lot. It could be made to accommodate itself to an even narrower lot by taking the porch from the side, and including it as a breezeway between the house and the garage. Actually the house is only 36 feet wide, but the roof design and the wide overhang give it the appearance of greater spread.

An oversize chimney lends the illusion of mass. The chimney is laid up with native stone. Judicious use of the same kind of stone in front of and surrounding the front entrance adds an appearance of solidity. The vertical lines of the front gable accentuate the stone and give character to the entire front.

Omission of a partition between the dining area and the living room provides a clear L-shape space approximately 20x23 feet. There is an access panel for storage of off-season items between the roof and the ceiling. This, plus supplementary storage space in the basement, offsets what otherwise would have been a disadvantage resulting from the small closet in the rear bedroom. Note the large guest closet off the vestibule, adequate for the family's outside wraps, plus those of as many guests as would likely to be present at any one time. Note the closed vestibule at the rear, providing entry to the garage and the kitchen, and including another closet for work clothes. An interesting feature of many of the garages built by the Fritz organization is the provision of only six feet of headroom under the double garage doors. The low cars of today, says Bob Fritz, require no more headroom.
**TECHNICAL GUIDE**

**for Builders and Craftsmen**

### How to Make a Jig to Straighten Planks

This simple jig is constructed in the following manner:

Two 1x8's are securely nailed at right angles to a 4x6 about ten feet long. The 1x8's, about four feet in length, are held together at ends with a 4x4 block. In use, the crooked plank is passed between the 1x8's with its curve outward; two spacer blocks are then placed on opposite sides to prevent plank from slipping to side when under pressure. A short block is placed between plank and 4x6. A car jack is then operated to remove curve. Straightened plank is left in jig overnight.—Submitted by Herbert E. Fey, New Braunfels, Texas.

### How to Make a Handy Device

**For Holding Boards on Job**

The simple wedge-vice illustrated holds boards from ¾-inch thick to thickness equal to width of cut-out in block or stop.—Submitted by W. S. Dollar, Colorado Springs, Colo.

### How to Lay Out an Octagon

Mark a perfect square size of desired octagon. Locate center at intersection of lines from corner to corner. Set point of compass at corner of square and mark four identical arcs. Draw straight lines from one arc to another at point where they meet square. Result will be a perfect octagon.—Submitted by Herbert E. Fey, New Braunfels, Texas.

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**No. D-71 . . . Fold-away Breakfast Table**

SPECIAL features such as the fold-away breakfast table, detailed and illustrated on the opposite page, provide opportunity for reduction of space required for dining in the kitchen. This compact unit, shown in both closed and open position, can be built as an integral part of the room arrangement, or as an independent fixture placed in a convenient area of the room.

The fixture is sturdy, built of one inch boards including shelves, with ¾ inch fir plywood for backing. Exterior corners at ends are carefully rounded for an effect of simplicity. When fixture is in either open or closed position the cupboard doors below the table top can easily be opened for access to storage area. The storage area above table top can be arranged in an ornamental display or for storage of breakfast dishes, etc. The supporting leg for table top becomes an integral part of the fixture design when in a closed position. When table top is in position for use the supporting leg automatically drops into a vertical position and is held rigidly in place by a metal angle bracket. Table top is made of 1-½ inch thick members with concealed hinge for operating placed flush with face of jamb and end of table top.

Finish of kitchen unit is optional. It should take the same finish as balance of fixtures in kitchen, or if contrast is desired a blond stained finish can be applied.
NO. D-71 FOLD-AWAY BREAKFAST TABLE

Section...

Front Elevation...

End Elevation...

Plan...
How to Improve Application of Asphalt Strip Shingles

When roof is ready to shingle, start at gutter line with one course of 16-inch red cedar shingles, projecting shingle 1 to 1 1/2 inches beyond edge of roof sheathing. Then start double course of asphalt shingles about 36-inch beyond edge of red cedar shingle. This provides a stiff edge which will not sag or break.—Submitted by C. D. Robb, Frankfort, Ohio.

How to Prepare Gray Creosote Paint

Creosote may be blended to a limited extent with white paste paint, including white lead, zinc oxide or a mixture of white lead, zinc oxide and titanium oxide. A suggested blend to produce a gray creosote paint for outside use: 1 gallon white paste; linseed oil and drier, as directed on label; creosote, as replacement for thinner. Any blend made will be slow drying. It is recommended that a non-creosote wood preservative also be used. This can be brushed on the lumber or used as a dip. Before applying paint the treated wood should be allowed to dry for a few days.—Data furnished by National Paint, Varnish and Lacquer Association, Inc.

How to Maintain Same Angle When Nailing Boards at Slant

Nail first board at desired angle. Place spirit level on board in perfectly level position. Measure distance between bottom of level and top of board and cut a wood block to same thickness. Notch block and lash to tool with heavy string. To assure correct angle for remaining boards, rest level on top edges of boards and raise or lower level until bubble is in exact center.—Submitted by Herbert E. Fey, New Braunfels, Texas.

How to Make a Simple Level

Only materials required to build this simple level are a 2 x 4 four feet long, two three-foot 1 x 4's and a plumb bob. The center of the 2 x 4 is marked with a pencil. The 1 x 4's are then nailed to the 2 x 4 and trimmed, as shown in drawing. Plumb bob is affixed to exact center of crossed pieces with a small nail. Care must be taken that 1 x 4's are of identical length and accurately crossed.—Submitted by Herbert E. Fey, New Braunfels, Texas.

G-12 . . . Cantilever Balcony Framing

In the remodeling of the store interior shown on the opposite page, the designer had a number of problems to contend with to satisfy the requirements of the owner. These were as follows:

1. To provide a balcony within a limited area; one which would in effect appear to be free floating and become a part of the actual sales area.
2. To select materials that would assure completion of all work within the shortest possible time.
3. To construct the balcony in the most economical manner, consistent with the purpose and function of the business carried on by the store.

The framing of the balcony is made entirely of wood beams. This method was used to speed construction work due to a time limit placed upon the builder. The 3 x 12 and 3 x 8 inch beams frame into and are flush with the top of diagonal 12 x 12 inch wood girder. The beams are held in position at girder with nailing blocks and joist hangers.

An unusual feature of the balcony framing is the fact that each of the extended 3 x 8 inch beams are secured to 3 x 12 inch beams by means of a 2 x 3 1/2 inch steel strap placed across top of beams as indicated in detail and securely lag screwed into position. This method has proven successful in supporting an extended free standing area.

Welbex facing is used to form the balcony rail. The use of this material gives texture to an otherwise plain surface. The projections extending beyond the balcony face on one end is used for a display platform.

Materials used are as follows: floor covering, rubber tile; ceiling of Celebros squares; left wall covered in La Verne “Teachest” pattern wallpaper; fixtures of pickled oak; showcases and counters, striated plywood. Color scheme is as follows: floor a Chinese red, walls in tones of chartreuse, aqua and orchid. Showcase fronts are pale grey-green turquoi. All lighting is incandescent with the exception of wall case lighting which is fluorescent.
Selling Re-roofing Jobs to Consumer Is Profitable

SEVERE competition in the trading area is one reason why the Hatch and Brookman Company, retail lumber dealers of Cedar Rapids, Iowa, are focusing selling efforts on the consumer, and particularly the farm trade. In Cedar Rapids itself, a city of 80,000 people, twelve dealers compete for business. Charles E. Sovern, general manager of the company, maintains there are more dealers per 1,000 of population in the trading area than in any other section of the country.

The first effort to increase farm trade was launched September 1949, with instant success. It was the institution of a roofing application department. Ted Foltz, an experienced roofing and siding salesman, conversant with the farm trade, was employed as a commission salesman and as manager of the roofing and siding department. A thoroughly trained and competent roofing and siding crew was put on the payroll.

From a standing start in September, Ted Foltz sold enough roofing and siding to keep not one, but two roofing and siding crews busy throughout the winter. By February, the backlog of orders was so large that Hatch & Brookman already had planned to increase the number of crews from two to five when spring weather permitted an uninterrupted construction schedule.

This record looks even more imposing, Mr. Sovern said, when it is remembered that most salesmen think there is little use in trying to sell roofing and siding jobs around Cedar Rapids after the first of November. Many stay home and “toast their toes.” But not Ted Foltz. He worked continuously during these “dead months,” and averaged more than $800 per month in commissions during September, October, November, and December. And he is paid only upon completion of a job and not when the farmer signs the contract.

In February, the time of the year when “you just can’t sell roofing and siding,” Ted Foltz was averaging an order every three days, according to Mr. Sovern. And the average of these orders was about $900.

It’s apparent roofing and siding is the leader to other farm business. These are the lines, Mr. Sovern asserts, that enable a dealer to get his foot in the door and then offer convincing the fact once his crew gets on the job, and the farmer can see that they are skilled workmen who really know construction, the farmer almost invariably finds other work to be done on his buildings. On the average, the $900 or $1,000 order builds into a $2,000 job before the crew completes its work. And in several cases, Mr. Sovern reports the farmer has pushed a $1,000 order into a $5,000 or $6,000 order calling for lumber, nails, insulation and other materials, plus actual construction work. And he says, the farmer has the money to pay for it.

Mr. Sovern says there is no magic formula. In the first place, there’s Ted Foltz. He knows the building business. He knows the farmer. He understands his problems and talks his language. Within a radius of 60 miles of Cedar Rapids, Foltz, says Sovern, has every farm lined up on routes, and sticks to a pre-determined call schedule. He knows where he will be days ahead. He wants to know personally every farmer in the territory. He never passes by a farm without stopping in for a few minutes to talk.

And equally important, for farm sales is selling proper application, according to Mr. Sovern. “Tell the farmer exactly how you will apply the materials and why. Then live up to your promises. This is the only way to earn the farmer’s confidence and to keep it.”

In reply to further questioning, Mr. Sovern said that in the towns his company is recommending 3-tab strip shingles almost exclusively. They are always applied with 6 nails, and in highly exposed locations where high winds subject roofs to heavy battering, the tabs are cemented down. On farms, Ted Foltz sells mostly individual shingles applied by the Dutch Lap method, fastened down with staples. To date, it hasn’t been necessary to make a call back on a roofing job.
...part of every Rö-Way Overhead Type Door

Yes . . . owner satisfaction. Built right into every Rö-Way Overhead Type Door, whether for commercial, industrial or residential installation.

It's like this. Only carefully selected west coast lumber is used. Mortise and tenon joints are not only glued, but steel doweled as well. Muntins, rails and stiles are squared up with precision. Sections are rabbeted to assure weather-tight joints. Millwork is drum sanded for uniformity, with extra hand sanding for real smoothness of finish.

All Ro-Way hardware is heavy gauge steel—fabricated in Rowe's own plant with special Rowe-designed machines.

And it's both Parkerized and painted, after fabrication, to assure freedom from rusting and discoloration.

And—outstanding features for smooth, easy operation.
Like Ro-Way's exclusive friction-reducing track.
Ball-bearing rollers with double-thick tread.
Springs power-metered to the weight of each door.

Owner satisfaction? It's practically guaranteed!
That's why you can't go wrong when you specify—
Rö-Way Overhead Type Doors.

There's a Ro-Way for every Doorway!
COMMERCIAL • INDUSTRIAL • RESIDENTIAL
ROWE MANUFACTURING COMPANY
773 Holton Street
Galesburg, Illinois

OCTOBER, 1958

119
How to Build Garages with Modular Masonry Units

Garages of concrete masonry units are fire-safe, economic and adaptable to innumerable architectural types since masonry units are inherently versatile. Of course, any garage can be made more useful if it is constructed to include other features such as storage spaces and work areas, but horizontal joints only while striking the vertical joints flush accentuates the long dimensions of the building and adds shadow lines. Various patterns employed in laying the masonry units, such as the random pattern, and the odd-shaped patented unit sizes are additional inexpensive contributions to garage exterior treatment techniques, where material scarcity at Port and Cement Association.

SECTIONAL details for masonry unit garage construction

with masonry unit construction, more elaborate designs may be planned that include attached fireplaces, barbecue grilles and porches with concrete floors.

Since concrete block and other masonry units are modular in size, construction from a basic plan is simplified by adapting dimensions to modular half-sizes of the units—a system which also eliminates much cutting and waste.

The exterior finish of a garage can be enhanced by variations in striking or topping the joints in the masonry unit walls. For example, tooling the...
A house is often sold before it's finished

The way a house looks when it's under construction is important to both the lumber dealer and the contractor. It's then that prospective buyers can judge the important structural qualities of the house. A workmanlike appearance builds public confidence in the builder, which can mean faster sales. It also means more business for the lumber dealer who supplies him.

Armstrong's Temlok® Sheathing looks like the quality material it is. Every bundle of Temlok Sheathing is neatly wrapped in kraft paper. This not only makes it easier to handle in the yard and on the job but also helps to keep dents and scratches from marring its appearance. There's no extra charge for this protective wrapping.

On the end of each bundle is an attractive red and white label that makes the stacks of sheathing look neat and orderly on the job. The trade-marking on the face of Temlok Sheathing is carefully applied at the factory to make sure that it is clear, clean, and legible. This trade-mark is a sign of quality to the many people who have learned about Armstrong's Temlok on television and in national magazine advertisements.

The extra care that's taken to make Armstrong's Temlok look like a fine material really means something to the builder and the lumber dealer. During those days or weeks when the sheathing is exposed, the house is a huge billboard, inviting all who pass by to stop to see what materials and workmanship are going into it. It's smart to have a silent salesman like Armstrong's Temlok Sheathing on the job. Get full details from your nearest Armstrong lumber dealer or write direct to the Armstrong Cork Company, 1610 Ross Street, Lancaster, Pennsylvania.
Catalogs and
HOW-TO-DO-IT INFORMATION

806—METAL WINDOWS, VENTILATORS—
Metal ventilators of extruded aluminum, mild steel and stainless steel for glass block construction are described and illustrated in one catalog, and metal windows of extruded aluminum for glass block construction are presented in another offered by the Marnett Corp., Wausau, Wis. Sizes and specifications are given in both.

807—SCAFFOLDING SPECIFICATIONS—Typical scaffold assemblies, safety rules, load tests of equipment, methods of assembly and other valuable information for owners of sectional scaffolding are incorporated in a new 8-page catalog released by Wilson-Albrecht Co., Inc., 3565 Wooddale Ave., Minneapolis 16, Minn.

808—LAMINATED PANELS—An illustrated 12-page booklet giving complete details of a new laminated panel designed to provide permanent curtain walls or interior partitions is being offered by the Kaylo Division, Owens-Illinois Glass Co., Ohio Bldg., Toledo 1, Ohio.

809—FLOOR FINISHING SPECIFICATIONS—
A complete new file of data and specifications on the preparation, finishing and maintenance of every type of floor has been prepared by the American Floor Surfacing Machine Co., 508-600 South St. Clair St., Toledo, Ohio. Data is in handy loose-leaf form, suitable for the architect's or builder's A.I.A. file.

810—SPECIAL PRODUCTS—A pocket catalog showing a complete line of window awnings, door canopies, ventilators, shut clutches, ornamental metal screens, doors, mill and package receivers and flower boxes, all Leigh building products, is available from Air Control Products, Inc., Coopersville, Mich.

811—FLOOR LAYING PROCEDURE—The Maple Flooring Manufacturers Association, 46 Washington Blvd., Oshkosh, Wis., has announced publication of six folders describing grading characteristics and including information pertaining to proper floor laying procedure, outline specification data, and recommended uses of Northern hardwood floorings.

812—"ACTION PLAN FOR PLASTERING CONTRACTORS"—is the title of a sales promotion kit offered by Keystone Steel & Wire Co., Peoria 7, Ill. Information about reinforced concrete stucco, advertisements and displays used by successful contractors, and other sales hints are presented.

813—ENGINEERED HOUSES—Erection procedure used by the Texas Housing Co., 9061 Denton Drive, Dallas 9, Tex., is illustrated in their new brochure which outlines features of the Town and Country Engineered houses.

814—PAINT SAVINGS CALCULATOR—For calculating annual savings on various painting cycles, the Paint Sales Division of the Joseph Dixon Crucible Co., Jersey City 3, N. J., offers a chart which gives at a glance the savings in terms of percent of different protective painting cycles.

(Continued on page 128)
THE CRANE DIANA LAVATORY, of vitreous china, in white and eight Crane colors. Chromium-plated trim includes easy-to-operate Dial-ease controls. Towel bars optional. Sizes: 24, 27, 33 inches. Consult your Crane Branch or Crane Wholesaler.
CABINET SHOWERS—Roughing-in dimensions, installation drawings, and suggested bathroom planning are included in a new 23-page catalog offered by Henry Wes Manufacturing Co., Inc., Elkhart, Ind. This catalog, No. 450, shows styles and colors of cabinets available from the firm, as well as specifications, illustrations and data.

GLASS FIREPLACE SCREENS—Illustrations of the Thermo-Rite glass fireplace screen, directions for its installation, and available sizes are included in literature available from The Thermo-Rite Manufacturing Co., Akron 4, Ohio. Complete details of how the unit works are given.

CARE OF ASPHALT TILE FLOORS—A folder containing complete instructions and recommendations on the proper care and maintenance of asphalt tile floors has been released by the Asphalt Tile Institute, 191 Park Ave., New York 17, N.Y.

PROMOTION BOOKLET FOR DEALERS—Illustrated 12-page promotion booklet to help electric range dealers plan full scale advertising and promotion programs is now being offered by Westinghouse Electric Appliance Div., Mansfield, Ohio. Selling helps include four 6-page folders that give a quick, visual presentation of the full time of ranges.

BUDGET BATHROOM—Plans, specifications and a photograph of an architecturally designed "Budget Bathroom" all assembled in an attractive four-color brochure are being offered to members of the building trades by the Universal-Renelle Corporation, New Castle, Pa.

BASEBOARD HEATING—The United States Radiator Corp., Detroit 26, Mich., has published a new 33-page booklet titled "Baseboard Heating with U.S. Radiant Baseboard," which, in addition to discussing the principles of radiant baseboard heating, is illustrated with pictures of installations, charts and floor plans. Method

AIR COOLERS—Latest Arctic Circle evaporative cooler catalog is available to building supply dealers and building contractors from International Metal Products Company, P.O. Box 1742, Phoenix, Ariz. Amply illustrated 20-page booklet contains engineering data, specifications and information on how to determine proper size of air cooler for specific requirements.
Everybody is getting more business with

MICARTA® PRE-BONDED TO PLYWOOD PANELS

now made in more sizes!

Now — you can get more and more of those profitable kitchen, bathroom and playroom remodeling jobs with Micarta — because the Pre-bonded Panels are made in FOUR convenient, economical sizes.

Micarta, you know, is the plastic surfacing material made by Westinghouse and advertised in such great magazines as Sat. Eve. Post and Good Housekeeping. All your customers know it is the ideal work surface—beautiful, lustrous colors, ultra-durable (practically proof against chipping, scratching or staining) and so easy to clean with just the swish of a cloth.

Best news of all for YOU is the fact that Micarta is now supplied in a perfect panel — permanently bonded to waterproof %" Weldwood plywood. Now you can cut, trim and install it just like plywood. And the new sizes cut down waste. YOU can use Micarta to get those better jobs.

Find out how. Mail the coupon for a free sample you can give the "third degree" and a complete Installation Guide.

MAIL THE COUPON
for a Free "Test Sample"
and the Installation Guide.

Manufactured by
WESTINGHOUSE
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UNITED STATES PLYWOOD CORPORATION + and U. S. -MENGEL PLYWOODS, INC.

UNITED STATES PLYWOOD CORPORATION AB-10-50
55 West 44th Street, New York 18, N.Y.

Please send free Micarta Sample and Installation Guide.

Name
Company
Address
City    State
Here's how you can save $85.87 on every 10 squares...

Do this—use ES-nails
Low-cost gypsum sheathing—sheets are pre-nailed—cost of bunking is reduced. (Simpler savings with wood shingles.)

Not this
Expensive, slow-to-erect wood sheathing—costing the building owner—costs sheets fastened with ordinary sheathing nails.

And here's why!

Old-fashioned wood-sheathed, building-paper-protected construction is expensive. Initial material costs are higher, and use of wood sheathing means ½ waste and double the application costs.

There's no need to put up with the higher costs of this slow, old-fashioned building methods. By using ES-nails and fastening shingles directly to gypsum or insulation sheathing, you can take full advantage of non-wood sheathing's lower unit cost, faster application, weather-tightness, and reduced waste. Wood stripping costs are eliminated.

ES-nails are easy to use. No special tools, no special skills are needed. Simply nail shingles with ES-nails. You can drive them in at any point—no need to locate studs or fasten the ES-nails are self-locking. They automatically clinch in back of the sheathing and hold fast.

For full information on the savings you can make by using ES-nails, call your supplier, or write: Elastic Stop Nuts Corporation of America, 2330 Van Dorn Road, Union, New Jersey.

NEW PRODUCTS
(Continued from page 70)

LOW-PRICED SAW

AB105033

New addition to Skill Home Shop Tool line is an 8½-inch portable saw, Model 563, which has a depth adjustment from 1½ to 2½ inches and bevel adjustment from 0 to 45 degrees. Built-in adjustments permit fast work on such jobs as molding plywood and bevel cutting 3-inch lumber at 45 degrees. Universal 115 volt motor operates on DC or AC current up to 60 cycles. Precision helical gears. Available with heavy-duty steel carrying case. Skilsaw, Inc., Depr AB, 5023 East Ave., Chicago 30, Ill.

POWER DRIVER BITS

AB105035

New line of Circle-Z Phillips power driver bits are made of chrome-molybdenum steel-grade tool steel, heat treated to produce a wear-resistant skin over a shock-resistant core. Stocked in four lengths, to meet varying conditions of screwing. Bits may be repeatedly renewed at low cost, without noticeable loss of effective length. Available in all standard Shank types to fit any electric and hand driver, and hexagon and square female adapters, or can be supplied to special Shank and length dimensions. Zephyr Manufacturing Co., Depr AB, 201 Honley Ave., Inglewood, Calif.

NEW STYLE LAVATORY

AB105014

TheCriterion lavatory is of solid slab vitreous china, and has smooth sweeping lines and curved front that blends with modern tile techniques. Large 30x22 inch top is flat, providing a wide area on either side of the 15x12½ inch basin on which toilet accessories can be placed. Exposed metal parts are finished in brushed chrome, and handles in crystal clear footed lucite. Controls are Crane Diadose. Overflow is concealed in front of basin, in white, and only of eight Crane colors.

Red Cedar Closet Lining

Brown's NATIONALLY ADVERTISED

100% oil content

100% oil content

Suggest Cedar Lined Closets to Every Home Builder. There is Nothing Better than SUPERCEDAR. Guaranteed 90% Red Heart or Better

100% oil content

SUPERCEDAR

Makes every piece you use today more valuable. Use SUPERCEDAR long after others have rotted or grayed. Guaranteed 90% Red Heart or Better (See full story, page 122.)

Elastic Stop Nut Corporation of America

A PRODUCT OF

Elastic Stop Nut Corporation of America


CERTIFIED SELLER

"They sure last...even in '76
when Granpap built that barn, he knew...

EVERYTHING HINGES ON HAGER!"

C. Hager & Sons Hinge Mfg. Co. • St. Louis, Mo.
Founded 1849—Every Hager Hinge Swings on 100 Years of Experience
NEW PRODUCTS

(Continued from page 122)

WASHABLE INSULATION BLOCKS

AB105020

"Wanderwall" 12-inch square insulating blocks have beveled edges and are tongue and grooved for perfect fit. Made of high-quality insulating board, permanently covered with Varon plastic sheeting with an antique-leather finish in a variety of wood tones and smart colors. The Varon plastic, made by Firestone, cannot be dented or torn, and results abrasion

DOUBLE-HUNG ALUMINUM WINDOWS

AB105006

New design in double-hung aluminum windows features a built-in hopper vent for controlled ventilation. Inswing vent is integral part of frame, and is equipped with white bronze sill. Finish hinges anchored in reinforced jambs blocks and with concealed sliding friction arms of stainless steel. Can be provided with mortise bays matching those specified in double-hung unit.

RECOMMENDED FOR SCHOOL AND HOSPITAL INSTALLATIONS: Sterling Windows, Inc., 365 Lexington Ave., Dept. AB, New York City 17, N. Y.

NEW GLASS SURFACE

AB105009

Textured glass and Frosted Flutes provide extra surfaces for Blue Ridge patterned glass. Slightly rippled finish on flat side of the glass will provide a decorative glass with medium amount of obscurity, and provide decoration for both sides of a wall while allowing light to pass between rooms. Both Linex and Flutes patterns have found wide use in modern homes for their decorative effect. Previously they were made with clear or Satin finishes, the latter provid- ing a high degree of obscurity. Libby Owens Ford Glass Co., Dept. AB, Nicholas Bldg., Toledo, Ohio.

THE REARDON COMPANY

St Louis 6, Chicago 9,
Los Angeles 21, Bayonne, N. J., Montreal 1

AMERICAN BUILDER
HEAVY DUTY SAW

Portable, heavy duty Lectra-Saw has fast operating adjustments that control depth of cut from 0 to 2 1/8 inches on ripping and cross-cutting operations. Clearly calibrated quadrant

on front of saw plus fast operating clamps make it easy to belt cut any angle from 45 to 90 degrees and up to 2 inch depth of cut. The 6-inch saw is ruggedly built for heavy-duty operations. Universal motor for use on 115 volt AC or DC current. No-load spindle speed of 4600 r.p.m. Length, 14 1/2 inches. Width, 9 3/4 inches. Height, 11 inches. The Bank & Decker Mfg. Co., 666 Pennsylvania Ave., Towson 4, Md.

POWER DRILL

Circa “Hand-Drill” is especially adaptable to working in close quarters and for all types of masonry work. It hits and rotates at the same time. Can be operated with one hand, leaving the other free to protect the operator when working on ladders, etc. Weight, 9 pounds. Operates at speed of 1800-2000 R.P.M., and has a 1/2 to 1/8-inch drill capacity. Length, without

WATER STABILIZER, FEEDER

New Clearstream water feeder, to be used in conjunction with Clearstream stabilizer, prevents corrosion and accumulation of scale and iron deposits in any water supply system. Proper amount of water can be directed through feeder with adjustable forced feed. Feeders built with traps to prevent air loading. Engineered to fit every installation. Supplied in 1/2 to 1 1/2-inch pipe sizes. Reynolds Shaffer Co., Dept. T-26, 12700 Cleverdale Ave., Detroit 4, Mich.

(Continued on page 126)

NOW!
Save 2 whole steps
on Dry-Wall jobs

with DRAMEX INTERIOR FINISH

Saves Time! Saves Work! Saves Money!

1. NO MORE SANDING!
With amazing new DRAMEX you don’t have to sand cemented joints before applying the final surface coat. DRAMEX hides uneven spots and blisters ... gives NEW, beautifully colored walls in one easy coat.

2. NO SECOND COAT
Just one coat of DRAMEX does the complete decorating job and gives you beautiful walls that look like lovely plaster. DRAMEX is available in 8 attractive decorator colors and white.

DRAMEX Resurfaces Cracked Plaster Walls, Too!

Fills cracks, mends small breaks, gives “living room” walls to any room, all in one coat. Comes in 8 popular shades and white. Many decorative finishes possible. Use DRAMEX on your next house. On sale most everywhere BONDEX is sold.

For Best Results in “Dry-Wall” USE REARDON’S JOINT CEMENT and REARDON’S JOINT TAPE

Reardon’s Joint Cement mixes and spreads easily, won’t burn through or discolor finish coatings. Reardon’s Joint Tape guides smoothly, sets firm, won’t wrinkle under the knife. For smooth, firm joints in plasterboard or wallboard use both IM 25-LB. BAGS AND 3-LB. PACKAGES plus combination package containing a 230-ft. roll of perforated paper tape and enough joint cement to run and bed this tape. Order now.

THE REARDON COMPANY
St. Louis 6, Chicago 9, Los Angeles 21, Bayonne N.J., Montreal 1
EVERY HOUSE NEEDS
SISALKRAFT PRODUCTS
FOR INSULATED DRY WALLS

NEW PRODUCTS
(Continued from page 125)

UTILITY TOOL
AB105030
A versatile utility tool can smoothly cut all types of wet metal, plastic and wood. Blade is 3 inches in diameter and made of high speed steel with a cutting depth of one-inch. Tilting table allows cutting at any angle up to 45 degrees. Equipped with a safety protecting guard rail, and more attachment which also allows cutting up to 45 degrees. Has additional 4-inch bracket disc and a tilting table for sanding.

AUTOMATIC DISPOSER
AB105016
Fast dehypration and ignition is featured in the new Calcoator automatic disposal unit, which has a sturdy, self-leveling, four-point suspension base. Built-in automatic draft and shock activity control assures efficient disposal of all types of garbage and burnable trash. Gas models have "Hi-Lo" burner principle which gives choice of moderate calcination for normal foods or, with a twist of the dial, a higher rate of calcination when needed. Calcoator Division, Dept AB, Valley Welding and Boiler Co., 1601 Water St., Bay City, Mich.

CONCRETE SAW
AB105035
The "Creaper" concrete saw eliminates chiseling and hand saw cutting and offers portability. With this unit contractors can quickly trim pre-cast slabs to special size or shape on the job. Unit features an electric motor, guide rails and a choice of either wet or dry cutting. Guide rails insure a straight clean cut and eliminate cutting blade breakage. For dry cutting, inexpensive abrasive blades are provided. All working parts are shielded by sheet steel welded into a compact unit. Use of unit is a one-man job. Mason-Fitzpatrick Corp., Dept AB, 2200 Military Rd., Buffalo, N.Y.

FOR QUALITY CONSTRUCTION AT LOW COST
MAIL THIS COUPON TODAY

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300 W. Wauchee Dr., Chicago 6, Ill.

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Address
City & State

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Trouble-Free
STARLINE CANNON BALL
DOOR HANGERS

EASIEST TO STOCK -- EASIEST
TO SELL -- EASIEST TO PUT UP
(No Brackets Needed)

* Ball like a ball in a self-cleaning
track. Bearings cannot pile up or
wear unevenly. Factory lubrica-
tion. Storm Apron and weather strip
prevent rain, sleet and snow from
washing down behind the door from above.

STARLINE INC. Dept 636, Harvard, Ill.
Please send me complete details on
Contractor's Premiums.

AMERICAN BUILDER
Turnout High at Cleveland, Detroit 'Good American Homes'

MORE than 65,000 persons inspected 15 demonstration homes as the Cleveland "Good American Home" program opened Sunday, July 9, according to Jerry Madigan, executive secretary of the Home Builders Association of Greater Cleveland, local sponsor of the event along with the Cleveland Lumber Institute and the Cuyahoga Savings and Loan League.

Sponsored nationally by the National Retail Lumber Dealers Association and the United States Savings and Loan League, the program is designed to show prospects, by actual budget figures, how they can afford to purchase homes on their income. Cleveland homes are in the $8,400 to $12,000 range and are intended to demonstrate that they can be easily bought by families with $3,000 to $4,800 (take home) incomes. Developer and co-ordinator of the plan is Ted Baldwin of Ted Baldwin, Inc., New York public relations firm.

Just prior to the opening, approximately 50 pages of advertising and editorial material were devoted to the project in special sections of three Cleveland dailies. Advance publicity covered a period of about three months. This was supplemented with radio and television spots, movie trailers, window displays, a budget worked out by Western Reserve University and a "Typical American Family Contest."

Phase "B" in Detroit

Detroit's second phase of the program was opened Sept. 1. The first part ran during January and February when 200,000 persons visited eight homes. A larger number of inspection houses are now available and higher attendance is expected, according to the sponsor, the Builders Association of Metropolitan Detroit.

As in phase "A," both the United Cerebral Palsy Association and its local affiliate, the Cerebral Palsy Society of Michigan, Inc., were invited to work with participating builders.

James Rossin of the Builders Association is chairman of the program and John D. Harrison co-chairman.

This is the way to balance windows . . . and weatherstrip them too!

ALLMETAL 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 sash. Allmetal Sash Balance gives 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 |  |
|  |  |
|  |  |

OCTOBER, 1950
LIGHTWEIGHT ROOFS

That Insulate...

With Sensational ZONOLITE® Vermiculite Concrete!

On your next roof, plan to build insulation right in with the roof itself. Short-spans roof decks of Zonolite vermiculite concrete combine insulation and structural strength in one material, one application, no other insulation needed. Zonolite mixed with Portland cement and water in place of sand or gravel weighs only 3/4 as much as ordinary concrete, frequently permitting great economies in structural steel. Saves time and extra materials on any job.

Consult us now, or send for details on the use of Zonolite concrete, or send for catalog, "Zonolite Vermiculite Insulation and Lightweight Aggregates."

Sales of Zonolite are sold by
LUMBER & BUILDING MATERIAL DEALERS

ZONOLITE COMPANY
Phone Central 6-5805 or Wype 135 S. LaSalle St. Chicago 3

NEW PRODUCTS

(Continued from page 120)

MACK SAW ATTACHMENT A105019

B-T hack saw attachment fits any 1/2-in. electric drill or drill press. With handle folded up to protect side blade, it occupies a space of 1x1, 1/4 inches. Weight, 11 ounces. Ratio of drill speed to saw speed is 2:1. Since there is no vibration, it is easy to cut a straight line with the B-T hack saw. Cuts through any wood, metal or plastic stock up to 1/4-inch thickness. Only exposed moving part is the hack saw blade. No gears or bearings. Detroit Engineering & Supply Co., Dept. AB, 3151 Main St., Kansas City, Mo.

JOINT RAKING TOOL A105022

A handy tool intended primarily for raking out old mortar joints when repointing, uses an ordinary common nail clamped between rollers with a thumb screw. It is set to the proper depth and the tool is rolled along over the joint,

the nail doing the raking out. Tool with a somewhat different insert could probably be adapted to use in raking out fresh mortar joints. Gold Blatt Tool Co., Dept. AB, 1912 Walnut St., Kansas City 5, Mo.

WOOD FIRE DOOR A105034

The Fox Wood Fire Door, with a one-hour fire rating label from Underwriters Laboratories, Inc., permits architects to take advantage of decorative effects of wood and offers fire safety at the same time. Prevents impregnation process...

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 4" stove pipe will serve for making connection between intake grill and exhaust fan;
Different, because it is QUIET, operating mechanism is mounted OUTSIDE the wall;
Different, because it is weatherproof hood draft dampers protect against heat loss, operating mechanism is housed in corrosion-free aluminum.

Yes, the Kitchen-Aire is different. Electrically operated, easily installed, the Kitchen-Aire adds that plus-value which makes new homes saleable. It is the last word in Kitchen ventilation, a feature realtors stress will like. Underwriters Approved. Advertised in Better Homes and Gardens.

STEWART MANUFACTURING CO.
3204 E. Washington Street,
Indianapolis, Indiana
"Westinghouse Appliances Throughout? I LIKE THAT!"

The BUY line is Westinghouse

When house hunters find Westinghouse Appliances throughout the houses you have for sale, they know you are giving them the best in everything.

You benefit, too! Your houses sell faster. And, with only one purchase source, one salesman to interview, one order to write, you save hours of time and bookkeeping.

Your Westinghouse Distributor handles a complete line of Appliances in models and sizes for the small, medium or large dwelling. Contact him, or us, during the planning stage. You'll find a co-operation that is most helpful.

WESTINGHOUSE ELECTRIC CORPORATION
Appliance Division
Mansfield, Ohio

YOU CAN BE SURE...IF IT'S Westinghouse
"You bet! I'm putting Master No-Draft Sash Balances like this in every window. They give the windows smooth metal tracks to run on, and their counter-balancing springs make windows easy to raise and lower. Think what a selling point this gives me, Joe: windows that always work right . . . windows with no ropes to break, no pulleys to rust. But that isn't all! These Master No-Draft Sash Balances weatherstrip the windows, too. That means they keep out dust, dirt, wind and water . . . and cold, besides. What's more, they cost less to install, because they don't need pulleys, cords, weights or box-frames. And MAN . . . you ought to see how easy they are to put in!"

MASTER NO-DRAFT SASH BALANCES ARE PRECISION-MADE of the finest, highly-tempered non-corrosive metal. They can't rust. Springs are correctly-tensioned to give perfect balance of the upper and lower sash . . . and snap, fingertip operation. These sash balances are made in a factory that's recognized by the industry as outstanding for its efficiency and the craftsmanship of its workers.

SMOOTH OPERATION IS ASSURED by Master No-Draft Sash Balances, because they automatically adjust for shrinkage and expansion in the wood. Runways are completely metal-covered and require no painting. (Of course, cross-members should be installed). Double contact prevents rattle when windows are open.

USED BY THE U.S. GOVERNMENT AND PROMINENT BUILDERS all over the country. Master No-Draft Sash Balances are tested to mechanical perfection. They make windows neat and weathertight — and there's nothing to cause trouble. You can forget maintenance!

See Our Catalog in Your's for:

NEW PRODUCTS (Continued from page 128)

HORIZONTAL FLOW CHECKS AB105023
Taco horizontal flow checks prevent hot boiler water from flowing to heating system when circulator is not running, thereby permitting boiler to be used for domestic hot water summer and winter. Features include bronze spring cushion, bronze working parts, and visible three position adjustment. Seat is easily cleaned by moving adjusting lever up and down with circulator running. Sizes available from 1-inch to 3-inch. Taco Heaters, Inc., Dept. AB, 137 South St., Providence 3, R. I.

PLASTIC WALL TILE AB105026
New Vista line of Coronet plastic wall tile has precision-matched edges where tiles butt that allow each tile to directly contact the next without the usual seal of mastic. Broad beveled area on each side of joint is easily wiped clean of mastic by the applicator. Walls of Coronet are free of grooved joints. Piped appearance of tile gives illusion of great thickness. Line includes sixteen colors. Hachmeister, Inc., Dept. AB, 2312 Forbes St., Pittsburgh, Pa.

BUILT-IN GRIDDLE AB105036
Thermador built-in griddle, like other cooking units offered by this firm, can be built in to suit the design demands of architect, builder or home owner. Large size fine grained aluminum grid provides quick and adequate service. Flush handles facilitate removal for cleaning, and recessed grease cup is easy to remove and clean. Thermador Electrical Manufacturing Co., Dept. AB, 5119 District Blvd., Los Angeles 22, Calif.

ASPHALT TILE AB105007
De Luxe Special Kalamata line of asphalt tile features four new light colors: Genoa green, light green with white and dark green marbling, Hippopotamus gray, gray with black and white marbling, latiroc, cream with yellow and red marbling, and Rouge Antwerp, bright red with white marbling. Tile can be easily cleaned with mild soap and water. David E. Kennedy, Inc., 58 Second Ave., Dept. AB, Brooklyn 14, N. Y.

(Continued on page 132)
Wherever chemicals abound, as in chemical plants, dairies, 
breweries, seaside areas, mines, well holes, the new Type AZ 
Cable insulated and sheathed with VINYLITE Brand Plastics is 
winning top-of-the-class honors!

This non-metallic sheathed cable, reinforced with glass fiber, 
not only resists alkalies and most strong acids, but has a phenomenal 
ability to withstand moisture, fungus and aging. VINYLITE 
Plastic has remained unharmed after seven years' immersion in 
water—and twelve years' burial in the ground.

In addition, it provides utmost resistance to flame, 
sunlight, extreme heat, cold, and abrasion.

Non-metallic sheathed cables using VINYLITE Plastic 
materials are smooth, small in diameter, clean to 
handle, easy to install, mar- and impact-resistant, and 
highly flexible. They slip easily through narrow spaces 
and around sharp corners without damage.

Combining low cost with long life and 
dependability, these highly chemical resistant 
cables represent a big advance in 
general-purpose electric wiring. It will 
pay you to investigate further. For full 
information, write Dept. IK-64.

Data courtesy The Plastic Wire & Cable Corp. 
Jewett City, Connecticut
PRECISION FOLDING STAIRWAY

- No springs—Actuated by counterweights
- Easy to operate
- Safety treads on steps
- Insulated door panel
- Requires no attic space
- Shipped in one package

Write for full information

NEW PRODUCTS
(Continued from page 130)

CHIMNEY RAIN CAP
A 6 in. rain cap and shield for the products, all-out Tudor chimney, is attached to the ventilating chimney pipe, and is said to prevent water from entering the flue even during hard downpours. Topside louvers along each edge of metal fitting allow smoke to escape from ventilation area. Air currents can circulate freely between the two aluminum ducts that inter the R.C. The chimney is self-cooling, non-condensing. The Majestic Co., 300-A Erie St., Huntington, Ind.

CUTAWAY DEMONSTRATION
(Continued from page 95)

Spotlight enable the visitor to see these features clearly.

Where there is any possibility of anyone falling, openings are protected by railings. The foregoing, of course, are merely the high points of the lecture. The salesmen elaborate on all of them according to the expressed interest of the audience, and with special reference to the competition offered by other builders. A folder with a resume of all the features discussed is given to every visitor. It points out minimum standards, states that over 20 individual types of skilled craftsmanship are required to construct a single home, and concludes with the statement that the home of 1930 is just as superior in every way to the home of 1920 as the automobile of today is compared with its prototype of 30 years ago. Unfortunately, says the folder, most of the workmanship in a house is concealed. The purpose of the X-Ray house is to acquaint the public with quality construction; “and serve as a guide in judging our homes or any other.

Posters at strategic points indicate the way to the X-Ray house in Foster Park, and invite everyone to inspect it. Regular newspaper advertising brings through on weekend, and the X-Ray house immediately began to demonstrate its usefulness as a sales tool. Corkhill has stated that the home, combined with several fully furnished houses adjacent to it, gives him the best selling ammunition he has ever had.
When Royal Oak Flooring goes to college...

... it "stands the gaff" in dining room or dormitory.

Reasons:

Tongue and groove are designed to fit without forcing.

Thorough seasoning prevents cupping, buckling or opening up.

This seasoning protects oak's natural strength and texture, promoting adequate absorption of wear-resisting finishes.

You can depend on these essentials of fine floors when you install Royal Oak Flooring. Look for the trade-mark at your local dealer's or warehouse. Write for specifications.

CROSSETT LUMBER CO. CROSSETT ARKANSAS
New Material . . .

(Continued from page 99)

of erection, low cost, fire resistance and high insulating value.

President of the American Bildrook Company is Thomas H. Coulter, former vice president of Universal Zonolite Insulation Company, who for the past five years has been associated with Booz, Allen & Hamilton, management consultants, as a partner. William Wood Prince, president of Union Stock Yards & Transit Company, is chairman of the Board. William Wadsworth Wood, publisher of Small Homes Guide magazine, is a director and will act as consultant for the company on new products that will further the company's objective of producing better homes for more people within their ability to pay.

In stating the objectives of the American Bildrook Company, Mr. Coulter outlined the company's plan to use locally produced raw materials in a decentralized manufacturing program that will greatly reduce shipping and handling costs. He stated that the cost of distributing, shipping and handling building materials currently amounted to more than double the actual cost of materials due to the long distances they had to be shipped, and the number of times they were handled before reaching the construction site.

Through a system of licensee manufacturers operating plants in every major trading area in the United States the American Bildrook Company plans to manufacture its products so close to the point of consumption that shipping and handling costs will be reduced.

Through a new process, the company is able to combine two low-cost materials, namely, insulating aggregate and portland cement, into a wall panel that can replace from four to six separate materials ordinarily used. Inasmuch as insulating aggregates and portland cement are produced locally in almost every state, it is expected that great savings in material cost will result. The job erection time should also be greatly reduced because the panels are made in large sections measuring 8 feet long, 16 inches wide and about 4 inches thick, and light enough for one man to handle. Two men can erect the complete walls for an average size five-room house in two days. Mr. Coulter stated that the use of insulating aggregates was expanding at a rapid rate and that a great new industry was developing as a result.

The company is building a plant to

HAR-VEY ROLLING DOOR HARDWARE

Introduces an Economical

New Hanger for Wardrobes

Exclusive new features that save time, trouble, and money!

Quick, simplified installation

Space between doors can be varied

Less headspace is required

Track can be used for trim in cabinets and show-cases, because hardware is mostly concealed

Economically designed for lower cost

Quality-made of 100% rustproof materials with extruded aluminum track

Learn all the advantages today—mail this coupon now

Address: Hardware Division O

Metal Products Corporation

807 N. W. 20th St. Miami Florida

Please send me your free folder on rolling doors & Har-Vey Hardware

NAME

COMPANY

STREET

CITY

STATE

AMERICAN BUILDER
"The time my Ford Truck saves me means money in my pocket!" — says ROBERT P. UETZ
BES MOINES, IOWA

"The fine performance and efficiency of my Ford Pickup in construction work has saved me many dollars," says Robert P. Uetz.

"Previously, I drove a car from job to job. Now, because of the fine performance of my Ford Truck, I leave the car home. One of the many reasons why I'm pleased with my Ford is that I don't waste time with it being repaired. Any time I save means money in my pocket."

This is the kind of truck-worthy performance and economy that is switching more truck users to Ford than to any other make. Join the Big Switch to Ford economy. Choose from over 175 models—95-h.p. Pickups to 145-h.p. Big Jobs. Get your choice of V-8 or 6-cylinder power. See your Ford Dealer today.

Ford Trucking Costs Less Because—
FORD TRUCKS LAST LONGER

Using latest registration data on 6,592,000 trucks, State insurance experts prove Ford Trucks last longer!

OCTOBER, 1950
It's the RIGHT ANGLE
for Tough Spots...Faster Jobs
CUTTING COSTS

You'll be amazed at the cost-cutting, time-saving and accurate performance — in both construction, and plant maintenance — of this remarkable new TRI-SPEED HOLESHOOTER with its 2-speed "Right-Angle-Drive" attachment. See complete kit below.

This tool not only speeds up work in the tightest corners, but also provides the right speeds for boring with bits of every size, including expansive bits and holesaws. Pays for itself on a couple of jobs. Also suitable for drilling in steel, and concrete with carbide-tip drills.

See Your Distributor
If he cannot supply you, write us and mention his name. Immediate delivery, "You'll buy if You'll Try".

MILWAUKEE ELECTRIC TOOL CORP.
5356 West State Street, Milwaukee 8, Wisconsin

Heat Waste—A Quiz for Building Owners

Some building owners are losing money through heat losses from insulation faults in their heating systems which, if eliminated, can bring substantial returns on comparatively small investments. The Magnesia Insulation Manufacturers Association offers the following quiz to check on the efficiency of insulation methods of heating equipment in buildings:

1. Are all major pieces of equipment and piping insulated?
2. Are flanges, fittings and valves insulated?
3. Are condensate or hot water return lines insulated?
4. Has damaged insulation been repaired or replaced?
5. If insulation has shrunk excessively, exposing bare pipe at insulation joints, has it been repaired or replaced?
6. If insulation has deteriorated so as to impair its insulating value, has it been replaced?
7. Are insulation thicknesses economical based on today's fuel costs, insulation costs, operating temperatures, hours of operation, conductivity of insulation and rate of deterioration of insulation?
8. Have special protective finishes been applied at points where mechanical abuse, excessive moisture or other hazard to insulation is likely?
9. Have repairs been made to torn, broken or otherwise damaged finishes?
10. Have loosened tie-wires or bands been tightened and corroded tie-wires or bands replaced?

Each "yes" answer rates 10 points. "No" answers are zero. A score of 90-100 indicates a well insulated system; 80-90—minor improvements are required; 70-80—major insulation changes needed; below 70—need for thorough survey by engineer.

New Material...

(Continued from page 2/4)

mass produce its new materials in the Central Manufacturing district in Chicago. This model plant will be duplicated in principal cities and culminates a research and development program carried on for the past five years. During this time, several hundred homes have been erected in various cities to test the material under a wide variety of climates from Florida to Canada. The material and construction is FHA approved.

The new A.R.C. materials will also have wide application in commercial structures and industrial plants as fireproofing and soundproofing plasterers, acoustical tile, and high-temperature insulating materials such as cements, pipe covering and bricks.

Milwaukee TRI-SPEED
Kit for Contractors...
1 5-1/2" HOLE-SHOOTER. ball
and roller-bearing assembled. $25.00
2 "Two-Speed Right-Angle-
Drive" attachment. $10.00
3 Special bits for box. $4.00
4 Special wrench for attach-
ing and adjusting "Right-
Angle-Drive" and Chuck. $1.00

$87.00
Adjustable "Long Arm" Accessory...
$24.50 EXTRA *Post. Pending

Milwaukee QUALITY TOOLS

AMERICAN BUILDER
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 \( \frac{1}{2} \)" 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.

VAPOR 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 Bildrite 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.
has EIGHT focal selling advantages

VANITY SECTION
1. Hollywood make-up bar
2. Adjustable traveling mirror
3. Full-length wall mirror

BATHING SECTION
4. Luxurious Meadow Corner Tub
5. Private shower stall

LAVATORY SECTION
6. Beautiful Chateau Lavatory
7. Tri-sieving mirror and concealed medicine cabinet

WATER CLOSET SECTION
8. Privacy and comfort with automatic Century Water Closet

These are exciting new ideas that increase home value without increasing building costs.

Designed by Architect Paul Revere, the UNIVERSAL-RUNDLE "Husband-n-Wife Bathroom Suite" has beautiful Universal-Rundle features for permanent efficiency, maximum comfort.

For free illustrated building plans and information about the entire Universal-Rundle line of Bathroom Fixtures and Kitchen Equipment:

How to Build Garages

(Continued from page 136)

supported; footings should be at least half as deep as they are wide. If, for example, standard 8 by 8 by 16-inch concrete block are used for the garage supporting walls, the footings (which must, of course, be below the frost line and on firm soil) should measure eight inches deep and 16 inches wide. Concrete for these footings should be machine-mixed in the proportions of one sack of portland cement to 2 1/2 cubic feet of ordinary damp sand and four cubic feet of course aggregate. Not more than 3/2 gallons of water should be used per sack of cement.

As much attention should be given masonry walls for a garage as would be given such walls in a residence, especially if economy and durability are to be attained; that is, these walls should be laid up plumb with straight, uniform courses and aligned joints. Construction of walls is facilitated by the use of special masonry units such as corner block, jam block and precast lintels and sills.

A recommended mortar mixture should be made in the proportion of one sack of masonry cement and between two and three cubic feet of damp, loose mortar sand. Although other courses in the garage wall have face shell bedding only, the initial course on the footing should be laid in a full bed of mortar. All mortar joints should be 3/4-inch thick and firmly compacted. The standard modular concrete masonry unit is designed for use with a 3/4-inch-thick mortar.
Use of Steel Floor Joists
Speeds Project Construction

IN CONSTRUCTION of 40 new residences in the Newton Grove section of East Memphis, Tenn., Leightman-Petterson Builders are using Junior Beam floor joists in ranch-type homes. The first 22 two-bedroom homes selling for $9,850 and three-bedroom houses for $10,900 were sold before completed, within 60 days after the first shovel of dirt was turned in the development.

These homes, styled in combinations of brick and cedar shingles and brick and wood siding, are the first with steel floor frame construction in the medium-priced bracket in Memphis. Large picture windows at the rear in living rooms take advantage of the depth of the 74x180-foot lots on which the homes are situated. Plans were designed by Fares and Sanford, architects; Charles E. Williams, associate.

Supported by concrete wall foundation and by concrete piers, Junior Beam joists for an entire home containing 965 to 1,050 square feet were assembled on the job in less than half a day. Wood nailing strips, 2x2 inches, were clipped to the tops of the beams. Over them a two-inch tongue and groove subflooring was applied, and hardwood floors installed. These thick floors have higher insulation values than those of conventional construction. Steel, given a red lead protective coat, is not subject to rapid deterioration. With its use, the possibility of insect infestation is lessened.

The cost differentials of using Junior Beams are nominal, Herman Leightman said. The steel beams can be bolted securely together and assembled on the job quickly, and fewer concrete piers are required for support. The saving from these two sources offset the slight increased cost.

Junior Beams, an exclusive product of Jones and Laughlin Steel Corporation, are the lightest weight hot rolled structural members manufactured. In the first 22 homes completed, a total of more than 26,000 pounds of beams with six-inch and eight-inch web depth were fabricated and erected by the Toma Machine and Supply Company, Memphis.

All of these homes have steel kitchens; some have dishwashers. Central heat is controlled by room thermostats. Financing the development and sales handled by the Guaranty Realty Company, is the Guaranty Mortgage and Trust Company. The houses are FHA and VA approved.

Sargent Integralocks are the perfect complement to modern construction—chosen by ever increasing number of builders because of their ease of installation, their beauty and their moderate cost for a lock of such high quality. Sargent and Company, in designing the now famous Integralock, successfully combined all the advantages of the conventional mortise lock together with those of the heavy duty deluxe unit type lock. The result is the newest and most useful lock available for all types of construction.

Attractive modern exterior design with key in the knob action, precision parts permanently sealed in a compact, tamperproof case, all required functions from one size of lock case, permitting precutting of mortises, the Integralock is the answer to the builder's wish for an efficient, modern lock, quick and easy to install.

Write your nearest Sargent distributor for data on the Sargent Integralock.

Sargent and Company
45 Water Street
New Haven, Conn.
Paine Rezo Doors

beauties from every point of view

Look Inside
interlocking wood mesh core provides dimensional stability

Look Outside
plywood faces are matched for figure and color

Look Onside
1 1/8" standard thickness for unsurpassed rigidity and strength

and Look

at the Unconditional Guarantee of Satisfaction

a product warranty backed by more than four million installations and 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 Sweek's File or write directly for data bulletin.

Manufactured by the
PAINE LUMBER CO., LTD. Oshkosh Wisconsin
Established 1853

Letters

(Continued from page 79) of her prizewinning design)

Sir... Several people have written to me asking for the plans to my house, and I have referred them to you. The most interesting request came from a group of Latvian displaced persons sponsored by John W. Brahm-er-Smith who want to build the house in Washington, D. C.

From the mail I have been receiving I suppose I shall never hear the end of this contest. at least I hope not!

Betsy Bell

Sir: As we are planning on building a tourist court in the near future, we are inquiring for information. Will you kindly send us the following tear sheets...

May 1940, pp. 50-51
June 1940, pp. 70-71
July 1940, pp. 68-69
August 1940, pp. 58-59...
May 1941, pp. 76-77
July 1941, pp. 48-49
March 1942, pp. 45-47
May 1944, pp. 54-58
June 1946, pp. 106-107
August 1946, pp. 90
May 1948, pp. 106-107
Sept. 1948, pp. 106-109
March 1949, pp. 84-85

Ernest W. Drackett
Drackett & Kellent
Real Estate
New Orleans 12, La.

Editor's Note: Yes, American Builder is and has long been a reference book. It is not unusual to receive requests for material that appeared in issues twenty years ago. We are always happy to honor these requests whenever possible, although in many cases our supply of certain issues is depleted.

The Editors

Department Store...

(Continued from page 95)

Buying power of women is recognized in the Grossman paint departments. Household items with a distinct feminine appeal are stocked and displayed invitingly. These include waxes, steel wool, and other household equipment. The paint departments include several varieties of floor coverings. These are supplied with complete instructions for their use and with necessary materials for their installation. Colorful materials of this type have a special appeal to women, says the Grossman management, and this is emphasized in their paint department advertising.

Present manager of the new Grossman store in Malden is Dan Segal. His brother, Charlie, is general supervisor of all Grossman branches.
Here's the biggest news in decorative surfacing! It's Panelyte... St. Regis' new, beautiful, high-pressure laminated plastic for all working surfaces. See Panelyte's glowing, true-as-life colors... striking patterns... visualize the countless decorative possibilities in the design and creation of beautiful necessities. Then look below the surface, at the technical advantages Panelyte offers... Panelyte is hard, dense, strong and tough. It is harder to mar... withstands heavy impacts... resists abrasion as no other plastic surface does. (We've tested... we know.) Panelyte won't swell or shrink... is easy to work. Its big sheet size (up to 48" x 120") makes for easier, more economical installation with fewer seams.

Whether you're specifying surfacing materials for interior use... manufacturing a product that calls for such materials... using plastic surfacing in any way... it will pay you to find out all about new, beautiful Panelyte. Just use the coupon below.

See what Panelyte can do

1. WHERE THINGS GET TOUGH Panelyte stands up... takes boiling water, fruit acids, alcohol, soap alkali, cleaners and detergents in stride. (Does the same with cosmetics and astrigents, too, in bathrooms and powder rooms.
2. CLEAN AS A WHISTLE—Panelyte cleans easily, instantly... just a damp cloth keeps it gleaming. Maintenance? At a minimum!
3. CIGARETTE-PROOF Panelyte offers extra protection against forgetful smokers... may be specified in any installation.
4. VERTICAL SURFACES Versatile Panelyte brings new beauty to walls, cabinet facings, interiors, all "up and down" surfaces Panelyte won't scuff, chip, crack, dent or discolor... is non-absorbent, won't pick up stains or odors.
5. BIG SHEET SIZE (48" x 150") means easy, economical installation... fewer "joints"... greater beauty.
Biggest Value in the Building Field

3 YEARS FOR $5.00
(36 issues)

1 YEAR FOR $3.00
(12 issues)

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—hotels—shopping centers and farm 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 1/4-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.

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 Builders and Contractors:

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AMERICAN BUILDER
5 NEW FEATURES in this famous DEWALT power saw!

1. **DOUBLE ROW grease-sealed-for-life BEARINGS**
   Double row bearings on carriage head mean more rigidity—
   and greater ease of operation.

2. **4 MOTOR CAPACITIES**
   Available in:
   - 2 H.P.
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3. **TOTALLY-ENCLOSED FAN-COOLED MOTOR**
   At no greater cost
   than open motors.

4. **2 ARM LENGTHS**
   You can cross-cut 1" stock in 16" and 24" widths, and rip a maximum of 36".

5. **LOW DEAD RISE 12% DEEPER CUT**
   Flat surface on bottom
   of motor permits
   greater use of cutting tool.
   You can use 14" saw blade
   and get 4½" cut.

"This DeWalt builder's saw has always been the best—
how could you make it any better?"

That's what one contractor said to us.

Well, we have made it better... better in five different ways—and at no extra cost to you.

These improvements in your "builder's saw" have been made to help you stay ahead in this fast building market—
so stay ahead and keep making money!

The DeWalt GR, as it now stands, cannot be equalled
by any other radial saw in its low-price class. It's your saw—guaranteed to give you top performance and
unrivaled, long-life dependability.

Ask a DeWalt dealer to show you this model. See it
demonstrated! You'll want to own it.

FOR THOM AND MILLIVORIT, ask also to see the
new, improved DeWalt Model GW—6½ H.P. and 1 1/2 HP,
with new low dead rise motor, allowing 24" depth of cut
with 10" blade. It's portable—can be easily carried inside!

DE WALT, INC., 110 Fountain Avenue, Lancaster, Pa.

Please send me literature and complete specifications on
the new DE WALT GR and GW.

Name __________________________
Address ________________________
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Another FIAT Shower that has a definite advantage for Builders...

Corner Cadet MODEL 21

Wherever a corner type shower is specified the Fiat Cadet Model 21 is a perfect natural for the job, much lower in cost than any built-up type corner shower. The graceful lines of the Corner Cadet blend smoothly into the bathroom walls to give the effect of a custom built installation. Its beauty is in harmony with the finest bathroom fixtures.

The Fiat Dolphin or Zephyr glass door is available for the corner Cadet and adds materially to the appearance and utility of the shower installation.

The usual Fiat high quality of construction and materials are used throughout. Bonderized galvanized steel walls finished in white baked-on synthetic enamel. Special colors available on order. No exposed screws, give a smooth sanitary interior. Overall size 36” x 36” x 80”.

The corner Cadet is one of our most popular shower models.

Use coupon for catalog of complete line of Fiat showers.

FIAT METAL MANUFACTURING CO.
THREE COMPLETE MANUFACTURING PLANTS
(Chicago area plant) Franklin Park, Ill.,
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In Canada: Fiat showers are made by Porcelain and Metal Products, Ltd., Orléans, Ontario

Please send catalog of Fiat Showers, Receptors and Doors.

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FIAT METAL MFG. COMPANY • 8301 Belmont Ave. • Franklin Park, Ill.
NEW 8" HEAVY-DUTY LECTRO-SA W
Only $84.50

for POWER SAWING
at a POPULAR PRICE!

Popular price, heavy-duty construction, modern design... that's the right combination that makes the new 8" HEAVY-DUTY LECTRO-SAW perfect for you! This new, outstanding leader in popular-priced portable saws gives you such job-proven features as built-in depth and bevel adjustments, abundant power, perfect balance, close-coupled design, ball-bearings throughout, complete safety and a superlative motor developed by Black Decker especially for power sawing... all at a remarkably low price!

See your building supply, lumber or hardware dealer today for free demonstration. Write for detailed catalog to: Home-Utility Division, BLACK & DECKER Mfg. Co., Dept. H-666, Towson 4, Maryland.
Some Observations on Liability for Negligence

By John S. Mason

General Counsel, Drew Corporation

The law is nothing but common sense and good grammar. The latter involves principles of good and complete language; written or spoken, arrangements should be definite and complete. The writer must say exactly what he means—no more and no less—in legislation, deeds, mortgage, lease, wills, trusts, insurance policies, contracts, specifications, proposals, purchase orders, and everything else. The fine print is an essential part of modern business transactions.

Today I emphasize common sense—the common sense aspects of negligence. The definition of negligence is doubtful. It means the opposite or lack of due diligence or care. The lawyer regards it as a violation of a duty to use care. Generally it means fault. As applied to our activities it might mean faulty or improper design; selection of inadequate materials; poor or insufficient inspection or testing; faulty planning of the sequence of work and operations; or shoddy construction itself. As a practical matter it can mean almost anything.

Negligence and care include acts of omission as well as commission and run through all the activities of life. Let me just single out a few typical situations and make some observations.

The law deals with relationships and the duties and responsibilities which follow those relationships. The thief who breaks into a grocery store and falls into an open trap door has no claim against the proprietor; it is a different picture if a customer has a similar fall.

We have the problem of trespassers on construction jobs. Our only obligation to adult trespassers is to refrain intentionally causing them injury. In other words, they take the premises as they find them. It is not so with trespassing young children. Everyone knows that children are attracted to construction sites, abandoned structures and idle machinery. If children are in the locality the law takes the position the owner or contractor knows or should know they will come there to play and it can be reasonably expected they may be injured. In such case the law imposes an affirmative obligation to take all reasonable precautions to prevent access or otherwise eliminate the hazard. Just the other day our underwriters settled a claim on behalf of a young boy who, (Continued on page 148)
BUILDING MATERIAL DEALERS FROM COAST TO COAST ARE FEATURING IT!

the Thomason flush door (All-Wood Throughout)

It is one of the fastest selling Flush Doors on the market today. That's why practically the entire production facilities of one of the two plants of the THOMASON PLYWOOD CORPORATION in Fayetteville, N. C., are now devoted to the manufacture of the THOMASON Flush Door.

If you are not stocking this fast seller, it will be definitely to your advantage to investigate the sales possibilities in your territory.

note

THESE CONSTRUCTION FEATURES

The interior or core of the THOMASON Flush Door is constructed from plywood strips, placed in a vertical position, spaced approximately 1" apart; the cross members (of poplar) and rails are securely butt-jointed to permit normal expansion and contraction; lock blocks on both sides measuring 3" wide and 23" long, plus the 1½" stile, provide a lock area 4½" x 23" on both sides; all face veneers, produced from finest quality foreign and domestic woods, are carefully matched for color of wood, figure of grain and for similarity of color and figure on both sides of the door.

AVAILABLE WITH THESE FACE VENEERS

In addition to the Gumwood-faced door that provides a satin-smooth surface for easy staining or painting, the THOMASON Flush Door comes faced with veneers of Mahogany, Walnut, Oak and Birch.

THERE IS ALSO A THOMASON FLUSH DOOR FOR EXTERIOR USE

Available either plain or with any one of the three standard patterns of light opening. Or you may have the THOMASON Flush Door with a solid all-wood core, faced with all types of veneers.

DON'T DELAY

If you do not know him, write today for the name and address of your distributor.
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.

**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!

**Liability for Negligence**

(Continued from page 146)

Liability for negligence is a question of care or neglect under all the circumstances and background of the particular occurrence.

In especially hazardous situations such as those involving use of explosives or installations of an experimental nature inherently dangerous, the law passes from liability based on negligence to absolute liability. In other words, liability for injury or loss regardless of the maximum of care used and the absence of any fault. In this connection bear in mind the law's point of view is hindsight. The accident often speaks for itself. Less powder should have been used in the charge or the tank which exploded should have had heavier plate.

Negligence usually results only in civil liability, whereas a finding of criminal negligence is a criminal negligence. Construction superintendents have been charged with manslaughter.

Liability attaches to all negligent actions. I have noticed particularly among engineers a belief an engineer is not liable for loss resulting from his negligent design of a structure and its consequent failure—or any other fault resulting in injury. This is completely erroneous. The doctor who performs an operation, and the lawyer who seizes the title and the engineer who designs a bridge are all liable for losses resulting from mistakes they should not have made. Everyone is liable for injuries naturally resulting from his actions—or inactions when there is a duty to act. If the individual is working for another the employer is also liable. When our truck driver is involved in an accident as a result of his negligence the corporation is liable to the persons injured, but so is the driver.

I often hear the remark the risk involved in the sale and installation of...
New, powerful, heavy — and perfectly balanced to make sanding jobs easy and speedy. Jobs like surfacing large area panels, leveling joints in cabinet work and trim — taking off stock from edges, doors and millwork — doing various prefabrication operations in the mill or on the site — and many other heavy-duty applications. Makes quick work of boring, chamfering and rounding corners. You'll be amazed how easily this powerful sander handles — doing a super-smooth job in only a fraction of the time required by hand methods.

Super-Features Make the Speedmatic 500 an Outstanding Buy

Greater Maneuverability through perfectly balanced weight distribution — low center of gravity — firm rest on broad belt. Improved Dust Collecting System with a low position bag that keeps out of your way and can be moved to right or left of handle. Air Cooled Motor with a silent chain transmission. 12 sq. in. of Working Area for uniform, gouge-free, large area sanding. Plastic front and rear Grips that won't chip or peel — will keep cool.

It's the last word in belt sanders for big jobs. See the pace-setting new Speedmatic 500 at your dealer's today.

The BALANCED Line

PORTER-CABLE Machine Co.  3010 N. Salina St.  Syracuse 8, N.Y.
Manufacturers of SPEEDMATIC and GUILD Electric Tools
In Canada write Strongridge Ltd., St. Catharines, Ont.
KEY TO ILLUSTRATION:

1—FURNACE is 80" high, 20" deep, 30" wide. 2—PARTITION wall cut away shows how furnace is set in wall to extend out equally each side (7" for a 6" wall) 3—FURRED OUT wall above furnace both sides provides ample room (20" x 30") for a 4—PATENT FLUE, which comes down from above. (Or brick chimney constructed at side may be used.) 5—WARM AIR discharge grilles, 8" x 27", both sides. 6—RADIANT PANEL, 12" x 49", one side. 7—COLD AIR intake grilles, 10" x 27", both sides.

Important Home Selling Features

Fully automatic operation, electric ignition and controls (manual control also available) ... burns low cost furnace oil ... occupies minimum space, permits wall to wall carpeting radiant panel one side and large grilles both sides assure excellent heating job ... ample capacity — over 60,000 BTU output per hour.

Liability for Negligence

(Continued from page 148) a $1,000 job is not important — on the theory our maximum liability is the purchase or contract price. This is without foundation. A catastrophe may result from our furnishing a small defective part just as the same as from our engineering and construction of a complete power plant, and we are liable for the consequences. The price we received is not relevant. If we volunteer to do work for nothing, and do it negligently—we are liable for the consequences. The law says that if you do you must do it right.

Assuming negligence — what is the extent of the liability? The answer is: all the loss or injury which can be reasonably anticipated to follow. If waste fuel oil is discharged into a river in an industrial area and it is reasonably foreseeable it might become ignited, it is no answer that you did not think you would set the river on fire and destroy docks and piers several hundred feet down the river. Similarly the harge which is not properly tied up, get loose, drifts and collides with other craft or moorings below. This could readily have been foreseen. The lawyers call it proximate causation — liability attaches to all the proximate consequences of the negligent action or inaction. Sometimes this may be a chain reaction set off by the negligent act but all the subsequent events normally can be expected to follow from the action and so the law attaches liability.

I have not mentioned contributory negligence. Contributory negligence bars recovery, the theory of the law being if both parties together negligently caused the loss to recover from the other regardless of the respective degrees of fault. An exception is the marine rule of dividing damages. If two automobiles collide, each suffering the same amount of damage, and one was 10% responsible and the other 90%, or both were equally at fault but one incurred 10% and the other 90% of the damage, neither may recover from the other. If the automobiles were towboats the total damages in both cases would be borne on the basis of the relative negligence of each.

One cannot contract himself out of liability for his future negligence. At one time or another you have all signed releases prior to entrance into plants or factories. The releases purport to waive and release all claims for injuries which may be sustained while on the premises. These releases are of no effect legally if the injuries are the result of negligence. The policy of the law is that no one is to be permitted to be negligent, even with the permission.
MODERN, SPACE-SAVING

STANLEY SLIDING DOOR HARDWARE

Builders and home owners everywhere are using more and more modern sliding doors. Why? They save precious space! And their smart lines, smooth, quiet operation, and compact design add up to greater comfort and convenience.

Get the most from this big new market by handling "Stanley" hardware. Modern design includes V-shaped track, simple screw driver adjustment after installation without removing trim. Every detail conforms to famous Stanley standards. Complete plans packed with each set.

THE STANLEY WORKS, NEW BRITAIN, CONN.

STANLEY

There's exactly the right Stanley Hardware for all these installations—and many more!
WITH SYMONS FORMS

Here you see a typical house foundation form layout that can be set-up by 3 men in 4 hours. There are 173.4 square feet of forms. Cost of erection at $2.00 per man hour is $24.00 or 13 1/4 per square foot. Stripping can be completed within 2 hours at a cost of $6.00 or 15 1/4 per square foot.

TOTAL COSTS PER SQUARE FOOT OF FORMS

| Setting-up | 1 1/4 |
| Stripping | 1/4 |
| Form Cost (per use) | 1 1/4 |
| Tie Cost | 1/4 |

Forms average 75c per square foot. With 50 uses (100 uses is common) the per-use cost is 1 1/2c. Tie hold 8 square feet of forms. At 3c each the tie cost is 1 1/2c per square foot.

Symons Forms are available completely made up ready for use or you may purchase the hardware for building your own forms. Forms can also be rented with 60-day purchase option. Paid rentals apply on purchase price.

SYMONS CLAMP & IRG. CO.
4361 West Diversey Avenue, Chicago 39, Illinois

Information regarding Symons Panel Forms

Information regarding Symons Panel Forms

NOVEMBER ISSUE
Gypsum Products—
Their use in remodeling
and in new construction
No question about it! In these five homes — and throughout the country — the combination of convection heating and Tuttle & Bailey Convectors meets every homeowner demand for efficient heat distribution...constant, gentle circulation of room air means even temperature from floor to ceiling, no stratification or drafts...and fast response to thermostatic controls, quick transmission of heat from boiler to rooms is assured. Heating comfort at its best!

For complete information, write for Catalog CBR.

TUTTLE & BAILEY, INC.,
NEW BRITAIN, CONN.

ASK YOUR JOBBER TODAY

TUTTLE & BAILEY, INC.
Standardized CONVECTORS
New Vertical Fabric Blinds

Production of a new type of blind, made of vertical strips of a decorative material, “Celanieese Multiorder,” and called the “Sun Vertikal Blind” has recently been started. A single control adjusts the blinds in the closed position.

Resistant to dirt and dust, the fabric panels are easily removed when laundering is necessary. They are produced in a number of attractive color combinations.

The blinds may also be used as a room partition. When closed, they take the place of a wall and, open, add the appearance of greater length to a room. They are produced in any desired width and in lengths up to 120 feet. In addition to homes, they may be used in hotels, apartments, churches and commercial buildings.

Manufacturer of the blinds is the Sun Vertical Blind Co., Grand Rapids, Mich.

---

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.
What will the coming year hold for you in home-building opportunities? Will the new restrictions on financing get you down? How about shortages of materials? Labor? Home buying prospects who are shopping for bargains?

You may find the answers to these problems in a National Homes dealership. As the nation's largest producer of prefabricated homes, National has unprecedented purchasing, manufacturing and financing resources. Think what this can mean to you during the critical months ahead!

Get the facts. Write for new illustrated brochure and details on how you may qualify for a National Homes franchise. It may well be the most important step in your life!

National Homes Corporation

Department AB...Lafayette, Indiana, U.S.A.

Eastern Plant...Horseheads, New York

Nation's Largest Producers of Prefabricated Homes

October, 1950
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.

New! 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 for excavations, foundations and forms;
- 33 methods for making stairs, guttering, joists and sub-flooring;
- 49 hints on exterior and interior wall construction;
- 36 short-cuts in roof and bay construction;
- 3 tips on making curvatures and parches;
- 54 ideas for interior wall covering and trim;
- 37 helps on stair construction;
- 37 window suggestions;
- 54 ideas for installing doors;
- 29 tips on closets, shelves and built-in equipment;
- 44 short-cuts in laying out work;

700 illustrations show you exactly “how-to-do-it.” All items indexed so that any particular idea or short-cut can be located instantly.

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Send me for 5 DAYS FREE TRIAL “Practical Job Pointers.” I will either return it in 5 days and owe nothing; or pay $5.00 (plus shipping charges) in full payment.

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Address ____________________________________________

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The unimposing frame building and addition to rear contain the office and sales room which is a beehive of activity at all times.
Don’t let fall and winter building catch you napping. There’s plenty of good business in the basement. It doesn’t take much to interest Mr. Home Owner in converting that extra cellar space into a handsome play room.

TEL-O-POST is a natural support for these rooms. It is sturdy far beyond the average need — it is painted a natural gray that blends well — it is inconspicuous — it installs in a jiffy and costs so little.

Use TEL-O-POSTS wherever possible. There are many substitutes — but only one TEL-O-POST — be sure — ask for it by name. Many special features patented under U. S. Patent 2,504,291.

Extras light for basements is readily obtainable through the use of BRITE-LITE crawlwalls at a cost far less than other crawlwalls of comparable quality.

BRITE-LITES are made of strong copper-bearing steel, galvanized, for lifetime protection. They come in two designs in a wide variety of sizes. And BRITE-LITES can be easily installed by one man.

There’s no better crawlwall at any price! Write for data — please.

BUILDING PRODUCTS DIVISION
BRAINARD STEEL COMPANY
22110 LARCHMONT AVE. WARREN, OHIO

OCTOBER, 1950
Hunter Package Fan gives cool comfort on hottest nights

*Throughout the nation, home owners are finding that no modern convenience gives them as much comfort as a Hunter Attic Fan. It drives out stale, humid air and fills every room in the home with cool, invigorating breezes. Installation of Hunter's new, compact Package Attic Fan is simple and inexpensive. Fan, motor, suction box and shutter furnished complete—requiring only a ceiling opening and less than 18" clearance in attic. Four models, ranging from 4750 CFM to 9500 CFM, to fit any home size and climate. Quiet, powerful, dependable. Manufactured by Hunter, exclusive fan makers for over 64 years.


**Mystery House**

(Continued from page 95)

rooms, one bath, a large living and dining room in one area, large kitchen, dinette, garage and storage room. The first alternate called for a

A WORKMAN completing assembly of the compact water boiler for the radiant heating system in Mystery House and others in the 70-house Green Acres project.

For installing asbestos cement-type wallboard use Hassall wallboard drive screws. Specifically designed with spiral threading for better holding power. Supplied with nickel-plated finish with either casing or button heads. Advise quantities. Prompt delivery.

**HUNTER PACKAGE ATTIC FANS**

**VAN-PACKER**

**PACKAGED CHIMNEY**

**BUILDERS**

- **SAVE MONEY**
  Costs up to 50% less than brick.

- **SAVE SPACE**
  Hangs 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.

Underwriter’s Lab tested and approved for use with all fuels.

**VAN-PACKER CORPORATION**

136 S. Clark St.
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**JOHN HASSALL, INC.**

182 Clay Street
Brooklyn 22, N.Y.
Established 1850
You can increase your basement window profits when you sell STEELCRAFT basement and utility windows of steel. There are so many advantages in these superior windows it’s easy to increase your turnover and collect a greater profit on each sale!

Steelcraft Formed Steel Lintels—a new Steelcraft product that offers many advantages. Made in stock sizes of 6 inch increments, borderized and given same finish as basement sash. Send coupon for complete information.

Steelcraft Steel Residence Casements Offer New Advantages at Low, Budget Prices!

Send for full information on the amazing new Standard Steel Casements with the BIG STEELCRAFT FEATURES that help you make more profits.

STEELCRAFT MANUFACTURING COMPANY
ROSSMAYNE (CINCINNATI), OHIO

OCTOBER, 1950
Words like: "LOCATION" "QUOTA" "PRIORITY" "LIAISON" and "ERSATZ"

have again become part of America's vocabulary...despite the ominous portent of such words...every builder in America still knows that his customer wants the best for his home...he still wants QUALITY.

This is especially true with windows, whose importance to a building has increased many-fold during recent years.

**WEATHERSTRIPPED ALUMINUM AWNING WINDOW**

Acknowledged standard of QUALITY in the awning window field

The Ludman Corporation assures its builder-friends that it will not compromise with quality. Government demands may curtail our output somewhat, but every window we produce will be worthy of our name and of your recommendation.

**TIGHTEST CLOSING WINDOW EVER MADE**

Builders everywhere are using Auto-Lok to help them sell more homes, faster. Buyers want windows that will give them protection against all climatic extremes - zero weather as well as tropical heat. They want maximum ventilation control (draftfree ventilation even during rains). They want windows that are easiest to operate, and that present no maintenance problems. Buyers expect windows that are made to last a lifetime - like auto-Lok Awning Windows. Give them Auto-Lok - use these windows to sell your homes faster.

Combine Auto-Lok windows with "fixed" windows to make unusually appealing "picture windows" in either new or old houses. For suggestions, see our catalogue in SWEETS, or write.

**LUDMAN CORPORATION**

DEPT. A810, P. O. Box 4541, Miami, Florida, for name of your distributor

**Mystery House**

(Continued from page 258)

structure. Another alternate plan provided more floor area with three complete bedrooms. All plans included a fireplace in the living room.

The beautifully wooded, rolling terrain with large lots ranging in width from 65 to 125 feet, permitted judicious use of large window areas in both the front and rear elevations of the houses. Various color combinations of trim, shingle siding, and asphalt shingles on the roofs, along with plan reversals and changes in elevations and landscaping create sufficient variety so that any trend toward monotonous appearance is at a minimum. All lawns are graded, seeded and rolled as part of the purchase price.

**BRANDED NAME PRODUCTS USED IN GREEN ACRES HOUSES**

- American Tube copper tubing
- Armstrong asphalt tile
- Celotex Rock West insulation
- Celotex Vapor- Seal insulation board
- Clorox combination storm sash and screens
- Crawford garage doors
- Dayton house-wraps
- Dutch Boy paint
- Edger plumbing fixtures
- Federal hot water heater
- Fiberglas asphalt shingles
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- Murphy panel
- National Chemical paint
- Reverse copper flashing
- Sun Ray oil burner
- Sutcliffe ceramic tile
- U. S. Rocklith and plaster
- U. S. plywood
- Versatile steel fabrication
- Wall-Hill folding stairway

**BUILDERS EQUIPMENT USED ON GREEN ACRES PROJECT**

- Two 1½-ton flat bed Chevrolet trucks
- One 4-yard dump Ford truck
- Two Chevrolet pickup trucks
- One 7 horse Dewalt carbide saw
- One 5-horse Multiplex power saw
- Two 10-inch Delta table saws
- Free Munselle centrifugal pumps
- One Clyde power roller
- One Briest chain saw
- One Stanley door router
- One Stanley door mortiser
- One Dingell White trebor
- One Stanley 2-inch air hammer
- Six Porter-Cable power hand saws

Interior walls are plastered over gypsum lath, with a white sand finish swirled on the ceilings. Bathrooms, walls and floors are covered with ceramic tile. Asphalt tile flooring was used throughout the balance of the house. Copper tubing in the insulated concrete slab carries hot water for the radiant heat. Automatic outdoor as well as indoor heat controls assure maximum conformity of indoor temperatures to comfort levels regard-

(Continued on page 162)
MENGEL means QUALITY in Hollow-Core FLUSH DOORS

1. Balanced seven-ply construction to provide controlled reaction in changing weather conditions.
2. Hardwood construction throughout—stronger, more durable, free from grain-raising, more easily and economically finished.
3. Exclusive Insulok grid core material has inherent resiliency, cannot cause warping, nor transfer grid pattern to faces.
4. Greater strength. Adequate core stock surface area provides maximum gluing surface and resistance to warpage.
5. Precision key-locked dove-tail joinings of stiles and rails add strength and stability.
6. Ready to finish. Door faces are smoothly belt-sanded. Stiles are machine-planed at factory—prefit to standard book sizes.
7. Fully guaranteed. Each door must meet rigid quality control standards and constant inspection throughout manufacture.
8. Mengel Flush Doors are economical—no mouldings to paint—no corners to collect dirt. Smooth hardwood surfaces are less absorbent and less costly to finish—easier to clean and longer-lived.

Write for complete specifications. Use the coupon.

Also see—
MENGEL STABILIZED SOLID-CORE DOORS
the finest products of their type on the market.
LOW COST BEAUTY
ADDED VALUE
ALUMINUM WINDOW SHUTTERS

Wont
- WARIP
- ROT
- CRACK
- RUST

Traditional beauty in lifetime aluminum, priced lower than most wood shutters. Full louvre, plain panel and batten styles in natural aluminum, green prime coat, or green, red, blue, white in long lasting baked enamel. Available in all sizes. Shipped one pair per carton, complete with attachment screws.

PORCH RAILING

STANDARD

ARISTOCRAT

Solid iron ornamental porch railings in a wide selection of styles. Exceptionally low in cost. Ornamental scrolls, porch columns and brackets also available. Installation kit at slight extra charge promotes over the counter sales.

Write for catalog, price list and Fawasco dealer nearest you.

FAWSCO MANUFACTURING DIV.
FALLS STAMPING & WELDING CO.

1709 FRONT STREET
CUYAHOGA FALLS, OHIO

Mystery House

(Continued from page 100)

less of sudden changes in the weather. Heating units are oil-fired. Each coil installation includes piping to the garage driveway so that when the purchaser desires it, he can have coils laid below the driveway to keep snow and ice melted in winter.

Kitchens are large enough to handle a complete set of equipment re-

quire in today’s modern basementless house. The Mystery House was completely equipped with an all-elec-

tric General Electric kitchen which included a range, refrigerator-home freezer combination, electric sink with dishwasher and Disposall, an automatic clothes washer and metal cabinets. This equipment, however, was not included in the basic price.

Wood kitchen cabinets, fabricated in the firm’s own woodshop, are included in the base price.

Power tools are a big factor in holding costs to a minimum in Green Acres. All framing and trim is precut in a woodworking shop. All the roof trusses are cut and fabricated there. In addition to making kitchen cabinets in their own shop, the firm also fabricates built-in wardrobes, flower boxes, shutters, pilasters, and other specialty items. There are 22 running feet of clothes closet space in the basic house, plus a linen closet and vestibule closet. Sliding doors on closets and built-in wardrobes are not included in the basic price. A folding stairway to provide access to attic storage space is another extra offered. Beckenstein reports that the average purchaser receives about all the extras desired in the basic house for $30.00 or a total price of $12,400.

The Beckenstein firm, which developed Green Acres, builds about 70 houses a year.
B & G Hydro-Flo Forced Hot Water Heating with radiant baseboards offers three great selling advantages.

First, amazingly smooth and accurate control of indoor temperature. You don't open windows to regulate the temperature in a home with B & G Hydro-Flo Heating...the system automatically adjusts the heat supply to meet every change in the weather. No overheating, hence, no fuel wasted.

Second, radiant sunny warmth from heating units which look like conventional wooden baseboards and are just as unobtrusive! Radiant baseboards distribute heat so evenly that from floor to ceiling, the temperature hardly varies. Always uniform, draftless heating!

And finally, an all-year supply of hot water for kitchen, laundry and bath, heated by the same boiler that heats the house. Plenty for automatic washers...and so low in cost it can be used unsparsingly.
Here's another typical money-saving fastening triumph for DRIVE-IT—fastening seat brackets at the Grand Rapids Speedrome.

Wherever steel or wood must be fastened to concrete, steel or other hard materials there's a spot for DRIVE-IT to save you money. Reports of 75% to 85% savings over old-fashioned methods are common. With Drive-It, a drive-pin plus a power charge does the job in a split-second—and better than the old "dig and drill" method.

We can't begin to tell you the whole story here, but do yourself a favor and send us the coupon below. It will be money in your pocket!

---

**HHFA To Study Builder Organizations, Modern Family Housing Needs**

Advantages of different types of home builder organizations and the needs of families in houses will be studied in two separate research projects under the HHFA Housing Research Program. Administrator Raymond M. Foley of the HHFA has announced.

The Massachusetts Institute of Technology will study the economic advantages of different types of house producing organizations, from the small builder to the factory producer. The University of Illinois will gather data on what families need in houses as a guide to builders planning housing developments. The studies were developed under the supervision of Dr. Richard U. Ratcliff, Director of the HHFA Division of Housing Research.

"It is recognized that the organization of the builder has much to do with the construction cost," Dr. Ratcliff said. "Some types of organizations have demonstrated their ability to sell houses at lower prices, but not enough is known about the factors that produced the results."

The objectives of this research are to determine the most efficient type of dwelling-producing organization related to the type of dwelling and the size of development.

The study should also reveal the volume of production needed to make the use of mechanical equipment and preassembled parts a profitable venture for the builder.

The study to be made by the University of Illinois, Dr. Ratcliff said, is expected to produce knowledge needed in the production of better houses. Many builders are reporting from improving their houses because of a lack of knowledge of family needs and the lack of time for developing more contemporary plans, he said.

In the study data on the reaction of families to room sizes, arrangement of windows, equipment and other items in their present dwellings will be gathered and classified. Plans will be developed for various dwellings, incorporating various combinations of all the satisfactory arrangements. These will be tested by having families occupy full-size models of selected arrangements.

In addition to describing dwellings better suited to the current family needs, the study will attempt to show how these needs can be met without an increase in costs through knowledge of good design.
You cannot find a residential wall material that offers as much quality for so little money

Double-coursed shake walls save insulation costs. No extra insulation is required. Ask the builders who use double-coursing in New England where it's cold—or in Texas where it's hot. Cedar shakes have valuable insulation properties.

Pre-staining saves you color money. Production line factory staining is faster, more thorough, and cuts the cost of color application to the very minimum. No delay waiting for "painting weather."

Wide weather exposures are demanded for ranch type, colonial, Cape Cod, and most other popular home styles. Pre-stained cedar shakes provide you with weather exposures of 12" to 14"—at an applied cost that is competitive with all quality wall materials.

You can sell more homes while a-building when you use pre-stained cedar shakes. With the application of the first pre-stained shake wall, your prospective buyer can see the color that appeals... the color that sells.

You cannot find a residential wall material that offers as much quality for so little money.

FOR DETAILED INSTRUCTIONS ON APPLICATION OF PRE-STAINED CEDAR SHAKE WALLS. ADDRESS YOUR INQUIRY TO:
New Idea for Placing Door Jams

A new method of placing door jams for concrete block walls, with low labor costs, has been devised by Austin Ayers, in charge of the new Los Angeles City Jail project for Zoss Construction Co.

Ayers' method, employing bent sections of plasterers' 1/2 inch hot-rolled carrying channel, has cut unit costs of such installations on the Jail project to 17c as opposed to a cost of

THERE new 6' and 8' Bradford Portable Electric Saws are ruggedly constructed and fully powered to take on the toughest sawing jobs! They're better designed — inside and out — for easier handling, smoother sawing, more accurate work. You can feel the difference in the Bradford design!

And Bradford Saws are built to last. Ball bearings with permanent lubrication are used throughout. Gears are helical cut to give maximum driving power. A powerful 110 volt AC/DC motor drives the blade with quiet, cool-running efficiency.

OWN a new Bradford Portable Electric Saw — they're the choice of craftsmen everywhere. See your Bradford dealer for a demonstration. Write for bulletins giving specifications and prices.

THE BRADFORD MACHINE TOOL CO.
654 Evans Street Cincinnati, Ohio

NEW method of installing door jams for concrete block type construction uses 1/2-inch pieces of steel channel 90c when the ordinary dowel method is used to anchor the foot of a door jamb to concrete.

Under Ayers' direction, twelve-inch lengths of the channel are bent 90 degrees so that a four inch length will attach vertically to the jamb. The remaining eight inches fit against the concrete floor. Two holes in the shorter part are provided to screw-fasten the channel to the jamb. The eight inch section of the channel is fastened to the concrete by means of a Powder power gun.

How Permalite Is Made

Permalite, a versatile building material manufactured from perlite ore, has a natural source in perlite. But in finished form it is almost entirely a creation of man. Unlike sand, which it replaces as an aggregate in plaster and concrete, Permalite is subject to control at the will of the processor. Its particles can be made uniformly of the desirable size for a given use, and within broad limits they can be varied as to density and other characteristics.

Manufacturing process, as revealed in the new Permalite plant of Great
FROM EAST COAST TO WEST COAST...

When Quality Counts...it's

MA-TI-CO
ASPHALT TILE
FLOORING

PARKLABREA, LOS ANGELES
Builder: Metropolitan Life Insurance Company
Architect: Leonard Schultze & Associates
Associate Architects: Rouseman & Stewart
General Contractor: Stewart Brothers and Owen, Inc.
Flooring Contractor: Turner-Richardson Floors, Inc.
Structural Engineer: Bowen, Rule & Bowen
Mechanical and Electrical Engineer: Henry B. Kelly

1947-48-49
MA-TI-CO
Quality- Proved
in Metropolitan
Life's East Coast
Developments

NOW! Selected for
METROPOLITAN'S IMPRESSIVE
WEST COAST COMMUNITIES

Because of the outstanding performance delivered by MA-TI-CO Asphalt Tile Flooring in Metropolitan's Peter Cooper Village, Stuyvesant Town, and Riverton in New York, MA-TI-CO is selected for Metropolitan's West Coast communities—Parklabrea above and Parkmerced, San Francisco.

These modern West Coast communities are the latest in an impressive list of MA-TI-CO installations that include apartment houses, public and private institutions, industrial plants, stores and private homes.

Wherever MA-TI-CO is used it provides enduring beauty, resilience and economy — qualities that make MA-TI-CO ideal for every type of installation.

Remember, MA-TI-CO's precision-cut square edges assure easier, faster installation — save you time and money on every job. When next you think of flooring, think first of MA-TI-CO. It's today's best all-around flooring.

GET TO KNOW MA-TI-CO
Write for free literature and sample color chart
Dept. S10
MASTIC TILE CORPORATION OF AMERICA
Member: Asphalt Tile Institute
Factories: Newburgh, N. Y. • Long Beach, California
Simplify
Kitchen Planning

Planning a modern kitchen is a precision job. Whether it is in the building of a new home or the modernization of an old kitchen—

Just Line Radiiluxe
Custom Built Stainless Steel Cabinet Sinks and Tops

can help you simplify your kitchen planning problems. JUST LINE Custom built equipment is so flexible, that it can be designed to fit perfectly into any size and shape of kitchen and meet the most exacting personal tastes and requirements of your clients.

JUST LINE Radiiluxe Stainless Steel Sinks and Tops give the housewife the three features she insists upon in her kitchen:—BEAUTY—because they harmonize perfectly with any color and decoration scheme; UTILITY—because they assure the utmost in sanitation and efficiency; DURABILITY—because they give a lifetime of service and satisfaction.

That's why leading architects and builders recommend and specify JUST LINE Custom Built equipment.

If you want to be sure that you will please your clients, write today for FREE illustrated booklet B10 and name of our nearest Factory Representative.
BUILDERS DEALERS ARCHITECTS

CLOSURE PROBLEMS

where SPACE • COST • BEAUTY are important factors

Superlative examples of complete know-how — in engineering, construction, and interior decoration — these 3 distinctive closures offer a solution to every interior closure problem where beauty, cost, and space-saving are important factors. Complete details are yours for the asking!

1. Wondoorwall

No wasted wall space! Makes rooms more spacious, more charming! Folds accordion-like onto itself. Serves as door, wall, partition or drape. In six beautiful colors. Standard sizes in single or double width actually fit 90% of all openings up to 7 feet high. Odd sizes custom-built to order.

2. Aluma Slide Door

Ideal for Kitchenettes and closets! Aluminum interlocking slats roll up to less than 6”. Requires no swing-out or fold space. Finger-tip spring roller action. Unit supplied to size ready to install. Baked-on enamel colors. Adds beauty to any room. Unit cost amazingly low.

3. Aluma Slide Door

New by-passing door that saves space — saves money! Masonite or Duron with aluminum frames. Hard rubber roller sheaves assure noiseless easy slide for years. Warp-proof — shrink-proof — will not swell. Available in standard sizes — ready to install.

Orchard Bros., Inc.
63 Meadow Rd., Rutherford, N.J.

Please send full information about
[ ] AlumaROLLdoors [ ] WondoorWall [ ] AlumaSLIDE Doors

I am an [ ] Architect [ ] Builder [ ] Contractor
[ ] Building Material Dealer

Name ____________________________
Address ____________________________
City __________________ State ________

OCTOBER, 1950 169
Deal-Unit Air Conditioning Assures Year-Round Comfort in Medium Priced Development

One of the first medium-priced housing developments in a northern area of the country to offer complete year-round air conditioning is now nearing completion in the Mount Airy section of Philadelphia.

Built by Max Chipin and Sons, each of the 54 homes in the development is equipped with a General Electric packaged air conditioner and a General Electric warm-air furnace. While these installations employ gas-fired furnaces, oil-fired furnaces are equally adaptable.

Designed and installed by the George C. Lewis Company, contractors and G-E distributors in Philadelphia, the year-round air conditioning system provides heating, humidification and dehumidification as needed. For between-season operation, when neither heating nor cooling is required, the system brings in fresh outside filtered air.

The self-contained air conditioner and the furnace are located side by side in the basement utility room, and cool or warm air is carried to the rooms by a common ductwork system. A single high sidewall supply serves each room, with the return located low on the same wall. The change from heating to cooling and vice versa is accomplished simply by throwing a switch. A simple damper arrangement permits diversion of more cool air, if desired on extremely hot days, to the room actually in use.

The homes, including garage, sell at $16,500 to $17,500 and are of brick, semi-detached construction, with an all-stone front. Of the center-hall type, each home has a fully completed basement recreation room with adjoining powder room; living room, dining room, breakfast room, kitchen and first-floor powder room. The second floor includes a master bedroom with private bath, and two other bedrooms with a hall bathroom.

The first group of 24 homes was sold within one week after the demonstration home was opened, according to builder David Chipin. Especially significant is the fact that they were all sold before a previously built, lower priced group (almost identical except for the air conditioning feature) was sold.

SELL ALL TYPES OF DIFFICULT PROSPECTS

Heater prospects can't make up their minds? Then pep up your sales talk with facts about Reznor's far-advanced heat exchanger. Point it up, tell how "Plymetal" resists temperatures of 1250°F., a 47% safety margin! Tell how "Plymetal" transfers heat triple-quick.

SELLING MADE EASIER. New, free, informative booklet gives you profitable tips on how to sell. Send coupon below for your copy of "Reznor Heaters Sold Rightly Sell Easily."

TALK ABOUT REZNOR'S EXCLUSIVE "PLYMETAL."

The name "Plymetal" identifies America's fastest selling unit heater... Reznor.

REZNOR MANUFACTURING COMPANY
Mercer, Pennsylvania, 17 Union St.

Gentlemen: Please send me copy of REZNOR HEATERS SOLD RIGHTLY SELL EASILY.

NAME: ____________________________

FIRM: ____________________________

ADDRESS: _________________________

CITY: __________________ ZONE: ______ STATE: ____________

Dual-Unit Air Conditioning Assures Year-Round Comfort in Medium Priced Development

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The homes, including garage, sell at $16,500 to $17,500 and are of brick, semi-detached construction, with an all-stone front. Of the center-hall type, each home has a fully completed basement recreation room with adjoining powder room; living room, dining room, breakfast room, kitchen and first-floor powder room. The second floor includes a master bedroom with private bath, and two other bedrooms with a hall bathroom.

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WIDER STEEL DOOR COMBINES BEAUTY WITH STRENGTH AND DURABILITY

NOW—GIVE YOUR CUSTOMERS all these features in the new Strand 9' x 7' Receding (track-type) Door—designed to accommodate today's wider cars.

RUGGED—NEW "X-TYPE™ STEEL BRACING adds to the great strength and rigidity of the one-piece all-steel door leaf. Withstands shipping and handling from factory to completed job; assures the owner life-time durability and low upkeep.

GALVANNEALING PROTECTS against rust; even when the doors are exposed to weather for weeks before painting. Galvannalting consists of a heavy galvanized zinc coat, oxidized to provide an excellent base for paint; no priming coat needed.

QUICKER TO INSTALL—the one-piece door leaf eliminates field assembly of single doors. Packaged hardware is factory assembled. Installation is simple and easy.

EASIER OPERATING...ALWAYS—Steel can't warp, shrink, rot or stick; hardware is dependable. Steel does not absorb moisture—weight of the door remains the same in hot or cold weather, for uniformly easy operation.

Shipments of the new 9' x 7' door start November 1. Strand Doors are also available in Canopy and Receding (track) types for 8' x 7' openings; and in a Double-Garage-Door (track-type only) for 16' x 7' opening unobstructed by center post. Order from your dealer, or mail the coupon for information and dealer's name.

---

STRAND GARAGE DOOR DIVISION
Duluth Steel Products Company
Dept. AB-10, 2115 East Grand Blvd.
Detroit 11, Michigan

NAME
ADDRESS
CITY STATE

"Please rush detailed description of the new Strand all-steel Garage Door for 9' x 7' openings.
Please send full information about Strand Doors for 8' x 7' and 16' x 7' garage openings.
I am a □ Builder □ Dealer □ Prospective Owner □ Other

NAME

OCTOBER, 1930

171
Partitions of Blue Ridge Patterned Glass can be used to add appeal to even the smallest house . . . build-in luxurious decoration for two rooms at once. And you save on papering and painting!

Blue Ridge Patterned Glass passes light from room to room...makes homes brighter, more attractive. Over 20 distinctive patterns provide privacy, create smart effects in every room.

To meet special needs, Blue Ridge Glass may be Securitized (heat tempered) for greater strength and Satinol®-finished for greater obscurity. Ask your L.O.F Glass Distributor about it. You'll find it surprisingly inexpensive . . . practical even on modest building budgets.

How to build-in the
Luxury Look...
Economically

Partitions of Blue Ridge Patterned Glass can be used to add appeal to even the smallest house . . . build-in luxurious decoration for two rooms at once. And you save on papering and painting!

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KONERETE Core drill should be started into concrete by chipping ¼-inch groove on surface, or by using board with hole drilled in it over spot to be drilled, as shown in Fig. A. If hole is larger than 1½ inches in diameter or deeper than six inches, use water in hole; see Fig. B. To remove core from drill insert punch in drill slot. To remove broken core from hole, use wire with small hook as above be removed later by means of an exhaust slot.

The drill, called “Konerete Core,” may be used with ordinary electric drill motors, and will go through steel reinforcing rods, glass or rock embedded in concrete. It can be resharpened easily.

To use, the drill should be firmly tightened in drill chuck on flats of shank. Retighten after using a few minutes. These rules should be followed:

1—Chip a groove ½-inch deep to fit drill diameter, or use a 1-inch board three inches long and drill a hole with wood bit to fit the drill to be used. Place board with hole over spot to be drilled. Stand on board.

Apply slight pressure for few sec-

(Continued on page 174)

AMERICAN BUILDER
As functional as they are beautiful, modern Fox-Made Gate City Awning Windows anticipate tomorrow's living needs in offering all these advantages for your buildings:

Our consultant and technical staff is available to architects and builders.

SEND US THIS COUPON for specifications and complete details on these Fox-made products:

**CONFORT** — Cooler in summer — they scoop in up to twice the amount of fresh air with uniform, draftless ventilation. Equipped with Thermopane or interior storm sash, they assure greater warmth in winter.

**SAFETY** — Made of Protexol-impregnated lumber they will not burn. They lock in any open position (children cannot fall out, intruders cannot enter.)

**CONVENIENCE** — A simple turn of one handle tilts sashes out to any degree — the tilt keeps out rain. Both sides can be washed easily from inside... screens are applied from within.

**BEAUTY** — Their graceful lines plus the warmth and charm of wood construction add to overall building appearance.

---

**FOX BROS. MFG. CO.**

*Manufacturers of Architectural Woodwork*

*Custom-Built Millwork*

October, 1950
SAVE SPACE + ADD FLEXIBILITY + ADD BEAUTY

“Swing” is old fashioned in doors! FOLDOR is the thing!

America’s new folding-type door closure with the concept that gives it a “finished look.”

FOLDOR is the answer to space saving, to an unheard of flexibility of room arrangements, to new, up-to-the-minute beauty.

FOLDOR is the best looking door closure you ever saw. Folds into beautiful places into an unbelievably 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, FOLDOR 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.”

FOLDOR is the ideal closure for closets, rooms, alcoves, and can be used to excellent advantage as a partition...fit into all houses, modern as well as period,...just the thing for stores, 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.

HOLCOMB & HOKIE MFG. CO., INC.
1564 Van Buren Street, Indianapolis, Indiana

How to Drill...

(Continued from page 172)

onds. The remove Board (See Fig. A).

2—Use a drill motor that is powerful enough to supply sufficient pressure to cut at least two inches per minute for drills up to 1-inch in diameter, one inch per minute for drill two inches in diameter, or 2- to 4-inch diameter drills should have a motor that will drill ½-inch per minute.

3—After drill reaches depth of from 2 to 4 inches, remove drill from hole every inch or so to avoid slowing of drill motor, keeping motor

METHODS of exerting pressure on the drill running when removing drill from hole.

4—When drilling down where hole is 1½-inches in diameter or larger and deeper than 6 inches, use water. Pour in hole slowly, keeping hole full (See Fig. B).

5—If steel is encountered while drilling, have spare drill, freshly sharpened to do the work.

6—Do not use after drill shows a ½-inch flat on cutters, as drill is then dull and will cause excessive wear or breakage of cutters.

Revere Quality House Division Approves Three More Housing Projects

The Revere Quality House Division of the Southwest Research Institute, San Antonio, Texas, has recently granted approval to three more projects as follows: Greenville, Miss., (100 houses)—Builder: W. S. Rhodes; architect: Dean and Turner, Harrisburg, Pa., (475 houses)—Builder: N. P. Nimmerman; architect: Milford H. Patterson, Morristown, N. J., (300 houses)—Builder: Edward S. Krause; architect: Nemeny and Geller.

This brings the total of projects approved by the Division to 14, involving 1,999 houses. Of the three recent projects approved, the Morristown development represents the most architecturally significant for less than $15,000. The Greenville project features two-bedroom houses for $6,500 and three-bedroom houses for $8,250, the director of the Division stated.

your GHQ for steel service...

Here is a Service Department for builders—where expert engineers, designers, and estimators will help you solve any building problem.

You will find the answer to all your steel problems at International Steel. Large stocks of various steel shapes, standardized methods of manufacture, and a large, fully equipped plant enable us to make quick delivery of your structural steel.

Write today—let International help you solve all your building problems.

INTERNATIONAL STEEL CO.
1804 EDGAR ST., EVANSVILLE, IND.

STOP HEAT LOSS with KORK-PAK...the INSULATING VAPOR SEAL

- Non-Extruding
- Water-Proof
- Greater Resilience
- Low Material Cost

* Same insulation factor of any similar material KORK-PAK's low cost and easy handling makes it ideal for many applications such as sill Vapor Seal, Glass Building Block Seal, Joint Filler, etc., in every type of construction.

Write for complete details, illustrated circular and samples.

SERCVICED PRODUCTS CORP.
6051 W. 65th ST. CHICAGO 38, ILL.
"The buyer and I both save money when I install HEATILATOR FIREPLACES!"

says Walter Collier, Methuen, Mass. Builder

HEATILATOR Fireplaces are strong sales features of Mr. Collier's new development near Boston . . . and of successful developments all over the country. Here's why:

1. Customers are assured of smokeless, trouble-free fireplaces when genuine Heatilator units are used. All vital fireplace parts are provided in one compact form . . . even inexperienced masons can't go wrong. No extra parts to buy or build. It saves on expensive firebrick. It saves mason time and labor, because all designing is done.

2. 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.

3. People recognize the Heatilator name because it's been advertised in national magazines for over 23 years.

Write today for complete specifications. Heatilator Fireplaces are sold by all leading building material dealers. Accept no substitute. Look for the name Heatilator on the dome and the damper handle. Heatilator, Inc., 6310 E. Brighton Ave., Syracuse 5, N. Y.

HEATILATOR FIREPLACE
Sells Houses FASTER!

OCTOBER, 1950
The use of American Standard

Bollenbacher & Kelton, Inc.

American Radiator & Standard Sanitary Corp.
P. O. Box 1276
Pittsburgh 30, Pa.

Gentlemen:

Buyers of 3, 4, and 5 bedroom homes in all Allied Gardens residential developments build, sold and now under construction throughout Los Angeles County have come to recognize the quality of materials in our homes through the use of "base" brands.

The use of American-Standard Plumbing Fixtures and Fans in one, as installed by the H. E. Murray Co., of Los Angeles, in Allied Gardens homes in a powerful aid to sales, especially in the housing Whittier grove district where our

We have been in the residential construction business here for more than 35 years, and have developed 24 major Allied Garden County projects since the end of the war. In the sales of these thousands of homes, buyers recognize the lasting economic value in these homes with such nationally

The rapidity of sale of homes in Allied Gardens at Washingon and Panama Knoll Park at Benedict, Allied Gardens and Eastwood Village, and Allied Gardens in the North Whittier district can be attributed to the public recognition of quality materials and workmanship. American-Standard contributed, and continues to contribute to public acceptance of Allied Gardens homes, particularly in the face of competition.

Moreover, the use of American-Standard products has, as far as we can tell, added to this firm's reputation for always striving for the highest quality of materials and construction.

It is with pride that we continue to install American-Standard products because we find that the best plumbing fixtures win enthusiastic praise from prospective

Very truly yours,

Bollenbacher & Kelton, Inc.

President

 More and more builders who use American-Standard Heating Equipment and Plumbing Fixtures are finding this fact a strong selling asset in their own advertising. It helps the public that only the best products were used... creates confidence in the top quality of the whole dwelling.

There's American-Standard Heating Equipment to suit every job you build. The line is complete and includes Boilers, Water Heaters, and Water Heating Fixtures. As well as Hot Water Humidifiers, Radiant Floor Heating, and Domestic Water Heaters and Accessories.
Plumbing Fixtures in our homes is a powerful aid to sales,” reports Los Angeles builder

SINCE the end of World War II, Bollenbacher and Kelton, Inc., Los Angeles builders, have developed 20 major tracts in Los Angeles County. The developments, known as Allied Gardens, are comprised of some 4,700 two and three bedroom houses—all American-Standard equipped. These builders feel that the use of American-Standard products in their developments is a large contributing factor in the wide public acceptance of the homes.

"Moreover," says Mr. Walter Bollenbacher, president of the firm, "the use of American-Standard products has, we feel, added to this firm's reputation for always striving for the highest quality of materials and construction."

More and more builders all over the country are depending upon American-Standard Plumbing Fixtures and Heating Equipment to help make fast sales...with minimum selling expense. The smart styling and skillful designing of American-Standard products, their dependability and economy of maintenance, assure satisfied customers.

American-Standard Plumbing Fixtures and Heating Equipment will add to the salability of the structures you build, too. Whatever the type of structure you're building...whatever the budget...there are plumbing fixtures and heating equipment for your particular need in the complete American-Standard line. Ask your Heating and Plumbing Contractor about these reputable products. American Radiator & Standard Sanitary Corporation, P. O. Box 1226, Pittsburgh 30, Pa.

Look for this Mark of Merit

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

Serving home and industry

AMERICAN-STANDARD AMERICAN-BLOWER CHURCH-SEATS DETROIT LUBRICATOR RENWICK BLOWERS OREGON HEATER TONAWANDA BLOWERS

OCTOBER, 1950 127
Test Racking Strength of Plywood Sheathing

Results of tests of the racking strength of Douglas fir plywood when used as sheathing in walls are given in an article published in Technical Bulletin No. 13 of the Housing and Home Finance Agency. These tests were sponsored by the HHFA to provide information needed in regard to the use of lower grade plywood veneers as sheathing for low-cost dwelling construction.

Plywood found unsuitable as veneers for panels and other decorative uses on account of knotholes and small defects, can be used for sheathing, thus permitting an economical use of veneers that otherwise would be wasted.

Various methods of application of plywood sheathing are discussed and evaluated in this article. Test results indicate that the racking resistance of plywood sheathed walls is affected by (1) direction in which sheets are applied and whether long dimension is horizontal or vertical; (2) location and spacing of nails; (3) ability to retain resistance when subjected to wetting or vibration.

In using plywood for sheathing, the following design procedures are recommended: (1) construction should have the customary safety factor of approximately 2½ times the design load; (2) deflection under design load should not exceed a reasonable amount, such as 0.25 inches for a wall eight feet high; (3) strength, when tested under ideal conditions, should be discounted slightly to provide equivalent strength when plywood becomes wet or is subjected to vibration.

Another article, "Low-cost Wiring Methods and Materials for Houses," gives minimum requirements for the safe installation of flexible metal armored cable systems, nonmetallic wiring systems, and surface metal race-way systems for use in houses of ordinary construction. Besides metal conduit, there are seven types of wiring which may be used in houses. They are: (1) open wiring on insulators; (2) concealed knob-and-tube work; (3) armored cable; (4) nonmetallic sheathed cable; (5) service-entrance cable; (6) nonmetallic waterproof wiring; and (7) surface metal raceway.


NOW! EARN BETTER PAY THIS EASY WAY
CARPENTRY ESTIMATING

Quick . . . Easy . . . Accurate
with this simplified guide!

You can earn higher pay when you know how to estimate. Here is everything you need to know - "take off" a bill of materials from a set of plans and specifications for a frame house. In just an hour or so of practice, you will be able to figure jobs, protect yourself against overcharges 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) foundations, (2) framing, (3) exterior finish, (4) interior finish, (5) hardware, and (6) stairs. Gives definite "take-off" rules, with many helpful quick-reference tables and short-cut methods that simplify the work.

SPECIAL FEATURES: Lumber Checking List. Millwork Checking List. Hardware Checking List. Materials Ordering Information. Quick-Figuring Tables for estimating concrete footings and walls, concrete piers, window frames, door and window areas, wall weights, nail quantities, How to figure labor hours per unit of work. Rules for linear, area and volume measurement. Mathematical reference tables. Including decimal equivalents, lumber reckoner, conversion of weights and measures, etc.

TURN TO CHAPTER 8 and see the "Estimating Short Cuts" 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 drainpipes. This chapter alone can be worth the entire price of the book to you!

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178 AMERICAN BUILDER
Mr. Contractor...
here are the Plaster and Mortar Mixers with

- LOWER FIRST COST
- LONGER LIFE
- LESS MAINTENANCE

The Muller Mixer has all three. And with a size to suit every job you don't have to buy a larger or smaller mixer than you actually need. Forty years' experience in mixer design and production have taught us how to give you the best value for your dollar. Look at the illustrations and prices below and then write for complete data on the size you desire and the name of your nearest dealer.

The MULLER 3 Cubic Foot Plaster and Mortar Mixer is equipped with a 2.7 H.P. Briggs and Stratton Air-Cooled Engine or a 1 H.P. Electric Motor to plug into a light socket for inside work. Goes through 30" door. Will handle the average one bag batch of Plaster or Mortar. With Gasoline Engine $320.00* or with Electric Motor $300.00.*

The MULLER 6 Cubic Foot "Utility" Plaster and Mortar Mixer is built to suit the average need of the Bricklayer and Plasterer. Equipped with 4.5 H.P. Briggs and Stratton Air-Cooled Engine or a 3 H.P. Electric Motor. Special wheels available for 30" door. With Gasoline Engine $490.00* or Electric Motor $560.00.* Clutch extra $30.00.*

The MULLER 6 Cubic Foot Heavy Duty Plaster and Mortar Mixer is for large jobs and steady use where high output is essential. Regularly equipped with a 7.7 Briggs and Stratton Engine and can also be supplied with Power Tilt for fast Finger Tip Operation. With Gasoline Engine and 5.50 x 16 Pneumatics $615.00.* Power Tilt Extra $50.00.*

For the large job where central mixing is used there is no mixer like the Muller 10 to 12 Cubic Foot Size. Regularly equipped with a big 18.7 H.P. Wisconsin 4 Cylinder Engine and Finger Tip Power Tilt it is built to stand up under severe operation. Heavy Drum Shell and Liners assure long life. With Gasoline Engine Complete $1375.00.*

Manufacturers of tilting and non-tilting concrete mixers, concrete carts, mortar boxes.

MULLER MACHINERY CO., Inc.
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Cable Address: "Mulmix"

* Prices subject to change without notice.
F. O. B. Metuchen, N. J.
HOW TO DESIGN AND INSTALL PLUMBING


By describing the basic principles of plumbing practice and then showing by word, plan and picture exactly how a plumbing system is installed in a modern six-room two-bath house, this book is a valuable instruction volume for any progressive-minded plumber, contractor, builder or building trades student. As the author of the book points out, plumbing is the foundation of all modern sanitation and there are many experts who feel that plumbing is the most scientific of all the building and industrial trades. While this statement is perhaps open to question by members of other building trades, there is no doubt that a good plumber must have at least a working knowledge of such diverse sciences as physics, chemistry, bacteriology, mathematics, metallurgy, architecture, as well as know the fundamental mechanics of the plumbing trade. In other words, it takes a smart man with broad experience to be a good plumber and such a book as HOW TO DESIGN AND INSTALL PLUMBING can certainly help an ambitious person to achieve that status.

In this 442-page book will be found thirty-seven chapters covering the broad range of modern plumbing methods from Municipal Sewage Disposal through Joints in Clay and Iron, House Sewer, Water Supply Systems, Plumbing Fixtures, Bathtubs, Sinks, Questions Pertaining to Plumbing, and dozens of other equally important plumbing topics. The single feature, however, that places this book a cut or two above other works of a similar nature is its fifty-page section that illustrates and explains the design of an actual plumbing system. Here are the blueprints for a typical house, the specifications for it, the rough drawings, and the design and installation of the system are explained in their proper order, thereby supplying the reader with information not generally found on builders' plans for houses and other small buildings. This section together with the rest of the book is copiously illustrated with clear, easy-to-understand pictures and diagrams.

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 W. Walker. Contains latest estimating and cost data on everything that goes into house construction. Most complete compilation of estimating and cost data available. $10.50.

2. THE BUILDING COST CALCULATOR. By John R. 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 H. Rogers. Everything needed to "take-off" a bill of materials from set of plans and specifications for a frame house—with many helpful quick-reference tables and short-cut methods that simplify the work. $3.50.

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.

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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. $3.95.


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13. STAIR BUILDING. By Gilbert Townsend, S.B. Fully illustrated explanation of every problem in design and construction of stairs. $2.50.
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35. LUMBER DATA. Lines Data Sheets. Handy pocket-sized handbook containing all kinds of important data having to do with lumber and timber. $1.00.
Heat Where You Want It, When You Want It, with New Air Diffusers

Engineers can direct heat where they want it, when they want to, in factories, offices, warehouses, garages and public rooms through technical developments completed recently by The Trane Co., La Crosse, Wis.

The new product developments are called “Louver Cone” and “Louver Fin” air diffusers. They are flexible

THE 56 vertical blades and 7 horizontal louvers of Trane Louver Fin Diffuser twist air stream vertically and horizontally simultaneously. Smoke was released in heat units for these tests.

accessories for the horizontal propeller and vertical projection types of steam and hot water unit heaters.

The new Trane Louver Cone and Louver Fin diffusers were designed

WITH half its blades straightened and half turned to left, diffuser can direct air to blanket a doorway and cover a counter.

This is a typical store use.

FOR widespread flow of low-velocity warm air, alternate rows of louver fin blades are turned in opposite directions, to obtain this close-in air diffusion to solve diffusion problems on the job by a simple adjustment of the diffuser. The diffusers eliminate the necessity for moving heaters and

(Continued on page 182)
You Need All Three...You Get All Three


HOMELITE
Carryable
GENERATOR

1. Performance. True, a Homelite Gasoline Engine Driven Generator is light enough for one man to pick up and carry but its performance is big enough to operate all your electric hand tools. In fact, it gives you power plus...power plus a large overload capacity...power plus a constant voltage under all loads...power that isn't sapped by long dangerous cables. Easy to get on the job; quick to start at all times, never bothered by extreme temperatures, a Homelite will keep your power tools going at peak efficiency always. It will save time and money for you on all jobs. Ask for free demonstration and see for yourself.

2. Dependability. For more than 25 years, Homelite engineers have specialized in building carryable gasoline-engine-driven units. Their experience in building close to three hundred thousand of these units has been responsible for the simplicity of design and precision construction with finest materials that insure long-haul dependability and lowest maintenance costs.

3. Service. A Homelite seldom needs service, but when it does, there's a trained Homelite service man near you...a man who will drive his truck right out to your job and put your Homelite in perfect operating condition. This prompt, competent service is a great money saving factor for those who want to get continuous production out of their power tools.
Window shown is an Andersen Casement Picture Window Unit in home by Long & Thorough, Architects.

Andersen Windowwalls
Complete Wood Window Units
STUDY IN COMFORT — Into this study an Andersen WINDOWWALL brings a flood of even brightness . . . a restful view . . . plenty of fresh air. And to these comforts of a large window are simultaneously added those of a wall—a weatherstripped barrier to cold and moisture.

The beautiful woodwork in this Andersen Casement Picture Window Unit is important both to the beauty of the room and to the beauty of the view it frames.

Wood’s low thermal conductivity is important, too. Sash and frames of WINDOWWALLS don’t heat up in summer or frost up in winter . . . one more reason why WINDOWWALLS mean quick sales for builders and lasting satisfaction for home owners.

See your local millwork dealer or write us for details and further information. Detail Catalog of Andersen WINDOWWALLS is in Sweet’s Builders’ File.
For Trouble-Free Bath Tub Edges
Specify LUCKE
Leak-Proof Bath-Tub Hangers
No Leaks • No Cracks • No Repair Expenses

Outstanding Features
1. Bolts in hanger where necessary.
2. Filter in seal paper against leaks.
3. Two nails, screws or bolts at every stud.
4. Filter in groove between tub and hanger.
5. Perforations as a base for wall materials.

The Modern Way To Prevent Leaks
There is no excuse for cracks or leaks, or repair expense in good building. LUCKE Bathhtub Hangers are specified and used by leading architects and builders to overcome this problem. Lucke Hangers build tubs into walls. Tub rests securely in hanger along each wall.

W. B. LUCKE, Inc.
Wilmette, Illinois

Unbeatable Combination!
* KING PORTABLE HOISTS plus KING INCLINE TRACK

The handiest hoist ever built—no trick to operate, just 2 levers—rugged—easy to move—simple to anchor—7 different models. Safely hoist all building materials as construction progresses. Ample power—air cooled motors—use minimum fuel, even operating continuously. No maintenance except upkeep on the engine. You build the pine lumber track and platform floor—we furnish structural steel carrier and hoisting wheels with assembly plans. Double line pull for easy hoisting—up to 1,000 lbs. Designed for use with King Hoists or any high speed hoist with 400 lb. single line pull. Elevate wheelbarrows, blocks, bricks, roofing to as high as five stories. WRITE FOR DESCRIPTIVE LITERATURE or See Your Distributor.

Also Electric Powered Winches, Hoisting Wheels, Safety Hooks

Heat Where You Want It
(Continued from page 178)

piping to accommodate changes in floor layout. Unit heaters may now be mounted higher or lower, farther from or closer to the zone of occupancy and still assure complete heat coverage of the working area.

By fingertip adjustments of the new diffusers, using no tools, heating engineers or unskilled workers can direct the flow of heated air in an almost infinite variety of useful pat-
Every Home and Business is a Prospect for

**Johns-Manville CEILING PANELS**

You, too, can make more money with this J-M Insulating Board Product!

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**Application is easy**

- J-M Decorative Ceiling Panels are easily and quickly applied on new or existing construction. All you need to do is install furring strips at right angles to ceiling joists, and nail or staple the Panels in place. Detailed instructions come with each carton.

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**You can save time by stapling**

- By using a trigger-type automatic stapler, you can cut application time by one-half; and tests show that staples hold as securely as nails. Thanks to the J-M Lightning Joint, all staples or nails are concealed in the finished job.

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**3-level Lightning Joint assures faster, better installation**

- Notice the spaces at A and B, as well as the long length of tongue at C, to provide for expansion and contraction... the tapered top edge of the tongue to facilitate joining of panels... the definite square-corner edge at D to help speed installation and keep alignment... and the large nailing area at E for concealed nailing or stapling without damage to panel edge. These and other J-M advantages add up to an attractive finished job which provides lasting customer-satisfaction. One job sells another—and your potential market is unlimited.

---

Send for free Instruction Sheets and full-color brochure on J-M Insulating Board products, 1B-30A. Write Johns-Manville, Box 290, New York 16, N.Y.
The big news in modern Colemain Blend-Air

A revolutionary, pre-engineered, new forced warm-air system, with all standard parts delivered complete for easy low-cost installation.

This illustration shows a Coleman BLEND-AIR installation with the furnace located in the utility room. The heat tubes are located in the attic. In basement installations, the heat tubes are located in the basement immediately beneath the floor.

We at Coleman are proud to introduce to you the first really important development in forced warm-air heating in years. BLEND-AIR is the biggest thing in home heating since furnaces took the place of open grates and pot-bellied stoves. It makes central heating easier to install and homes easier to sell. It fits any construction, old or new. There is nothing else like it.

It is not just a furnace. BLEND-AIR is a complete, pre-engineered, forced warm-air heating and ventilating system with an adjustable fresh air intake for continual inflow of freshly heated air. The system has three parts: (1) 3 1/2-inch heat tubes that fit inside walls. They carry freshly heated air from the furnace to the (2) Magic Blender that fit in the walls of each room. They blend the heated furnace air with room air and recirculate it for even comfort floor to ceiling — no drafts, no dead air pockets; (3) MODUMATIC Furnace designed just for the BLEND-AIR system. Models for gas and oil fuels.

For new homes, for old homes, BLEND-AIR is a new kind of central heating comfort.
What a difference! Compare the low cost and ease of handling of BLEND-AIR'S compact 3½-inch Heat Tubes with that of gravity warm-air pipes 6 to 14 inches in diameter. Saves metal—saves time—saves work.

Can't be easier! See how simple and easy it is to install these 3½-inch Heat Tubes! They fit together quickly! Prefabricated elbows bend around obstacles. A development that simplifies heat installation.

How Blender works! Blends warm air from the furnace and cool room air, recirculates it through the room. Three types fit any construction problem. This blending magic is an exclusive Coleman invention.

Extra space gain! In the basement BLEND-AIR gives more room for game tables, clean space, laundry, work shop, etc. It's quiet, clean and compact. Put the Coleman Modumatic Furnace anywhere—basement, kitchen, utility room.

No more of this! Gone is the sprawling, space-consuming monster that clutters basements. Instead you install a space-saving, high-efficiency Coleman Modumatic forced warm-air Furnace operating through 3½-inch Heat Tubes.

Here it is complete! It is Coleman designed, Coleman made with the famous Coleman quality of construction and performance. It is delivered complete, ready to install—the greatest development in modern automatic home heating!

That is economical and easy to install. The Blender in each room adjusts to warmth wanted. At the same time, there is over-all automatic thermostat temperature control for the whole house. BLEND-AIR is delivered complete—all parts are standardized and packaged, ready to install. Nowhere will you find a comparable heating system, and the cost may be less than the equipment you are now using. For more information on this revolutionary new central heating system, write: The Coleman Company, Inc., Dept. AB, Wichita 1, Kansas.

A BIG BOON TO BUILDERS! You get quick, easy installation in this pre-engineered, completely packaged, low-cost central heating and ventilating system. Assures more even distribution of heat in every room. Has built-in flexibility to overcome bad job conditions. Investigate BLEND-AIR, compare its advantages, see how it saves you money and simplifies your heating equipment problems.

Comfort costs so little with a Coleman
America's leader in home heating
The Coleman Company, Inc., Wichita 1, Kansas
Merchandise Sliding Doors By Installing In Salesroom

A new merchandising idea for building material dealers is being effectively used in the sales room of the B. A. Chaplow Lumber Co., Detroit, Mich., where the firm, local distributor for the K-D sliding closet door units, has installed one of the units, with a painted sales message,

The closet unit is manufactured by the American Welding and Manufacturing Co., Warren, Ohio. It can be seen at the extreme left of the sales room. Stored behind the sliding doors is the Chaplow line of household paints, a large variety which the potential customer notes during the the closet demonstration.

In describing the effectiveness of the demonstration method, Chaplow said: “This display has stirred up a lot more interest than the usual model or product sample. As customers enter the store, they can’t help but see the door, and most of them accept our invitation to try it out. As a sales starter, for both doors and paint, it can’t be beat.

**Heat Where You Want It**

(Continued from page 182)

Calculating warm air horizontally. This type of diffuser generally has seven horizontal and 56 vertical blades, each adjustable by fingers, without tools.

Because the diffusers can concentrate the flow of heated air in a column, they permit use of small unit heaters to accomplish a given task. The ability to split the output of heated air two ways often eliminates an extra unit heater.

---

DOLLAR SAVERS for Many Jobs

No tools, no triggers, no gadgets — only one easy, positive adjustment to make.

Your men will spend less time in setting up and moving scaffolds — more time in actual work.

Made of carbon steel — will not bend.

Each trestle will support a ton with safety.

Write for Catalog M — Complete information on all "Trouble Saver" scaffolding accessories.

THE STEEL SCAFFOLDING CO., Inc.

840 Humboldt Street Dept. AB Brooklyn 22, New York

MANUFACTURERS OF "Trouble Saver" since 1912

Manufacturers of "Trouble Saver" since 1912

*Trade Mark Reg.
When owners want distinction—but the budget says "no"—the Masonite Hardboard family offers a happy solution! Available in 19 types and thicknesses, these smooth, grainless, all-wood panels create out-of-the-ordinary interiors at low cost. Supremely workable—staunch and enduring—they speed the work while assuring lasting value. Here are a few ways in which Masonite Hardboards can assist you—

**HOW to Provide Crackproof Dry Walls**

Big, rigid panels of Masonite Panelwood go up quickly over open framing to create attractive effects like this. Panelwood builds crackproof walls and ceilings—dent and scratch resistant, too. And its supersmooth surface is easy to finish.

**HOW to Add Individuality—at Low Cost**

There's more scope for your planning after you specify walls of Leatherwood—the Masonite Hardboard with a surface that looks and feels like Spanish-grain leather. Use Leatherwood, too, for inexpensive cabinet work with a luxury look.

**HOW to Have High Style—on a Low Budget**

Masonite Temprilite—tempered for extra durability and moisture resistance—comes already scored in a 4-inch tile pattern. Temprilite can be enameled, lacquered or painted—keeps its gleaming brightness for years. The cabinets are made of ¼" Standard Presswood.

Lumber dealers have 19 types and thicknesses of MASONITE HARDBOARDS for 1000 uses
Every home-owner is a hot prospect!

...for R-W Vanishing Doors

Chairs, beds, and tables can be arranged permanently, more attractively and conveniently in homes where doors operate on Silver Streak R-W No. 1019 Vanishing Door Hangers and Track. Only Silver Streak "opens the door" so completely to modern living convenience. The newest development in hanger and track, by Richards-Wilcox, for the hanging of lightweight vanishing doors in thin wall-pockets built in a standard 2" x 4" studded wall, Silver Streak is also adapted for use on parallel residential wardrobe doors, ¼" or more in thickness.

Rolls on Ball Bearings—The Silver Streak hanger wheel, made of fine-weave cloth base bakelite, is equipped with extra high finish ball bearings for longer wear and smoother operation.

Richards-Wilcox Mfg. Co.

Bedroom closet door with Richards-Wilcox Vanishing Door Hardware. Note that the door does not interfere with the chair, and does not take up any passage space between the bed and wall.

Aluminum Prefab House Fills Varied Needs

An eye-catching aluminum prefabricated house called the Holiday House is now being produced by The Lennox Furnace Company at its Grinnell, Iowa plant. Designed primarily for use as a vacation house to be erected for a fishing or hunting lodge, children’s play house or lake cottage, it can also be used as a bath or boathouse, recreation center, or workshop. With the addition of upward-acting doors it can be used as a garage. In this adaptation it can serve as a play-house during colder weather.

The Holiday House has modern lines. An optional 3-foot overhang, or sun visor, adds a ranch house touch to the building. Temporarily, it is available in three sizes—12x14, 12x20 and 12x26 feet. But the house is expandable, and panels may be added. These panels are assembled by tension cleats, or metal strips, which lock the panels together. This principle eliminates the use of many screws in the assembly, distributes the stress equally along the panel edges, and keeps out wind and rain.

The house is furnished with aluminum shade screens for the windows and door. Window frames are so constructed that glass panes can be added at little extra cost. The windows provide an abundance of light and air. There are five windows in the 12x14-foot size, with room for two more. The 12x25-foot house has nine, with provision for six additional windows.

Since no floor is provided, recommended materials are flagstone, concrete slabs, or treated wood. Blacktop has been used satisfactorily, and in all cases the house is bolted to the floor. The high reflective value of the ROOF overhang gives aluminum Holiday House a modern, ranch-style appearance.

HOLIDAY house can serve as garage (Continued on page 190)
Smart builders know that the buyer wants both quality and beauty in a roof. That's why the builder, Garry & Co., selected Ruberoid Dubl-Coverage Tite-On Shingles. He depended on Tite-On's wind-resistant, fire-resistant, long-lasting features for quality. The new owner found enduring beauty in Tite-On's color blends and basket-weave pattern.

Your Ruberoid dealer can tell you why Tite-On interlocking shingles stay on in any weather, last longer and look better—besides performing their basic function of giving maximum weather protection, with a minimum of two thicknesses over the entire roof. See your dealer now or write the nearest Ruberoid sales office for free literature.
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).

Write for FREE Literature and Prices!

SAM MULKEY COMPANY
1621-DD Locust Kansas City 8, Mo.
13 POWER TOOLS IN ONE!

Here's a shop machine designed to cut costs

NEW WALKER-TURNER “900” Radial Saw

Does ALL the Radial Saw Jobs!
Ripping * Bevel Ripping * Bevel Cross Cutting * Dadoing
Mitre Dadoing * Shaping * Mitreing * Compound Mitreing
Routing * Cross Cutting * Grooving * Tenoning * Ploughing

CUTS DEEPER—WITH SMALLER BLADE!
Only Walker-Turner's “900” Series Radial Saw cuts
3 1/2” deep with a 9” blade — more than most machines that require a 14” blade. You get greater capacity, use less power.

SPEEDS CUTTING, BOOSTS PROFITS!
Full work visibility (gliding ram leaves work area free of obstructions). No binding, bumping, dodging. Ease of operation and built-in safety features save skilled labor costs.

Don't cut corners—cut costs with a Walker-Turner “900” Radial Saw
SOLD ONLY THROUGH AUTHORIZED DEALERS

Kearney & Trecker
WALKER-TURNER DIVISION
Plainfield, New Jersey

Send for new bulletin that tells how the Walker-Turner “900” Radial Saw can help you make more profit on every cutting job. Mail coupon today!

Walker-Turner Division, Kearney & Trecker Corp.
Dept. A6, Plainfield, N.J.
Please send me the new Walker-Turner “900” Series Radial Saw Bulletin.

Name
Company
Address
City
Zone State
SPOT SASH CORD

Simplicity — no other device is as simple or as permanently efficient for balancing double-hung windows as the time-tested combination of Spot Cord, pulleys and weights. Perfect and permanent balance and noiseless operation are assured. There is nothing to get out of order.

The part that takes the wear is the cord — and Spot Sash Cord will last almost indefinitely. It is made of extra quality fine cotton yarn, firmly and smoothly braided, and guaranteed free from imperfections.

Identified by our trade-mark, the Colored Spots (Reg. U. S. Pat. Off.) Send for sample card with table showing right sizes for different weights.

Samson
SAMSON CORDAGE WORKS
BOSTON, MASS.

Advantages that Sell

VENTO Steel Basement Windows

- Adjustable Ventilation
  Effortless operation gives any of three openings, or removable sash.

- Weathertight Construction
  Double contact with leakproof watershed sill stops wind and rain.

- Maximum Strength and Rigidity
  Sturdy 14 gauge frame, electrically welded throughout. Fins welded to jambs for easy installation in block or poured concrete walls.

Also casement, utility and barn windows, Vento steel lintels for conserving block construction. Write for full information.

VENTO Steel Products
CO., INC.
247 COLORADO AVE. * BUFFALO 15, N. Y.

Saberson...
(Continued from page 190)

against my income. I don't think we left out a penny. After we really got into our budgetteering program, we became so interested we could hardly talk or think of anything else. Every day we'd find some new item we had overlooked. As we look back upon those busy months they seem to be the turning point in our life.

"Up to the time we decided to buy a house and go on a budget we never seemed to have any definite objectives," he continued after he had changed the sprinkler. "We were living a haphazard sort of a life... spending too much for this—not enough for that. Actually we seldom knew where the money went or had anything to show for it. That is one reason why we were a bit timid about taking on the deal. If we had so little left under such circumstances, how could we expect to get by after we had bought a house."

"Good question," I agreed. "What was the answer?"

"Budget!" he replied. "Figuring everything out before hand and making up our minds to live accordingly. If you are really serious about such a proposition you'll finally get everything in, including a provision for emergencies. However, that's the easy part. Sticking to it is hard, terribly hard, at first. Then it gradually becomes easier and easier until it finally becomes a pleasant habit."

It turned out that my new acquaintance was the office manager for a local factory.

"At the beginning of each year we make out our budget for the next 12 months," he explained. "If it's good business for us to do that at the plant, why isn't it smart for a family to do the same thing?"

The answer to the question was obvious. "Why don't more people do it?" we asked.

"Here's a better way of putting it," he suggested. "Lots of families go on a budget for a few months. Then something happens. Perhaps the old car begins to give trouble, so they decide suddenly to quit bothering with it and buy a new one. The budget goes blooey at that precise moment and usually stays that way.

"In order to stay on the budget beam you must have a powerful objective in order to make it work," he continued. "In most cases it's the house that makes the difference. Without it we no doubt would be as rudderless as we were when we lived in an apartment. It was costing us $864 a year for...

(Continued on page 194)
Builders' big business-building promotion features YALE hardware exclusively!

HOW TO PROFIT FROM THE
"GOOD AMERICAN HOME PROGRAM"

Tie in with the “Good American Home Program” that’s showing all America that low-cost homes can be bought! Feature YALE, and reap the prestige of using the only hardware endorsed for this special promotion, backed by a powerful, nationwide publicity campaign. Watch your paper to find out when the “Good American Home Program” hits your town, then call up the sponsors to tie in.

TUBULAR SETS HADIAN DESIGN

Brass. For doors of either hand.

THE YALE & TOWNE MANUFACTURING COMPANY
Stamford, Conn., U. S. A.

OCTOBER, 1958
THE ARCHITECT

I choose plaster because it's sound construction. It's a one-piece, joint-free part of my walls and ceilings, regardless of their shape and size.

Fire-safe too, and when well done, it seems to last forever. For finishing lime, I've long specified Ohio White Finish—it really has no equal.

THE BUILDER

If I have the choice... it's plaster every time. I've tried substitutes, but in carefully checking my costs, I've found there's no saving in using them.

And plaster always fits too, of course, with no waste of material left over.

THE BUILDING OWNER

I'll have plaster on my next job. Those true, smooth surfaces are more than just pleasing to the eye... They're acoustically right, and sanitary.

They may be decorated and re-decorated in various ways, economically, and that's a saving in the long run.

THE PLASTERER

Good workmanship requires the right stuff to work with. That's why I choose Ohio White Finish for my finishing coats. It has great plasticity.

You can feel this in the fatness of the lime putty, like we feel it in the workability under the trowel. Spreads farther too, covers more per bag, and that's economy.

Saberson...

(Continued from page 192)

four rooms that never really seemed like home. Our job was to find a house that we could pay for at that rate. This is it! $72 a month takes care of the payment on the mortgage, taxes, insurance, upkeep. Incidentally, when you're operating your personal affairs on a business-like basis, the upkeep on your home is a far different proposition than otherwise. You watch things constantly and fix them yourself by nipping them in the bud instead of allowing them to become a major repair item requiring outside assistance. Same way with a car. You don't slam it around when you know how long you are going to have to drive it. I even know how much I can spend for lunches next week and I'm going to enjoy them a whole lot more than if I drifted into some fancy place and blew the works at one sitting. Feel better too.

And so we talked as we relaxed in the easy chairs on the shady side of the house. Neighbors were busy in their yards. A peaceful scene.

"Like to take a look inside?" he asked as we began to get ready to take our departure. We stepped into the kitchen where I met Betty who was making a pie.

"Mother always liked to cook," she explained. "She taught me how. Fred likes home-made things too."

Earned TV Set, Too

We talked some more as we sat in the immaculate kitchen and nibbled away at some freshly made cookies.

"It's like this," explained Betty as we talked of the new television set. "We actually earned it just the way we are running the home and every new thing we've put into it. That's the way you feel when you operate on a rigid budget. We didn't know about television when we first made up our schedule. Consequently there was only one way to get it and that was by pinching out a little here and there from our regular allowance for different items. Then when you finally get it, it really means something."

Fred followed me to the car where he sized their home up from the street.

"It's not as big as the Jones'," he admitted. "But it's as much house as we need. Plenty of room. Easy to keep clean. Low upkeep. Maybe it did cost more than it should... based on some preswar method of computing values, but the fact remains that if we built it today it would cost more than when we bought it. Materials and labor are both higher. I can sell it at a profit of $500 or $600 any time I want to put it on the market, but..."
Easy!

So easy to install new Reflective Kimsul™—you actually save time, save labor!

1 Required length of KIMSUL™ blanket is cut from roll and stapled to top plate through fiber strip.

2 Snug fitting, many-layer KIMSUL™ blanket is then expanded to full length of stud space.

3 Staples through fiber strip attach end of KIMSUL blanket securely to floor plate. Stitched construction assures uniform coverage—prevents thick spots, heat-leaking thin spots.

4 Flanges stapled to sides of framing hold blanket permanently in position and also provide air space. Part of flange folds over face of framing to complete vapor seal.

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

Now 2 types of Kimsul Insulation—Regular and Reflective

Regular (Red Flute) Reflective (Gray Flute)

WITH REFLECTIVE VAPOR SEAL

OCTOBER, 1950
he knows what he wants

and it takes ADEQUATE WIRING

Millions spent in national advertising have convinced prospective home purchasers 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 clinch sales.

With Adequate Wiring you get all these advantages:

Easier sales
Faster, better loans
Selling helps
Reputation for quality

For information on Adequate Wiring, or help in applying this selling tool to your operation,

Just use the handy coupon.

Selling's Less Tiring With Adequate Wiring

National Adequate Wiring Bureau
Department A-10
155 East 44th Street, New York 17, N.Y.
Please put me in touch with the nearest local Adequate Wiring Bureau. I'm interested in giving my houses more sales appeal.

NAME

COMPANY

ADDRESS

CITY STATE

Dealer New Products Group Confers with Manufacturers

The Building Materials Consulting Committee of the Northeastern Lumbermen's Association, Rochester, N.Y., recently conferred with manufacturers in a meeting which was part of its program of aiding in the development of new products. The meeting was held at the Hotel Statler, New York City.

The building materials group, created by the association six years ago, is selected from dealer-members who function as a committee with the objective of assisting manufacturers having problems in connection with the marketing of their products. The committee's primary interest is in new building products which are in the developmental stage, and in products already existing, the uses of which might reduce the cost of construction and maintenance.

Since some members of the committee come from distant points, and all of them serve without remuneration, they prefer not to have manufacturers use this session as a springboard for promoting their products, but for meeting with them to confer about problems in connection with marketing and development.

Saberson . . .

(Continued from page 194)

we're not interested.”

“How about your military status?” I asked.

“I can't make the grade physically,” he replied. “I'm from a bad blast of shrapnel at Okinawa. However, my fellow is already in. Several of the fellows up and down the street will be going too. We've talked things over. Those of us who stay behind will look after things. That makes it easier for them than if their families were in an apartment or had to double up again with the old folks. They know they're not going to be kicked out of their home while they are gone. It's sort of a comfortable feeling, having us all here together . . . a community with common interests. It's something to think about while they are gone and to come back to after it's over.”

We stepped on the starter. He waved at a neighbor across the street. As we shook hands he said, "You're absolutely right. Homes really do make a big difference.”

According to the association, all interested producers of new products are invited to make appointments for discussion. Its address is 339 East Avenue, Rochester 4, N.Y.

KOHLER ELECTRIC PLANTS

Independent Source of Electricity

PORTABLE AND MOBILE


KOHLER OF KOHLER

PLUMBING FIXTURES - HEATING EQUIPMENT - ELECTRIC PLANTS - AIR COOLED ENGINES

AMERICAN BUILDER
A new design

To save fittings, simplify installation

Here is the Vertical Thrush Flow Control Valve. It has the same proved dependable construction and offers all the advantages of the angle type Thrush Flow Control Valve, but in many installations the vertical valve will save fittings and simplify installation. Like the standard valve, it provides both flow control and air elimination without requiring any "air tube" fitting. The air is automatically separated as it rises from the boiler water and vented directly into the pressure tank. Water free of air passes up inside the tube.

You save installation time and assure better heating plant operation for your customer when you install Thrush “T” Flow Control Valves. If you are not familiar with the Thrush Flow Control System and heating specialties, see our catalog in Sweet’s or write department G-10.

H. A. Thrush & Company, Peru, Ind.

October, 1950
Automatic Door Openers Are Home Sales Aids

Continuing the trend in home building toward more conveniences, an increasing number of builders are using automatic garage door openers as home sales aids. Practical because they save the home owner's time in opening and closing a door, these devices are now easy to install and maintain, and manufacturing techniques have made them easier on the pocketbook. The fact that many home owners still think of these step-savers as belonging to the more expensive home can work to the benefit of the builder who installs them. He can readily find out that their extra expense can be far outweighed by the added sales appeal they add to the home.

The automatic door openers are available in several different sizes, lift capacities and types. One manufacturer, the Richards-Wilcox Manufacturing Co., for example, offers three different types. Each saves the driver from getting out of his car to open the garage door. One opener with a standard control is installed in an ordinary post beside the driveway. The driver stops his car near the post, reaches out the car window, and inserts a key in the opener switch. To close the door once his car is inside, he merely pushes a button installed on the garage wall.

A second type, the magnetic driveway control, incorporates an electric coil buried in the driveway about 3 inches below the surface, and a transformer and sequence relay located nearby the door controller unit. The control has a single push button at some convenient place on the dash of the car connected to a relay mounted under the hood of the car. To operate, the car is driven over or close to the location of the driveway switch and the button in the car is pushed. A third type is the radio control. To open or close the door, it is necessary to press the button on the transmitter of the car, any distance from 40 to 75 feet from the garage.
From **Higgins**
WORLD-FAMOUS BOAT BUILDERS

HARDWOOD FLOORING

**EASY TO LAY** **SPEEDS YOUR JOBS**
**BRINGS YOUR MONEY IN FASTER**

**With these Features:**

1. Simple to install direct on steel, concrete, or any type subflooring. No special tools or skills needed. Integral cross-grain-reinforced tongues prevent splitting when blind nailed.

2. You also install Higgins Blocks quickly. No "rights" or "lefts" to slow you down. Pick any block and it fits.

3. Completely finished at factory: final on-the-job labor eliminated—every block a gem of beauty just as it comes.

4. Each block precision cut to exact 9" x 9" net face: no dimensional loss allowance needed for tongues and grooves when you order—another big saving!

Higgins Bonded Hardwood Block Flooring will not warp, buckle, cup, or crack—it's water-repellent, termite-proof, rot-proof—highly resistant to scuffing, scratching, and soil—costs less laid down than any top-quality flooring—easy and economical to maintain.

JOIN THE FAMILY OF SUCCESSFUL HIGGINS DEALERS—
Mail this Coupon for Sample Block and Literature

Higgins Incorporated
Dept. 1032
New Orleans, Louisiana

Gentlemen: Please send sample of Higgins Bonded Hardwood Flooring block, together with detailed literature.

Firm Name
Address
City Zone State

Higgins Incorporated
NEW ORLEANS

BONDED HARDWOOD BLOCK FLOORING
INDUSTRY BRIEFS

Wilmer H. Cordes, manager of market development and advertising of American Steel and Wire Co., Cleveland, Ohio, has been named general staff manager of the company's sales department, it has been announced by H. M. Francis, vice president—sales, of this U. S. Steel subsidiary. Cordes succeeds Paul H. Lindsay, recently appointed Cincinnati district manager of sales. In his new capacity, Cordes announced the establishment of separate advertising and market development divisions in the general sales department of the company, with O. B. Stauffer as manager of advertising, and John E. McGrath manager of market development.

Jesse F. Presley has been named field representative in Texas, Oklahoma and eastern New Mexico by the Western Pine Association, which is resuming activities in this area after a lapse of eight years. A native of Texas, Presley attended the University of Oregon, and served in the Army during the war.

Recently appointed to the sales and service staff of American Kitchens, Connersville, Ind., were William H. Neil as Dallas district manager, and Donald C. Putnam as field service engineer for the Eastern region, it was announced by P. F. Duggan, general sales manager of the American Central Division, AVCO Manufacturing Corp.

The appointment of Sidney J. Smith as product manager of wallboard and accessory sales of Kaiser Gypsum Division of Kaiser Industries, Inc., Oakland, Calif., has been announced by Gil Richards, general sales manager. Smith, whose new duties will make him responsible for sales of these products throughout the company's entire market area, has been affiliated with the company since 1948, when he was named export manager.

The Fleming Manufacturing Co., St. Louis, announces the opening of a new division of the company, the Bin and Batchel Division, which will specialize in all types of material handling equipment used in the concrete products and ready-mixed concrete industries. John F. Van Way has been placed in charge of this new division. He was formerly connected with the C. S. Johnson Co., and the Erie Steel Construction Co.
Don’t guess
about quality
Be sure
with names you know!

Hollow core flush doors today can almost be described as a building “staple.” Probably no other building item has had such a sudden and sustained consumer acceptance and demand.

Be sure you reward that demand with the quality it deserves. Install Weldwood Honeycomb Core or Mengel Hollow Grid Core Doors.

THE WELDWOOD HONEYCOMB CORE DOOR is a new development of the United States Plywood Corporation. Thoroughly tested in actual service, it is extremely strong, exceptionally light, eminently serviceable and unusually attractive... this new door can be had with birch, oak, Korina or other hardwood faces. Here’s top-flight quality at low prices.

THE MENGEL HOLLOW GRID CORE DOOR has thousands of satisfied users to attest its quality. A long-time, low-cost favorite, this popular door is available with faces in a wide variety of beautiful, decorative hardwood veneers.

Don’t accept any substitutes. Wherever you have a requirement for interior flush doors, make certain the doors you install bear one of the trademarks above. That way, you can be sure about quality, with a name you know.
ASBESTOS SIDING

The public relations and advertising firm of Onslow and Brown has been organized in Washington, representing an expansion of Walton Onslow and Associates. Partners in the new organization are Walton Onslow, president, and Earle P. Brown, vice president, of the original firm. Onslow and Brown will specialize in advertising and local and regional public relations activities, while Walton Onslow and Associates will concentrate on national public relations accounts.

Four new members of the Armstrong Cork Co. Building Materials Division wholesale's policy committee were elected at the close of the third annual convention of the group in Lancaster, Pa. The policy committee is made up of representatives of Armstrong wholesalers in each of the four geographical sections of the country, and four members of the Armstrong management. Elected were W. C. Gibson, of the Dalton Wholesale Supply Co., Glendale, N.Y.; representing the North Atlantic section; Walter G. Meyer, W. H. Pippin Co., Milwaukee, Wis., Central section; George W. Rummel, U. S. Mengel Plywoods Inc., Houston, Tex., Southern section; and T. J. Jones, Pacific Yard Service, Portland, Ore., Western section.

Louis H. Miller has been appointed manager of marketing of the General Electric Co. Appliance and Merchandise Department, succeeding Charles R. Pritchard, recently elected president of General Electric Supply Corp. Succeeding Miller as manager of the household refrigerator division is Charles K. Riegger. Robert E. Boian has been named to succeed Riegger as manager of the heating device and fan divisions.

The Blackburn Specialty Co., Cleveland, Ohio has changed its name to Blaco Manufacturing Co., and products manufactured will be sold under the new trade name Blaco. There are no changes in management personnel. The company was formed in 1904.

Protection Products Manufacturing Co., Kalamazoo, Mich., has announced the promotion of H. C. Kennedy to assistant general sales manager. Kennedy joined the organization in 1943 as a salesman, and for the past three years has been Middle West district manager.
142 GUNNISON. CHAMPION. HOMES
SOLD in 8 hours!

... PROOF that CHAMPION Homes are sound, profitable investments!

Rapid turnover
+ Top quality
+ Low Price
+ Eligibility for FHA and VA loans
+ Great public demand

TOTAL: More Profit for YOU

Gunnison Homes, Inc., U. S. Steel Corporation Subsidiary, is now granting additional DEALER FRANCHISES! We welcome inquiries from qualified, financially sound businessmen. Investigate NOW! Write Dept. -6 for complete information.

WHEREVER THERE'S BETTER LIVING...
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 32 pages of illustrations, diagrams...on kitchens, laundry, 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 salesmen 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-10, Box 868, Pittsburgh 30, Pennsylvania. G-10113

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

Who Pays for Utilities? Usually the Home Buyer, ULI Bulletin Reports

Thousands of miles of new surface and underground utilities are being added to American cities, but home buyers are paying for most of them in the initial cost of the home, according to a survey by the Urban Land Institute. The survey of municipal practice in underground utilities and streets is reported by the ULI in its new technical bulletin No. 13, "Who pays for Street and Utility Installations in New Residential Areas?" prepared by Seward H. Mott and Max S. Wehrly.

The institute, a private research and land planning organization in Washington, D.C., contends that the pendulum is swinging too far in the matter of having developers and home purchasers provide facilities that are used by the public at large. Examples given are that sewer and water lines installed by private developers are used by cities to produce revenue without any municipal investment whatsoever and that there is a tendency to require excessive installations of sewer, gas and waterlines, streets, sidewalks and paving.

The result, the report says, is to drive new developments out beyond city limits, thereby accelerating the decentralization of cities, with subsequent loss to central areas with their heavy physical investments and facilities. Excessive requirements in these cases, the ULI warns, actually results in tax losses and greater expense to the city in the long run.

The ULI feels it is reasonable for the home purchaser to foot the bill, provided that two other things follow. One is that the municipal requirements and standards for underground utilities and streets be reasonable, and sealed to the size of new development concerned and the type of traffic and use to which they will be subjected. The other is that once the utilities are in and paid for by the developer and home owner, they should not be used by the municipality as sources of income through fees based on volume of use, and so on.

Prize Winning Design Copies Made Available

Planographed copies of 23 winners in the apartment design contest sponsored by Timber Engineering Co. are available free from the company. The designs, for wood garden-type units, include a number of architectural treatments for both one- and two-story buildings. Address of the firm is 1319 18th St., N.W., Washington 6, D.C.
Seven extra quality features put Russwin tubular locks and latches in a class by themselves. They save time and trouble ... and give your customers a better “buy”. There's no price difference for Russwin quality. Easy to install, reversible for any hand of door. Exclusive Russwin all-steel rack and pinion assures smooth, positive action for life. Write for a new folder showing designs and finishes ... and all the features. Russell & Erwin Division, The American Hardware Corporation, New Britain, Connecticut.
Incense Cedar, as produced by member mills of the Western Pine Association, is one of the most decay-resistant wood species found in America. Its light weight and easy workability lead to worthwhile economies in construction work.

The uses of Incense Cedar range from siding to pencils. Its pleasant fragrance makes it a most popular closet-lining. It may be painted and stained in any color or finish desired. It is available in a wide range of paneling patterns to fit any architectural need.

For more information about Incense Cedar, send for free illustrated Facts Folder. Address

WESTERN PINE ASSOCIATION
Yeon Building - Portland 4, Oregon

These are the Western Pines
Ponderosa Pine, Sugar Pine

Larch, Douglas Fir, White Fir, Engelmann Spruce, Incense Cedar, Red Cedar, Lodgepole Pine.

These are the Associated Woods

Woods from the Western Pine Region

WELL MANUFACTURED
THOROUGHLY SEASONED
CAREFULLY GRADED

Retaining Builders' Confidence
(Continued from page 156)

used first on top. The company has eleven trucks which are in constant use; five are under lease to care for the expanded business.

Material is sold on the basis of quality only. To assure this quality, lumber is obtained from the large mills whenever possible. Builders are thus assured that only lumber that is thoroughly dried, sized and trimmed will be delivered to their jobs. In addition the company protects the

PORTION of open lumber yard and private switch track at rear of property where boxcars can be unloaded directly into yard without further handling. Storage sheds flank open area on each side

The organization is composed of thirty employees, nine of which are in the office and sales department. These men are quite versatile in that they can double for yard men when the occasion arises. The hardest working men in the company are the officers who establish the pattern by being the first to arrive and the last to leave. This has a tendency to spur the others on and make them happy in the task they are doing, for they realize there are no slackers in the organization and that everyone produces.

The buildings that comprise the physical assets of the company are a group of unimposing frame structures. The office and sales room is an old building to which several wings were added as business increased. In the case of this organization, however, the character of the structures are incidental to the business, their reputation sustaining them without the need of new and imposing buildings.
Builders who are profiting most from today's housing needs are the ones who are prepared to meet new trends. Prospective home owners insist on kitchens that are modern in utility as well as in appearance. Ideally meeting today's demands of home buyers are these two AllianceWare porcelain-on-steel kitchen sinks. Both accommodate a hot and cold mixing faucet and a disappearing spray hose. Either can be installed with a standard sink cabinet or with a leg. Brass goods and cabinets are not supplied.

The sink and tray combination, overall size 48" x 25", has a sink bowl 8" deep and a tray bowl 12" deep which meets a variety of uses, such as laundry work, spray rinsing of dishes, and washing fresh vegetables.

Overall size of the double drainboard sink is 54" x 25".

Made of 14-gauge enameling steel and finished with AllianceWare lustrous stainproof wet-process porcelain, these sinks give kitchens the much-wanted sparkle that stays young.

Ask your plumbing contractor or write us for catalog sheets giving complete details.

AllianceWare, Inc. Alliance, Ohio

Bathtubs • Lavatories • Sinks
Comfort AND SAVINGS PROVIDED with METAL WEATHERSTRIP

It's mighty hard to provide maximum comfort in homes that do not have the necessary full protection of Metal Weatherstrip to seal the cracks around windows and doors. It literally puts a blanket around them... preveets needless heat loss and discomfort.

Metal Weatherstrip pays for itself in two or three years by savings in fuel alone. Reductions in fuel cost range from 20% to 30%. In addition, it's a weather-tight defense against rain, wind, storm, snow and all moisture.

For better Metal Weatherstrip it's “smart business” to talk with anyone of the Weatherstrip Research Institute members. Suggestions and inquiries about metal weatherstrip are invited—for the benefit of all.

WEATHERSTRIP Research INSTITUTE
OFFICE OF THE SECRETARY
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Weatherstrip— the original Fuel Conservator... Saves Most Fuel in Proportion to Cost!

OLD COMPANY—NEW METHODS

(Continued from page 97)

minimum of moisture is needed so that the particles of sand pick up and are coated by the cement. A common mixture consists of 3 1/2 parts of sand to 1 part portland cement although this ratio is varied to meet specific situations. Also white portland cement and silica are used when coloring is added. Regular concrete coloring is satisfactory.

DERETORIZED tiers of Iowa State College Stadium were chipped and cleaned off to expose solid concrete for shooting new surface

Invent Special Conveyor for Mix

The Miller Construction Company has found that a 3 1/2 mixer is capable of mixing the materials fast enough to service the jetettere gun. In keeping with their inventive proclivities, the company perfected a conveyor to carry the dry mix from the mixer to the hopper of the gun machine. The mix is dropped from the conveyor through a screen into the hopper and then into the barrels of a horizontal, rotating cylinder from which it is shot under 45 to 65 pounds psi to the nozzle. Clean water is pumped to the nozzle, under at least 15 pounds psi more pressure than the mix, through a separate hose. The minimum volume of water, controlled by a valve on a perforated ring attachment of the nozzle, is added since, in view of the absence of forms, slumping must be avoided. The machine has a built-in water pump to insure a steady, even supply. The Millers

AFTER cleaning tiers of stadium, reinforcing mesh was formed on template and put in place. Baffle boards to restrain spray were held in place with sand bags

(Continued on page 208)
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SHELLAC

Old Company—New Methods

(Continued from page 208)

have found 35 pounds psi on the material with 100 feet of
hose satisfactory with about five additional pounds pressure
for each additional 50 feet of hose. For them, about 150
feet of hose gives best results.

The foremen of the company have learned that cleaning
and repair of the machine can be held to a minimum if the
machine is placed so that dust and dirt do not blow on it.
In addition, two men spending ten minutes at the end of
each working day keep the unit in good, clean working
order. The gun itself is manufactured with and without
the air compressor: that is, a standard air compressing unit
can be used with the gun machine.

When shooting, the nozzleman arches the hose against
his body, with the pressure in the hose counteracting the
hose weight, holding the nozzle at 3 1/2 to 5 feet from and
at right angles to a clean, solid surface, working from the
bottom to the top on vertical sections.

ONE COAT of pneumatically applied concrete was shot into
place, 1/4 to 1-inch thick. Layer and bond are stronger than original.

Uncoated Rebound Particles Discarded

The Miller Construction Company experiences about 20
per cent rebound, but anywhere from 0 to 50 per cent can
be expected. Rebound consists of uncoated particles of sand
which bounce off the surface being coated and which, since
it has no strength or bond, must be removed. The Millers
have found that a lime admixture reduces the amount of
rebound. The amount is also affected by the pressure, for
although higher pressures make somewhat stronger concre
te, they also increase rebound. In any event, care must be
taken when using this method of applying to avoid covering
any rebound within the structure since this will weaken the
work.

When finishing a day's work, the nozzleman tapers off
the work to a feather edge, not leaving a square joint likely
to form a pattern in the finish. The nozzleman is the key to
success, the company has found, for he controls not only
the amount of water added and the rate of application but
also the amount of rebound created and the texture and
smoothness of the finish.

After being shot into place, the mixture is cured as is
regular concrete, but the Miller Company occasionally uses
curing compound admixtures. Also like regular concrete,
this concrete cannot be shot in freezing weather. Unlike
other concrete, however, pneumatically applied concrete
must be trowelled smooth within one-half hour, for it sets
quickly.

(Continued on page 212)
According to recent national survey by a leading home magazine

Nowadays, a door chime is regarded as "standard equipment" by prospective home buyers. A good looking, sweet sounding door chime is a signal of gracious hospitality—it echoes the whole spirit of better living that is built into the well-designed home of today.

Thus the door chime (in itself an extremely modest item in the total cost of the home) becomes an instrument of good will for the builder who installs it and the dealer who sells it.

That's why it pays to buy the best in door chimes. That's why it pays to buy Edwards. Dollar for dollar, you can't beat Edwards Door Chimes for decorative value, musical perfection and trouble-free service.

There is an Edwards Door Chime for every type of house—large or small, modest or luxurious.

Edwards Company, Inc., Norwalk, Conn.

In Canada: Edwards of Canada, Ltd.

1. Chordette—Continuous melody.
2. Fairfax—Non-electrical Door Knocker Chime.
4. Twist Chime—Low cost, non-electrical, good looking.
5. Wedgwood—Popular tubular chime—two note and one note.
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Sink-Lok® Frame
grips edges of coverings permanently watertight

Here at last is a sink frame that seals joints watertight to stay! The frame overlaps the covering a full quarter-inch so edges can't work loose or curl up. The joint stays neat and sanitary as long as the covering material lasts!

Yet the Sink-Lok Frame is one of the easiest of all frames to install! It is a simple T-type frame anchored from underneath the sink-top. No intricate scribing, or fitting is needed. No special tools are used. No rabbeting or mortising of the counter top is required. In addition, the frame supports the sink bowl itself, and the sink can be removed at any time without marring or damaging either the frame or the sink-top material.

Sink-Lok Frames are available for flat-rim sinks of any size, with either round or square corners, for installation on wood or plywood sink-cabinet tops from 1/8” to 1” thick, covered with any material up to 1/2” thick. Also available for most vitreous china sinks. Write for complete information and prices.

The B & T Metals Co.
Columbus 16, Ohio

Old Company—New Methods
(Continued from page 210)

To date, the Miller Construction Company has repaired a municipal swimming pool and constructed a second at the Summervale Country Club, Waterloo. In the construction of this new, saucer-shaped pool, forms were not used since the concrete was shot against the earth. The surrounding walls and clubhouse walls were shot with a jetcrete gun. After excavation for the pool a hole 18x66 feet was dug at the lowest point to receive rebound swept into it. Some rebound was worked into the soil under the first coat, but as the concrete was shot around the sides, most of the rebound was worked into the pit and covered. The nozzleman stood on a plank platform over the 3/4-inch reinforcing rods so that he held the nozzle at right angles to the surface. It was necessary to shovel out the rebound of the second coat, care was taken to avoid shooting over any of it. A flash coat, 3/4 to 3/8-inch thick, was applied as a finish to the pool.

Shoot Walls of Exposition Building

When constructing the 140,300-foot Dairy Congress Exposition Building at Waterloo, Iowa, the Miller Construction Company shot the concrete from both sides into a shell of steel reinforcing rods supported by a steel superstructure. For work of this kind it has been learned that walls two inches thick are required for spans up to four feet; walls must be not less than three inches thick for spans up to eight feet.

To form the shell, galvanized welded fabric with openings not over four inches square was used, comprising not less than 3/4 of 1 per cent of the cross sectional area of the completed wall. This mesh was spaced 3/4-inch from the back surface of the wall and attached directly to the superstructure. In buildings with concrete superstructures, supporting loops can be cast in place to hold the reinforcing for the walls. To avoid the possibilities of creating undesired tensions, the reinforcing rods were not sprung into place, but they were first formed on templates. Sections of the mesh were overlapped 1 1/2 meshes at their joints and were tied about 18 inches O.C. Finally, an extra sheet of 18-inch mesh was placed over the basic reinforcing and wired into place. Generally, when using this method, extra strips of reinforcing 9x24 inches are placed diagonally at corners of openings. Water stops at openings are fastened to the reinforcing also.

(Continued on page 214)
Better for structural work
Duraplastic air-entraining portland cement requires less mixing water for a given slump, makes concrete more plastic, more workable, more cohesive, more uniform. The increased plasticity aids proper placement, improves surface appearance of structural and mass concrete.

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"THE THEATRE GUILD ON THE AIR"—Sponsored by U. S. Steel Subsidiaries—Sunday Evenings—NBC Network

OCTOBER, 1950
Old Company — New Methods
(Continued from page 213)

In this type of construction and in other instances, as a fire-precaution or for appearance, steel columns, girders and beams can be encased with the pneumatically applied concrete. The steel members are first thoroughly cleaned and then covered with a steel mesh set out about 1/4 inches. A 3:1 mix is shot up to 1 1/2 inches in vertical webs, to 2 inches on outer edges and on bottoms.

The concrete was applied in three coats in building the exposition auditorium. Between the shootings, the undercoats were allowed to cure and were then washed down and blown with compressed air before applying the subsequent coats. Ground strips formed guides around openings. Adaptable to trowelling as well, the flash finish was floated only.

AFTER shooting concrete into place on tiers, it was finished like regularly placed concrete—screeded, floated, trowelled and tooled

Used Against Hydrostatic Head

The Miller Construction Company has used pneumatically applied concrete in the repair of small coffer dams, shooting against a hydrostatic head. The manufacturers of the equipment have pointed out that the technique can also be used to waterproof leaking basement and similar walls. In these cases, bleed holes are first drilled at the base of the wall to lead off the seepage during the application. Secondly, the surface is cleaned off thoroughly. Concrete with the proportions of 2:1 cubic feet of sand, 1 cubic foot of cement and 30 pounds of metallic waterproofing is shot on the wall in a first coat 1/4 to 1/2 inches thick—for a three to five-foot head. It is shot up to 1 1/2 to 3 inches for a 10 to 20-foot head. After screeding and allowing to set for 8 to 12 hours, the surface is dampened and shot to an additional 1/4-inch with a straight 3:1 mix and trowelled off. The last step consists of plugging the bleed holes and filling them by hand with the metallic waterproofing and finish mix after the section has been allowed to set for three days.

Floor, Roof Slabs Shot in Place

Pneumatically applied concrete is used successfully for floor and roof slabs, notably with lightweight aggregates such as pumice, Celocrete or Haydite. Standard reinforcing for concrete is installed, not closer than 1/4 inches to expanded surface. Concrete is shot over strong, non-sagging forms which are not removed for at least 48 hours after the concrete has been placed. Slabs up to 3/8 inches thick can be shot in one coat. For thicker slabs, it is recommended that they be shot in two or more coats, providing that the
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- Gable valleys
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TYLAC COMPANY MONTICELLO, ILLINOIS
PIONEERS IN THE PREFABRICATED WALL PANEL INDUSTRY

OCTOBER, 1950
Old Company — New Methods
(Continued from page 214)

top coat is not less than one inch thick. Regular concrete finishes are employed on the surfaces. As in other work, the undercoats are cleaned and dampened before applying subsequent layers.

THAT applying concrete pneumatically is an economic method of constructing swimming pools is attested to by the Miller Company, builders of the one shown in photo.

Mr. Miller Sr., has been one of the leading exponents of pneumatically applied concrete in his company. He is one of the few remaining AGC charter members and is also councilman-at-large for the city of Waterloo. Employing 250 men, the company has, besides its pneumatically applied concrete crew, its own steel, concrete, bricklaying, carpenter and shop crews, and extensive private lumber yard and its own drafting department.

Diffused Dining Room Lighting

To achieve this indirect-type background illumination, one single-lamp fluorescent lighting fixture is mounted against the wall eight inches above the top edge of each niche and is shielded by a frosted glass panel which lifts up easily for changing lamps. The four sections of the longer wall contain 15-watt fluorescent lamps.

IN ADDITION to being decorative, this lighting technique ensures sufficient illumination in dining areas without harsh glare.

Useful and decorative lighted niches highlight figurines and knick-knacks, add color and character to the room and provide an extra buffet in this alcove designed and illuminated by the Sylvania Electric Products, Inc.
When you require paint products, use

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New masonry, porous and imperious, can be color-smart and weather-protected, thanks to TEXOLITE Exterior. Here's an oil-base paint that increases property values. Combines unsurpassed beauty and quality with outstanding weather advantages. Wide array of colors suits any architectural style.

Water-resistant TEXOLITE CEMENTIVO gives fresh-looking beauty to porous masonry, interior or exterior. Excels for patio, garden and basement walls, chimneys, swimming pools. Lasts because it bonds securely to the surface. Portland cement base. Wide choice of up-to-date colors and white.

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How to Install Ventilation System for Garages

In most cases, normal window ventilation is inadequate to guard against dangers of carbon monoxide in garages. This is particularly true in garages where several automobiles are kept and where men must work around them. Even if there are several windows, kept open, there is danger of poisonous gas fumes collecting where air cannot immediately remove them.

A safe system of garage ventilation is one where fumes are taken directly from the automobile exhaust pipe and delivered by fan through a hose to the outside of the building. Such a system, properly installed, offers the best protection. And to save construction costs, it should be installed at the time building construction begins.

The National System of Garage Ventilation, Inc., Decatur, Ill., offers this kind of ventilation equipment which may be installed underfloor or along the ceiling. The following are installation suggestions this firm makes for the underfloor system:

1. Assemble system (see drawing) on floor or ground in exact position where it will be when completely installed.

   RECOMMENDED installation of underfloor garage ventilation system manufactured by The National System of Garage Ventilation, Inc., is shown in these drawings. Gas fumes are taken directly outside from exhaust pipe of automobile.

If necessary to shorten any duct, make certain to shorten from plain end and not from crimped end.

2. Make a mark on floor, or in case of ground use sharp instrument, two inches on each side of duct work, clearly marking where trench is to be dug.

3. Disassemble system and place it out of way.

4. Dig trench. If trench is to be dug through concrete, it should be 17 inches deep from floor level. If trench to be dug before floor is laid, subtract thickness of proposed floor form 17 inches and make trench that depth. Trench should be 12 inches deep.

5. Reassemble system in trench, setting it on two-inch bricks spaced about every 10 feet (Fig. 1). Use three sheet metal screws to fasten each length of duct in main line. Do not use screws to secure duct work in branch duct that houses the flexible tubing.

6. Completely encase duct work with concrete. Work concrete down around the bottom of duct work. Keep floor plate (see that it can be adjusted to desired height (Fig. 2). A slope of one-half inch up to floor plate is desirable to prevent water from running into duct (Fig. 3). Wedge duct work in such a way so it will not float when concrete is poured (Fig. 4).

7. Continue with regular floor laying.

   (Continued on page 235.)
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Nursery’s Open Front Typical of Modern Commercial Design

FLORAL, shops and nurseries are particularly well suited to the modern trend in commercial design of using floor-to-ceiling front windows so that the entire store becomes a “showcase” display. This technique has two obvious advantages: it permits entry of more daylight, and it gives the store front an “openness” likely to induce potential customers to come into the store.

Blanding’s Nursery in Santa Ana, Calif., is a fine illustration of this technique. Built on a concrete slab, the structure is generously provided with a plate glass front section which permits using the entire floor as a display area with the stone veneer rear walls as an appropriately decorative background. The use of this stone in the wing adds to the feeling of openness.

Although no attempt was made to camouflage the exposed ceiling joists, their exposure adds rather than detracts from the attractiveness of the interior.

How to Install Ventilation...

(Continued from page 218)

8. Before blower unit is installed, make certain that oil cups will be in an upright position.

9. Check rotation of motor. This is important. Fan must create suction.

10. Always have discharge straight up whenever it is possible, to go through roof with the exhaust (Fig. 5). Weight the end of a string and allow it to hang from ceiling in order to determine where the center of exhaust will pass through the roof. Cut hole of the correct diameter and run exhaust stack through it. Place flashing on floor in its correct location. Nails and seal with roof cement. Place elbow on end of exhaust, then place weatherhood on the elbow. Always point the exhaust discharge with the prevailing wind.

11. Hook into hot line, 110 or 220 volts as required and then install switch. Wire to motor and start. Oil motor at starting, and twice a year.

The overhead ventilation system, equally efficient, is easily installed. Motor for it is shipped for mounting upright on beam, girder or platform, and fittings with stubs for flexible tubes are placed to allow each tube to come down between two cars.

EXTENSION of stone veneer through glass front wall creates illusion of openness. Corner pool also extends under wall to outside.
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Flexible Room Arrangements In Three-Bedroom Homes

FLEXIBILITY of room arrangement to meet future living requirements of most every family; the immediate advantages of a three-bedroom layout, and the introduction of unusual kitchen equipment are features of the new Fairview Ranch colony of the Strausman Construction Company, in East Meadow, L.I., N.Y.

The $1,600,000 development, which will comprise a total of 160 residences on a 34-acre tract, is being erected on the former Walter’s and Reimels’ Farms. Directed at families in the middle-income groups, the project will offer purchasers a completely equipped house priced at $7,490 on landscaped plots of approximately 6,000 square feet and larger. Mortgage expenses and all legal fees are to be included in this one price.

The new colony marks the entry of the Strausman organization into the medium-priced mass home building field following twenty years of specialized construction of custom-built individual homes in Queens and Nassau Communities. Many of the refinements of home living created during this period will be introduced in the new development by the sponsors, who have adapted their over-all planning to the demands of present day living occasioned by the servantless house and the limitations of the average middle income budget.

The houses, planned by Matern & York, architects,
(Continued on page 224)
For Better Homes . . . Quicker Sales

American Welded Wire Fabric

The foundation of this attractive duplex home is concrete, reinforced with American Welded Wire Fabric. Many builders have found that homes in which concrete construction is reinforced with wire fabric stay new many years longer, sell more rapidly, give owners permanent satisfaction.

This concrete floor slab is reinforced with American Welded Wire Fabric. In many modern dwellings, tubing for radiant heating and electrical and plumbing connections built right into the reinforced concrete, contribute to the comfort, convenience and permanent good looks of the home.

You can build additional sales pull into your new homes—promise lasting good looks—by reinforcing all types of concrete construction with American Welded Wire Fabric. And those new homes will stay new, for proper reinforcement prevents the excessive settling that usually results in cracked plaster, gaping baseboards, sticking doors and other annoyances.

Welded Wire Fabric distributes the strength of steel evenly throughout concrete structures. Its many small, closely spaced members provide continuous reinforcement, join foundations, walls and floors into a single unit, protect the entire house from disfigurement and damage.

Wherever you plan to use concrete construction, plan to use American Welded Wire Fabric reinforcement. Many prominent builders have found that policy the sure way to build better homes, to assure quicker sales and satisfied buyers.

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

Get Expert Advice

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 expert 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

AMERICAN WELDED WIRE FABRIC

U.S.S. UNITED STATES STEEL
WHAT'S WRONG WITH THIS PICTURE?

(a) Enough scaffolding for entire job can't fit in car.
UNLESS IT'S WACO

(b) One man couldn't carry the equipment without help.
UNLESS IT'S WACO

(c) Ground should be leveled before scaffolding a job.
UNLESS IT'S WACO

(d) One man can't set up scaffolding that fast alone.
UNLESS IT'S WACO

(e) Many features of MASON'S 'T' JACKS are not shown.
INVESTIGATE WACO

the right answer to all your scaffolding problems
Contractors accustomed to spending less time and making more profit per job went straight to answer (e). They know that WACO MASON'S 'T' JACKS are—

- COMPACT FOR EASY STORAGE
- LIGHTWEIGHT
- ADJUSTABLE EVERY TWO INCHES FOR UNEVEN GROUND
- ONE MAN INSTALLED
- IDEAL FOR BOTH BASEMENT AND HIGH BRICK VENEER WORK

"BIG RED" SAYS
And that's not all—There's Waco Scaffolding for every building operation—saving you time and effort from the basement to the chimney.

WACO IS GUARANTEED
FASTEST TO ERECT . . .
FASTEST TO DISMANTLE . . .

Due to the exclusive Speedlock and built-in, floating coupling pin, Waco can guarantee what others only claim—today's fastest scaffolding assembly—proved by national testing laboratory. Other features include built-in ladder and proven, proved cross-brace. Underwriters laboratory approval means assured working safety.

Flexible Arrangements...
(Continued from page 222)

provide a number of exterior elevations and color combinations for interesting alternate designs. Exteriors emphasize large sheltered porches and outside decorative features. The center circulation type layout features three bedrooms, living room, dinette, kitchen and bathroom.

A novel disappearing wall arrangement provides for flexible usage of one of the bedrooms. The room is planned to allow conversion as individual space requirements demand as it may be used also as a dining room or a den.

The large L-shaped living room and dining area emphasizes front and rear floor-to-ceiling picture windows and a built-in bookcase which screens off the entrance vestibule. A convenient pass-thru bar connects the

kitchen with the dinette for formal dining.

Unusual kitchen equipment for a house in this price class includes baked enamel colored cabinets, storage and broom closets, six feet of colored Formica tops in area, seven cubic foot popular brand refrigerator and four burner range, automatic washing machine, exhaust fan and fluorescent light fixtures. Ample space is provided in the kitchen for informal dining.

An over-sized bathroom with colored fixtures and ceramic tile contains a dressing vanity with overhead fluorescent illumination. Color choices in both kitchen and bathroom cabinets and fixtures are being given purchasers in addition to choice of interior wall decorations throughout the house.

Complete insulation in walls and ceilings, steel casement windows with metal screens and venetian blinds are included in the purchase price.

Other features include a large storage room with both exterior and interior entrances: automatic oil-fired hot water radiant heating system.

All houses, inspected and approved by the Federal
(Continued on page 226)
"SAVED 2 WEEKS
Construction time with Gold Bond Wallboard and Tape Joint System!"

Writes Howard Pearce, Pres. of Pearce & Pearce, Buffalo, N.Y.

Over 500 ranch type homes in Buffalo's Lincoln Park Village are distinguished by their charming design and sturdy yet low-cost construction. Here's what Mr. Howard Pearce, creator of this delightful development, writes about his experience with Gold Bond Gypsum Wallboard construction:

"Like every investment builder, we had the usual problem—how to build a quality house at a price folks can afford to pay.

"One thing that runs up costs is lost time... one crew waiting for another to finish... days of waiting for materials to dry.

"We solved this problem with Gold Bond Gypsum Wallboard for the walls and ceilings, with joints completely concealed with Gold Bond Perforated Tape Joint System.

"So satisfactory that this Gold Bond System has become standard on all our homes."

And Mr. Pearce's experience is not an isolated case. Hundreds of builders the country over are building strong, firesafe walls and ceilings with Gold Bond Gypsum Wallboard at important savings in time and money. These days of mounting costs, with builders trying to hold prices in line, the best answer is often gypsum wallboard construction.

NATIONAL GYPSUM COMPANY
BUFFALO 2, NEW YORK

You'll build or remodel better with Gold Bond

Fireproof Wallboards, Decorative Insulation Boards, Lath, Plaster, Lime, Sheathing, Wall Point, Rock Wool Insulation, Metal Lath and Sound Control Products.
NOW! Every door can be a sliding door with Sterling Hardware.

**The NEW 600 Line**
- Mounts in standard door frame!
- Requires only 1" head room!
- Provides vertical adjustment!

The most outstanding achievement in sliding doors today! Now anyone can easily and quickly install a sliding door. Mounts in standard door frame. Requires only 1" head room! Made for 3/4" and 1½" doors... also for light cabinet doors.

**NEW STERLING GUIDE STRIPS**
Eliminate difficult and costly door grooving with new Sterling Guide Strips! Made for doors of all widths. Quick and easy to install.

Here is the quick, easy way to install bypassing doors. No special millwork... no notching or grooving... no troublesome hanging.

**ANOTHER ALL-TIME FAVORITE! STERLING'S 800 LINE**

| No. 840 | For side mounting. Not adjustable. |
| No. 845 | For top mounting. Not adjustable. |
| No. 850 | For top mounting. Fully adjustable. |
| No. 860 | Ideal for pocket doors. |

HANGER FOR CABINET DOORS

Sterling Hardware Manufacturing Co.
2345 Nelson Street, Chicago 12, Illinois

---

**Flexible Arrangements . . .**
(Continued from page 224)

Housing Administration and Veterans Administration are insured under the FHA-Mortgage plan.

Under the purchase arrangement, no down payment is required from veterans and monthly carrying charges total approximately $4. Carrying charges for non-veterans are about $57 a month after a small cash payment. Twenty-five year mortgages are available to all purchasers.

EXTRA room provided by sliding doors can serve as den, as extra bedroom, or as extension to dining room in Strausman home.

The property, two blocks from the Wantagh State Parkway leading to Jones Beach and other recreation areas, is within walking distance of an elementary school. Two shopping centers, including a new $5,000,000 shopping center on Hempstead Turnpike are conveniently nearby. It is only a short distance to the Hempstead Station of the Long Island Railroad.

According to David Strausman, president of the construction firm, the new colony will now make three-bedroom living accommodations available within the financial resources of the average middle-income family.

"Our planning is designed to meet the requirements of the expanding family without the necessity of future additional expense resulting from conversion of attic space. Flexible room arrangement, depending upon the individual needs of the home owner, assures maximum use of all parts of the house."

More recently the firm has been active in the Village of Hem-stead, where more than two hundred homes were built and sold under the development name of Fairview at Hempstead.

In addition to David Strausman, officers of the building organization include Edward Strausman, vice-president and treasurer, and George Strausman, secretary.

**Federal Agencies Plan Study of Cooperatives**

A comprehensive study of cooperative housing activities in the United States is to be undertaken by the Bureau of Labor Statistics and the HHFA. The study, according to Dr. Richard U. Ratcliff, HHFA director of housing research, will provide information of types of housing cooperatives established, their current status, membership requirements, method of financing, occupancy data on income level and size of family, together with the extent of cooperative action in planning, construction and management of the projects.
The building business, perhaps more than any other, is based on confidence — in the builder's "know-how," his craftsmanship, and his use of quality materials. That's why Vitrified Clay Pipe is the all-time favorite with builders who value their good reputations. It's the quality pipe, universally respected by contractors, engineers, architects, and owners alike. It's the safe pipe, unaffected by chemical action — the only pipe that never wears out. Clay Pipe can be installed with complete confidence, because it can't be affected by present or future wastes. It's the only pipe that's sure to protect your reputation by lasting forever.

NATIONAL CLAY PIPE MANUFACTURERS, INC.
100 North LaSalle St., Room 2100, Chicago 2, Ill.
705 Ninth & Hill Bldg., Los Angeles 15, Calif.
1105 Huntington Bank Bldg., Columbus 15, Ohio
206 Connally Building, Atlanta 3, Georgia

SPECIFY

Vitrified CLAY PIPE
New Product — New Method

Savings in time and material are claimed by contractors who completed plastering job with a machine and a new type lath

Plasterers on a recently completed home in Pasadena, Calif., say they have experienced new ease in plaster application by using a plastering machine and a new type lath. And building contractors using the new product and method claim new savings in time and plaster.

Machine used on the $100,000 home, built by Brummett & Dembly, Inc., is an E-Z On Plastering Machine; the

PLASTER made of lightweight aggregates is sprayed on a paper-backed lath, K-Lath, by E-Z On Plastering Machine

SPRAYED on with proper pressure, the plaster forms a strong key behind openings in the K-Lath, as illustrated here, and new lath is K-Lath, which is made of wire and paper. K-Lath consists of a series of parallel galvanized wires, with tough durable paper interwoven through it, as illustrated here. It weighs 2½ pounds per yard, and is suitable for interior plaster or exterior stucco. For use on interior with plaster, it is placed directly against the studs by taping or nailing; and plaster is sprayed against it. Plaster keys

(Continued on page 230)

AMERICAN BUILDER
BLANKET-TYPE ROCK WOOL BATTs

Warm Up Your Insulation Business with this Easy-to-Store, Easy-to-Sell Barrett Product!

8-FOOT LENGTHS. Go on faster. Fewer seams—an unbroken vapor barrier from floor to ceiling—mean better insulation, less condensation. Also available 15” x 24” and 15” x 48”, full and semi-thick.

FIRE-SAFE. Barrett Rock Wool Insulation is a fire-proof material—functioning as a barrier to the spread of fire. A blowtorch won’t burn it.

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.

SOFTENS SOUND. Cuts down outside noises and, strategically applied to partitions between rooms (as in the case of a bathroom), it virtually eliminates sound transference.

NO STORAGE CASUALTIES. Batts can be stored for long periods and will spring back to specified thickness when removed. No “flatties” 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.

THE BARRETT DIVISION
ALLIED CHEMICAL & DYE CORPORATION
40 Baxter Street, New York 6, N. Y.
305 W. Wacker Drive, Chicago 6, Ill.
1237 Erie Street, Birmingham 8, Alabama
8th St. & Gray’s Ferry Ave., Philadelphia 46, Pa.

OCTOBER, 1950
"Miss National Home Week" Selected

To add more publicity to National Home Week, September 10-17, a "Miss National Home Week" was selected, and wore a special gown for the occasion that depicted the evolution of the log cabin to today's ranch rambler.

"Miss National Home Week" for 1959 was Geneva Tomlin. Her special gown was adorned with paintings done by Artist Charles Latshaw.

GENEVA Tomlin. "Miss National Home Week." possesses in special gown depicting evolution of log cabin to today's ranch rambler. Gown was painted by Artist Charles Latshaw.

The National Association of Home Builders said members in 140 cities were to have open houses on their projects, with power tool demonstrations, parades and other celebrations.

New Product — New Methods

(Continued from page 225)

behind slots in the lath.

Plaster made with lightweight aggregates is used in the E-Z On Plastering Machine. It is poured in the hopper of the machine by a hod-carryer. The hopper holds four cubic feet of plaster and the machine sprays one cubic foot per minute. The brown coat and scratch coats are sprayed on, but the finish coat is applied by hand. One man operates the spray gun and three men work at the rodding and darbying.

TOP half of this illustration shows surface of scratch coat as it comes from gun. Bottom shows same coat hand scratched.

What a lovely kitchen!

But — what about the Bathroom?

Beauty and Convenience are Important "SALES MAKERS" in the Bathroom, Too!

Ideas like these from Miami-Carey will brighten your bathrooms... give them the extra sales appeal of "custom" beauty and convenience at "standard" prices! They're practical, economical... thanks to Miami-Carey's five great lines of cabinets, mirrors and matching accessories. See them at your Miami-Carey dealer's— pronto!

Free! Miami-Carey Bathroom Planning Booklet

"44 Ideas for the Bathroom." Overflowing with practical suggestions to help you bring modern beauty and convenience to the bathroom. Write Miami-Carey, Dept. AB-10, for your FREE copy today!

AMERICAN BUILDER
WHY SHOULD INSULATION
HAVE AN INTEGRAL CONTINUOUS
VAPOR BARRIER?

Condensing vapor has always been a problem in building. But in today's tighter-built houses—with such modern improvements as air conditioning and humidifying equipment . . . extra bathrooms . . . automatic clothes washers and dryers . . . it is more of a problem than ever! That is why insulated construction must be protected from condensing vapor. Condensation, if it occurs within a wall, may result in wet insulation, reducing its efficiency, and may lead to decay, paint blistering, and other damage.

Balsam-Wool is completely protected from condensing moisture by an integral, continuous vapor barrier. This vapor barrier—the asphalt coated and saturated liner of Balsam-Wool—meets government specifications requiring a barrier on the warm side of the insulation having a permeability not exceeding 1 grain per square foot per hour at a vapor pressure difference through the material of one inch of mercury.

What's more, Balsam-Wool adds an EXTRA safety factor beyond requirements—a tough, cold-side liner which reduces convection through the insulating mat, reduces air infiltration, gives additional support to the mat, and helps protect it against rough handling and the penetration of free water during the construction process.

Years of research and constant testing are behind every Balsam-Wool feature—and no other insulation contains all of them:

- Continuous integral vapor barrier
- Sturdy wind barrier
- Double air spaces
- Special spacer ranges
- Double binding of mat to liner
- Rat and termite treatment
- Highly fire retardant
- Rigid quality control

Send for Balsam-Wool Application Data Sheets, containing hard-to-get information you'll want for your file. A complete set of these sheets is yours for the asking, mail the coupon today!

Balsam-Wool
SEALED INSULATION

BALSAM-WOOL • Products of Weyerhaeuser • NU-WOOD

OCTOBER, 1950

WOOD CONVERSION COMPANY
DEPT. 215-166, FIRST NATIONAL BANK BUILDING
ST. PAUL, MINNESOTA

Please send me a set of Balsam-Wool Application Data Sheets

Name

Address

City

State

PRICE: U. S. P. O. P.

231
51 Sizes and Combinations

Gate City Awning Windows come in so many sizes that there's no problem at all in including these sales-building windows in your homes.

Compared to the ventilation, convenience and safety values they add, their cost is low. $100 will approximately cover the additional cost for the average home. Figured on a 25-year mortgage, this comes to 56¢ per month. Only 1½¢ per day for the owner!

They'll cut your installation costs, too, because every window comes precision-assembled and ready-glazed, with all hardware in place and factory-tested. Full Lumite indoor screen with every unit. Double glazing available on order.

Whether you work with an architect, or build from other plans, you'll produce better, more salable homes by including Gate City Awning Windows.

PORCH AND BREEZEWAY ENCLOSURES
add extra rooms for the owner ... extra dollars for yourself

See Sweet's Architectural Catalog for full information or write Gate City Sash & Door Co., Dept. AB-10, Ft. Lauderdale, Florida

Gate City
Wood Awning Windows
Toxic-treated against rot-fungus-termite

Americans Are Good Credit Risks

Today's high percentage of home ownership has been possible only because Americans are sticklers in paying their debts and maintaining their credit, according to Martin C. Huggett, executive vice president of the Chicago Metropolitan Home Builders Association.

Reporting that home ownership has increased 22 per cent in the United States in the last 10 years, Huggett emphasized that few home owners in this period have defaulted in their mortgage payments.

"As a result," he said, "the government has been able to continue offering mortgage insurance at a low premium, and this has had the effect of encouraging lenders to loan their money readily.

"Today's mortgage," he said, "provides the certainty of continuous uninterrupted possession because it is gauged to the income and earning capacity of the owner."

Select Fireplace Ideas

The two fireplace ideas shown here were designed and built by Eral Leek, of Sausalito, Calif. Both are well proportioned, and offer attractiveness through simplicity in design. A winding stairway to the left of one is formed of heavy 2x14-inch boards, with ends left exposed in the living room. Materials used include wood, brick, stone and concrete.
When you install Marlite bathrooms, kitchens or other interiors, you're certain to attract buyers who want cheerful color, easy housekeeping features and beauty in their home.

Today interest in Marlite plastic-finished wall and ceiling panels is at an all-time peak. Coupon returns from magazine advertising are breaking all records. Dealers are selling as many as five out of six of the prospects who send in these inquiries!

For here is a product that offers beauty plus utility. Sparkling, durable Marlite cleans swiftly with just a damp cloth. It never requires periodic painting or re-decorating. The genuine Marlite baked plastic finish seals out dirt, grime, smudges and moisture...seals in the striking beauty.

Specify genuine Marlite for new construction or remodeling. Look for the name on every panel—your client's guarantee of satisfaction! Choose from 63 smart color and pattern combinations. Mail coupon today for free Sample Folder. Install nationally advertised Marlite!
From midget type 1/4" models to heavy production 1 1/4" machines, there's always the one best drill for the job—a THOR... all handle styles, all popular speeds—every tool packing Thor's extra power... featuring the light weight and handling ease of Thor's modern design... available with stands and accessories. Call your Thor distributor for a free demonstration—or write for Catalog E-2. Independent Pneumatic Tool Co., Aurora, Ill.
Keeps costs down—Helps sell homes

Coleman®
AUTOMATIC
GAS WALL HEATER

SAVES SPACE, INSTALLS EASILY

The modern heater that fits in the wall between studs. It extends out only 3½ inches so takes no living space. Smart, modern style with a smooth, bright, luxurious finish that won't discolor, chip, flake or peel. And won't discolor wall or crack plaster. No ugly pipes show.

Saves on installation because it needs no excavation, no special construction, no basement. Ideal for slab-floor homes as there's no ripping floors. A dandy for heating 2nd-floor areas where space is scarce. Makes and moves the heat for an abundance of fresh flowing warmth. Safe for children — the casing they can reach heats to only 53° above room temperature.

TWO MODELS—Single and Dual Wall, for Gas and LP-gas. Use anywhere.

Single Wall Model heats 2 average rooms with 25,000 BTU per hour input rating. Dual Wall Model, set in wall or partition, heats adjoining rooms. BTU per hour input rating 45,000. Separate controls to regulate temperature individually. Send coupon to find out why Coleman Gas Wall Heaters do such a dependable job of heating thoroughly — yet keep costs low.

THE COLEMAN COMPANY, Inc., Wichita 1, Kansas

Oct 1950
Gettine a tooth pulled might be a pleasure in the enjoyable surroundings of the Dr. James Vernetti Dental Building at Coronado, Calif., for the architect and builder have designed and constructed a building that embodies every known convenience for operating efficiency and for the patients' comfort. Built by Hamilton-Daugherty, Inc., Beverly Hills, Calif., and designed by Richard Wheeler, San Diego architect, this structure would be a welcome architectural addition in most any community.

The visitor is first confronted by the flat roof and wide eave overhang that enhance the decor of the stone facade and flagstone patio. The stone motif is repeated in the reception room where it is used on the fireplace and hearth. Wallpaper in the reception room reflects only in part the regard given to color in this dental building, for Gustave Plocche, color consultant, directed selection of the interior decoration that includes yellow Coraltite wainscoting with black baseboards in all operatories. Gay colors and bright, bold patterns line all wall surfaces and are used on the ceilings in the individual operatories. Corridor ceilings are finished with Acoust-Celotex sound-absorbing material. In keeping with the general decorative tenor, woodwork and the flush doors are birch in a natural finish. Double louver doors of the operatories are also a natural birch finish.

(Continued on page 238)
Here's how to build
**CONCRETE BLOCK JOIST FLOORS**

Concrete block joist floors are easy to build. Their popularity for residences and other buildings with light floor loads is greatly increasing. Here are the simple construction steps:

1. **Build exterior wall to the height of a floor.**
2. **Erect formwork of parallel planks for supporting filler units and the concrete slab.**
3. **Lay rows of block on planks, with cores running horizontally. The joints between block in adjacent rows may be staggered or continuous.**
4. **Install reinforcing bars for the cast-in-place joists as per design table.** Also place conduits for wires, plumbing and heating.
5. **Set a continuous strip of 1" waterproof insulation board— as deep as the floor is to be— around the edge of the entire floor.**
6. **Place concrete for joists and slab.** The floor is fire safe and an ideal base for any floor finish desired. The flat underside can be painted, plastered or left exposed to show the grain borrowed from the wood forms.

*Write for free, illustrated booklet explaining the design and construction of concrete block joist floors. Distributed only in the U.S. and Canada.*

**PORTLAND CEMENT ASSOCIATION**
Dept. 10-3, 33 W. Grand Ave., Chicago 10, III.

A national organization to improve and extend the uses of Portland cement and concrete... through scientific research and engineering field work.
This low-priced
UTILITY HARDWOOD
PLYWOOD
takes perfect
"NATURAL" FINISHES!

Mengelbord® is a low-priced, one-piece face,
5-ply, utility hardwood plywood, ½" thick.
Made from beautiful White Tupelo Gum (a
genuine cabinet-maker's hardwood). It is
ideal for "natural" finishes!

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.

New Dental Center...
(Continued from page 236)

Of frame and stucco construction on concrete founda-
tions, the building has wood subflooring with a plywood
base for the carpeting used in front offices and for the as-
phalt tile used elsewhere.

The floor plan indicates the efficient arrangement of the
reception rooms, offices and operating rooms. A rear serv-
ice exit is used by patients to avoid congestion at the front
entrance. The utility and gardener's rooms also have
separate entrances.

Utility equipment includes a Toridaire gas-fired furn-
ace the fan of which is used for summer air circulating.
To reflect the summer sun, heat, the flat roof is covered
with a white granular roofing material. Other devices in-
corporated into the building are an inter-communications

VIEW of an operatory as seen from the court is shown above.
Yellow Cornlite (a baked enamel wallboard) wainscoting con-
trasts with black base board and asphalt tile floor in these rooms.
Note bright wallpaper, double louvre doors. Cabinets are set at
angle for dentist's convenience. Crane plumbing fixtures are used
system, phonograph outlets for recorded music and the
latest in medical and dental laboratory equipment such as
built-in medical cabinets.

Measuring approximately 65 by 27 feet (front section
45 feet wide) the building is constructed around a private
court in a manner that maintains the privacy of each room
in spite of the large window openings.

Renew Your Subscription

238 AMERICAN BUILDER
The sooner you can get a contract completed, the sooner you can turn the job into cash...the sooner you can get started on your next building.

Rilco Glued Laminated Wood Arches and Trusses help you do just that...without hiring a lot of extra labor or adding specialists to your payroll.

Rilco structural members come to your 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.

Rilco Products, Inc.

4 Big Advantages of Alcasco Aluminum Casements

1. **FULL 1 1/16" SECTIONS**
   - Available only in Alcasco...structurally stronger. Putty retaining grooves—built into each section and designed for easy outside glazing.

2. **EXTENSION Hinges**
   - Solid aluminum...Sturdy and trouble free...
   - Full support. Stainless steel pin assures correct ventilator operation at all times.

3. **INSULATED GLASS**
   - Alcasco Aluminum Casements can be furnished for regular plated or insulated glass in 1/4", 3/8", or 1/2" thickness.

4. **INTERLOCKING MULLIONS**
   - Easy to assemble...simple to install...Provides a perfect weather seal due to precision fabrication.

PLUS these other Alcasco aluminum casement features:

- Extruded members are smooth—fitting at all points
- Corners electrically flux welded—greater strength...more rigid...neat, smooth appearance
- Stand inspection—customer satisfaction assured by the obvious evidence of careful workmanship
- Selection—over forty styles to choose from
- Approved—over 75,000 Alcasco Aluminum Casements have been sold through Building Material Dealers since 1947.

Alcasco Products, Inc.

1144 Ninth St., Muskegon Heights, Mich.

October, 1950
1. Built-in Bookcases add dignity and charm. They can be built with or without cabinets, according to individual needs.

2. A Television Corner provides an attractive setting for this coming "must" in home furnishing. Adds charm, too, in any room.

3. Corner Cupboards go in quickly and easily. Point out to prospects the grace, charm and convenient storage space this addition brings to dining room or breakfast nook.

6. A Dining Room Wainscot can be installed to blend with any interior... traditional or modern. You'll find quick, favorable reaction to this striking treatment.

7. A Half-High Storage Wall is just what many small homes need. Important storage space, plus beautiful decoration, as a division between living and dining areas.

8. Dressing up the Foyer in Weldwood Paneling can give new life to old homes, and help new ones create a striking first impression. Here's a real luxury touch you can add.

9. A Playroom Ceiling of Weldtex Squares goes up quickly and easily. Squares are cut to fit over 1/8" beams. And Weldtex® is one of the most moderately priced of all Weldwoods.

10 inexpensive to build extra sales

You'll install many a square foot of Weldwood®, once you discover how much appeal it can add to the houses you build... in so many ways... at comparatively little cost.

And every Builder knows that, today, appeal is important. Because... regardless of a still-existing housing shortage... prospective buyers are looking more and more for the "plus-es" that lift new homes out of the ordinary.

A room paneled with decorative Weldwood Hardwood Plywood... one wall of it... or even well-designed corner cupboards... any one of these features does just that.
ways
appeal into your houses

Prospects are quick to appreciate the luxurious beauty of Weldwood Plywood. And when you point out the practical side... the durability, the freedom from redecorating expense... they really begin to warm up. Then cap your story by reminding them that interior Weldwood Paneling is guaranteed for the life of the building.

The suggestions shown here are only a few of literally hundreds of treatments that can add important sales appeal to the homes you build. Let your own imagination be your guide.

Weldwood PLYWOOD

10. A Bright Breakfast Nook can come to life as part of a kitchen. A business-getting “plus” for any home.
Association News, cont'd

Contest Spurs Portland Membership Growth

A campaign with the goal of doubling present membership is being conducted by the Portland Home Builders Association, Inc., Wesley A. Dunn, membership chairman, has reported. Dates are Sept. 11 to Oct. 2.
The association's 100 builder and 200 associate members will be divided into two teams which will stage a contest and weekly and grand prizes will be awarded to individuals adding the most members. At the completion of the campaign new members will be given a dinner by the association.
Assisting Chairman Dunn, are Vice Chairman Lawrence Fusby, DeWayne Clark, Irving E. Jacobson, B. E. Lee, Stuart M. Pagett and Bill Starkel, Jr.

Long Island Outing Attended by 438

The second annual outing of the Long Island Home Builders Institute, attended by 438 members and guests, was conducted recently at the Engineers Golf Club on Long Island. The event was highlighted by unusually active participation by those in attendance in the program of golf, softball games, horse racing, horseshoe pitching contests, darts, nail driving contest, horse racing and a special events.
Charles J. Rorech was general chairman of the outing with Fred Jackson serving as co-chairman. Sub-committee chairmen were as follows: Prizes—Walter Stackler and Pete Fallon, co-chairmen, horse racing—H. Albrecht, golf—M. Snodden and C. Rand, co-chairmen, baseball—J. DeAngelo, reception—Leonard Frank; darts—A. Villet, nail driving—A. DaSilva; dinner—W. Clair; special events—H. York.

Government Housing Role Discussed at MBA Meet

The issue of where the government should start and stop in providing housing was one of the top discussion topics at the 37th annual convention of the Mortgage Bankers Association of America in Detroit Sept. 27-29.
Chosen to head speakers on the subject were Senator John Sparkman of Alabama, principal author of the Sparkman bill which failed of enactment last year, and Rodney M. Lockwood, immediate past president of the National Association of Home Builders, a leading spokesman for giving private industry a freer rein in housing.
R. O. Deming, MBA president, said the symposium was designed as a sincere effort to get an insight into what national policy should be.

to cut the cost of your concrete work

JAEGEBUILDS
A BETTER MIXER

Improved mixing blade design, drum rollers on Timken bearings, advanced automotive transmission and drum gear protection—these are some of the features of Jaeger's latest SPEEDI-Line mixers. Sizes 65, 115, 165 with famous Skip Shaker power loader; 3½ ft. tilters and non-tilt types. Send for Catalog.

THE JAEGER MACHINE COMPANY
521 Dublin Avenue, Columbus 16, Ohio

NEW
Quick Set DADO
does better work with less work

Here is the answer to a long time need, a dado with superior performance, that can be set for any groove width from ½" to 1½" by merely turning a dial...and without removal from the arbor.
Smooth, accurate grooves up to ½" deep are cut by "Silvanite" High Speed Tool Steel blades, Rockwell Hardness 58. Cutting edges stay sharp 4 to 5 times as long as conventional dadoes. Blades are silver brazed in interlocking aluminum and steel plates, perfectly balanced and self cooling. Will accommodate shafts of 1½", 2½", ¾", adaptable for right or left hand rotation. A time, money and temper saver at $19.75. Selected dealerships available.
See your dealer or write
CONSOLIDATED MACHINERY &
SUPPLY CO., LTD.
Distributors
2021 Santa Fe Ave., Los Angeles 21, Calif.

American Builder
To Increase the Practical Value and Beauty of Plywood

Under Paint, Stain or Varnish

Whatever finish you give to plywood, for cabinets, panels or other construction, a coat of Clear Cuprinol before you paint, stain or varnish will greatly add to the practical value and beauty of the plywood.

For Cuprinol subdueds over prominent grain patterns, stabilizes the wood fibres and minimizes grain separation cracks. It prevents grain raising that makes extra sanding necessary, and at low cost gives lasting quality to your work.

Cuprinol gives dimensional stability. It is a paintable, water-repellent wood preservative for safe and efficient on-the-job use. Stops rot and termites. Your local dealer should carry it.

See Sweet's File for Builders 28.4, or write for information on types of Cuprinol for specific uses.

CUPRINOL Division, Darworth Incorporated
56 Maple Street Simsbury, Conn.
Association News, cont’d

NRLDA Issues 32-Page Public Relations Guide

A 32-page public relations guide was issued to its members during August by the National Retail Lumber Dealers Association through state and regional associations. The booklet emphasizes the value of good public relations and gives a detailed account of the many components of a good public relations program.

The guide also states that the national headquarters will issue supplementary folders on public relations techniques and will furnish material for dealer use from time to time.

Pine Group Proposes Ways To End Rail Car Shortage

Recommendation that in-transit stoppage of lumber shipments be discontinued until Feb. 1, 1951 was made by the Western Pine Association in an effort to help remedy a serious current railroad car shortage.

The group also suggested that its summer meeting Aug. 14 in Spokane, Wash., that all railroads return to a six-day service week in the interests of speeding up car movements through terminals, approved a carrier program for “railroad efficiencies,” and condemned any program of freight car construction by the government.

The association also voted to seek a meeting with carriers’ representatives if the railroads’ efficiency program does not ease the shortage.

Fort Wayne Builders, Realtors Hear Gerholz

Robert P. Gerholz of Flint, Mich., president of the National Association of Real Estate Boards and a past president of the National Association of Home Builders, was guest speaker at a meeting of the Fort Wayne, Ind., Home Builders Association Sept. 13. The meeting, held jointly with the Fort Wayne Board of Realtors, was a highlight of National Home Week activities.

Dale E. Fisher is president of the Fort Wayne builder group and Ralph Shirmeier served as president of the home week committee.

Hoo-Hoo Meets in Boston

The 59th annual convention of the International Concatenated Order of Hoo-Hoo was held Sept. 6-9 at the Copley Plaza Hotel, Boston. Listed among program highlights were a stag dinner, concatenation, clambake, sightseeing and talks by guest speakers.

Host for the meeting was the Harry L. Folsom Club No. 13 of Boston, of which Walter Webber, Jr., is president. J. M. Carlton was convention chairman.

Walls of Beauty

INSIDE AND OUTSIDE

—AT LOW COST!

So beautiful . . . yet so inexpensive! So light in weight . . . yet so strong! A smooth, luminous enamel finish in 14 decorator colors, permanently bonded to sturdy aluminum. Ideally suited for use in homes, institutions . . . for in or on business buildings and theaters.

EASY TO CLEAN. WILL NOT CRACK, PEEL OR CHIP.

Permits modernization of old buildings without introducing structural stress problems. Easy to supply, with a decided saving in labor hours. Complete information on request.

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METAL TILE PRODUCTS, INC.
DEPARTMENT 1005, HASTINGS, MICHIGAN

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I am □ Distributor □ Dealer □ Architect □ Contractor.
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FIRM ____________________________
STREET __________________________
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244

AMERICAN BUILDER
A Beautiful,
LOW-COST FLUORESCENT LIGHTED CABINET...

by Lawson

with OUTSTANDING QUALITY FEATURES!

★ One-Piece Drawn Steel Body
★ Bonderized after Forming
- Baked White Enamel Finish
- First Quality Plate Glass Mirror
- Full Length Piano Type Hinge
- Snap-in (no screws) Electrical Inspection Plate
- Stainless Steel Mirror Frame
- Convenience Outlet for Electric Razor, etc.
- Bar-Type Door Stop
- Razor Blade Disposal Slot
- Underwriters' Laboratories Inspection Label

Write for Catalog on Lawson Bathroom Cabinets, Lavatory Mirrors and Chrome Accessories . . .

THE F. H. LAWSON CO.
801 EVANS ST., CINCINNATI 4, OHIO

WORLD'S LARGEST BUILDERS OF BATHROOM CABINETS

OCTOBER, 1950

CLOSE CORNERS ARE NO PROBLEM NOW!

Bostitch T5 Tackers

DRIVE STAPLES IN WITHIN 1/4" OF INSIDE CORNERS

When a Bostitch T5 Tacker sticks its tiny nose into your business, you save time, money and work. It simplifies back-breaking nailing jobs and close, difficult corner work. You just place the tacker, squeeze the handle and the staple shoots all the way in. No missed shots, no marred surfaces, no bruised fingers! One hand free for faster, more accurate positioning. Try Bostitch T5 Tackers on your next paneling, insulating or metal lath job. You'll notice a big cost-cutting difference.

Quick, easy way to attach cornerta

Attaching cornerta becomes an easy one-handed job with Bostitch H4 Self-Feeding Hammers. The just-right-length staples fasten the metal lath securely to the plaster base without going through to the studs. This roofing "tie-down" guards against cracking plaster due to settling of the structure.

Application time cut in half

More and more roofers are shifting to Bostitch H4 Self-Feeding Hammers. No wonder! A flick of the wrist drives home a sturdy 1/4" staple like a two-pointed nail. No bruised fingers, no infected moons. Long, one-arm reach cuts down staging needs. Cuts hours off new roofing jobs.

INVESTIGATE BOSTITCH - for installing insulation, attaching building paper or roofing, metal laths, etc., you'll find that Bostitch fastens it better and faster at lower cost. Fill in coupon below for more facts.

BOSTITCH, 575 Mechanic Street, Westerly, Rhode Island

I'm interested in more information about time-saving, cost-cutting Bostitch machines for applying:

- Insulation
- Paneling
- Roofing
- Metal Lath and Cornera

List other applications:

Name:
Title:
Firm:
Address:
City
Zone
State

BOSTITCH AND Faster

fastens it better with wire

ALL TYPES OF MACHINES FOR APPLYING STAPLES

ALL TYPES OF STAPLES APPLIED BY MACHINES

Trademark "Bostitch" Registered U. S. Pat. Off. and Foreign Countries.

248
At last! The simplest high grade tub and shower fitting ever devised...NEW Truart WALL SURFACE FITTING

BRIGGS NOW BRINGS you the most modern, easy-to-install wall surface fitting ever made. Good-looking—the gleaming, exposed surfaces are chromium plated! No temporary roughing nipples are needed. After the wall is completed, the rough copper tubing is saw-cut to desired length—no threading, you simply slip fitting over the tubing and solder the joints. Safe! Exposed valves reduce the possibility of leaks within the wall...make servicing twice as easy, twice as quick! Better make sure you have this new Briggs fitting in stock...order today...and make way for sales!

Illustrated are: T-8005 Truart combination bath and shower fitting for copper tube solder joint with automatic diverter in spout. Everkleen self cleaning shower head with ball joint shower arm and flange. T-8410 Truart 1½" jiffy pop-up drain.

BRIGGS Beautyware
No wonder the demand is so great! NEW
BRIGGS Beautyware
VITREOUS CHINA CLOSETS offer unequaled value!

Why Briggs Beautyware vitreous china closets are better . . .

★ Colors! Four beautiful pastel shades: sandstone, sky blue, sea green, ivory as well as sparkling white!
★ Large water area, deep seal, self-draining jet!
★ New, modern designs engineered for trouble-free operation!

CARLTON VITREOUS CHINA CLOSETS—For 12-in. roughing-in. Full syphon jet free-standing unit. B-6400 (illustrated) close-coupled combination with regular, extended shelf bowl. Also available in elongated front extended shelf bowl model.


EARL VITREOUS CHINA CLOSETS—For 12-in. roughing-in. Syphon action washdown bowl with 3-in. rear spud. B-6440 (illustrated).


EMPEROR VITREOUS CHINA FLUSH VALVE CLOSETS—For 10-in. roughing-in. Syphon jet bowl with 1½-in. top spud. B-6512 (illustrated) has elongated front bowl. Also available with round front bowl.


Interior view of Briggs Syphon Jet Closet Tank reveals latest design Anti-Syphon quiet operating flushing mechanism. This positive shut-off ballcock incorporates the latest type volume regulator, triple seal rubber ball, 134-inch overflow tank valve, large refill tube and positive quiet action at high or low pressures. Every part quality engineered for lasting dependability.

Newly designed Briggs Beautyware Vitreous China Urinals are now available in four different types and sizes. Complete information available on request about these models . . . PENNTON (flat back wall), CLIFTON (pedestal), SPARTAN (floor stall), LAWTON (wall stall).

BRIGGS MANUFACTURING CO.
3001 MILLER, DETROIT 11, MICHIGAN

OCTOBER, 1950
Choose

the exact instrument you need from these three

LOW PRICE MODELS

1

Finest 12" Dumpy Level available anywhere — gives you more features you want, more accuracy, more durability at less money than any other instrument. It has dust and dirt-free internal focusing and has coated optics for clearer distortion-free, sharper images.

Model
No. 8014
Price $130.00 complete with tripod

2

Here's the standard convertible level for the country for the past 30 years! No other instrument has the recognition and acceptance as given to the David White Carnegie Improved Convertible level. Now it’s available to you with complete dust and dirt-free internal focusing and coated optics for clearer, sharper, distortion-free images.

Model
No. 7096
Price $150.00 complete with tripod

3

The David White "Universal" level-transit is the most practical and complete builder’s instrument on the market. Now available in a new improved model — complete with internal focusing, coated optics — guarded vertical arc — in fact every possible feature to assure you lifetime durability and extreme accuracy.

Model
No. 3000
Price $165.00 complete with tripod

We offer complete, prompt repair service on all makes of instruments — levels, transits, theodolites, etc.

Winners of Parents’ Magazine Contest for Builders Announced

TRIPLE honors in Parents’ Magazine’s 1949 competition for home builders were taken by Albert Balch of Seattle, it has been announced by George J. Hecht, president and publisher of the magazine. Individual honors in the contest, designed to "spotlight the pacemaking work of the nation’s leading builders by finding and selecting the best homes for family living which were built and sold in the United States during 1949," went to six other builders in various parts of the country.

In order to be eligible for the competition homes had to be owner-occupied by families with one or more children. Entries were divided into five regional groups according to location, with two price brackets — less than $16,000 and $16,000 to $25,000 — in each. Prices included the cost of land. Ten entries were to be selected for merit awards, one for each cost class in the five regions. From the winners of merit awards one house was chosen for a national merit award. Balch’s houses were picked for two merit awards, with his $19,500 house also taking the national award.

JURY examines one of entries in Parents’ Magazine contest for builders. From left: Clarke Daniel, head of NAHB design and construction committee; William H. Scheick, A.I.A., executive director, Building Research Advisory Board, National Research Council; Richard Bennett, A.I.A., Loebbl Schlossman and Bennett; and Mrs. Maxine Livingston, family home editor of Parents’ Magazine.

Among factors considered in the judging were (1) usefulness of site as planned for outdoor family activities; (2) intelligent use of manufactured materials and products for durability, simplicity of maintenance and attractive architectural design; and (3) structural soundness and quality of workmanship.

Awards will be formally presented to winners at the January NAHB convention in Chicago.

The winners:

Houses Which Sold for $15,999 or Less

<table>
<thead>
<tr>
<th>Area</th>
<th>Builder</th>
<th>Price of House</th>
<th>Architect</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Carl M. Freeman, Inc.</td>
<td>$14,950</td>
<td>Robeson Heap</td>
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<td></td>
<td>Washington, D.C. (Alexandria, Va.)</td>
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<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>No award given (Judges ruled that entries did not justify awards)</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>No award given</td>
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<tr>
<td></td>
<td>Albert Balch</td>
<td>$13,132</td>
<td>W. A. Wollander</td>
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<td></td>
<td></td>
<td></td>
<td>Seattle, Wash.</td>
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Available to Meet Your Needs...

Model 1000 BONDACTOR
Operates with a 710 CPM air compressor.

Model 2100-6 BONDACTOR
Operates with a 105 CPM air compressor.

Operates with a 210 CPM or larger air compressor.

See Your Construction Equipment Distributor, or for FREE Catalog, Tear Off and Mail Coupon TODAY

AIR PLACEMENT EQUIPMENT CO.

The PARKS PLANING MILL SPECIAL

8 MACHINES IN ONE

The Parks Model R Planing Mill Special is a low priced, multi-purpose, money-saving machine that is ideal for almost every shop. It offers a Cast Iron Double 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
COMPARE FOR
Beauty, Quality, Economy
THEN RECOMMEND
VIKON METAL TILES

LOOK TO VIKON, THE LEADER IN TILE STYLE
FOR COMPLETE CLIENT SATISFACTION

Individual Vikon Metal Tiles, in a choice of sturdy steel, aluminum or stainless steel, are the perfect answer to any decorating problem where tiles are called for. Ideal for use on both walls and ceilings in new homes, excellent for remodeling existing homes and apartments. These are featherlight, individual tiles. You order only the number necessary to complete the job. No waste. For the smartest of baths, kitchens, utility rooms, investigate the wonders of the metal tile of lasting beauty—VIKON.

- 27 fade-resistant decorator colors and stainless steel
- will not warp, crack or craze
- resists heat and household chemicals
- fire-resistant, waterproof, seals out insects

"The Original Individual Metal Tile" Established 19296,
See our catalog in Sweet's Files

STEEL - ALUMINUM - STAINLESS STEEL

VIKON TILES
BEAUTY - ECONOMY - DURABILITY

Lighting System Designed
For Diversified Store

Advantageous lighting of a large, diversified store is exemplified by the system installed in the new Consumers Market in Tucson, Ariz. Utilizing three types of shielded fluorescent fixtures, the system has been designed to suit both seeing and decorative needs of the store which, although primarily a food shop, also contains a beauty salon, drug prescription counter, soda fountain and florist shop.

Fifty footcandles of illumination are distributed evenly over merchandise to permit a clear view of displays. In the grocery section, eight rows of louvered fluorescent fixtures are placed in continuous rows, spaced 15 feet apart over each shelf section. Each fixture is equipped with four 40-watt fluorescent lamps.

In the forward section of the market, two- and four-lamp shallow fluorescent troffer units with louver-type shielding provide recessed lighting.

Sylvania Electric Products, Inc., New York City, furnished the plan and lighting equipment.

Winners of Magazine Contest . . .

5 Jere Strizek, Inc. $7,300 Herbert E. Goodpaster
Sacramento, Calif. Sacramento, Calif.

HOUSES IN $16,000 TO $25,000 RANGE

<table>
<thead>
<tr>
<th>Area</th>
<th>Builder</th>
<th>Price of House</th>
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<tr>
<td>1</td>
<td>Stackler and Frank, Hempstead, N.Y.</td>
<td>$24,900</td>
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<tr>
<td>2</td>
<td>Gerholz Community Homes, Inc. Flint, Mich.</td>
<td>$25,000</td>
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<tr>
<td>3</td>
<td>Mrs. R. B. Butler and Son, Tulsa, Okla.</td>
<td>$24,750</td>
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<td>4</td>
<td>Albert Balch, Seattle, Wash.</td>
<td>$19,500</td>
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<tr>
<td>5</td>
<td>Milton A. Ryan, San Antonio, Tex.</td>
<td>$19,990</td>
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THE
Graduated Hinge
that means Greater Profit to
Raynor Door Dealers ...
ARMOLD HARTMANN
Builder of Oak Hill Village
in Newton Center, Mass.

says:

"Modernfold" doors bring
greater sales for 50 houses
plan to use them in 30 more!

That's what this well-established builder thinks of "Modernfold" accordion-type doors! Their eye-catching beauty and space-saving efficiency were so impressive that he installed two doors in each of fifty houses—one in the kitchen and another in the front hall closet. What's more, he intends to use even more "Modernfold" doors in his next project of thirty homes!

**Builder after Builder turns to "Modernfold" doors**

Yes, builders find houses move faster when they install extra value like "Modernfold" doors. And this extra customer appeal costs no more. That's because "Modernfold" doors eliminate expensive extras and the labor to install them. There are no jambs, no stops, no hardware or hinges, no fitting, no painting!

Don't pass up this idea that makes your houses more salable at no extra cost! Find out today how little "Modernfold" doors cost. Look up our installing distributor in your classified telephone book under "doors." Or mail coupon.

<table>
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<th>Sold and Serviced Nationally</th>
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<td>the doors that fold</td>
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<td>like an accordion</td>
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<td>Modernfold Doors</td>
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<td>by NEW CASTLE</td>
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<th>New Castle Products</th>
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<tr>
<td>P. O. Box 814, New Castle, Indiana</td>
</tr>
</tbody>
</table>

Gentlemen:

Please send me full details on "Modernfold" doors.

Name: ________________________________

Address: ________________________________

City: __________________ State: __________________

---

**Association News**

**Oklahoma Dealers Discuss FHA Regulations**

More than 200 members of the Oklahoma Lumbermen's Association attended a one-day meeting in Oklahoma City in July to discuss operating procedure under Title I, Section 8 of the Housing Act of 1950.

Walter Hinton, Altus, president, said that a survey by association members in 33 communities revealed a potential $41,000,000 market for housing under this section.

Attending the meeting with the lumber dealers were members of the Tulsa and Oklahoma City FHA staffs.

**Maple Flooring Group Returns to Chicago**

The Maple Flooring Manufacturers Association re-established its headquarters in Chicago at 35 E. Wacker Drive, Oct. 1. President W. C. Abernethy has reported. The group, founded in Chicago in 1897, moved its offices to Oaksholm, Wis., three years ago.

The association is composed of Northern hardwood flooring manufacturers with mills in Illinois, Ohio, New York, Michigan and Wisconsin. L. M. McCloud is secretary-manager.

**Wood Preservers Set 1951 Meeting Dates**

The 1951 meeting of the American Wood-Preservers' Association will be held at the Stevens Hotel, Chicago, April 24-26. President Fred W. Gottschalk announced recently.

The 46-year-old scientific group meets once a year to discuss developments in wood preserving techniques. More than 700 are expected to attend the 1951 session, Gottschalk said. The association has about 1,400 members.

**NAHB Newspaper Contest**

The National Association of Home Builders has announced its annual contest for special newspaper sections featuring National Home Week. Any newspaper or editor may participate and deadline for mailing of entries is Nov. 1. Sections will be judged on interest and layout and awards to winners will be made at the annual dinner for the press at the NAHB convention in January.

More than 100 daily newspapers have already announced plans for special sections to run during National Home Week, according to NAHB.

In Your November Issue

GYPSUM PRODUCTS
Where and How to Use Them
In Remodeling and New Construction
GALVANIZED SHEETS
Give You All Three!

1. Protection
A strong, sound, leak-proof roof guards valuable crops, livestock and machinery against damage and destruction. Thru years of experience, farmers have found that galvanized sheets give more protection against wind, rain, snow, fire and lightning than any other type of roofing. As a result, today more than a third of all farm buildings in the U. S. are covered by galvanized roofing!

2. Stay-Ability
You want a roof to hold at the nail holes...resist high winds and the elements...stay sealed and solid for years and years. Only galvanized sheets give you the strength of steel...the rust protection of Zinc! Only galvanized sheets cut down your overhead by staying "over-head" year after year—often for the life of the building.

3. Economy
Before you buy any roofing, consider these three long-time cost factors: (1) The original price of the roofing material; (2) The repair and upkeep cost; and (3) The number of years of serviceable life. Think of all three and you'll see why galvanized sheets are First Choice for farm buildings all over America.

The Seal that Stands for
LIFETIME SERVICE

With galvanized sheets, it's the Zinc that stops the rust! While all galvanized sheets give years of service, the heavier the Zinc coating, the longer the sheets will remain rust-free and the longer your roof will last. Sheets stamped with the "Seal of Quality," shown above carry a guaranteed coating of 2 ounces of Zinc per square foot. Only slightly higher in cost, they generally have double the service life! It will pay you to ask about "Seal of Quality" galvanized sheets for super service.

Valuable
FREE INFORMATION

The free booklets offered in the coupon at right are fully illustrated and packed with practical information on galvanized sheets, roofing installation, Metallic Zinc Paint, etc. Send for these you can use today!

SEND US THIS COUPON

October, 1950
Must Siah Go Below Frost Line? Rule of Thumb to Be Probed

While it is customary in northern areas to extend the foundation of a basementless house below the frost line, the merits of this practice have never been subjected to research scrutiny. Since such construction is a major cost factor in a small house, it is believed that research might show how costs can be cut. In some areas, grade beam foundations (those which do not extend below frost) have been used successfully, but not under controlled conditions or scientific observation.

To probe this subject, the Small Homes Council of the University of Illinois is undertaking a one-year research project in cooperation with Levitt and Sons. The builders and developers of the Levittown subdivision of Manhasset, New York. A research grant has been given to the university by Levitt, to carry out the project.

Under this project, weather action will be observed on a group of floor slabs which will be maintained under controlled drainage conditions. Data to be collected will include accurate measurements of vertical and horizontal slab movement, weather, moisture and soil type will be determined, these being essential factors in establishing design criteria or construction requirements.

A series of house-sized floor slabs and foundation walls, typical of those being used in small house construction, will be built at the Small Homes Research Center for purposes of the study. These will include concrete-block Rim-walls with footings below frost-line, and thickened edge slabs or grade beams.

The slabs and foundations will be built in three identical groups. The first of these groups will represent recommended drainage practices, (gravel fills, surface drainage,) These will be on a well-drained area; the water table will be held below the frost-line.

The second group of floor slabs and foundation walls will be identical in construction, but will be in an area protected by dikes and provided with water supply so the water table can be held close to the ground surface and above the frost-line.

The third group will be under operating conditions similar to those for the second group, the variation being that the under-slab fill of coarse gravel will be replaced with fine sand or tamped earth.

FRED HOWLAND, INC.
General Contractors
MIAMI, FLORIDA

INSISTS THAT ALL DOORS
BE DIP TREATED WITH

WOODLIFE

The Original WRAP-AROUND PRESERVATIVE

They say—"The few cents involved in WOODLIFE treatment of doors is repaid many times. Warping and sticking of doors is replaced by a constant source of annoyance and expense doors can be a constant delight to the house owner and an added advantage."

See your lumber dealer or write for information.

Protection Products Mfg. Co.
Research Laboratory and Plant KALAMAZOO, MICH.

The ASBESTOS Co. of TEXAS
P. O. Box 1082 • Houston, Texas

254 AMERICAN BUILDER
Seabee Reserve Wants Skilled Construction Men

Skilled construction men over the age of 25 can still enlist in the Naval Reserve as Seabees and receive petty officer ratings equal to their civilian experience, the Navy has announced.

By joining the Seabee Volunteer Reserve, older men in the construction trades not only will retain their rating when and if they are called to active duty, but they also will have reasonable assurance that they will be assigned to Naval Construction Battalions for high speed building and defense of overseas bases.

The same opportunity to join this standby Reserve is now available to men in the 19 to 25 age group because they have become subject to induction under the Selective Service Extension Act of 1950.

Approximately 70,000 additional experienced construction men are wanted in the Seabee Volunteer Reserve. This is considered the minimum number needed for a nucleus to develop the construction speed that would be required of the Seabees in case of full scale war.

The seven Seabee ratings open cover some 60 different civilian construction skills. These ratings are: builder, mechanic, steelworker, utilities men, construction electrician, driver, and surveyor. Volunteers will be placed on inactive duty, with no drills or required meetings. They may be called to active duty if needed.

Enlistment in the Volunteer Reserve is limited to men who have reached their 26th birthday but not their 45th. The upper age limit is extended in case of veterans to the same number of years beyond age 45 as their previous military service.

If this previous service has been with the naval service, volunteers will be accepted up to age 50 years, plus number of years of naval service.

Depending on the kind and amount of civilian experience, skilled construction men can expect to be rated at some point in the scale between Chief Petty Officer, with minimum active duty base pay of $198.45 per month, to Third Class Petty Officer, with a minimum of $117.60. Additional pay is given for dependents and for years of previous service.

Those desiring to volunteer should get in touch with the Commanding Officer of any Organized Reserve Construction Battalion Company or Volunteer Construction Battalion Reserve Unit. These are located in more than 300 principal cities throughout the country. Application also can be made at any Naval Recruiting station.

OCTOBER, 1950
Defer Construction of NAREB "Spiorama"

Erection of the "Spiorama," a specially-designed exhibit building planned for the 43rd annual National Association of Real Estate Boards convention in Miami Beach, Nov. 12-18, has been deferred to a later convention. NAREB's executive committee reported that, in view of the current crisis, it had been decided not to use the building materials required for the structure.

Advance registration for the convention exceeds all previous early demand for accommodation, according to Harry C. Wattemeade of New York City, chairman.

Exhibits of the 1950 meeting will be located in the Miami Beach municipal auditorium.

Association Booklet Aids New Home Purchasers

A 12-page booklet, "Important Information about Your New Home," has been published by the Montgomery County Builders Association, Dayton, Ohio, for distribution to buyers of member-built homes.

Included are: background information about the association, the association code of ethics, reproduction of emblem, an account of the builder's role as coordinator in producing the home, facts about the materials and equipment used in construction, and information on care and maintenance.

Lumberman's Picnic

The first annual Tri-State Lumbermen's Picnic, under the sponsorship of the Sioux Valley Hoo-Ho Club, was held in Sioux Falls, S.D., Aug. 11. On the program were golf, swimming and entertainment. New club officers were elected, including E. T. Johnson, Sioux Falls, president; Ed Kuhs, Menno, S.D., vice-president; Nela Huseby, Brookings, S.D., treasurer; and Morphard, Sioux Falls, secretary.

A.I.A. Omaha Meeting

Architects from the Central States District of the American Institute of Architects will hold their annual convention in Omaha, Neb., Oct. 13-14. The Nebraska chapter will be host to delegates from Iowa, Kansas, Oklahoma and Missouri. The two-day program will include an exhibition of work of the visiting architects.

'Open House' at Dallas

The seventh birthday of the Dallas Home Builders Association was celebrated with an "open house" Aug. 8 at its new 12,000-square-foot Home Builders Auditorium.

Association News, cont'd
COMPACT Culligan Service Tank which provides filtered soft water is located in utility room of this home in Bonneville Project, Pueblo, Colo. Each unit of which has fittings for water softening service make every home ready for immediate connection of the service at the modest cost of about $10 per home. The plumbing provides both hot and cold soft water but bypasses toilets and sprinkling sprinklers.

The entire subdivision, known as Bonneville, was approved by the Federal Housing Administration and the Veterans Administration. Price range of the homes is $8,400 to $10,200. Copper plumbing is used throughout. The softener is located in the utility room of each house.

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"BIG 4" Flexible Barn Door Hanger

Barn Door Hanger
Built entirely of steel on extremely heavy lines. It is simple, with no complicated parts to get out of order. Equipped with anti-friction steel roller bearings. Easily installed and when coupled up the door comes closer to the track than with any other hanger. Design prevents hanger from jumping the track and the axle cannot bind or stick. In normal position the "Big 4" is perfectly rigid with no vibration. If anything should bump against the door, the flexible feature permits the door to swing out and rise higher than with any other flexible hanger.

Method of Packing "Big 4" Hangers
"Big 4" hangers are packed one pair in a metal-edge box with 2¼ x 5/16-inch bolts for attaching the hangers to the door. Attached to each pair of hangers is a printed tag giving a list of the articles required to properly equip each door. The packages make an attractive appearance on the dealers' shelves.

"Braced" Rail for "Big 4" Hangers
National "Braced" Rail comes 1¼ x 3¼-inches and is made in 4-, 6-, 8-, 10- and 12-foot lengths. The brackets are the same width and thickness as the rail itself. Braced below, diminishing the strain on the screws and tripling the carrying strength. Screw holes are staggered to avoid splitting the wood. Brackets are 12 inches apart and double-riveted making it very rigid. Any flat-rail barn door hanger will run on it.