ELO-SIDING is a superior insulation siding. Its core is genuine Celotex Cane Fibre Board, famous for insulation and strength. It is Ferox-treated to resist termites, dry rot and fungus growth. All sides and edges are sealed against moisture by a coating of asphalt, extra thick on the outside and surfaced with a durable, colorful finish of firmly imbedded mineral granules that never needs painting!

A MULTI-PURPOSE PRODUCT!
Celo-Siding provides insulation plus sheathing, structural strength and exterior finish... all in one application! So any building built with Celo-Siding is low in cost, easy to erect, has strong walls, requires no outside painting or maintenance. What's more, it's warm and draft-free in winter, cool in summer and is easy to heat and ventilate.

IDEAL FOR ANY UTILITY BUILDINGS!
Since insulated buildings can be built quickly at low cost with Celo-Siding, it is ideal for brooder houses, rain shelters, laying houses, work sheds... any type of utility building.

NOW AVAILABLE!
A Celotex product especially adapted to insulated farm building construction!

NATIONALLY ADVERTISED!
To tell your customers about this remarkable new Celo-Siding, a national advertising campaign is now running in farm publications, telling them to see their lumber dealers for Celo-Siding. In addition, merchandising and display material is available to the Celo-Siding dealer, to help you tell the story of this remarkable product.

READY FOR YOU TO SELL NOW!
For complete information on how you can cash in on the growing demand for Celo-Siding, see your Celotex representative or write us. Do it now!

Celotex dealers: we will supply Celo-Siding broadside for mailing to farmers on R.P.D. Box Holder lists, imprinted with your name. No addressing necessary. Only cost to dealer is 15¢ postage per name. Write us direct ordering number desired.
UP-TO-DATE PREFABRICATED FLOORS
for up-to-date houses

Better Floors... Faster! The successful use of Fenestra Building Panels in this modern suburban Chicago home typifies their versatility... their adaptability to specific needs. In this house, Fenestra Type B Panels served as joist and subflooring and also as an important element in a unique system of radiant heating.

Large house or small... conventional or unusual... Fenestra Panels can help speed construction. No special skill is required to lay the uniform, pre-cut sections and lock them to a tight fit. Five types of panels available, in a variety of weights and lengths... for floors, walls, partitions, ceilings and roofs. Mail the coupon for details on sizes, weights, load-bearing qualities and other data.

Fenestra Panels are quickly laid to provide an ideal subfloor.

Fenestra Type B Panels here serve as floor and as "carpet" for radiant heating plenum chamber. Heat is brought to the chamber through duct shown in foreground, being steel, the panels quickly transmit heat from the chamber to the room above.

The panels provide an ideal surface for the application of whatever finished floor the owner chooses. Here the workman applies a mastic for linoleum or rubber tile. Likewise the floors provide an excellent base for hardwood or plywood and carpet.

DETROIT STEEL PRODUCTS COMPANY,
Dept. AB-4, 2260 E. Grand Boulevard,
Detroit 11, Michigan

Please send me, without obligation, information on Fenestra Building Panels.

Name

Company

Address
OUTSIDE: Double-duty Insulite Sheathing gives you and your customers a bonus when it provides two services for the price of one —

(1st) Sheathes  
(2nd) Insulates

Double-duty Insulite is easy to handle, easy to saw, easy to fit. It goes up fast, saves time, cuts costs.

All this, PLUS insulation, so you can tell a customer “Here’s where we give you double for your money.” Figure Insulite on your next job.
INSIDE: Double-duty Insulite Lok-Joint Lath combines two uses in one material —

(1st) Plaster base (2nd) Insulation

That's double value for the money—one product, double usage.
Tell your customers about it—Watch them take an interest! Patented Insulite "Loks" guard against plaster cracks, assure a smooth, lasting plaster job.
Look up! Speak up! When cracking plaster is causing trouble, always say—"You need an Upson Ceiling, ma'am."

Make it a habit to watch for cracked plaster! There is profitable business and the answer to a long-standing problem in Upson Ceilings.

Because millions of homes—many right in your own community—have cracked ceilings badly in need of repair right now.

Because patching does not correct the cause of cracking, and replastering is a dreaded ordeal of dust, dirt, and delay for the housewife.

Because Upson Ceilings end plaster troubles forever—provide enduring beauty—and can be installed quickly and easily right over old plaster anywhere.

Because one Upson Ceiling job sells another and another.

Although Upson Panels, like all good building materials, are not yet in full supply, start today to make a ceiling survey in your area!
CONTENTS

Front Cover—Kodachrome Photograph by Hedrich-Blessing ................................. 1
Publisher’s Page .............................................. 11
Our Readers Say .............................................. 14
Trends .......................................................... 23
Monthly Review of NAHB ...................................... 35
Editorial ......................................................... 98
Builder Sloan Erects First All-Sealed House in America .............................. 96
A Ranch House Designed for Town or Country ............................................. 106
Basic Plans Aid to Economical Construction ............................................ 111
Group Planning and Building Pay Off .................................................. 114
400 Homes for Pomona’s De luxe Subdivision ............................................ 118
Rock Creek Luxury Houses ........................................................................ 120
Cleveland Model Home Features Radiant Heat ........................................... 122
To Buy Now—Or Not to Buy? ..................................................................... 123
Northwest Architects Offer New Plans to Builders .................................... 124
Something Better? Altadena Heights Proved to Be the Answer .................... 128
Nichols Builds More Duplexes in Country Club District ............................. 130
Three Small Houses Designed for Today’s Building Market ...................... 132
“The Cemesto System of Construction Is No Secret” ................................ 134
Office Designed for Architectural Service ................................................. 136
Expertly Designed to Attract Motorists ...................................................... 137
Norgate—A Subdivision of Quality Homes .................................................. 140
Big Rooms in Small House .......................................................................... 142
Adhesives and Their Part in Building Today ............................................. 144
How-to-Do-It Department and Better Detail Plate ................................. 146
New Products ......................................................................................... 148
Catalogs ................................................................................................. 154
On and Off the Record .............................................................................. 161
Index to Advertisers .................................................................................. 212

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Editorial Office, 105 West Adams Street, Chicago 3.
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The wide, heavy, cast drum surfaces of Ford Brakes are non-warping and score-resistant. They are interlocked and fused with steel drum discs during casting, providing great strength and reducing weight. The two shoes are independently anchored, each shoe being actuated by its own hydraulic piston. Adjustment is extremely simple and entirely external. Brakes are exceptionally stable in adjustment. Entry of water and dust is minimized by closely fitted tongue-and-groove design, where edges of drums meet backing plates. Ford brake design promotes long lining life, consistent performance, extra-safe stopping ability and easy pedal pressure.

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SPEEDY and powerful, Black & Decker Electric Quick-Saws beat hand sawing 10-to-1 in all kinds of ripping, crosscutting, angles, grooves and dadoes. Rip hours off sawing jobs in wood, compo-board, slate, tile, marble, asbestos, galvanized sheet, other thin ferrous or non-ferrous metals. Perfectly balanced for easy handling that saves muscle. Built to take the rough spots without slowing up or over-heating. Cut cleanly and accurately.

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POWERFUL!
- Heavy-duty gears and bearings deliver full power to Saw blade.

CONVENIENT!
- Operates from standard power line or portable generator.
- Complete—in convenient case—to carry to the job.

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ADAPTABLE!
- Quick adjustment from minimum to maximum depth of cut.
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- Instant-release trigger switch.
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Smartly styled in many types and sizes for Adaptability...

The SEVERN Boiler. For small or medium size homes, burns coal (hand-fired or stoker), oil or gas with utmost efficiency and economy. Notable among its advantages are large fuel chamber and combustion space; scientifically designed flue passages; extra large 7-inch top nipples placed partially below water line; permanent iron-to-iron fit of all sections and flues; and small water content to insure rapid circulation and quick steaming.

This group includes the MASTER PEMBROKE, a graceful bath of Neo-Classic design featuring a lower rim, large bathing space and a faster bottom for greater comfort and safety; the COMPANION, a genuine vitreous china lavatory which can be had also without legs for wall support; the MASTER ONE-PIECE, a compact, genuine vitreous china water closet with a quieter, more efficient siphon-vortex water action. All three pieces are available in white and many attractive colors. Also shown is the ARCO, a slim-tube, space-saving radiator.

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You'll find just the heating equipment and plumbing fixtures you need in American-Standard's extensive line. And you can be sure that whatever you select will be striking in design, efficient in performance, economical in operation, and durably constructed. For millions have been spent—in research . . . in engineering . . . in production facilities—to make American-Standard Heating Equipment and Plumbing Fixtures the finest that money can buy. Yet they cost no more than others . . . and are available for modernization on a convenient Time Payment Plan. For details, see your Heating and Plumbing Contractor. American Radiator & Standard Sanitary Corporation, P. O. Box 1226, Pittsburgh 30, Pennsylvania.

LOOK FOR THIS MARK OF MERIT—it identifies the world's largest line of Heating and Plumbing Products for every use . . . including Boilers, Warm Air Furnaces, Winter Air Conditioners, Water Heaters, for all fuels—Radiator, Convector, Enclosures—Gas and Oil Burners—Heating Accessories—Bathtubs, Water Closets, Lavatories, Kitchen Sinks, Laundry Trays, Brass Trim—and specialized products for Hospitals, Hotels, Schools, Ships, and Railroads.
BUSINESS MEN of ability who had experience between World Wars I and II will try to benefit by this experience during the present postwar period. Younger business men of ability will try to compensate for their lack of experience by studying the country's economic history between the wars.

Many reasons have been given for past cycles of boom and bust. Probably the principal reason, but one seldom given, is that every cycle is largely dominated by a new generation of business men who repeat the mistakes of their predecessors. They can hardly avoid the same mistakes unless, by study, they learn from the experience of their predecessors.

A boom is the inflationary part of a business cycle. We are in that part of a cycle now. Every advance in wages or prices at such a time is dangerous. For all experience shows that the more prices advance—i.e., the more inflation occurs—the sooner a decline of prices—i.e., deflation—occurs and a bust comes.

Those without knowledge of economic history always are prone to believe that profits can be increased by advancing prices. But profits are the margin between expenses and taxes, on the one side, and gross earnings, on the other; and gross earnings depend on volume of business as well as prices. Excessive increases of prices drive away buyers, reduce volume and destroy profits. The largest demand for goods in history up to that time was allowed to drive prices to the highest level in history in 1920. Then buyers quit, profits disappeared and prices fell almost 50 per cent within a year. You can lead a customer to high prices, but you can't make him buy.

The need for goods of almost all kinds is now so great that business can be maintained on a high level for years. But business men will principally determine how long business will be maintained on a high level—and not merely big business men, but all business men. Present high costs require high prices; but no effort should be spared to keep prices where they will not reduce volume.

With most prices so high and volume so large, increases in profits in most businesses should be sought principally by efforts to reduce costs. In almost every industry direct and indirect costs of labor constitute at least four-fifths of expenses. The problem of labor cost is, therefore, virtually the problem of all costs. The problem of labor costs is one of both wages and labor productivity. And the productivity of labor depends both on how labor works and on the efficiency of the equipment and plant that are provided and the methods that are used by the employer.

There is no easy way to make and maintain good profits, because there are no easy ways to do good selling or to deal efficiently with costs. Hence, the average life of business concerns is only five years. But there are plenty of hard ways of doing good selling, and plenty of hard ways of dealing efficiently with costs—in short, no easy ways, but plenty of hard ways of making and maintaining good profits.

How long business in general will be good and reasonably profitable will depend on how many business men have learned from experience and history that to try to make profits easily is the easiest way, in the long run, to make no profits at all.

Samuel O. Dunn,
TURN OFF the Regular Heating System

On Days

CHILLY MORNINGS

WARM AFTERNOONS

COOL EVENINGS

...and economize with the FUEL SAVING...

CONTROL SWITCHES
...CAN BE PLACED ANYWHERE
FOR YOUR CONVENIENCE. INDIVIDUAL OR CENTRAL THERMOSTATIC
CONTROL AVAILABLE, IF DESIRED.

FA ELECTRIC

QUIKHETER

Frank Adam Quikheters are excellent for any day on which heat is needed, but they are particularly ideal for days when the weather is extremely variable...damp and chilly mornings, warm afternoons and cool evenings...days when the regular heating plant sends forth an uncomfortable amount of heat, and yet, it is too cool to be without some warmth in the house.

Easy to operate, requiring only the flip of a conveniently-located switch, @ Quikheters send forth billows of warm air that will warm an average room in less time than it takes to build a fire in the regular heating plant. And when the desired temperature has been reached, you simply turn it off. Or should you want it, thermostatic control is available at slight additional cost.

Install one of these attractive, convenient, fuel-saving, comfort-giving units in your home today and thus provide against unusual weather conditions.

MAKERS OF...
BUSDUCT
PANELBOARDS.
SWITCHBOARDS

Frank Adam
ELECTRIC COMPANY
ST. LOUIS, MISSOURI

SERVICE EQUIPMENT
SAFETY SWITCHES
LOAD CENTERS
ELECTRIC QUIKHETER
Popular colors and designs — Monowall is made not only in the Streamline design illustrated, but in Plain colors and Tile designs—and in a wide variety of popular colors.

Walls and ceilings of Armstrong’s Monowall in bathroom, kitchen, and other service areas can be finished with money-saving speed. This modern decorative material goes up fast over dry wall construction of all kinds. It gives new homes the sparkle of colorful, long-lasting, and easy-to-clean surfaces with real economy.

Monowall comes in large-size panels that can be cemented to any flat surface. Since it is available in a standard width of 4' and lengths up to 12', it is easy to plan a Monowall surface with a minimum of joints. Monowall is made on a base of tempered wood-fiber hardboard. It’s light in weight and can be shaped by a good craftsman with ordinary hand tools.

Every Monowall panel is finished with several coats of lacquer. This glossy finish is tough and durable. Heat and cold can’t crack, chip, or peel it. Moisture can’t affect it. Monowall score lines are smoothly rounded at the shoulder with no “whiskers” to catch dirt or wear thin. Nothing more than soap and water is needed to keep Monowall looking spick-and-span for years. Fingerprints can be wiped off quickly with a damp cloth.

Not only for new construction, but for remodeling, Monowall can save time and money. For free literature, write to Armstrong Cork Company, Building Materials Div., 1604 Lincoln St., Lancaster, Pa.

ARMSTRONG’S MONOWALL
How serious is housing shortage?

To the Editor: Just how serious is this housing shortage?

Last summer, an old friend was transferred by his firm from Pittsburgh to Philadelphia. He called me up and said that he had been to twenty realtors and tried to rent or purchase quarters for himself and family; what could I do for him?

I called up five good friends in the building and real estate business and had them try to help him find a place. No luck. Whether or not he got a place, I do not know. I do know that he was transferred to another city soon thereafter.

NOW: Did he call or write those twenty brokers to cancel his request? Did I call my five friends and tell them likewise? Or suppose that he had leased or purchased from one of them; would the other twenty-four have been notified?

You give the answers.

No doubt, few if any of them had even taken his name as a courteous gesture, but certainly twenty-five people had subconsciously registered his request and those of many others who were making the rounds. Yet one sale or leasing would have lifted his name from twenty-five listings—as would the same act by many others on the lists.

Yes, there is a housing shortage, but it might not be as serious as some planners would have us believe. Will it be like the case of the merchant who had six radios delivered to him and called up a hundred listed prospects before he sold them all.

As for public housing: I never saw a house built excepting by a builder, and I never saw a house built from a desk, of magazines—most years complete—contained therein.

To the Editor: As I have been a reader of your American Builder for over thirty years, I am enclosing a photo of myself and a saw I have had in my carpenter tool kit for forty years, a Diston & Sons. I thought it might be of interest to some of your readers. — F. F. CLARK, Medford, Ore.

Resolution endorses editorial

To the Editor: At a general meeting of the general membership of our Association, a resolution was passed endorsing your January editorial and commending the American Builder on its stand taken in behalf of private industry.

We sincerely appreciate the splendid editorial support given to us during these difficult times and assure you of our continued cooperation in all matters of mutual interest. — GEORGE H. SHARP, Associated Home Builders of Alameda County, Oakland, Calif.

Thank you

To the Editor: I recommend the American Builder, as I am a regular subscriber myself and in the building trade too. I like your magazine and the new blueprint series is a real addition to it. I read your editorial and publisher pages first of all and I think they come right to the point. Keep up the good work! — THEO. STOLTER, Eureka, Ill.

To the Editor: We are greatly indebted to the American Builder for its splendid contribution to the success of our Convention in that very interesting and well edited daily newspaper. I know our people thoroughly enjoyed it and you are to be congratulated upon a splendid job of publishing. — PAUL S. VAN AUKEN, Chicago, Ill.
American Builder, April 1947.

The PLANNING BOARD

The Truscon Planning Board says, "Right now, March 15, our shipping schedules read like this: Series 46 Double-Hung Windows, 12 to 14 weeks; Reinforcing Bars, 4 to 6 weeks; Light Tube Doors, manually operated, 10 to 12 weeks; Structural Doors, manually operated, 12 to 14 weeks; shipments of doors with motor operators are contingent upon our ability to secure electrical equipment. Keep in touch with the Truscon sales representative in your district for latest information."

Big, Big Steel Windows

Recent expansion operations at the State Capitol Building, Tallahassee, Florida, included the exclusive use of Series 46 Truscon Double-Hung Steel Windows in large sizes. These windows permitted the generous introduction of Florida sunshine and fresh air into the structure, while helping enhance the architectural design of the building.

The Series 46 Double-Hung Steel Window is designed especially for use in important office and public buildings or for openings where Underwriters' label of approval is required. Maximum window sizes of 6' 0" by 10' 0" for single units and 10' 0" by 10' 0" for integral twin units are obtained through the use of heavy 12 gauge staff bead and sill sections, 16 gauge frame sections and tubular shape 18 gauge sash members. Weatherstripping of spring bronze at head, meeting rail, sill and jambs provides constant weathertightness and easy operation. Lever type lift handles are a convenient operation feature. The molded design of the tubular sash sections and muntins materially adds to the appearance. New billet steel, electro-galvanized, combined with Bonderizing and baked-on paint applied to all ex and interior surfaces insures long life and low maintenance. Screens, storm sash and window cleaner bolts are available for this design when and if desired.

Steel Windows and Industrial Steel Doors.

For Better Reinforcing

Truscon Steel Bars for reinforcing are applicable to a wide range of concrete work, such as concrete slabs, beams and girders, columns, walls and footings; in the construction of buildings, bridges, tanks, and all other concrete structures subject to tension and compression stresses. These concrete reinforcing bars are special rolled sections of high grade steel, with a series of longitudinal and diagonal ribs so designed as to provide the maximum bond with the surrounding concrete.

Truscon concrete bar fabricating plants are strategically located throughout the country in order to economically serve our customers. Bars are fabricated in these plants to meet the engineering requirements of individual jobs. They are delivered to the job cut to length, bent, bundled and properly tagged. If desired, our engineering department furnishes completely detailed placing drawings for the convenience of the steel erectors. Write for details.

Steel Doors for Every Industrial Purpose

Give serious consideration to the in-and-out and interior traffic problems of the structures you are designing, for you can do much to speed the efficiency of traffic movement with the proper doors.

There's a range of Truscon Steel Doors to meet every type or size needed in any type of structure, from 2' 7½" swing type for residences, schools, stores, etc., to great mechanically operated doors for airplane hangars with openings of hundreds of feet in width. The types include swing and slide industrial doors, two-section vertical lift doors, two-section turnover doors, accordion doors, crane and canopy doors, pier doors and hangar doors. Write for details.

New Literature

A new catalog describing Truscon Steel Joists, Steeldeck Roof, Metal Lath, Concrete Bars and Reinforcing now is ready. Write for your free copy today.

TRUSCON STEEL COMPANY
YOUNGSTOWN 1, OHIO
Subsidiary of Republic Steel Corporation
Blue Ridge Flutex in the "Kitchen of Tomorrow" makes cupboards lighter... the kitchen brighter and more sparkling.

This Flutex screen transmits light between kitchen and dining room—creates a background for plants. Model kitchen of People's Light & Coke Co., Chicago.

Indirect lighting is diffused through the cupboard doors glazed with Blue Ridge Flutex in the model kitchen of Sylvania Electric Products, Inc.

MORE SALES APPEAL WITH Patterned Glass

The sparkle of glass adds a luxury look, even for limited budgets... and attracts more buyers for the homes you build.

Patterned Glass adds lasting beauty to every room. Clear or Satinol finished, it transmits light yet assures privacy. More than 20 patterns are made by the Blue Ridge Glass Corporation and sold through L-O-F Glass Distributors. Each helps to give the builder a wide choice—for doors, panels, partitions, screens, window glazing, and even entire window walls.

Patterned Glass is easy to install—always looks new and bright. Maintenance costs are low, for it's quickly cleaned with a damp cloth—a fact housewives will appreciate. Be sure to use Decorative Glass in your construction. Blue Ridge Sales Division, Libbey-Owens-Ford Glass Company, 147 Nicholas Building, Toledo 3, Ohio.

"Design it with one of the 5 EX's"

LOUVREX  LINEX  FLUTEX  STYLEX  DOUBLEX

BLUE RIDGE Patterned GLASS FOR SOFT, DIFFUSED LIGHT • SMART DECORATION • COMPLETE PRIVACY
For more than 60 years, the leading manufacturers of heating equipment and Minneapolis-Honeywell have worked together to raise the standard of home heating comfort.

What this association has accomplished speaks for itself. When a heating plant equipped with Honeywell controls is installed in a home you've built, you can know it is going to function at its best. This fact has become a reputation; demonstrated by performance, proved by acceptance among millions of home owners.

So, take advantage of this universal acceptance as a forceful prestige feature for your homes. Standardize on Honeywell—the leader. And for the last word in heating comfort, install Moduflow, the remarkable new Honeywell control system. Minneapolis-Honeywell Regulator Company, 2655 Fourth Ave. So., Minneapolis 8, Minnesota. In Canada: Toronto 12, Ontario.
Specialization

Keeps

DEXTER TUBULARS

at the head
of the parade

Dexter originated the tubular lock and latch in 1924 and ever since has specialized on its production. Because of this concentration, Dexter Tubulars steadfastly maintain their leadership of first choice with those who know and want the best.

Catalog No. 121½ A 122 Bedroom and Bath Set. Locking Rose inside, passed by emergency key outside. Solid brass trim.

NATIONAL BRASS COMPANY, Mfrs.
Grand Rapids, Michigan

MAKERS OF BUILDERS, CABINET, SCREEN DOOR AND SHELF HARDWARE
When Your Clients Ask...

"What about Multi-Breakers?"

These few simple facts tell the whole story:

1. A Multi-breaker is the modern circuit wiring protector or "safety valve" for electrical circuits.
2. It automatically disconnects the circuit should a short circuit or dangerous overload occur.
3. Multi-breakers operate without fuses and there is nothing to replace to restore the circuit.
4. A simple movement of the lever restores current after the cause of the short circuit or overload has been removed. There are no delays—no fuss or bother.
5. Multi-breakers meet the 1947 National Electrical Code. They are non-tamperable.
6. On the average, Multi-breakers cost no more—sometimes less.

Ask your electrical contractor or Square D Field Engineer for complete facts and figures on Multi-breakers for homes or industry.

The Multi-breaker eliminates fuses completely. It is neat and compact—can be installed in any convenient wall. It provides the protection and convenience which every modern home deserves.

SQUARE D COMPANY

DETROIT • MILWAUKEE • LOS ANGELES
Bruce Finished Floors give these 8 important advantages over ordinary floors finished on the job: (1) Every strip is sanded to perfect smoothness. (2) Finishing starts immediately after sanding—no raised grain. (3) Highest quality silex filler is thoroughly worked in. (4) The finish penetrates the wood, seals the pores, beautifies the grain. (5) Infra-red drying welds finish into tough, even film. (6) High speed buffers burnish finish over and over. (7) Wear-resisting Bruce Floor Wax is applied evenly, polished to perfection. (8) Floor is ready to use when laid. For uniformly beautiful floors—and a real saving of time on the job—standardize on Bruce Finished Floors.

E. L. BRUCE CO., MEMPHIS, TENN.
World’s Largest Maker of Hardwood Floors
CONTROLLED SUNSHINE...
for year-round comfort and beauty

In this attractive house of Mr. and Mrs. H. M. Sloan of Glenview, Illinois, Architect David S. Barrow added the beauty and spaciousness of the outdoors to indoor living. He provided the extra comfort and economy of solar heating with window walls of Thermopane, the complete multiple-pane insulating unit.

All year the beauty of the landscape is enjoyed with indoor comfort. In summer, the Thermopane units, shaded from the direct rays of the high sun, help keep the house cooler. In winter, sunshine floods the room, warming the walls, floors and furnishings. Thermopane helps keep this heat in, for between its two panes there's a sealed-in air space that provides effective insulation.

Large house or small—modern or conventional... Thermopane can help make it more enjoyable, more comfortable and easier to sell. Write for further information on Thermopane, including data on standard sizes. Libbey·Owens·Ford Glass Company, 1847 Nicholas Building, Toledo 3, Ohio.

The overhang is carefully calculated to admit sunshine in winter and keep it out in summer. Notice how the shadow falls along the sill in this summer picture—a shorter overhang being used for the bedroom windows with higher sills at the right. The canvas portion of the overhang is removed in winter to permit the heat-giving rays of the low winter sun to enter.
Will you be the GOAT
—ten years from now?

Why should you be the goat, and risk your present and future reputation, when it's a demonstrated fact that unless new homes are wired for ELECTRIC RANGES they're not modern now and will be even farther behind the times ten years from now. Survey after survey proves that!

Protect your reputation by building houses that are truly modern. Avoid kick-backs by including wiring for an Electric Range.

An Electric Range requires only: 3-wire service from point of cut-in to the distribution panel; a minimum of two No. 6 wires and one No. 8 wire; a 60-amp. switch with overload protection and a 3-wire circuit from the distribution panel to the range outlet in the kitchen. Make this your minimum wiring specification.

Electric Range Section
NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
155 E. 44th Street, New York 17, N. Y.

TO KEEP THEM MODERN . . .
wire your houses FOR ELECTRIC RANGES
BUILDING COSTS have been attacked repeatedly on the ground that they are too high in relation to costs of other commodities. A Detroit builder, and the editors of The Bildor, official publication of the Builders Association of Metropolitan Detroit, feeling that the attacks were not justified by fact, compiled the data shown in the tabulation below.

Building costs, and therefore, building prices, admittedly are higher than they were in 1940. But, so are costs and prices of practically all commodities. Values, however, are always relative, and therefore, the only way to determine whether building prices are out of line is to study them in relation to the quantity of other goods or services which are required to effect a purchase or exchange. Operating on that sound economic premise, The Bildor related current and 1940 building prices to current and 1940 farm product values, and to current and 1940 labor and service values. In every comparison the results show that new houses at 1947 prices are better buys than new houses in 1940.

Perhaps the most startling comparisons is in the case of Detroit school teachers who, like school teachers everywhere, are supposed to be underpaid. Still, a Detroit school teacher can buy the standard house in 1947 at $8,400, for 12½ per cent less work time of his own than he could have bought it for in 1940 when he paid only $5,600.

There is nothing in a house that does not start as an untouched raw material in a mine, a pit, a quarry or a forest. In its natural state the material is relatively valueless. Cost and value begin to accumulate as soon as a workman applies the first saw, the first shovel or the first charge of explosive. From that time on until the raw material alone or in combination with other raw materials emerges as a finished product installed in a house, costs and prices accumulate. The final selling price consists of labor costs, and the profits added by the holders of risk capital to compensate them for the risks of production and selling. Practically all labor costs have gone up since 1940. If profit in the building industry had risen at the same rate, and in the same percentage, the house that cost $5,600 in 1940, and $8,400 in 1947, would probably now cost several thousand dollars more than it does.

The figures compiled by The Bildor reflect increased labor costs at every stage of building material production, distribution and installation. They also reflect decreased profit percentages to builders, and increased efficiency tending toward lower building costs. Building prices in 1947 are relatively less than they were in 1940. When the muddled shipping and distribution program, unsettled by the demands of war, is again functioning at prewar efficiency, costs and prices can be expected to decline somewhat. New homes will continue to be relatively good buys on the markets of the future.

The following table was taken from the February, 1947, issue of The Bildor, official publication of the Builders Association of Metropolitan Detroit. It shows the relative costs in farm products, and in work periods, for various classes of workers of a house built and sold in Detroit for $5,600 in 1940, and exactly the same house built and sold for $8,400 in 1947. The house represents a standard plan which a Detroit builder has been using for eight years.

<table>
<thead>
<tr>
<th>To buy the house in 1940 for $5,600 the farmer had to offer:</th>
<th>To buy the house in 1947 for $8,400 the farmer had to offer:</th>
<th>Net savings</th>
</tr>
</thead>
<tbody>
<tr>
<td>11,200 bu. of corn</td>
<td>6,287 bu. of corn</td>
<td>4,913 bu.</td>
</tr>
<tr>
<td>10,241 bu. of oats</td>
<td>6,974 bu. of oats</td>
<td>3,267 bu.</td>
</tr>
<tr>
<td>7,414 bu. of wheat</td>
<td>3,818 bu. of wheat</td>
<td>3,596 bu.</td>
</tr>
<tr>
<td>52,921 lbs. of cotton</td>
<td>27,096 lbs. of cotton</td>
<td>25,825 lbs.</td>
</tr>
<tr>
<td>50,000 lbs. of pork</td>
<td>32,000 lbs. of pork</td>
<td>18,000 lbs.</td>
</tr>
<tr>
<td>Cost in labor of $5,600 house in 1940</td>
<td>Cost in labor of $8,400 house in 1947</td>
<td></td>
</tr>
<tr>
<td>Farmhand, 150 months</td>
<td>98 months</td>
<td>52 months</td>
</tr>
<tr>
<td>Factory worker, 8,646 hours</td>
<td>7,178 hours</td>
<td>1,467 hours</td>
</tr>
<tr>
<td>Building mechanic, 6,000 yds., plaster</td>
<td>6,720 yds.</td>
<td>1,328 yds.</td>
</tr>
<tr>
<td>Domestic worker, 1,866 days</td>
<td>1,312 days</td>
<td>554 days</td>
</tr>
<tr>
<td>School teacher, 4 years</td>
<td>3½ years</td>
<td>½ year</td>
</tr>
</tbody>
</table>

TRENDS
BUILDING MATERIAL — EQUIPMENT — APPLIANCES

Don't let anyone kid you!

women want: Surveys* show that women want Electric Water Heaters because of the following advantages: (1) SAFE (fumeless, flameless); (2) CLEAN (smokeless, sootless); (3) ADAPTABLE (short hot water lines; no flue or vent); (4) TROUBLE FREE (as electric light); (5) ECONOMICAL (plenty of hot water all the time at low cost).

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"Sidewalls of double-coursed cedar shingles are economical and long lasting. The maintenance cost is low, scale and proportions of the building are improved and a warm, tight, attractive job is assured."

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A. Outer course of No. 1 Certigrade Shingles.
B. Under course of lower grade shingles.
C. Building paper.
D. Solid or spaced sheathing.

Note: Weather exposure—12" for 16" shingles and 14" for 18" shingles. Top course is laid 5/16" lower than under course. Use only two nails per shingle spaced 2" from butt and 1/4" from edge. Under course may be stapled.
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Get Better Brickwork!

In bricklaying, as in everything else, there is a right way, and a wrong way. An example of each is shown below. Study them — then read how Brixment helps the bricklayer do it the right way.

No. 1 OF A SERIES—
THE RIGHT WAY AND THE WRONG WAY—IN BED JOINTS

Mortar for the bed joint should be spread thick. The furrow in the mortar should be made shallow, not deep. Then there will be enough excess mortar in the bed joint to completely fill the furrow when the brick are bedded to the line. This will give full bed joints.

If the mortar for the bed joint is spread too thin, or if the furrow in the mortar is made too deep, there will be insufficient mortar in the bed joint to completely fill the furrow, when the next course of brick is bedded. This will leave a channel along which water, entering from some open joint, may travel until it finds a passage to the inside of the wall.

BRIXMENT mortar helps the bricklayer do better work. It is more plastic. It stays plastic longer on the wall, and when the bricklayer beds the brick, he does not need a deep furrow or excessive tapping, to place it “to the line.”

Brixment mortar has greater plasticity, higher water-retaining capacity and bonding quality, greater resistance to freezing and thawing, and freedom from efflorescence. Because of this combination of advantages, Brixment is the leading masonry cement on the market.
Nu-Glaze sells better because it does the job better!

Sets to a rubber-like consistency
Apply like putty ... not a putty ...
Clean to handle.

Nu-Glaze sells fast and repeats. It's the perfect material for glazing wood sash, replacing putty, setting plumbing, filling cracks, boatwork of all kinds, and general patching purposes. Sets to a rubber-like consistency. Requires no working up. Cheapest material to use in the long run because it stays "put".

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Your Supply
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The Cor-o-aire Hi-Boy automatic heating and winter air conditioning unit for basement and utility room installation, is popular because it's economical.

Shown here is the two story home of Cor-o-aire Hi-Boy owner, John Matthews of Cleveland. Shown also are his gas bills, irrefutable evidence of the Hi-Boy's economy of operation.

There's just one simple reason for the Hi-Boy's efficiency and economy of operation and its nation-wide popularity ... it's the new, exclusive, patented, cast iron Venturi tube heat exchanger.

The Cor-o-aire Venturi tube heat exchanger consists of 46 tubes which allow the hot gases 28 feet of flue travel as compared to a maximum of 8 feet in ordinary heaters. The long flue travel permits the heat exchanger to extract more heat and transfer it to the cold air which is spun 'round 4 or 5 times against the outside walls of the cone shaped tubes (like water passing through a funnel).

The Cor-o-aire Hi-Boy is ruggedly constructed, has a beautiful bright blue hammerloid finish and is equipped with a large blower, filter and all the most modern automatic and safety devices.

Users everywhere are asking for an efficient gas fired basement heater. These low gas bills prove that the Cor-o-aire Hi-Boy is the basement heater that satisfies the popular demand. Write today for further information.

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CLEVELAND 15, OHIO

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The skip-hoist saves labor—its 16 cu. ft. capacity is self cleaned. Powered electrically, the skip-hoist eliminates constant scrutiny, operating semi-automatically on a vertical track that involves the simplest method of mix delivery. Whether the mixer is at floor level or mounted atop the hopper, the same skip-hoist does the job.

The three-batch feed-hopper, linked with the skip-hoist assembly, feeds with bang-up efficiency one, two or three block machines at the same time.

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Amazing New **Tru-sized** DOOR JAMB

**Does A Better Job**

7 TIMES FASTER—

*Tru-Sized Jams are made of select Douglas Fir. Packaged 2 complete units to a bundle in protective paper wrapping, with all hardware and full instructions for installation.*

Adjustable to variations in Door Sizes!

No Nailing! Only 3 precision milled pieces to handle on the job!

"Shock-Absorber" Springs Assure Accurate Fit for Life of Building!

Almost unbelievable, but it's true—YOU CAN INSTALL 7 TRU-SIZED DOOR JAMBS IN LESS TIME THAN IT TAKES FOR ONE ORDINARY JAMB!

All the work of nailing, squaring and plumbing with wedges, gaining for hinges, and cutting and installing stops is either eliminated or done at the factory!

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Simply turn the Table. Then make the Cut
Why leaders in small-home building find it pays to include Coleman Floor Furnaces in their plans:

Not just one, but four advantages are winning architects and builders to Coleman Floor Furnaces. Easy installation is one. Second is the way the Coleman Floor Furnace can be adapted to designs either with or without basements—saving space in all cases, and saving construction cost often. Third, Coleman engineering has made it possible to give amazing "all-over-the-house" comfort, at exceptionally low fuel cost; along with the automatic, clean heating today's housewives are demanding. Last—and far from least—Coleman's big national advertising is building Coleman's reputation and nationwide acceptance—a powerful selling help. Write, today, and learn what Coleman Floor Furnaces may do for you! Retail prices range from $95 to $155, exclusive of installation.
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REMEMBER: THREE HINGES TO A DOOR
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Here is a new, popular priced, Vitreous China Urinal by Eljer that will "open the door" for you on many jobs.

Easy to clean and keep clean, this well-designed piece appeals to architect and builder alike. The hard, glass-like surface resists stain and reduces janitor service to a minimum, an economy feature which appeals to every building manager.

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SINCE 1904 MAKERS OF FINE PLUMBING FIXTURES
Wisconsin Home Builders Form State Organization

Following closely after their Texas brothers, the home builders of Wisconsin recently formed an organization, the Wisconsin Builders' Association, which will immediately seek affiliation with NAHB. The new state group held its first meeting in Milwaukee, with representatives from Madison, Oshkosh, Beloit, Kenosha, Watertown, La Crosse, Fond du Lac, and Janesville conforming with a large delegation of the Milwaukee home builders.

Officers named include Sidney Dwyer, Milwaukee, long prominent in the national organization's activities, president; Neal H. Stoddard, Madison, vice president; Glenn Webermeier, Beloit, secretary; John Furtmeyer, Kenosha, treasurer; and Frank Kirkpatrick, Milwaukee, Joseph Callaway, La Crosse, and E. A. Precour, Oshkosh, directors.

In an announcement about the Wisconsin state organization, Mr. Kirkpatrick, who is well-known nationally for his effective work during 1946 as head of NAHB's Slum Clearance Committee, and also president of the Milwaukee Builders Association, stated that a local chapter of home builders had already been formed at Madison, and that several other cities would be organized.

A. J. Alexander, Akron, president of the Ohio Home Builders Association, was active in helping the Wisconsin organization get under way.

The new officers have been assured the continuing interest and cooperation of their predecessors. Plans for regular meetings with interesting programs are in progress, and will be announced soon.

Tulsa Home Builders Elect Otis Nidiffer 1947 President

The Tulsa Home Builders Association has announced the election of Otis Nidiffer as president to succeed Robert W. "Bob" Adams, who held the office during 1946. Mr. Nidiffer, who is secretary-treasurer of the Hal Murray Co. of Tulsa, has been in the building business for 10 years. Builder of 47 house additions, he has under construction 53 new homes in the Glen Haven Addition. He built 250 homes during the war.

Mr. Nidiffer is a Shriner and a 32nd Degree Mason.

Serving with the new president are Oliver S. Black, vice president, Mrs. George S. Wilson, secretary-treasurer, and Mr. Adams, national director. Members of the Board of Directors include Waldo J. Bashaw, Mrs. R. B. Butler, Walter R. Kelly, Morris W. Turner, Lee Mulhall, Howard E. Hanna, Everett S. Johnson and William Higby.

President Carr Pledges New Maximum Volume of Housing During Year Ahead

Evidence that the nation's home builders will again have well-informed, forceful leadership under 1947 President Edward R. Carr, Washington, D. C., elected during the Annual Convention and Exposition to succeed Joseph Meyerhoff is to be found in his first official statement.

"The home builders of the national organization pledge themselves to produce the maximum quantity of good housing, both for sale and rent, at the lowest possible cost to meet the needs of all our people, particularly the needs of World War II veterans," he declared. "As the industry which builds American houses, we are fully conscious of the fact that the provision of good housing for all income groups is one of the most important of all tasks. Decent housing is an essential of the American way of life. It has long been recognized that home ownership is the bedrock of a free economy and free institutions. Its importance today is greater than ever before."

Emphasizing that "unhampered functioning" was essential to maximum production, President Carr continued: "We have set our goal for the production of a new maximum volume of homes each year from this time forward. This production can be reached for many years to come if government withdraws to an advisory and assisting capacity; if labor makes available sufficient mechanics who will give a full day's production for a full day's pay; if manufacturers and distributors of building materials provide quality products at fair prices, and if the lending fraternity provides funds upon reasonable terms."

Addressing himself to specific points he said of the veterans' housing program: "In line with the considered judgment of responsible veterans' organizations themselves, we believe that all federal controls on construction should be discontinued immediately. If in some localities a necessity still exists for limitation of non-housing construction it should be done through voluntary community action."

On the subject of low and moderate price rental housing, he declared: "The National Association of Home Builders pledges its entire organization to the construction of low to moderate priced rental housing at a greatly accelerated rate. It urges that its affiliated local associations directly sponsor rental projects at lowest possible rents and encourage their membership to erect all the rental housing possible in their communities."

"To make such a campaign a success, various technical improvements will have to be made in FHA procedure and operations. Our industry accepts its responsibility for producing the rental housing the nation needs."

Stating that the labor policies and practices with which home builders must cope today constitute one of the most serious barriers preventing a greater volume of housing than any one industry can provide, Mr. Carr said: "Labor practices with respect to home building have reached a condition where they severely threaten the success of our efforts to provide the nation with all the homes it needs. We call for the following actions:"

"1. We call for Congressional action to abolish the closed shop because it is un-American in that it denies the inherent right of free men to work, and permits the maintenance of a legalized monopoly of one of the most important elements in home building.

"2. Uneconomic restrictive practices by labor represent a burden on the construction of homes for America that should be removed. They are monopolistic practices which have no place in the economic system.

"3. The training of apprentices in the building trades is woefully inadequate. The national average of journeymen to apprentices is reported generally to be 12 to 1. A ratio of 4 to 1 would be fair."

"4. Over and beyond all other factors the slowing down of labor is cutting sharply the housing program in all directions. It cannot be permitted to continue if we are to house the American people adequately."
NAHB 1947 Convention Historic Occasion

NAHB President Carr (center) and NHAdministrator Foley applauded Housing Expediter Creedon on his assuring the home builders that he intends to lift controls on housing.

Home builders attending the great NAHB Convention and Exposition, held in Chicago during the last week in February, heard top government housing officials discuss current problems of the industry from their standpoint. Feature addresses were delivered by Frank R. Creedon, Wilson Wyatt's successor to the office of Housing Expediter, and by Raymond M. Foley, NHAdministrator and Federal Housing Commissioner.

Mr. Creedon reported on his stewardship as Housing Expediter, from the time he took over control up until the present, and went on to tell of the outlook for the remainder of 1947. He said:

"I have recited these actions as proof positive that I do not retain any controls just for control's sake, and also as an assurance that I intend to lift remaining controls at the earliest possible moment consistent with the aims of the housing program and with proper consideration for the economy of the country as a whole."

Concluding his address the Housing Expediter told the home builders he is optimistic about the outlook for housing. He said that with everybody "working together," more houses and apartments will be built during 1947 than any similar period.

Mr. Foley, the government's top man in housing and well-established friend of all home builders, complimented the builders for the fine record achieved in 1946 despite numerous and serious obstacles.

After discussing the many problems that still lie ahead, the NHAdministrator assured his audience: "Let me pledge every help that the agencies of government I represent here today can give you."

National Convention and Exposition Requires Large, Competent Staff

Running a four-day meeting that attracts more than 4,000 out-of-town guests, while at the same time staging an exhibition on building products which represents an expenditure of about $1 million, is a herculean task that few could competently handle. Yet, that sums up the job done by NAHB Convention and Exposition Director Paul S. Van Auken and his staff during the annual meeting of the national association.

Working diligently behind the scenes, after months of careful and detailed planning, Mr. Van Auken, aided by W. Hamilton Crawford, Baton Rouge, La., convention and exposition chairman, accomplished the almost impossible task of satisfying everyone and establishing the event as one of the most successful gatherings ever held.

Members of NAHB's Chicago office convention and exposition staff are shown in the photograph at right.

Boston Home Builders Stage First Postwar New England Home Show

The Home Builders Association of Greater Boston raised the curtain for the home owner of the future with an eight-day Home Builders and New Products Show in that city, April 6-13. The first large exposition of its kind to be held in the New England area since the end of the war, the elaborate display of new products was expected to draw tens of thousands of Bostonians and suburbanites daily to the huge Mechanics Building.

The opening night of the exposition was featured by an invitation dinner given by the Boston home builders. Among those expected to be guest speakers were L. Douglas Meredith, vice president, National Life Insurance Co., Montpelier, Vt., Carl F. Distelhorst, Chicago, and Joseph R. Corish, new executive secretary of the group.

Minneapolis Association Names Larry Carlson 1947 President

At its annual meeting of members recently the Minneapolis Contractors & Builders Association elected L. Z. "Larry" Carlson president to succeed Orville K. Nelson, president during the past year. Chosen at the same time were Roy E. Olsen, vice president, and Henry Thernell, secretary-treasurer. Messrs. Carlson, Thernell, and Harold Franzen were named local directors, and Mr. Nelson and S. G. Pearson, national directors.

At an earlier annual banquet the association was host to Minnesota Governor Luther W. Youngdahl and NAHB Past President Robert P. Gerholz, Flint.

A commendable activity of the association is its cooperation with other local building industry groups in providing a home for a blind mother and her four children, found living in a filling station. Messrs. Olsen and Pearson represented the association and offered their services in the supervision of the construction of the house.
San Antonio Home Builders Frolic

Preceding a recent dinner meeting of the San Antonio Home Builders Association, the officers of the group served as bartenders at a cocktail party in the Minuet Room of the Menger Hotel.

Known both as good home builders and able officers, they added further laurels by proving to be exceptional as drink dispensers, as can be seen in the above photograph. Shown are (left to right) G. S. McCreless, vice president, H. M. Van Akin, treasurer, Frank Robertson, president, and A. L. Cowan, secretary.

Clark X. Pace Named 1947 Head By Oklahoma Home Builders Ass'n

At its recently held annual meeting the Oklahoma Home Builders Association elected Clark X. Pace president to succeed Manly M. Moore, 1946 presiding officer.

Mr. Pace has been active in the development of some of the major additions in

Clark X. Pace

Oklahoma City during the past ten years. Prior to that time, he was a home builder in Shawnee, Okla. Additions he has been active in developing are the Better Built Homes Additions, the Warr Acres Additions and Mayfair Heights in Oklahoma City, and Liberty Heights in Lawton, Okla.

Other officers named to serve are N. D. Woods, first vice president; Faye Ferguson, second vice president; Ed Jensen, secretary; Amos Bouse, treasurer; Sylvanus G. Felix, counselor; W. P. "Bill" Atkinson, Ben C. Wileman and Cord B. Wilson, national directors; and Mr. Moore, C. B. Warr and Howard M. Tippin, local directors.

Emphasis is being placed by the Oklahoma group this year in revision of the Oklahoma City Building Code, and an extensive program of public relations.

The home building industry has asked for a return to a free economy.

We have asked Richard to open the door, Alice to wake up from Wonderland, and Kilroy to stay home.

The decision to ask for removal of the remaining controls on construction was not an easy one; nor was it made without careful evaluation of effects. When controls are removed, there are certainly going to be immediate dislocations and many temporary hardships for home builders. The Board of Directors of the NAHB fully explored all contingencies. Its decision was that present controls are of slight benefit to housing so long as they prolong distortions in our building economy and encourage push-button manipulation of that economy from Washington.

If government retires to an advisory and assisting capacity as requested, we can be sure of one tremendously wholesome effect. Each component of the construction industry will be functioning on its own merits and on its own sense of responsibility. How well each branch of the industry conducts itself in the public interest will be discernible to the public itself. Each branch will not only be cut loose from the apron strings of government but also will no longer be able to succumb to the temptations to hide behind the petticoats of government.

For the first time the public will be able to get a clean perspective on housing costs. The view was cloudy when home builders worked under price controls that did not control and wage stabilization that did not stabilize. The view remains cloudy so long as the public believes that it is the government that can restrain housing costs.

We have brought into the open the responsibilities of labor and materials producers in giving the most economic servicing of housing needs.

Producers must come through with materials that home builders can afford to put into houses that the public can afford to buy. Labor must give a full day's work for a full day's pay and abandon its deliberate creation of a labor shortage. We must have more men if we are to build more houses and labor must open the door and let them in. For their part, home builders must tie the whole operation together with every operational skill and economy.

Another responsibility rests with local communities themselves, as the leading veterans organizations have been quick to discover. Many building problems are local problems and can only be solved there.

Every segment of the building industry will welcome removal of controls. Such action will bring challenging realities; but it is a truism that we face reality best when we are up against it. To delay a return to normalcy and free competition puts off a healthy and necessary operation.

Home builders have pledged their best efforts and professional integrity to do the job ahead. When it is finally recognized that government cannot regulate and legislate the maximum number of homes, the entire industry will be on test to prove that it can attain that maximum. The industry's best efforts and professional integrity will be universally required and we accept the challenge to do a totally unprecedented housing job for the nation.

The construction of 153 projects with a total of 17,900 public housing units will be started if Representative Klein's House Joint Resolution 142 is approved by the Banking and Currency Committee of both Houses and enacted into law. The United States Housing Authority Act, limiting room cost to $1,000 in cities under 500,000 population and $1,250 in larger cities (excluding land cost), would be removed entirely by this legislation.

It seems unlikely that the House Committee will take off these limitations.
NAHB's great 1947 exhibit reveals wide variety of new building products and services now available to the nation's home builders

Space in the March issue of American Builder did not permit more than a limited showing of exhibits that made up the mammoth NAHB Exposition, held in the vast exhibition hall of the Stevens Hotel, Chicago, during the closing week in February. Shown here and on the following pages are additional pictures of exhibitors' booths taken by Oscar & Associates, Chicago, commercial photographers, and the editors of American Builder during the five-day show.

Representing the nation's first million dollar exhibition of building products ever assembled, it was viewed by an estimated 12,000 home builders and representatives of allied fields who thronged the great hall from every section of the United States and several foreign countries.

Most of the exhibits were designed and constructed by specialists in the field, working in consultation with the individual building product manufacturers. This fact, plus the care used by the convention and exposition director in placing the exhibits for maximum harmony, provided the best possible setting for expansive, colorful arrays of new and improved products and services now available to the nation's home builders.

Outstanding characteristics of the giant assembly of modern products were graceful streamlining and color use, greatly improved efficiency, and advanced engineering to meet the needs of the 1947 home styles. The new and improved materials are the results of costly and painstaking research on the part of producers throughout the long period of the war.

The 1947 exposition was the first since the end of the war for which manufacturers had been able to produce and adequately display products that demonstrate the stepped-up revolutionary processes in design and manufacture. With production schedules of most key building materials up 50 per cent or more over 1940 figures, and with the high quality of materials that were on display at the exhibition, and now available, the building materials supply problem seems to have been solved by the producers.

On these pages are shown the exhibit booths of the following: Airttemp...
Product Exposition

Division of Chrysler Corporation, whose three-space display featured the products related to their heating, air conditioning lines. Winter air conditioners, year-round air conditioners, furnaces, boilers, oil burners, stokers and water heaters vied for attention.

Cer-a-seal Chemical Corporation effectively demonstrated the use of its water repellent preservative sealers, and Owens-Corning Fiberglas Corporation forcefully displayed the advantages of Fiberglas' insulation.

The L. J. Mueller Furnace Company two-booth had a complete line of its products, arranged to convince the home builders who stopped by that Climatrol would give true indoor comfort in the homes they planned to build.

The Reynolds Metals Company used models to convince its many visitors that Reynolds Lifetime aluminum building products could serve their needs, and, as can be seen, National Electric Corporation used every inch of its booth to plug the advantages of the plug-in strip. A brilliantly-lighted colored panel of Vitrolite had its telling effect on those who tried to pass by Pratt & Lambert, Incorporated's paint, varnish and enamel exhibit with its muraled background.

Among the larger users of floor space, the Mullins Manufacturing Company took full advantage of four spaces to let the home builders know that the discriminating home buyer would insist that "his" house be equipped with a Youngstown Kitchen-aider, while Kimberly-Clark Corporation's panel told that Kimsul insulation met all insulation requirements and had samples in the booth for those who "needed showing."

General Motors Corporation's Frigidaire booth thoughtfully supplied cool water, which alone would have stopped a large number if the gleaming white of its Frigidaire water heaters, home freezers and refrigerators on exhibit had not.

Because the weather was cold throughout the NAHB meeting period all the home builders took unusual interest in displays exhibiting heating equipment. Borg-Warner's Norge Heat Division was so realistic, however, that the space continued to be one of the show's busy spots.

Another attention getter was the Truscon Steel Company's steel window, through which one saw a panoramic view that called to mind a warmer climate.

(Continued to page 40)
A $1,000,000 Product Exposition—
(Continued from page 39)

The Great Lakes Steel Company's Stran-Steel Division model display was always hard to get to see because of the interest, and the Kimpreg Division of Kimberly-Clark Corporation's dramatic exhibit kept the exhibit manager busy answering questions about that product. The interest in the Chicopee Manufacturing Company's plastic screen cloth, Lumite, is evidenced by the picture below.

Many a home builder learned the merits of Insulux glass block when he stopped at the demonstration exhibit of the Owens-Illinois Glass Company, while he also became familiar with the products of the Gate City Sash and Door Company in a nearby space. Eye-arresting was the question, "Why Should a Bathtub Weigh More Than 110 pounds?" asked in the Briggs Manufacturing Company's animated display of Briggs Beautyware.

Two other animated exhibits that enjoyed capacity crowds were in the spaces occupied by Janitrol, which was of unusual attention-getting value, along with garage door display created by the Aviation Corporation's Horton Manufacturing Division.
This is your first opportunity in seven years to see your old suppliers in Britain and to meet new ones.

Overseas Buyers are invited to Britain for the 1947 British Industries Fair. It will enable them to establish personal contact with the makers of the immense range of United Kingdom goods displayed in the London (Lighter Industries) and Birmingham (Hardware & Engineering) Sections of the Fair. The careful grouping of exhibits will assist buyers to compare the products of competing firms with a minimum of time, trouble and expense. Special arrangements to suit individual markets can be discussed and terms and conditions of business settled direct with the manufacturer, since only the actual producer or the sole selling agent may exhibit.

★ For full details of the 1947 Fair apply to the nearest British Commercial Diplomatic Officer or Consular Officer, or the British Trade Commissioner in your area.

BUILDING MATERIAL AND EQUIPMENT WILL BE SHOWN IN BIRMINGHAM
"MUSCLE SAVERS"
step up production

You Get More For Your Labor Cost Dollars When You Back Up Man-Power With Kwik-Mix Mixers

3½-S END TILTER Gets Wheelbarrows Off to Forms With Only ½ the Effort

Backing and turning loaded wheelbarrow away from mixer slows down the crew because it’s tough on back and arm muscles. End discharge feature of the New Kwik-Mix 3½-S Dandie concrete mixer eliminates need for backing and turning. Because end discharge permits free approach from all angles, you turn before you approach mixer, spot barrow sideways to mixer, facing toward form. Wheelbarrow loaded, you pick up and go. No backing, no turning. To move the New Kwik-Mix Dandie End Tilter, tow pole is pushed down, not up. You use your weight, not your muscle.

PLASTER-MORTAR MIXER Discharged Without Back-Breaking Tilting

To discharge a full 6-foot batch from Kwik-Mix plaster-mortar mixer, you merely open the big discharge door with one hand. Toggle lever requires just a few pounds of push. You never tilt a heavy drum. In just 7 seconds batch is fully discharged. Drum sets at new low shoveling height, for easy charging. Mixes fast and thorough, easily keeps big crew of plasterers or masons busy.

KWIK-MIX COMPANY
KOERHNG SUBSIDIARY - PORT WASHINGTON, WIS.
You'll SAVE Installation TIME and MONEY

You can create colorful interiors of lasting beauty in less time and with less effort when you use Marlite plastic-finished wall and ceiling panels. Whether you're working on new construction or remodeling jobs, you'll get perfect results every time with Marlite. Sold by leading dealers everywhere, Marlite is suitable for all types of installations. Colors and patterns to meet any decorative requirement. See the Marsh Catalog in Sweet's File, Architectural, or write direct for complete information. Marsh Wall Products, Inc. 403 Main Street, Dover, Ohio.

For Creating Beautiful Interiors
American Builder, April 1947.

available now
to speed housing construction

Junior Tees for roof supports
Junior Channels for stair stringers
Jal-Tread checker plate for stair treads
Junior Beams for steel and concrete floor systems

These J&L structural members and floor plate are light in weight. Yet they provide strength and other advantages of steel for single residence or multiple dwelling housing projects. They are readily installed—adapt themselves particularly well to mass production methods. Write for full technical information.

Jones & Laughlin Steel Corporation
Pittsburgh 30, Pa.
Proof positive! Read what one big roofer says about TEXACO Solid Roofing Asphalt

The Texas Company
135 E. 42nd St.,
New York 17, N. Y.

Gentlemen:

I am sure that you will be interested in knowing of my gratifying experience with Texaco Solid Roofing Asphalt.

In 1928 my brother and I established our roofing appli-
ation business here. From the start we were determined to build our business on the quality of the roof jobs we applied in the Northern Indiana area. We were satisfied that our organization had the "know-how" to accomplish this objective if given the right materials.

Our search for materials led us to try some twelve different brands of roofing asphalt over a period of several years. All of them fell short of the high standards for uniformity, purity, and toughness we had hoped to find.

About nine years ago we bought our first case of Texaco Roofing Asphalt. It was exactly the product that we had in mind. Every car has been of the same high quality. Texaco asphalt mop on easily, but it leaves a uniform thin film of long-lasting roof protection behind the mop. The ease with which it spreads ensures more uniform coverage and makes it go farther. Because of its adhesive quality your asphalt has eliminated the trouble we used to have with "rich-mouths". It leaves no open seams.

Then, too, Texaco is clean asphalt. With other brands we had to clean our kettles at least once a week and sometimes we get a residue on the cover and the roof we have never found it necessary to clean the kettles more often than every three weeks. That saves labor and material for us. It means that our customers are getting all asphalt without any foreign matter.

Since our initial purchase of Texaco Roofing Asphalt we have bought several cars a year using no other brands even though they were available at lower prices.

Yours very truly,

Mr. V. D. Dahm
Each month a new home design is added to the ever-expanding Weyerhaeuser 4-Square Home Building Service. Each month the new design is advertised to millions in shelter publications. Each month literature illustrating and describing the new design is available for your use. Ask your Weyerhaeuser 4-Square lumber dealer to supply you with this literature as it is released.
The contractor and the retail lumber dealer, in the majority of American communities, can be the team to whom prospective owners of small homes look for guidance and help in home planning and construction.

To assist you in this task the Weyerhaeuser 4-Square Home Building Service was developed. Here within the covers of a giant loose leaf book are presented scores of modern homes, all of them architect-designed and Weyerhaeuser-engineered. These homes represent the maximum value in pleasing design, sound construction, economy, convenience and lasting satisfaction.

This service gives you elevations and floor plans to show your customers. It also makes available working drawings, material lists and easy estimating forms.

See your Weyerhaeuser 4-Square lumber dealer. Acquaint yourself with the Service he makes available. See how you can use it to serve your home building prospects. Ask him to furnish you each month, the colorful descriptive folder of the new home which is added to this ever-growing home building service. Here is a service that will help to further strengthen your dominant position in the small home field.

**WEYERHAEUSER SALES COMPANY**
FIRST NATIONAL BANK BUILDING • SAINT PAUL, MINNESOTA
MILLIONS OF POUNDS
were used in '46
NOW
the demand is greater than ever

THERE'S a good reason why more and more builders and contractors are choosing Medusa Portland Cement Paint. Medusa Paint is the easy way to get long-lasting beauty and protection for concrete, stucco, and masonry — and at low cost, too.

INEXPENSIVE IN FIRST COST
Medusa Paint mixes with water — needs no undersealers or preparation coats. It covers fast and even with a wide brush or flows smoothly from a spray. Applied to green concrete, it saves hours of waiting.

COLORS COST NO MORE
When you use Medusa Paint, there's a bonus of rich pleasing colors. Choose from eight plus black and white. Each forms a strong bond with masonry — holds over mortar joints — deeply penetrates and effectively seals concrete, stucco, and masonry surfaces.

SUCCESSFULLY USED 27 YEARS
You can depend on the quality of Medusa Portland Cement Paint — the cement paint made by a cement company. Use it for concrete, stucco, and masonry, exteriors or interiors — above or below grade. It pays off in long-lasting beauty and protection.

Write for the book "Painting Concrete, Stucco, and Masonry". It's free to dealers, builders, and contractors.

- Eight colors plus black and white
- Mixes with water
- Effectively seals masonry
- Exteriors and Interiors
- 27 Years successfully used
- Made by a cement company
- Quality paint for Concrete, stucco, and masonry

MEDUSA PRODUCTS DIVISION
of MEDUSA PORTLAND CEMENT COMPANY
1002 Midland Building Department "I" Cleveland 15, Ohio
Gentlemen: Please send me a free copy of the booklet "Painting Concrete, Stucco, and Masonry".

Name (Please Print)
Address
City State

Also made by Medusa Products Co. of Canada, Ltd., Paris, Ontario
STOCK Douglas fir doors are Pre-fit and Pre-sealed—and may be completely machined under Factri-Fit specifications. Essential trimming and fitting operations are performed at the door plant by modern, high-speed, precision tools. As a result, these fine doors—manufactured of heartwood Douglas fir, the wood made durable by nature—reach the job ready to install. Time and labor are saved; a trimmer, more attractive installation is assured. The slight additional cost is more than off-set by on-the-job economies.

MORE FIR DOORS ARE COMING SOON

It is true that the supply of Douglas fir doors will continue critical for a number of months, due to the present shortage of shop lumber. But it is ALSO true that production is increasing substantially as controls are lifted. More Douglas fir doors are coming! Soon warehouse and dealer stocks should reflect this production upswing. Keep in touch with your regular source of supply.

PRE-FIT

Stock Douglas fir doors are pre-fit to exact size. No finish cutting or fitting—no sawing or planing—is necessary on the job.

PRE-SEALED

Stock Douglas fir doors are pre-sealed...a feature which improves dimensional stability, reduces moisture absorption, and eliminates the need for one prime coat.

FACTRI-FIT

Douglas fir doors may also be ordered completely machined—not only pre-fit, but gained for hinges and mortised or bored for locks as well. Doors will be grade-marked, as in the past, for ease in specification and ordering. They’ll be better doors in every way.
One of the hits of the National Association of Home Builders Show at the Stevens Hotel, Chicago, was just outside the hotel.

It was the Cemesto Pre-Engineered Home, erected for The Celotex Corporation to show builders the actual home they'd heard so much about.

It is a 3-bedroom house available in plans with 10 variations in floor layout and 8 exteriors. The Cemesto Home can be built singly or to fit in a highly individualized and attractive group development.

A well-designed, permanent, insulated, FHA approved home... the structure can be erected in one week after the foundation is completed.

The Cemesto Pre-Engineered Home offers builders an opportunity to erect attractive, permanent homes with rapid turnover of investment since they are completed quickly, can be sold at an attractively low price and still allow a substantial profit.

Builders in 17 states are now erecting Cemesto Pre-Engineered Homes and we are rapidly expanding our nation-wide network of Qualified Cemesto Home Builders.

Write us today for complete information about how you can become a Qualified Cemesto Home Builder.

The Celotex Corporation • Chicago 3, Ill.
Cemesto Pre-Engineered Home in 4 days!

THE CELOTEX CORPORATION
120 South LaSalle Street, Chicago 3, Illinois

We are interested in becoming Qualified Cemesto Home Builders. Send complete information to:

Name ____________________________
Street Address _____________________
City ___________________ State _______
American Builder, April 1947.

*8 YEARS*
OF TROUBLE-FREE OPERATION
IN JUST FIVE DAYS!*

*at the*
Chicago Builders’ Show

Think of it! Electronic Serviceman opened and closed a garage door 11,680 times in just 5 days (54 hours) at the show... in practically constant operation ten hours a day—usage that, on an average residence garage, would take over 8 years—a tribute to engineering simplicity and precision manufacture that eliminates guesswork.

The sturdy threaded-screw door lift that traveled UP and DOWN 11,680 times in just 5 days showed no wear whatsoever... and operated as silently and easily at the show’s close as at the beginning. And what’s more, The Electronic Serviceman exhibit went directly from Chicago, intact, to another 5-day grind at Philadelphia!

The NEW, Positive-Acting Garage Door Opener With Foolproof Electronic Control

BUILDERS! DEALERS! Sell and install The Electronic Serviceman in your community. Leading distributors coast to coast are lining up with this amazing operator as fast as production will permit. Get full details from your nearest distributor or write us direct.

A Product of
S & S Industrial Products, Inc.

The ELECTRONIC SERVICEMAN
PARRISH PRODUCTS, INC., NATIONAL DISTRIBUTORS
19720 W. Eight Mile Road  *  Detroit 19, Michigan  *  Redford 8880
Here's the latest full-page, 4-Color Gold Bond ad in the Big National Gypsum Series appearing regularly in the...

Even when new building gets under way, you'll still have plenty of these good paying remodeling jobs!

You'll build or remodel better with Gold Bond

Ask your local Gold Bond dealer how you can remodel your attic!

We call it our gold mine in the sky!

Whether the exterior finish is to be clapboards, brick or other material, big, husky panels of fireproof Gold Bond gypsum sheathing underneath, will add structural strength, weather-proofing and fire protection for the wood framing at even less cost than old-style sheathing.

In addition you will surely want insulation in your new home because it's the one modern improvement that pays for itself. New high-efficiency Gold Bond fireproof rock wool keeps summer heat out, furnace warmth in, and saves up to 40%, on heating costs. There are special types for old homes, too. And for sturdier walls and ceilings of lasting permanency, beauty and fire protection. These include wallboard, products.

Over 150 total Gold Bond Building Products for new construction or remodeling add greater permanency, beauty and fire protection. These include wallboard, lath, plaster, tile, sheathing, wall paint, insulation, metal and wood control products.

HOW TO MAKE YOUR ATTIC PAY RENT!

First, clear out those old dress forms and cobwebs.

Tuck Gold Bond Rock Wool Insulation between the framing, then nail up the fireproof Gold Bond Gypsum Wallboard.

Decorate with 5-hour Sunflex Wall Paint, Run One Want Ad and Watch the Money Roll In!
Now...a home completely

Greater construction efficiency and year-round comfort made possible by Servel All-Year Gas Air Conditioning

When Howard M. Sloan commissioned architect David S. Barrow to design his new home, he was particularly anxious to maintain an ideal indoor climate the year round.

After careful investigation of every available type of residential air conditioning, Mr. Sloan and Mr. Barrow finally chose the Servel All-Year Gas Air Conditioner. This equipment alone, they discovered, would permit them to build a completely
sealed!

sealed home. One compact unit, it not only provides an ideal indoor climate in summer, but winter heating and humidification as well. And draft-free circulation of cleaned air the year round, too.

Achieving year-round freedom from oppressive weather did not add to the cost of the house. For, Mr. Sloan states, "The use of fixed windows and the elimination of window screens, window hardware, weather stripping, a screened porch, and other economies in design and construction made possible by the Servel All-Year Gas Air Conditioner actually made it cost little, if any, more than an ordinary heating system!"

The Sloan house is one of the first specifically designed and built to take full advantage of the "new quality of living" made possible by Servel All-Year Gas Air Conditioning. Whether or not you plan to build a sealed house, it points the way to greater livability which you can design into any home—without appreciably increasing the cost. For full information about Servel All-Year Gas Air Conditioning get in touch with your local Gas Company, or write to Servel, Inc., 1704 Morton Ave., Evansville 20, Indiana.

LIVING ROOM of Sloan's new home in Glenview, Ill., features indoor-outdoor living with three panes of glass, each seven feet high by nine feet wide, opening on rear terrace.

IN ADDITION to Servel All-Year Gas Air Conditioning and Servel Gas Water Heater, shown above, the Sloan house contains Servel-designed New Freedom Gas Kitchen and Servel Gas Refrigerator.

TRIED... PROVED... SUCCESSFUL
From Boston to San Diego
... From Bismarck to Miami
The All-Year Gas Air Conditioner is already operating successfully in hundreds of installations from coast to coast... some for more than four years. It is tried, tested and approved by users everywhere.
Despite the fact that 85 other makes are represented in the Lynn territory, 19.6% of all oil burners sold in that territory since 1934 have been Timken Silent Automatics... nearly one out of every five! In one community the figure is 38.6%.

National leadership? Yes! Timken Silent Automatic is 'way in front.

But more important is Timken's local leadership which, to an oil heating dealer, is the only leadership that counts.

Take a look at the Lynn (Mass.) territory, bailiwick of Rollie Booma and Bill Breed, Timken dealers since 1934. Here's a perfect example of what dealer-manufacturer teamwork can accomplish.

This record has been set, not by sleight-of-hand, but entirely by selling a quality product in a quality manner... to a buying public that is perhaps the most critical to be found anywhere in the country.

Nor is it an exceptional record. Scores of Timken dealers can point to their one-out-of-four, one-out-of-three and one-out-of-two ratios against odds as great if not greater.

There's no secret to sales success. It's simply a matter of selling the right product the right way...
Stock Sizes Mean Door and Plywood Dividends for Our Customers

Percentage-wise, it’s quite a dividend. By concentrating all our production on stock size doors and plywood, production can be increased a minimum of one-third.

For instance, the man-hours required to cut three lights, will produce a complete stock door. Odd sizes and other special details further limit production by added labor and material demands. The elimination today of all special doors — and concentration of our manpower and machines on stock sizes is a policy dictated by our customers' needs. It means more Roddiscraft Doors and Plywood for everybody — plus stocks in the warehouses for delivery where and when you want them.
WHEN architects and designers go to work on the plan of the kitchen they are acutely aware of the importance of the window over the sink. And ready for their specification are these two Andersen WINDOWWALLS—the casement and the gliding window.

In the kitchen Andersen WINDOWWALLS perform the same multiple functions as in any other room in the home—to frame a view, to let in sunshine and fresh air, and to act as a weatherproof "wall" against cold air.

For additional details on Andersen kitchen window installations and the uses of Andersen WINDOWWALLS in other rooms, consult Sweet's Catalog, or write directly to Andersen. WINDOWWALLS are distributed through regular millwork channels, to lumber and building supply dealers.
ANDERSEN HORIZONTAL GLIDING WINDOW UNITS provide a broad expanse through which sunlight can enter this small-home kitchen. Here the window helps turn the kitchen into a cheery room for the homemaker.

ANDERSEN WOOD CASEMENT WINDOW UNITS with all three sash swinging. Sash are operated easily with the roto gear handles at the sill—eliminating all the hard work and straining in traditional kitchen windows.
Floor Space Does Double Duty With the New, Improved

SWIVEL-TYPE CABINET IRONING BOARD

HOMES built on contract—or for speculative sales—will be smaller today, on the average, than the same market demanded pre-war. That means every foot of space must be utilized to the fullest. Eubank's Swivel-Type Cabinet Ironing Board goes a long way toward solving the problem. It can be installed — and used — where the conventional cabinet board would be utterly impractical. Ideal for apartments, bungalow courts, pre-fab units — for modernizing older, larger homes, too.

CHECK THESE FEATURES

• Swings through wide arc; ideal where space is limited—in hall, kitchen, small utility room.
• Attractive cabinet requires a rough opening only 14" x 57 1/4" x 3-3/4"; recesses in wall.
• For old or new homes, apartments, courts. Easily installed before or after plastering.
• No projecting parts to tear fabric; firesafe iron storage with aluminum door ventilator.
• Patented cast aluminum support; strong, sturdy. Not one has ever failed in normal use.
• Available NOW for immediate delivery. See your lumber dealer.

Installation Specifications

Rough Opening

14" x 57 1/4" x 3 3/4"

Set Cabinet 23" from floor

The secret's in the swing! Eubank's patented cast-aluminum support allows board to swing through a wide horizontal arc for flexibility in use . . . for taking advantage of the best light. Holds board firmly upright in cabinet (even when door is opened); keeps it steady when in use. Eliminates sagging. Built to last! Not one has ever failed under normal use conditions!

Here's a typical example of the way the Eubank Swivel-Type Cabinet Ironing Board adds convenience to a smaller home. The attractive cabinet is installed in one corner of the kitchen. When closed, it's out of the way.

Opened, the board swivels away from counter toward window. There's plenty of room for work, and it gets full advantage of best light. Conventional cabinet boards would be out of the question here!

American Builder, April 1947.

DISTRIBUTORS:
Arizona - Arizona Sash & Door Co., Phoenix; Southwestern Sash & Door Co., Phoenix & Tucson
Arkansas - Dyke Bros., Fort Smith, Little Rock & Texarkana
California - L. H. Eubank & Son, Inglewood
Connecticut - Wm. H. Short Lumber Co., West Hartford
District of Columbia - Harbor Sales Co., Inc.
Florida - Harbor Plywood Corp., Jacksonville, Maitland & Tampa
Georgia - Harbor Plywood Corp., Atlanta
Idaho - W. P. Fuller & Co., Boise
Illinois - Harbor Plywood Corp., Pocahontas & Peoria
Indiana - E. W. Camp Plywood Co., Inc., Indianapolis
Iowa - Harbor Plywood Corp., Cedar Rapids, Des Moines, Ottumwa & Storm Lake
Kansas - Wallying Sash & Door Co., Wichita
Kentucky - E. W. Camp Plywood Co., Inc., Louisville
Louisiana - Davidson Sash & Door Co., Alexandria & Lake Charles
Maryland - Harbor Sales Co., Inc., Baltimore
Massachusetts - Kimball Lumber Co., Watertown
Michigan - E. J. Anderson Lumber Co., Detroit; Anderson-Dietrich Lumber Co., Lansing
Missouri - Woods Builders Supply Co., Jackson, Missouri; Dyke Bros., Joplin & Kansas City
Montana - W. P. Fuller & Co., Missoula
Nebraska - Omaha Hardwood Lumber Co., Omaha, Nevada - Morrison-Merrill & Co., Reno
New Jersey - Jersey Millwork Corp., Jersey City
New Mexico - Southwestern Sash & Door Co., Albuquerque
New York - Albert Woodworking Corp., Brooklyn
Ohio - E. W. Camp Plywood Co., Cincinnati
Oregon - W. P. Fuller & Co., Portland
Pennsylvania - J. R. Osung Co., Cresco, Harrisburg, Lancaster & Philadelphia
Washington - Cole Manufacturing Co., Seattle
Washington - Harbord Mercantile, Aberdeen; W. P. Fuller & Co., Portland
West Virginia - J. R. Osung Co., Greensboro, Greensboro & Charleston
Wisconsin - Harbor Plywood Corp., Chicago
W. P. Fuller & Co., Cleveland
Wyoming - W. P. Fuller & Co., Cheyenne

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Opened, the board swivels away from counter toward window. There's plenty of room for work, and it gets full advantage of best light. Conventional cabinet boards would be out of the question here!
LOWEST INSTALLED COST of ANY type window today!

MESKER
"American Home"
STEEL OR ALUMINUM CASEMENT WINDOWS

PREFABRICATED COMPLETE WITH OUTSIDE TRIM

- More exclusive features than any other window on the market.
- Nationally advertised for Consumer acceptance.
- Quick, low-cost installation in frame, brick-veneer or brick construction.
- Harmonizes with any architectural style and interior decorating.
- Only metal casement with fully protective outside metal storm sash.
- Metal storm sash opens automatically with window vent.
- Rotary operator opens and closes with a twist of the wrist.
- Locks snug automatically top and bottom when closed.
- Safely attached inside screens are interchangeable. No marking for storage—no painting necessary.
- Permanently weather-tight; cannot swell, shrink, rattle or stick. Keeps heat in and weather out.

THE MODERN WINDOW FOR MODERN HOMES

Now you can build BETTER homes, at LESS cost, in QUICKER time, and make yourself a BIGGER profit on every job by using "American Home" Metal Casements. Because these remarkable windows are completely prefabricated by production-line methods in a modern plant, and because they can be set in place by semi-skilled labor in only five minutes, their total installed cost is actually less than any other type window on the market today.

Stocked and sold by better Building Supply Dealers everywhere. Supply is still short, but improving.

Write today for descriptive folder. Mesker Brothers, Sales Div. AB 47, 4342 Geraldine, St. Louis 15, Mo.

SINCE 1879
Mesker Windows
RESIDENTIAL • COMMERCIAL • INDUSTRIAL
CHROMEDGE offers

BIGGER CHOICE OF TRIMS
Even now, with production limited to the trims in greatest demand, you have more than 300 Chromedge profiles to choose from. Chromedge gives you a wide choice of practical shapes for all floor and wall materials - answers every installation need!

MATCHED SETS
You can provide uniform floor-to-ceiling beauty with Chromedge "matched set" metal trims. These original matched groups simplify the selection, handling and installation of decorative trims, whether for a single room or a whole skyscraper.

ALL-TUBE PACKAGING
All Chromedge Trims are shipped in strong, weight-saving, easy-to-handle tubes, fully labeled for easy stocking, quick inventory, avoidance of errors, and printed from end to end with the Chromedge name.

Write for full details on Chromedge Metal Trims and the advantages they offer.

The B&T Metals Company
Columbus 16, Ohio

"The GARAGE is MY DEPARTMENT Too!"

Today the "lady of the house" either has a car of her own or makes frequent use of the family car. So, the kind of equipment on the garage doors is of concern to her. She doesn't want to struggle with sagging, wind-blown, swinging-type doors. Women like "Over-the-Top" Door Equipment. The reasons are obvious. To open an "Over-the-Top" equipped door, one merely turns the automobile-type handle and lets go . . . the power springs do the rest . . . the door rises up out of the way (out of the weather) in seconds! Closing is simple, too. The fact that "Over-the-Top" Equipment can be used on one-piece doors, or standard door sections bolted together, gives the architect, builder and client free rein in designing the garage and house as an integral unit. Speed in installation is assured by the simplicity of the equipment. Steel weather strip seals out cold and moisture. Only 2 1/4" headroom are required for a 8' x 7' door. Write today for full details.
better housing for Veterans

BETTER FOR VETERANS—because modular brick and tile are top quality building materials.

BETTER—because today modular masonry construction costs less than other types.

BETTER—because housing of brick and tile has a high resale value, thus protecting veterans' investment.

BETTER—because housing built with modular brick and tile retains its built-in attractiveness.

BETTER—because brick and tile cut down repair and maintenance costs, and provide great fire-safety.

BETTER—because modular brick and tile reduce costly cutting and chipping, thus saving veterans' money which can go into other housing equipment.

BETTER—because modular brick and tile aid good design and fit perfectly with other materials such as doors and windows made to modular specifications.

FREE BOOKLETS:
For more information about the advantages of building with modular brick and tile, write for our FREE booklets: "Your Home of Burned Clay Masonry," and "Announcing Modular Sizes of Brick and Tile." Send 25 cents for our booklet, "Brick and Tile Cavity Walls," of great value in low cost housing. Address Structural Clay Products Institute, Dept. AB-4, 1756 K Street, N. W., Washington 6, D. C.

Now it will be built with Modular-Designed
BRICK AND TILE
Now you can cut Flexboard

6 times faster!

The Shearing Jig*—new Johns-Manville development saves time and money on Flexboard jobs

There are many simple ways to cut Flexboard—but now comes the fastest, easiest, and best way of all... giving this amazing building material more advantages than ever before!

Johns-Manville engineers have created an ingenious tool, the J-M Shearing Jig, which cuts through the tough, strong Asbestos Flexboard sheets “like cutting through butter.”

For the building material dealer, the Shearing Jig is an effective selling tool. With it, he can cut Flexboard to any size or shape the customer desires, without wasting any part of the sheet.

Builders will speed construction amazingly on every Flexboard job. Any workman, with no special skill, can cut sheets six times faster than with a handsaw, and make a precision cut every time!

The jig is portable... requires no power to operate... and can be used right or left handed. For full details, write Johns-Manville, Box 290, New York 16, N. Y. *Patent applied for.

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ROCK WOOL HOME INSULATION • WEATHERTITE SHEATHING • ROLL ROOFING • BUILDING ACCESSORIES

*Patent applied for.
Color means sales

Color plays a major part in the sale of homes. Only with the right colors can you sell your houses quickly and for the right price. The smart, new Pratt & Lambert Paint colors will speed up sales—not only today but also in tomorrow's competitive sales battle.

With these glamorous colors, your houses will have the zest and sparkle to capture customers. New P&L paints, enamels, stains and varnishes add practicability to saleability; practicable because no time is wasted in mixing, tinting or "trying-out" on the job. Your painter uses these colors just as they come in the can. And painting costs are cut, for the up-to-the-minute P&L Paint colors spread over more surface in less time, and "hide" in fewer coats.

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In construction products  CECO ENGINEERING
Notice the ease with which metal windows can be washed from within.

Why Metal Windows?

All over America architects, engineers, contractors and builders are planning ahead today for the homes of tomorrow—and in the homes of tomorrow they know there must be new features to add to the beauty and the utility of those homes. One feature every home should have is steel windows because steel windows not only offer greater utility but add to the beauty and lasting good appearance of any home. So consider the advantages Ceco metal windows offer:

1. Tighter weather seal—precision engineering keeps out cold, dust, rain; keeps heat in.
2. Gives more light—affords from 20% to 60% greater light area.
3. Lowest initial cost installed—with metal windows the initial cost is the final cost.
4. Easy to install—no weather stripping. Less labor in installing hardware. No planing.
5. Controlled ventilation—up to 100%...catches stray breezes...controls drafts.
6. Easier operation—always fit...no sticking, warping or swelling.
7. Fire safety—Ceco metal windows are fire resistive, reduce fire hazards.
8. Easily washed from inside—both sides of the window can be washed from within.

WHY SPECIFY CECO?

Ceco steel windows are engineered to a perfection. Years of pioneering—years of "on-the-job experience" have given Ceco engineers a sure grasp of all window problems. All that fund of knowledge is yours to command in 23 offices strategically located from coast to coast. For latest information on delivery consult your Ceco service headquarters. Ceco catalogs appear in Sweet's Architectural File.

CECO STEEL PRODUCTS CORPORATION
GENERAL OFFICES: 5701 West 26th Street, Chicago 50, Illinois
Offices, warehouses and fabricating plants in principal cities

Partial list of other Ceco Products:
- Aluminum Frame Insulating Storm Panel for Metal Casements
- Meyer Steelforms
- Reinforcing Steel
- Metal Frame Screens
- Steel Joists
- Metal Weatherstrips
- Metal Lath & Accessories
- Highway Products
Farms or cities, in factories or homes—no matter where you go—Stonewall is making sales history for dealers and contractors! Backed by forceful promotion in every market, this asbestos-cement board has grown from scratch to the leader in its field—in four short years!

The reason for this tremendous success? It can be summed up in two words—product superiority. Stonewall brings you new ease of use and speed of application—you don’t even have to saw Stonewall, just score and break it to size! No paint is needed to preserve it—this board can’t rot, rust or corrode. On top of that it’s rat-proof, termite-proof and absolutely fireproof! And don’t forget that Stonewall is practically imperishable. That means the man who buys Stonewall buys freedom from most maintenance costs—a saving that goes on year after year!

With all these features available in one surprisingly low cost material, it’s no wonder dealers and contractors are finding it difficult to keep up with the ever-increasing demand. Yes, Stonewall has become America’s “buy-word” for asbestos building board.
During the recent National Builders Show in Chicago, thousands of builders from every section of the country, acclaimed the new, modernized

ELKAY Lustertone
Stainless Steel Cabinet Sinks

the outstanding achievement in Cabinet Sink development. Many of these builders who saw these beautiful sinks for the first time, were enthusiastic about their beauty of design, their superior craftsmanship, and the many exclusive "Lustertone" features.

ELKAY "Lustertone" Cabinet Sinks harmonize perfectly with any color and decoration scheme; their sturdy All Welded construction assures a life-time of service; their smooth easy-to-clean-and-keep-clean stainless steel surface assures the utmost in sanitation; the resiliency of stainless steel reduces to a minimum breakage of china and glassware.

9 POINTS OF SUPERIORITY

1. ELKAY "Lustertone" Cabinet Sinks are built of 18 U.S. standard gauge genuine 18-8 stainless steel.
2. The stainless steel tops are bonded to and reinforced with heavy gauge formed metal.
3. Drainboards, sink bowls, rims, and splashers are welded (not soldered) integral into one sheet of metal.
4. All corners in sink bowls—horizontal, lateral and vertical—are rounded to 1/4" radius.
5. Intersections where sink bowls meet drainboards are rounded to a large radius.
6. Intersections where drainboards meet back and return end splashers and where back splashers meet return and splashers have rounded corners.
7. Drainboards have definite liberal fan shaped pitched area insuring positive drainage.
8. Front and back surfaces adjacent to sink bowls are pitch-beveled to provide additional drainage.
9. Entire underside of sink tops and bowls is sound deadened.

SEE OUR COMPLETE LINE IN SWEET’S 1947 ARCHITECTURAL FILE 23-A-8

FIVE STANDARD SIZES

54" and 60" sinks with 18" x 20" single bowls; 72" sinks with either 18" x 25" single bowls or 18" x 34" double bowls; 84" sinks with 18" x 34" double bowls. All bowls are 71/2" deep. Sinks are equipped with stainless steel basket type strainers. Deck type chrome finished faucets and sprays of latest design supplied when ordered. All standard sink shave 4" back splasher.

SEND US PLANS OF YOUR KITCHEN
We shall be glad to cooperate with you and submit blue prints and estimates of our Equipment.

WRITE TODAY FOR YOUR COPY
of this beautiful full color literature A-B 447 which describes and illustrates the new ELKAY "Lustertone" Cabinet Sinks.
biggest thing in Door Frame History
...and growing every day!

Our first Announcement was in February 1946!

It took courage, but our experience of almost half a century told us that a one-piece, all-welded Steel Door Frame for SMALL HOME CONSTRUCTION that could be easily and quickly installed, would be a better frame...and prove to be the sensation of the industry. Today the builders know that we were right. And today, too, we are equipped to make deliveries anywhere in the United States. The Building Supply and Lumber Dealers who already are enjoying their share of this profitable business will substantiate what we say. Write us for information regarding the situation in your territory.

ACT NOW...write or wire today

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ONE-PIECE • ALL-WELDED STEEL CONSTRUCTION

PRIME COATED AT FACTORY

BRASS STRIKE PLATE WITH DUST BOX ATTACHED

MORE PERMANENT MORE WEAR RESISTANT

INSTALLED IN LESS TIME AND AT LOWER COST THAN MULTIPLE UNIT FRAMES

AETNA STEEL PRODUCTS CORPORATION
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WE'RE YOUR RIGHT-HAND MAN

Have you seen these, in the 232-page April Better Homes & Gardens?

Lots of Living in a Small Package—another miracle of much living in small space.

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Is A Dining Room Worth Having?
—two BH&G editors give the "yes" and "no" reasons, side by side, point by point

New Heating Plants Go Anywhere
—upsetting the idea of a messy behemoth in the basement

Just three good reasons why Better Homes & Gardens, by educating your clients and helping them make up their minds, and by giving them new ideas, is your right-hand man in your office.
For Lifetime Beauty... 
speedy, economical construction...

K&M "Century" Asbestos-Cement Siding

You're sure to please the owner when you cover his home with K&M "Century" Asbestos-Cement Siding. He'll be proud of its enduring beauty, he'll like its immunity to fire, rodents, termites and weather. And he'll appreciate it more and more as the years roll by without claiming a penny's upkeep for painting.

You'll benefit too... in customer goodwill as well as in speedy, profitable construction. "Century's" large unit size, and ease of application make it ideal for practically all siding requirements.

You can specify "Century" Asbestos-Cement Siding with wavy buttline in two colors: shell white and graytone. See your K&M Dealer... or write us direct for further information.

Original manufacturers of asbestos-cement roofing shingles in this Country.

KEASBEY & MATTISON
COMPANY • AMBLER • PENNSYLVANIA
"Rube"—whose name was inspired by the ingenious creations of a famous cartoonist—is a robot conceived by Berry engineers to determine how much actual wear a garage door can stand.

*"Rube"—to assure safe, trouble-free performance and lifetime durability

The lasting performance of all Berry Doors is predetermined by a series of exacting tests. Strength tests, salt spray and weathering tests are standard Berry research practice. So is the grueling "Rube" cycle test shown above, in which the door is opened and closed hour after hour, day after day—the equivalent of more than a lifetime of daily operation. Only after successfully meeting every test is it judged worthy of carrying the Berry name.

Sealed Operating Unit Means Greater Safety

Because all operating mechanism is completely sealed in, the new Berry "Feather-lite" track type door, which tilts up and rolls inside the garage, is the safest door on the market. No exposed springs to break and fly or pinch childish fingers—no weights to cause uncontrolled opening or closing. It is sturdily built, yet so perfectly balanced and light in weight that a small child can safely open, walk under and close it without the slightest danger.

Better Design—Better Value—Lower Costs

The position of the Berry Door as America’s No. 1 Garage Door can be traced directly to the superior engineering and research facilities the Berry organization maintains. A large staff of practical and highly trained garage door engineers is constantly striving toward the development of better designed, more efficient and safer garage doors at lower cost.

BERRY—America’s No. 1 Garage Door

BERRY DOOR CORPORATION

461 S. WOODWARD AVENUE • BIRMINGHAM, MICHIGAN
"peas-in-a-pod" monotony

INDIVIDUALIZE homes with colors!

Give a man a house that expresses his own ideas and he's satisfied. That's why "exterior decoration" with Bondex is indicated in so many low-cost housing projects.

For "mellowing" concrete block, for adding distinction to stucco, brick and masonry, color-style with Bondex, the patented cement paint which bonds with the wall surface to seal out dampness.

BONDdex beautifies basements, too

To make the most of every inch of space, show basement areas to best advantage by painting the walls with attractive Bondex colors. This treatment converts an otherwise drab area into an attractive, dry work-or-playroom which the whole family will appreciate.

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Bondex is a patented formula so unique that it outsells all other cement paints combined.

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12 SHADES AVAILABLE IN NEW COLOR CHART
Dutch White
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Adobe
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Spanish Buff
Monastery Gray
Grotto Blue
Ivy Green
Brick Red
Also, Pure White

SEND FOR THESE FOLDERS
These Bondex folders dealing particularly with color should be in your hands. Write to nearest Reardon Company office.
Another mass-housing project uses ART-ROC Built-in COLOR to improve appearance, durability and value!

In mass housing projects, innovations which add to livability are especially desirable and, when they add to durability and to property worth, they have a very practical value as well. Truscon ART-ROC Aggregate is dusted on concrete before finish troweling and produces a BUILT-IN surface of rich color and lasting beauty which will take all kinds of punishment because it is much harder than ordinary concrete. This color and hardness is not just "on" the concrete but actually BUILT-IN and under normal use will give exceptional service. Because of the great improvement it achieves at negligible cost ART-ROC is being used in many housing projects. We invite your inquiries. Write Dept. AR-10, Truscon Laboratories, Division of Devoe & Raynolds Co., Inc.; Detroit 11, Michigan.
Specify the screening that resists greater impact!

8 ADVANTAGES OVER METAL SCREENS

- Permanent — can’t rust.
- No upkeep — never needs painting.
- Cannot “bleed” and stain house.
- Easier installation — handles like cloth, cuts with scissors.
- Safer installation — no jagged edges or sharp splinters.
- Six times impact strength of metal.
- Tinted for smarter appearance.
- One-fifth weight of metal.

Velon screening resists up to six times more impact — without denting, bulging or breaking — than metal screening of equal gauge.

Miracle Velon filament has a tensile strength of forty thousand pounds per square inch.

Velon is safer, more secure, longer-lasting. Yet it costs no more than good metal screening.

And Velon gives you these other advantages over metal screening:
- Cannot corrode or rust... no upkeep, never needs painting...
- Cannot “bleed” and stain building... easier installation: handles like cloth, cuts with scissors... safer installation: no jagged edges or sharp splinters... one-fifth the weight of metal.

Specify Velon... now available in standard widths and gauges. For full-color booklet on Velon and free samples, write Firestone, Akron.

Listen to the Voice of Firestone Monday Evenings over NBC.
Building HomeOla houses is the fastest and safest way for an operative builder to make money.

A small crew can complete a HomeOla in 10 days. Everything is delivered to the building site on schedule—wood parts, plumbing, wiring, furnace, hot water heater—the complete house. You can finish a HomeOla by the time you meet two payrolls—in less time than you’d spend looking for scarce parts for a conventional home!

Building a HomeOla is safe because you know in advance exactly what costs will be, exactly what labor will be, and exactly what you make on the job (and it’s a nice profit, too). Owners know what they’re getting, also, because of strong, persistent national publicity, acceptance by leading government, state and local agencies, and word-of-mouth enthusiasm from thousands of other owners.

Union-made HomeOla homes are as near as your local lumber dealer. They sell for $3,000 to $16,000, and they’re being shipped now. See your dealer today, or write direct if he’s not yet franchised.

**HomeOla is on the Air**

Hear the HomeOla story that’ll sell houses for you. Tune in these popular daily network programs starting April 14.

- Life Can Be Beautiful—3 P.M. (EST)—NBC
- Perry Mason—2:15 P.M. (EST)—CBS
- Jack Smith Show—7:15 P.M. (EST)—CBS

Procter and Gamble selected the Berkeley HomeOla to feature in this nationwide contest for their great new cleaner, Spic and Span. See full color newspaper ads read by families in your own community beginning April 13, and big color pictures in your local grocery stores. Tie in with this tremendous promotional program!
WHY BUILDERS LIKE TO WORK WITH THE INGERSOLL UTILITY UNIT:

1. **SAVES CUBAGE!** With resulting economies in overall construction costs.

2. **FASTER INSTALLATION!** Saves much time and trouble over that expended on conventional installations.

3. **ONE SOURCE!** All Kitchen, Bathroom, Heating and Electrical Equipment is purchased from one distributor.

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6. **EXPERT SERVICE!** Ingersoll Distributors direct the installation and maintain permanent service to insure owner satisfaction.

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Finished 3 Months Early...
Every building can be improved

Colorful Carrara Structural Glass can add beauty and utility to every bathroom. It is modern, easy to clean, and its good looks last indefinitely. It's perfect for walls or wainscots in bathroom and kitchen... for splash panels around lavatory or stove... or as a fireplace surround. Available in 10 attractive colors. Note the shower door of Pittsburgh Polished Plate Glass.

Mirrors are popular in every home. You can dress up a room more effectively and less expensively with mirrors than with any other treatment. A mantel mirror in the living room reflects color, light and movement, increases the feeling of spaciousness. A full length door mirror in every bedroom is almost a necessity in the modern home. And "spruce up" mirrors are appreciated in entrance hall and kitchen. Pittsburgh Mirrors will make your homes look smart and modern... and help increase your profit.

Owners of modern stores are insisting on large areas of Plate Glass so that an attractive store interior may be seen from outside and may exert its distinctive appeal on potential customers. Make your remodeling jobs outstanding... with Pittsburgh Plate Glass and Pittco Store Front Metal, an ideal combination for the creation of impressive store fronts. Extensive, consistent advertising has made these products well known to your customers. They know Pittsburgh means quality... on both individual remodeling jobs and on cooperative group modernizations.
PC Glass Blocks give housewives plenty of daylight on work surfaces. A few PC Glass Blocks over the sink and counter tops look smart and brighten up the whole kitchen. Remember: every nickel spent for glass can be easily seen and appreciated... gives added sales appeal.

Two lines of Pittco Store Front Metal give you a wide variety of pleasing combinations for store front work. Pittco De Luxe offers rugged strength, clear, sharp profiles, and an impressive selection of harmoniously styled bars, sashes and mouldings for top quality installations. Pittco Premier is lighter in weight and more moderately priced than the De Luxe line. The same careful planning, however, assures graceful styling and a rich, smooth finish. It features a quick, easy method of installation.

Large window areas are being demanded in modern homes. And with Twindow, Pittsburgh's new window with built-in insulation, larger window areas are truly practical. Twindow is made of two or more panes of glass with a sealed-in air space between them. Insulating efficiency is vastly increased... heat losses are cut... downdrafts near windows are minimized... fogging is eliminated under all but the most severe conditions. Twindow means greater comfort and undistorted vision in any weather.

We will gladly send you free our special "Builders Kit" which includes illustrated literature showing how you can use glass effectively on all types of jobs in which you are interested.

* Build it better with Pittsburgh Glass
A Tribute to
AQUELLA
from a prominent California Architect

Prima Products, Inc.
230 Fifth Avenue,
New York City.

Gentlemen:

I have been a practicing architect in Pasadena for something like forty years and have thought that you might care to have from me an endorsement of Aquella. I was the architect of the Pasadena Community Playhouse, the Huntington Art Gallery at San Marino, California, and some of the buildings of the California Institute of Technology.

My own home in Pasadena was built some 35 years ago. When the forms for the concrete of its basement walls were removed a number of fissures were disclosed which, during heavy rain storms resulted in the basement being flooded. This has happened virtually every year now since the house was built.

I knew that if I could get at the outside of the basement walls it would be a simple matter to apply waterproofing and stop the leaks. But that would be difficult and expensive. This year I thought I would experiment with Aquella on the inside of the walls. We have just had the worst rainstorm of the season. The rain came down in torrents for several days. But our application of Aquella to the inside of the walls stopped the leaks. Our basement is as dry as a bone. I am therefore glad to recommend Aquella as an unusually effective waterproofing compound.

Yours truly,

(Handwritten signature)

---

The principle on which Aquella works and how it is being used by architects, engineers and contractors to control water seepage on all porous masonry surfaces is told in our new brochure "Aquella and Concrete Masonry Construction." May we send you a copy?

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Climatrol delivers the essential comfort factors by conditioning and handling the air in the home.

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While you're waiting, it will pay you well to learn why enthusiasm for Bradley Pre-Finished is spontaneous wherever it is installed!

Contractors, floor-layers, realtors and home-owners, who know it at first hand, are unanimous in their enthusiasm for Bradley Pre-finished Hardwood Flooring. Here's why . . .

**CONTRACTORS:**
Because of its time-saving factor . . . when it's down, it's done.

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Because it shortens the time lag between installation and first showing, and because of its compelling eye appeal to prospects.

**FLOOR-LAYERS:**
Because its straight-line feature expedites laying. Tongue and groove slide into position. No crook to be forced, no tension nailed in.

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Because it provides a superior hardwood floor of exceptional beauty at no extra cost.

In this unique combination of practical economy, plus the dignity and beauty inherent in quality hardwood flooring, Bradley Pre-finished will afford dealers and builders direct access to a larger share of tomorrow's hardwood floor sales.

Manufactured in

**OAK . . . BEECH . . . PECAN**

**BRADLEY LUMBER COMPANY** of Arkansas

Anticipating the time when Bradley Pre-finished will again be available, dealers and builders are invited to write for literature and specifications.
American Builder, April 1947.

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WELDED ALL STEEL CONSTRUCTION

... IT'S NOW AVAILABLE FOR NATIONAL DISTRIBUTION!

★ All steel truss type construction affords exceptional rigidity.
★ Steel surface panels resist dents and scratches.
★ Mechanism mounts flush to jamb. Provides for simple installation.
★ Wide range of standard sizes from 8' x 7' single to 18' x 7' double. All one piece.
★ No interference with service doors or windows.
★ Recedes into ceiling. Can be left up without danger of damage from wind whip.
★ In the low priced field.

THOUSANDS OF INSTALLATIONS PROVE ... less service and greater owner satisfaction

The door builders have waited for—easy and simple to install—eliminates service headaches—one that is rugged in every detail. Arrow-Craft mechanism is simple, compact and mounts out of the way. The diagonal truss type construction prevents warping and distortion.

Lift it with one finger—it’s perfectly balanced, swings up into ceiling where it is protected from winds. Owners say this door is everything we claim for it and more.

TO: ARROW-CRAFT MACHINE CO.
9071 STOPEL AVE., DETROIT 4, MICH.
We are interested in a distributorship on the Arrow-Craft door. Please forward details.

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CITY__________________________ STATE______________
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Here's an amazingly compact gravity furnace simply designed, superbly engineered and quality-built by EVANS. It comes complete in only two packages. One man can easily and quickly assemble and hook it up with the duct work. Connect to oil and electricity—and it's ready to go.

Rated 70,000 B.T.U. it performs efficiently at low cost—insuring customer satisfaction. It's a honey to look at, too, with handsome Corsican Red cabinet. Simple pot-type burner with hi-lo flame—completely automatic in operation even to draft regulator assuring all-weather combustion efficiency. Nothing to go wrong. You can practically forget service. Write now for literature.
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“ROLLATOR” REFRIGERATORS

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GAS RANGES

Norge is the trade-mark of Norge Division, Borg-Warner Corporation, Detroit 26, Mich. In Canada: Addison Industries, Ltd., Toronto, Ont.

SEE NORGE BEFORE YOU BUY
Since its introduction eight years ago, Atlas Duraplastic air-entraining portland cement has proved its versatility—its adaptability to almost every type of concrete work. The pictures show a few of its varied uses.

Duraplastic cement makes the concrete more plastic, more uniform and more durable. Its use requires no unusual changes in methods—just the same good workmanship and careful supervision regularly employed. It complies with ASTM and Federal specifications and sells at the same price as regular cement.

**Send for further information.**

Write to Universal Atlas Cement Company (United States Steel Corporation Subsidiary), Chrysler Building, New York 17, N. Y.

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

**ATLAS DURAPLASTIC**

AIR-ENTRAINING PORTLAND CEMENT

**MAKES BETTER CONCRETE AT NO EXTRA COST**

"THE THEATRE GUILD ON THE AIR"—Sponsored by U. S. Steel—Sunday Evenings—ABC Network
This new book explains fully the principles of kitchen planning. Eliminates hours of detailing by using the 64 standardized layouts that are adaptable to practically any kitchen. Basic kitchen layouts are clearly indexed so that you may quickly find a design to meet specific requirements.

All layouts are detailed to scale, permitting quick tracing. Elevations and a complete list of materials are included for each design. Four pages of details are given, showing location of doors and windows to assure clearance of kitchen equipment, furring above cabinets, etc.

Efficient methods of lighting and ventilating kitchens are also included. Proper circuits and required number of electrical outlets are specified. Detailed product data, is given along with dimensions and brief specifications. The most unique and practical design book ever produced on kitchen planning. Costs $1.00. Other booklets that may help you are "4 Degrees of Electrical Living" (Free), and "Home Wiring Handbook" ($1.00).

Westinghouse Electric Corporation
P. O. Box 868
Pittsburgh 30, Pa.

Gentlemen: Please send booklets that are checked:
- Kitchen Planning Manual ($1.00 enclosed)
- 4 Degrees of Electrical Living (Free)
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Name
Street
City Zone State
How to keep a home owner from getting "out on a raft"

- Bituminous Coal is the most economical and most dependable of all home-heating fuels, as architects and builders know.

And as stoker developments and improved local services make coal an "automatic" fuel in addition, the advantages of coal heat become even more obvious.

So even if a client insists on some other fuel for his new home, make sure his house plans won't put him "out on a raft" later on. Give him the opportunity to change his mind—and turn to coal in the future.

Simply be sure that the house plan provides: (1) A chimney with sufficient flue capacity to burn coal efficiently; (2) Sufficient space adjacent to the heating unit for eventual coal storage and stoker installation.

The cost of such sensible precautions is negligible. And they constitute valuable insurance on the future value of a home.

Coal supplies uniform, steady warmth throughout every portion of each room. For there's always a fire in the furnace—no "pop on and pop off" periods that permit accumulated heat to rise to the ceilings and leave floor areas dangerously cold. That, plus its low cost, is why more than 4 out of every 7 homes in the United States now heat with coal!

BITUMINOUS COAL

BITUMINOUS COAL INSTITUTE

Washington, D. C.

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Leading window manufacturers build quality windows of Alcoa Aluminum in a wide variety of standard types and sizes. For the names of these manufacturers write to ALUMINUM COMPANY OF AMERICA, 1914 Gulf Building, Pittsburgh 19, Pennsylvania.

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Vital to a modern dishwasher. To be efficient, the new dishwashers must have plenty of high temperature water. An automatic Gas water-heater is the only economical system that gives this kind of constant hot water supply.
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Most reliable . . . Gas for water-heating enjoys a record for continuity of service unrivaled by any other fuel. It is dependable. Needs no fuel storage. Is less liable to interruptions. Delivers adequate supplies of hot water at any desired temperature with a minimum of repair and adjustment!

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Most economical . . . An automatic Gas water-heater uses the exact quantity of fuel needed — no more! Waste of both water and fuel is reduced. Costs less to purchase, for faster recovery means smaller storage capacity is required for any given amount of hot water. And it operates with uniform economy all year round!

What to watch for in specifying automatic gas water-heaters

1. Size ... Be sure heater is large enough for client’s needs! Check size of family, number of bathrooms, amount of home laundry, immediate prospect for other automatic equipment requiring hot water.

2. Type ... Recommend fast recovery storage heater for best all-round service. It is the most modern method of assuring continuous hot water 24 hours a day . . . and a must where automatic dishwasher or cycle washing machine is installed.

3. Placing . . . Specify position of heater so that there is a minimum loss of heat from heater to point of use. And place close to flue.

4. Seal of Approval . . . Insist on only those automatic Gas water-heaters which have been tested and approved for safety, durability and efficiency in the Laboratories of the American Gas Association.

Remember!

Automatic Gas water-heaters benefit you as much as they do your clients. They take up little building space . . . need only the simplest connections . . . yet add greatly to the popular appeal of today’s homes. Most important of all, they build customer satisfaction! For like all modern Gas appliances — such as automatic Gas ranges built to “CP” standards, automatic Gas refrigerators, automatic Gas space heaters and year round Gas air-conditioning — these ultra-efficient Gas water-heaters enhance the value of any home . . . add stature to your reputation as designer and builder of liveable living units! For technical details, see your local Gas Company.
Here's the Big News for Apartment House Owners and Builders!

**Kelvinator's "SPACE SAVER"!**

Holds 50% more... yet takes no more floor space!
6 cu. ft. of storage instead of 4 cu. ft.

Here's the refrigerator that's specially designed to dovetail perfectly into the small kitchens of modern homes and apartments... a world of storage in a minimum of floor space! By actual measurement the new SPACE SAVER is no wider than the previous 4 cu. ft. model, and only 3⅞ inches taller — yet it provides full 50% more storage than the previous model—6 cu. ft. as compared to 4!

There are 5 full width shelves, and most important, more space between shelves. It's a real family-size refrigerator... and it starts every exclusive Kelvinator feature — from the smooth trim of its gleaming white Permalux finish to the Kelvinator Polarsphere Unit — the matchless cold maker with the trouble-free record.

This is the "little" refrigerator with the big ideas for builders and owners! For full information on the new SPACE SAVER, write Nash-Kelvinator, Detroit 32, today. If your problem is to equip a modern space-saving kitchen, or to replace inadequate refrigeration anywhere—count on Kelvinator's NEW SPACE SAVER!

**KELVINATOR QUALITY IN EVERY FEATURE!**

- **High Speed Freezer** — Made of stainless steel for permanence, beauty... faster, concentrated cold. Ample room for frozen foods, too!
- **Room for Tall Bottles** — Extra room for tall bottles on both sides of freezer. Greater height between shelves increases storage.
- **Handy Chilling Tray** — Dual purpose, chilling and defrosting tray. Large capacity, unbreakable, drawn aluminum container.
- **Sturdily Shelves** — Made of closely spaced, welded steel bars, plated to keep their brightness. Dishes slide easily but won't tip over.
- **Beautiful Exterior** — Made of welded steel with a lustrous, long-wearing Permalux finish. Stays white... completely stain-resistant.

**DIVISION OF NASH-KELVINATOR CORPORATION, DETROIT REFRIGERATORS • ELECTRIC RANGES • HOME FREEZERS • WATER HEATERS**
Compromise Controls

One of the penalties of a republican form of government is that political expediency not infrequently takes precedence over sound judgment in framing and passing legislation. There are always Congressmen in Washington who know what should be done in the interest of the overall, long-range economy, but these Congressmen know also that their continuing utility as constructive legislators depends upon re-election.

When, therefore, they are in doubt about the influence of loud talking organized minorities, such as the C.I.O. in its espousal of public housing, they compromise in an attempt to go as far as they can in the direction dictated by reason and experience, and at the same time not jeopardize their chances at the polls. It is perhaps better to have sound men in Congress who know how far a compromise with judgment can go without being dangerous or irretrievable, than to have them unwilling to compromise, with the result that they might get replaced by unsound and inexperienced successors of the type that follow the loud voice of the moment without regard to what happens to the country.

The 80th Congress has at least a normal complement of able men. The fact that they want to stay in Congress after the next elections is one reason for relative inactivity in Washington during the first two months of this year. It is also one reason why it is taking so long to frame legislation that will permit reconversion of the home building industry to a full peacetime basis of free private enterprise. Congress, and particularly the new Republican majority in both Houses, is feeling its way carefully, recognizing that it is playing for extremely high stakes in 1948.

Thus, the building industry, free of some of the onerous restrictions that hampered it in 1946, chafes under the restraint of unaltered rent ceilings, and questions the sincerity of some of the newly elected members of Congress who campaigned on a platform of freedom for the home building industry.

The dilemma of Congressmen who believe in returning home building to home builders is understandable in view of the pressure from vociferous left wing minorities. The solution of their problem, however, seems to be obvious. It is to get rid of all controls at the national level, and to leave the imposition of temporary controls entirely to the discretion of local communities. There was no uniform national pattern of housing needs and shortages, commercial and industrial building needs, or residential rental rates in September, 1945. That is one of the major reasons why OPA rent schedules, the Veterans' Emergency Housing Program and the allocations system for materials failed to work in 1946, and actually retarded home building.

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With the small 1946 increase in the supply of new housing units, and with great increases in the production rates of building materials and equipment in the past four months, the pattern is even more mottled, and less susceptible to controls at the national level.

Congress, without fear of being charged with evasion of duty, has a clear responsibility to remove all controls over building without delay. Local communities can be depended upon to determine their own building needs and controls if any, and to determine them with relation to both housing requirements and the industrial plants necessary for full employment.
Builder Sloan Erects First All-

Glenview, Ill., home engineered to obtain maximum comfort, efficiency, from combination of solar heat, mechanical heat and air conditioning

SOUND architectural design plus careful selection of the most modern building materials and equipment, all finely engineered into a compact, economical unit, have resulted in construction of a house which definitely marks a new high point in livability. Scientifically planned to obtain the ultimate in use of solar heat combined with a modern air conditioning system, this all-sealed home provides the maximum in physical and psychological living comfort the year round.

Several years ago Howard M. Sloan conceived the idea of building what he terms a “solar house.” Working with his architect, David S. Barrow, Mr. Sloan mustered all the knowledge and ingenuity of the nation’s outstanding building and heating engineers to emerge with a house which does not vary greatly in exterior frontal appearance from hundreds of others now being constructed, but which does vary radically from anything ever before constructed in the ingenious combination of solar and mechanical radiant heating and cooling.

The house, which fronts to the north, is of the popular rambling ranch type. Inside, the house virtually turns its back on the street, with living-dining room and kitchen fronting to the south, overlooking a large expanse of rear lawn. The interior was planned so that all working centers are at one end, living and recreational facilities in the center and sleeping quarters at the other end.

The south side of the 35-foot long living-dining room consists chiefly of three Libbey-Owens-Ford double Thermopane windows, seven feet high and nine feet wide, mounted in wood sash. This provides a total window area in this room twenty-seven feet long and seven feet high exposed to the sun during winter months. In addition to this, the south side of all other rooms consists largely of glass areas, although they do not come to floor level. Smaller but adequate glass areas are provided on other exposures, all of them Thermopane installations in wood sash.

To achieve the ultimate efficiency from a combination of solar heat, mechanical heat...
Sealed House in America

and air conditioning, Mr. Sloan decided to use the entire floor area of the house as a radiant heating panel. Along with this he utilized, in reverse, some of the principles of conventional warm air heating by providing continuous openings under windows so that conditioned air circulates from bottom to top of the glass areas, and returns through openings in ceilings. This forms a solid panel of conditioned air between windows and room areas. In summer when glass surfaces are warm this minimizes radiation of heat into the room from windows and in cold weather it warms window areas.

Six separate ducts bring air from the Servel all-year gas air conditioning unit to six plenum chambers under the various rooms of the house, the foundation footings forming divisions between chambers. To prevent excessive heat loss to the ground under the plenum spaces, the ground was

HOWARD M. SLOAN has combined sound architectural design with most modern building materials and equipment to produce the ultimate in year-round comfort. Large glass areas banish claustrophobia.

Photographs by Hedrich-Blessing

Courtesy House & Garden
The entire floor area is a radiant heating panel. Maximum efficiency in distribution of this heat plus solar heat is effected by an ingenious system combining some principles of radiant heat with those of conventional warm air first covered with 4 inches of cinders. Above that a three-inch thick slab of six-to-one mix vermiculite insulating concrete was laid, topped with a moisture barrier consisting of heavy paper mopped with asphalt. Tests made by Servel and Minneapolis-Honeywell heating engineers show very little heat loss into the ground with this arrangement. Floors of the house are constructed of Detroit Steel Products Company's Fenestra Type “B” building panels. These all-steel panels, 16 inches wide, with two channel-type ribs to each, are made in various lengths with the spot-welded ribs in varied depths, depending on the load and span. In the Sloan house ribs are 7 3/4 inches in depth for a 16-foot span. The seven and one-half-inch depth of floor panel ribs, plus the 9-inch deep plenum chamber, provides the equivalent of a 16 3/4-inch open area for circulation of warm air under the floors.

Air leaves the plenum chambers through the openings under window areas and returns to the air conditioning unit through the return openings in room ceilings. Air is carried from the plenum chamber to window areas through regular stud openings with reflective foil over two inches of Fiberglas insulation on the cold side, or exterior wall.

Since the floor and joists are an integral unit of light-weight steel, there is very little heat retention there. Danger of moisture condensation below the floor and in the plenum chamber in warm weather is nil because of the moisture barrier plus constant circulation of conditioned air, as well as susceptibility of the floor itself to easy changes in temperature. The steel floor is covered with one-half inch of Floorcrete, over which the rug cushions and carpeting, floor tile or other floor coverings are placed.

Air supply ducts for the six zones in the house are equipped with splitter dampers where air leaves the Servel gas air conditioning unit so that when the unit was installed the flow of air to zones could be adjusted to provide the most desirable year ‘round temperatures in each room. Thus the private areas of the house, such as bedrooms, may be kept at a slightly lower temperature than the living-dining room space.

The unorthodox placement of warm air supply openings for the various rooms, mentioned previously, blankets the windows, areas of greatest exposure, with conditioned air. In place of permitting the cold air at the windows to fall to the floor in cold weather, the discharge through openings under the windows mixes with cold air and eliminates stratification. During warm weather, when the Servel unit is on a cooling cycle, cool air enters the room at body level, displaces the warm air which is then carried away, thus conditioning the entire floor area.

The SHARP division between rooms has been eliminated. Large sliding panel between recreation room and living room is open.

American Builder, April 1947.
THREE Thermopane windows seven feet high and nine feet long make a total glass area of 27 feet long and seven feet high on the south side of the living-dining room exposed to the sun during winter months. which naturally rises to the ceiling where it is returned to the air conditioning unit through ceiling grilles. By having continuous openings under the windows, low velocity air flow can be used through the vents, thus holding air motion in the rooms to a minimum, eliminating any semblance of a drafty condition.

On cold, below-zero days this winter, when the full effect of the sun was felt in the living-dining room, sufficient heat was supplied by the sun to permit the heating unit to remain completely shut down from five to seven hours daily. Circulation of heat generated by the sun in exposure areas was maintained by the fan operating continuously in the Servel unit so that all rooms in the house were kept at uniform ideal temperature and humidity.

Comprehensive studies to determine any tendencies toward heat stratification in the rooms during typical days were made by John E. Peterson of Minneapolis-Honeywell and H. C. Pierce of Servel, Inc. Findings reveal a maximum variation of only one degree between floor and ceiling levels, with readings taken every foot vertically and in various parts of the rooms. Temperature of the steel floor above the plenum chambers, with the heating unit operating during cold weather, runs about 75 to 76 degrees, which makes it feel cool to the touch.

With the air temperature at about 115 degrees when discharged from the heating unit, this floor temperature is comparatively low but it is still high enough to insure comfortable conditions throughout the

This house, completed last July and occupied since then, has been the subject of much comprehensive heating and air conditioning research by engineers.

WHEN the sliding panel is closed, living room and recreation room become separate entities, permitting privacy in both of them.
house. Tests also reveal there is no over-shooting of temperatures during normal heating operation which might result from the radiant effect of the floor surface. The floor responds quickly to temperature changes of the supply air, and there is apparently enough heat storage in the mass of the plenum chambers to prevent any large fluctuations in floor temperatures.

Air conditions within the Sloan all-sealed solar house are controlled entirely by the Servel gas air conditioning unit. This is the heart of the entire system, not only for heating and cooling, but also to control the solar heat obtained through the large Thermopane glass areas. Heating, humidifying, air cleaning, circulation and ventilation in winter, cooling, dehumidifying, air cleaning and circulation and ventilation in summer, are all accomplished by this one unit. Chief components of the assembly are an indirect steam heating system, an absorption refrigeration unit, an air filtering section and a centrifugal fan section.

Complete control of the Servel conditioner is centered in the “Selectrol” which is a combination of a thermostat and manually operated switches to take care of seasonal

BUILT-IN furniture and equipment are spread liberally throughout the Sloan house. They were fabricated by the Widdicomb Furniture Co., Grand Rapids, Michigan, for Mr. Sloan.

THIS solar house literally turns its back on the street. Living quarters are at the rear or south exposure, facing the large and beautifully landscaped lawn at the rear.
temperature changes as desired.
The unit in the Sloan house has an input capacity of 120,000 BTU's for heating operation and a capacity of five tons of refrigeration for cooling. Gas is used as a fuel for winter operation and as a source of energy for summer operation. The unit contains a gas-fired boiler, or steam generator, which produces steam twelve months out of the year. During the winter cycle, steam is delivered to a heating coil ahead of the fan section of the unit assembly. During the summer cycle, steam is delivered to the absorption refrigeration unit also contained within the unit assembly.

Air handled by the conditioner on both heating and cooling cycle is 2,000 cubic feet per minute. Since constant fan operation is employed in the Sloan all-sealed solar house, and 300 cubic feet per minute of outside air are continuously introduced, ventilation requirements are definitely fulfilled.

Rates of room air motion throughout the house have been found to be unusually low, with the highest measurable rate of air motion being 20 feet per minute, as measured by a calibrated velocimeter. Discharge air velocities through the supply air openings under windows are from 150 to 250 feet per minute, sufficient to carry the supply air across the window areas to the ceiling, thus effectively blanketing those high exposure areas.

The overhang, or "awning" on the south side above the large glass areas is covered with canvas in summer to keep the sun from striking the Thermopane windows. Above the living room windows the overhang is six feet wide, but was brought back to three feet two inches above the smaller windows in the bedrooms and kitchen.

The ultimate in year 'round, sealed-in controlled comfort has been achieved in this economical, attractive solar house. The severe line between being indoors and outdoors so prevalent in most conventional house design and construction has been brought to an absolute minimum by use of the huge window areas overlooking the spacious, attractively landscaped rear lawn. Mr. Sloan, by the use of the latest in building materials and equipment, has not only assured occupants of such a house ideal air conditions the year 'round, but has banished claustrophobia by bringing the landscape into the living rooms.

Although the Sloan house is of moderate size, situated on a lot 125 x 170 feet, efficient design resulted in four comfortably-sized bed-
SERVEL air-control cabinets above kitchen range remove steam, cooking odors, etc. Blower starts when the hood is lifted.

rooms and three baths. Structurally, the house is conventional. A combination of stone and brick veneer, over USG sheathing nailed to regular wood studding, forms the exterior walls. The roof is covered with USG asphalt shingles over USG sheathing, nailed to conventional wood rafters. Dry wall construction was used throughout the interior. Two thicknesses of ½" USG Sheetrock, the first course nailed vertically and the second glued horizontally, cover the walls over Fiberglas 3-inch blanket insulation in the ceiling and walls except where stud openings are used as ducts for air flow to openings under windows.

Living-dining room interior walls are finished with red birch plywood. Walls of bedrooms and recreation room are covered with wallpaper. Bathrooms are all finished with Libbey-Owens-Ford Vitrolite on the walls and Wright rubber tile on the floors. This same product was also used in the kitchen. The recreation room floor is covered with Johns-Manville asphalt tile.

The attractive exterior appearance of the Sloan house, as well as the livability and utility of the grounds, are enhanced by extensive landscaping. Ralph Synnesvedt, of Glenview, Ill., landscape architect, planted more than 2,700 flowers, 400 shrubs and a dozen trees on the grounds last summer and fall.

Sloan has proved the livability of this house during the nine months he has occupied it. The extensive tests conducted on the performance of the type of heating and air conditioning used in the house, together with research that was done prior to the time that construction was started, have led Sloan to believe that the same principles can be applied economically to smaller houses. As a result, he is considering the possibility of launching a project consisting of smaller solar homes, this project to be in the Chicago area and the homes to be built for the middle price bracket.
LIGHT, roomy kitchen with large windows overlooks rear lawn. Upholstery in nook is U. S. Rubber Naugahyde over sponge rubber.

There are 33 Thermopane windows in the Sloan all-sealed house to provide daylight as well as solar heat. Floors of the house are used for cooling and air conditioning in summer as well as for heating during the cold winter

Products Used in the Sloan Sealed House

Camp Co. Floorcrete
Crane Co. plumbing fixtures
Detroit Steel Products Co.
Fenestra building panels
Fiberglas Insulation
Hamilton gas laundry drier
Ilg kitchen ventilating fan
Jacobs washing machine
Johns-Manville floor tile
Libby-Owens-Ford double Thermopane windows Vitrolite on bathroom walls
Mengel flush doors
Minneapolis-Honeywell air conditioning controls
Ozite rug cushion
Roper gas range
Scott built-in radio-phonograph
Servel all-year gas air conditioning unit
Servel 45-gallon automatic water heater
Servel gas refrigerator
Servel New Freedom kitchen cabinets
Tilt-A-Door aluminum garage doors
United States Gypsum wallboard, asphalt shingles, roof boards and sheathing
U. S. Plywood wall finish
U. S. Rubber Co. Naugahyde upholstery and sponge rubber cushions in breakfast nook
United Wallpaper Co. DDT treated cedar paper closet lining
U. S. Zonelite vermiculite insulating concrete
Warner Bros. wallpaper
Widdicombe Furniture Co. built-in furniture
Wright rubber kitchen and bathroom floor tile
A Ranch House Designed for Town or Country

IN designing another ranch type house, Walter T. Anicka, architect, Ann Arbor, Mich., has again acceded to the demands of the public.

"Not that I am averse to designing this type of house," says Mr. Anicka; "if I had my choice I would rather do this style than any other type that I am familiar with, for I honestly believe that a person gets more house for his money in the low, rambling, ranch type than in any other. However, for the sake of variety, and in order to cover all segments of the building public in their many different localities, future designs will endeavor to interpret the requirements of these respective areas in both one and two story houses."

This month Mr. Anicka has designed a low, compact structure that can be built on a 55 or 60 foot lot if necessity demands. Economy, both as it relates to the planning and the material used, is the thought that has been predominantly emphasized.

The exterior walls are built up of cinder blocks after which they are given two coats of a heavy waterproof compound which seals the pores of the blocks and enhances their appearance.

In scanning the plans it will be observed that a large utility room has been provided for in a rather strategic position with sufficient space to accommodate all the functions of a normal basement.

In this basementless house a new type of radiant heating is proposed. The heating pipes are laid on top of the concrete slab between 2 x 2 in. wood sleepers instead of being imbedded in the slab. This makes for more efficient construction on the job; the slab is poured first, partitions set up, pipes installed, and then the subfloor laid. This gives a working surface at all times during construction.

The house is extremely compact, with a minimum of hall space. Sliding doors are placed on all closets.
DESIGN NO. AB 117

AMERICAN BUILDER BLUE PRINT SERIES
Designed by WALTER T. ANICKA
Ann Arbor, Michigan

Basic Plans Aid to Economical Construction

THERE was a day when large operative builders were prone to lay stress only on economy of operation in large scale developments, minimizing the exterior appearance and its effect upon the community at large.

This has had a tendency to create what has often been referred to as "row housing," where the buildings were placed on 30 to 40 foot wide lots and each house was a duplicate of its neighbor.

This condition is now rapidly being changed. Most large operative builders employ an architect full time or contract for his services, recognizing his value to them in being able to plan more economically and to create designs where variation is obtained without sacrifice of economy.

When American Builder visited "Greystone," a development that was started in 1941 by the Fred E. Gibson Builders Inc., in Rockville Center, L.I., it was immediately seen that here was a project which had real merit and embodied all the principles of good planning and design.

This development is not pretentious in any sense of the word; it is just a community of small and medium houses available for the average person. However the fine cut lines of the houses, the deep, sharp shadows and the well balanced proportion between vertical wall surface and the roof expanse, in addition to the clever handling of the various exterior materials, all add up to the fact that, architecturally speaking, here is a group of successful houses.

Realizing, of course, that these would normally have to be sold in a highly competitive market, and that therefore the utmost economy would have to be exercised in their construction, Mr. Gibson adopted the principle of using four basic plans and then making the necessary variations in the exteriors in order to eliminate any possibility of repetition in designs.

He has been aided in this by Ralph M. Karger, architect of New York City, who has been responsible for the layouts and all the designs.

This subdivision, like many others of its kind, is a continuation of a project that was started prior to the war. Early in 1946 before the $10,000 restriction was placed upon housing, Mr. Gibson started sixteen of these houses. These have now all been completed. Since then he has started, at the far end of this development, twenty-four houses that come under the requirements for the veteran.

Of necessity, these houses have had to be pared down, both in ex-
ABOVE is shown the detail of front entrance of house below. A combination of materials including native stone, brick and asbestos shingles has been successfully employed.

ACROSS the bottom of these two pages are shown three different exteriors developed from the plan at left. Variations are obtained primarily in use of different materials.

In his formula for good housing Mr. Gibson sets forth four requirements: First, its outer road or street appearance—that which is plainly on view to the public passing by. Second, its entrance hall aspects and living room hospitality. Third, its intimate rooms satisfying to the needs of the family. And finally, its basement or service entrance. He is not always pleased. So often materials of one kind have to be used in place of several that have been used on the others, and with a reduction in the floor area and a simplification in the room arrangement. In spite of these restrictions, the general contour remains the same and the same well balanced proportions are in evidence.

The sixteen houses that have recently been completed are placed at the opposite end of the subdivision from the veteran's group and on both sides of the road which forms a semi-circle closing in that portion.

In reality there are only two basic plans involved in this setup. The other two plans have slight changes that do not basically alter the conditions. In both cases the rooms are arranged around a center hall. This permits ideal circulation without causing any one room to become a traffic lane.

The rooms are not large, yet they are sufficient in size to cope with the every day needs of an average family. The basement over the entire house is a definite asset. There, during inclement weather children may gather and play their games. Ample space is available for all laundry and heating activities. A great deal of bulk storage can also be accommodated.

A finished stair leads to the unfinished attic space which is closed off by a door at the top. In the future, as the need becomes apparent, this space can be arranged into two very fine bedrooms with ample closets for each, or into one bedroom and an additional bathroom.
CLEAN, sharp lines, with a pleasing balance between wall and roof surfaces, help to produce the small house of distinction at right. Below is plan adaptable to this house.

of those who live in them. Fourth, its practical response to modern requirements of comfort.

Satisfying street appearance is often the ability of taking the elements of a house and putting them together so that they are proportionally correct. Windows should be generous in outline; they give the same impression as the welcoming smile of a friend. The front door is always of utmost importance; it should be attractive and in scale.

Every house must, of course, respond to practical requirements. It must, for instance, be snugly warm in cold weather and well ventilated and cool in summer. There must be a pleasant kitchen with all appurtenances thereto. True luxury in the intimate portion of the house does not depend upon huge bedrooms, but upon huge closet space for the bedrooms. The house of inviting personality is not necessarily the result of expenditure, but rather it is most often a matter of personal knowledge and taste.

BELOW is shown another exterior variation of the basic plan at right. Change in the roof contour completes the transformation.
SIMPLE LINES of design give the Wollander houses a classical appearance.

Group Planning and Building Pay Out

How the "engineering mind" tackles a home building project

MANY good home builders today are going ahead with their projects, inspite of high costs, "grief" and government interference, and are having more or less success because of their long experience on the job and in the home building business. They stick by the old rules and methods, build a few houses at a time and worry almost constantly about how they are going to come out.

Will the regulations, costs, delays and uncertainties lick them—in spite of the nation-wide need and demand for almost unlimited amounts of shelter housing and home improvements? These old-timers and their methods are being sorely tested; and that they are able to carry on at all under today's array of obstacles is much to their credit.

In contrast to these rule-of-thumb builders—more or less small operators—there is developing here and there over the country a more thorough and scientific approach to

BASIC PLAN "B" (984 sq. ft.) gives a "big" 2-bedroom house, 24 x 36 feet plus garage.
the home building enterprise. What has been called the “engineering mind” is coming more and more into the home building picture with its emphasis on group planning, quantity buying and job-control.

An interesting example of the working out of such engineer-minded home building is the current “View Ridge” project at Everett, Wash., by Howard F. Sievers and Geo. P. Ducey, civil engineers, and Hans and Eugene Solie, contractors, all operating as the Everett Development Co., and utilizing the archi-

TYPICAL INTERIOR (right) features big view window, fireplace, case work. Below: Four alternate elevations for basic plans “B” as designed by W. A. Wollander and used effectively by the Everett Development Co. in its “View Ridge” Everett project.
BASIC PLAN "C" (1104 sq. ft.)

This basic house "C" with double garage, picture window and plain gable treatment lays emphasis on unbroken areas.

THIS basic house "C" with double garage, picture window and plain gable treatment lays emphasis on unbroken areas.

The architectural planning service of W. A. Wollander of Tacoma, Sievers and Duecy are well known in the Pacific Northwest as proprietors of the Associated Sand & Gravel Co., of Everett, large manufacturers of ready-mixed concrete, sewer pipe and masonry units, and dealers in hard materials. The Solies, father and son, are experienced building contractors; and the "Wollander Better Builder Plans" are bringing an advanced project planning and home planning service to many operative builders in the region.

"View Ridge" of Everett is a planned community just within the city limits to the south on Puget Sound and adjacent to the city's "Forest Park." It was laid out in 1943 with curving streets, asphalt surfaced to concrete entrance driveways, and at various widths through the residences. Fifty house lots were completed in late 1943. The other lots have been reserved for future development.

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"View Ridge" of Everett is a planned community just within the city limits to the south on Puget Sound and adjacent to the city's "Forest Park." It was laid out in 1943 with curving streets, asphalt surfaced to concrete entrance driveways, and at various widths through the residences. Fifty house lots were completed in late 1943. The other lots have been reserved for future development.
Wollander plans, when used on group of homes, avoid monotony of appearance. The carefully thought out details of these houses add simple charm and quality concrete curbs, city water in permanent cast iron mains, city electricity and all lots cleared and graded. Plot sizes vary from 60 to 110 feet in width by 110 to 120 feet in depth. Fifty houses have been put up and when inspected by American Builder in late December, 1946, thirty-five had already been sold and occupied and the finishing touches were being given the remaining fifteen. Selling prices ranged from $7,500 to $9,500 for these two- and three-bedroom homes, which was easily at least $1,000 under the current market for homes of this size and style as inspected elsewhere up and down the Coast. Work on an additional group of 100 houses is scheduled for this spring.

The visitor to "View Ridge" gets no impression of monotony or crowdedness, or of skimped construction—in spite of the fact that only three basic floor plans were used for these fifty houses. Many variations were, of course, worked into the front elevations, porch and window treatments, the roof lines and the positioning of the garages. Two of the basic plans (A and B) have the same over-all dimensions, 24 by 36 feet; so the same stock forms for pouring the foundations were used for all these A and B houses.

The plans are designed to use stock length of material economically, and are rectangular in shape to give the most in space for the least in cost. Part of the savings effected by use of the rectangular plans went into the large windows and special treatments on the front to give individuality to each house.

In setting up for the construction of the houses, a power saw cut-up yard was established close by and all the houses were pre-framed there. Two jeeps (war surplus) were used to haul flat-bed trailers loaded with the cut-up lumber and parts from the power saws to the house foundations. These jeeps proved to be just right for this service, having plenty of 4-wheel-drive power combined with lightness to work on soft earth without miring.

(Continued to page 168)
490 Homes for Pomona’s De Luxe

The lucky veterans who secure houses in this new subdivision, on the western border of Pomona, about 25 miles from downtown Los Angeles, will get the type of homes they dreamed of while they were about their business overseas.

Pomona itself is a clean, attractive college town in the heart of the citrus country. Although it is 25 miles from the Los Angeles City Hall it is only 15 to 18 miles from the great manufacturing districts in East Los Angeles; good roads make it possible to traverse this distance in 30 minutes, or less time than is required for the residents of famed Beverly Hills and Westwood to get to their downtown offices. While the housing shortage in Pomona is such that these 490 homes will be snapped up by residents who work in that city, additional units of Pomona Homes which will total 2500 houses may find a market among people working in East Los Angeles.

Pomona Homes will be a complete new community, including an attractive modern business district with plenty of parking space. Seventeen and one-half acres have been set aside for a beautiful park and playground, a church and a new school, and discussions are under way in regard to the building of these facilities. The corporation is composed of C. T. and W. P. Stover, Claremont builders and contractors, Edwin A. Tomlin & Co., Los Angeles development, loan and financing company, and R. J. Daum, president of R. J. Daum Construction Co. of Los Angeles. Hugh Gibbs is the architect. They have purchased 475 acres, of

THREE of the basic houses used in Pomona’s de luxe development. With slight alterations of roof lines and front elevations, a variety in the appearance of the homes is achieved.

LEFT: Caterpillar bulldozers knock down trees to make room for houses. RIGHT: Piles of red cedar shingles.
Subdivision

125 acres of this 425-acre tract are under development. Space has been set aside for commercial use, as well as 25 acres for schools, churches and recreation which 125 will be used for this first unit.

The site was formerly a walnut grove with many rows of peach trees alternating with the walnut trees. Through careful planning, about two-thirds of the trees were saved and as a result practically every lot will have one or more trees on it, which will provide more than enough nuts and peaches for the average family and will afford delightful shade. The lots are generous in size — 55 to 60 feet wide by 115 to 130 feet deep.

The houses are 1150 square feet in area, each having three bedrooms or two bedrooms and den, and a two-car garage. Construction is frame and stucco but 40 per cent of the houses will be finished in the front with either siding or shingles. Other features include wood shingles for the roofs, hardwood floors, tub and shower baths, tile floors in baths, tile sinks, fireplaces, mantels, flowerpot shelves.

Unusual care has been taken and much extra expense incurred to create a community of homes in which the variety of exteriors will be great enough to avoid any feeling of sameness. Four basic floor plans have been used, and by reversing the plans, (Continued to page 162)
THE first group of four postwar luxury homes having every possible desired feature has just recently been completed in Rock Creek Park, a suburb of Washington, D.C. These homes, two of which are shown on these pages, were built under the supervision of W. Evans Buchanan of the Wesmond Building and Investment Company, Washington, D.C.

LEFT: the spray attached to the faucet of the sink washes the food that remains on dishes into an electric garbage disposal unit under the sink. Three plans of the house above are shown at the bottom of page.

The rolling topography of Rock Creek Hills, with its attractive surroundings, beautiful trees and lawns, provides an ideal setting for this type of home. James T. Thomen, architect, Washington, D.C., was guided in the selection of the type and design of home to be considered by the character of the homes in the community, and the fact that this area is predominantly traditional.

Let's take a peek into one of the houses and see what it contains: The bathrooms glow with new Carrara glass wainscots, used in place of conventional tile. "Maid Call" buttons are installed in all major rooms and...
under each dining room table area. The light switches are noiseless. Each kitchen has inlaid linoleum, plus an air conditioning fan which draws out smoke and cooking odors. Directly over the sink is a fluorescent light. A spray to clean dishes has been installed.

Electric garbage disposal units under each sink shred and flush garbage into the sewer system. Space within the sink work area has been left for an electric dishwasher.

An innovation is the installation of an "electric eye" automatic garage door opener.

All homes have attached garages, fireplaces in the basement rumpus rooms and maid's room and bath in the basement. Concrete floors throughout the basement except boiler room and laundry are covered with asphalt tile. All walls and ceilings in this area are plastered.
Cleveland Model Home Features Radiant Heat

Designed originally as a research project, this attractive, compact Home Show house takes full advantage of available space.

The model home which attracted an estimated 125,000 during Cleveland's annual pre-spring pageant of flowers, homes, and home equipment, in that city's huge Public Auditorium early last month, was a house that resulted from research started nearly seven years ago by a home builder seeking "a home heating system that was like the sun's rays."

Constructed as the main attraction of the annual Cleveland affair, the house was designed by Maurice J. Fishman, prominent home builder of suburban Parma Heights, Ohio, and built early this year by the Home Builders Assn. of Greater Cleveland, under Mr. Fishman's direction.

Shown above and opposite it will be noted that, although of modest proportions, the house takes advantage of the fact that its hot water radiant heating system permits it to hug the ground to achieve unusual architectural unity, in spite of its small overall proportion.

Features of the plan are its well balanced arrangement of rooms to assure privacy in the sleeping quarter section, and the large glass expanse in the living room to provide an adequate amount of light without detracting from the ample area of usable wall space.

Exterior details feature asphalt shingles, 8 in. wood siding, window shutters and latticed front entrance.
MEMBERS of the Home Builders Council of New York, New Jersey and Connecticut have long been fed up with restrictions and government directives from NHA officials. During the war emergency, when large parts of their area were declared ineligible for war housing, they uttered no complaints; many of them packed their bags and used their skills to build war housing in other parts of the country.

Following the war’s end they began to build again. In common with their brother builders, they urged the removal of all controls on the theory that a free building industry would be the best way to get quick results. But they did build, as allowed and requested, in the price brackets recommended, with ceilings set by government agencies, and costs checked by FHA.

The lid blew off, however, when Charles S. Ascher, NHA regional housing representative for the area including their operations, declared in a front-page interview in the New York World Telegram:

“We tell veterans not to buy on the present market if they possibly can keep from it. We urge them to live with in-laws or make out the best they can until the market levels off. Sooner or later the supply of materials is going to catch up and construction costs will come down. When that happens, the veteran will get a far better deal than he can now.”

Whether the regional housing administrator’s ill-advised statement was an attempt to play politics with the veteran or was the considered opinion of NHA has never been made clear. The fact remains that it has never been corrected or retracted.

Members of the Home Builders Council, many of whom had sizable veterans’ housing projects under way, swung into action. Its able secretary, Otto J. Hartwig, came up with a succinct pamphlet labeled “To Buy Now—Or Not to Buy?” in which the veteran was given all the factors that might affect future home prices, and asked to draw his own conclusions. A model of clear thought upon the subject, the pamphlet is quoted in part below:

There are three basic considerations that enter into any estimate of the future trend of the sales prices of homes. They are:

1. The trend of building material prices... and production.
2. The trend of wages... and production.
3. Local community increased building requirements.

Building materials prices have increased considerably during the past year. Numerous materials, especially those particularly suited for low-cost home construction, will undoubtedly be adjusted upward in price in the near future to justify their production.

As and when these materials will increase in production to the extent that they flow consistently and adequately, their availability will make it possible for builders to gear their own production of finished houses to an expanded and steady volume. This, in itself, will enable builders to effect economies in overhead that should partly, or wholly, absorb such increases. There appear to be reasons to expect that materials will flow more steadily, and in increasing quantities, barring any setbacks occasioned through strikes or other unforeseen events.

The future trend of wages will have a most important bearing on the trend of prices for finished homes. This applies not only to on-site construction wages, but to wages throughout all industry in the nation. Wage increases at the mines, in the steel mills, on the transportation systems, in the materials manufacturing industries—all would have an effect on the prices of materials and on the price of the finished product.

Productivity of labor will also have an effect on prices. Not peculiar to the construction industry alone, but a complaint common to all industry throughout the country, is the fact that labor is not producing up to its full and normal prewar capacity.

During the war, many local communities stepped up their minimum building requirements both through local codes and planning regulations. Home ownership should not be approached as a matter of expediency. It should be sought for the purpose of owning, of finally possessing the home free and clear of any mortgage, the ultimate achievement of personal and family security. With this objective in mind, it is always safe to be sure “not to buy beyond your capacity and ability to carry.” It is advice that has always been given to home purchasers by responsible builders, bankers, and business men.

As in so many other things, the prices of homes very often have no long range meaning to the family that is sincerely desirous of owning its home.

To illustrate, in 1928 a certain home was bought for $12,500, at that time a high-price period. During the depths of the depression it could not have been sold for $6,000. Later, in 1937, it was evaluated for refinancing purposes at $8,400; today it can be sold for $17,500. That’s an example of value in fluctuation of values, but it didn’t concern the family that owned it.

If you know all the answers to the factors that will affect costs, then you know the answer to future prices.
Northwest Architects Offer New Plans to Builders

The recognition of the fact that just a small percentage of the vast amount of home planning that is done throughout the country actually receives the benefits of architectural service caused a group of architects in the Northwest to become concerned and to try to do something about it.

Realizing also that they could not cope with this situation individually, due to the fact that their business in many cases was not geared to handle this type of work, they set about to form an organization by which each member would make a design contribution which would form the nucleus of a proposed plan book.

To this end twenty-two of the leading architects in the Northwest banded themselves together under the name of "Architects Home Plan Service" with offices in Minneapolis, Minn., and prepared a plan book entitled "Northwest Homes."

The plans set forth in this book represent some of the best thinking of these men, where both modern and traditional design have been given equal prominence. The benefits accruing to the prospective home owner and builder are tremendous as it brings to them the type of service that they otherwise could not afford.

The leaders of this movement, speaking for the group, say that they want to see many small homes built quickly to relieve the present housing shortage, and to give the veteran and other home seekers the much needed good small houses. They believe that these houses can be, and should be expertly designed and well built, so as to be a credit to their neighborhood and a sound, lasting investment for their owners. They know that experienced designing and competent plans speed up home construction,

A MINIMUM of fixed partitions and an extensive use of draperies or Modernfold doors feature the first floor arrangement.

THE solar principle of planning has been effectively applied to both first and second floors of the house shown above.
Members of the Architects Home Plan Institute, Minneapolis, Minn., realizing the need of up-to-date house plans, have combined their talents to present to builders and the public low cost, livable homes. This is the first of a series; other plans will appear in future issues.

prevent costly errors, and assure future satisfaction.

On these pages are reproduced three designs, selected for the fact that each is distinctive in its particular group. On the top of the opposite page is shown a type of solar house. The word “solar” has usually been associated with one-story ranch type houses. In this case, however, it has been successfully employed in a two-story house and, at the same time, through the aid of the second floor overhang and roof projection, protection from the summer sun is provided.

The other two-story house shown is a type that will adapt itself either to open countryside or to a well developed city community.

In contrast, a wide spreading one-story ranch type house is shown on the bottom of this page. Within its overall perimeter all the elements of good living are included.

A WELL balanced exterior in which modern elements meet a conservative background.

THE plan above is well arranged to withstand the rigorous climate of the Northwest.

At right is shown a typical ranch type house adaptable to a normal city lot. The plan places all the service units to the front.
Something Better?

Altadena Heights Proved To Be the Answer

Samuel Firsks and W. E. Robertson, principals of the R & M Building Co., Inc., Los Angeles, built forty-four better grade houses using mass production methods and capitalizing on their knowledge and experience gained in the low and medium priced field.
LATE in 1945 Samuel Firs and W. E. Robertson, principals of the R & M Building Co., Inc., Los Angeles, started out to build some quality houses. They had gained a good deal of experience in the low and medium priced field but this time they wanted to build houses of a higher grade.

With the aid of Murray Fogel, broker, they purchased an attractive piece of ground in the foothills of the San Gabriel mountains, high in beautiful Altadena, 25 minutes from downtown Los Angeles and only two miles from Pasadena’s excellent shopping district.

Max Maltzman, architect, designed the attractive houses pictured on these pages, using five different floor plans and ten exterior designs. After going through what has been probably the toughest building year in history, the 44 houses are about completed. Of course, costs skyrocketed, just as did the costs of every other builder operating during 1946. Houses intended to sell for much less are now being offered to the public for $19,950, with a few at higher prices. The down payment is $2,950 and monthly payments $150 plus taxes and insurance, which total about $20 per month. The builders carry their own mortgage paper.

The quality and spaciousness of these houses contrast with the flood of smaller, cheaper houses now coming on the market. It is a pleasurable experience to step into the spacious...
Fires and Robertson are planning two more projects. Grading is now being done for 408 homes to sell for about $10,000.

This is one of the five different floor plans for Altadena.

Entrance halls of these high-grade houses and look around. One of the first things to impress the visitor is the No. 1 oak flooring, which is so rare in these times. Mr. Robertson made a special trip to Mississippi to obtain the flooring for these houses. Attractive chimes add a distinctive touch to the walls of the unusually inviting entrance hall.

Living rooms are large and each has a natural fireplace. In some houses the fireplace is in the den. Interiors of houses are all painted or papered. Venetian blinds are provided as standard equipment for all windows.

The master bath in each house is particularly attractive, with tile in the stall shower and in the pullman lavatory. Bathroom floors are covered with tile. The second bath in each house has a tile shower stall, but no tub. The kitchens in these houses have beautiful colored tile sinks and ample cabinet and drawer space. Leather upholstered breakfast nooks are built into all kitchens. The service porches are unusually roomy and should be a source of delight to housewives because of the abundant cabinet space.

Houses are heated by a forced air system, which can also be used to cool in summer. In some houses, there are delightful patios and in others rear porches are large enough to accommodate a sizable number of chairs.
VERTICAL siding is used to advantage here to vary appearance.

Exterior walls of these houses are a combination of stucco and siding. Red cedar shingles are used on the roofs. A two-car detached garage is standard with each house and an underground sprinkler system is installed in each lawn.

The entire subdivision of 44 homes is served by private streets so there is no through traffic to endanger children or others occupying the residential area.

ANOTHER of the roomy, well-designed plans used by Fikas and Robertson in this California project.

THE built-in breakfast nook is standard in each kitchen.

FIVE different floor plans and ten elevations were used.
Nichols Builds More Duplexes In His Country Club District

BATHROOMS are located on second floor above the kitchen in each unit. Walls are tiled to conventional height. A large linen cabinet in hall adjacent to bathroom is standard.

Project is part of continuous development of famous Country Club District in Kansas City. Duplexes are located to form buffer between multi-family apartment area and single-family residential section of planned community.
NOTE the varied roof line and entrance treatments over same floor plan. Landscaping is done by the Nichols nursery staff.

THE J. C. Nichols Company, Kansas City, Mo., is now building a group of two-family dwellings as part of the continuous development of the Country Club District discussed in the March issue of American Builder.

These duplexes are being built in an area zoned for two-family dwellings, to carry out the planned graduation from the Country Club Plaza business section into the single-family residential area. Surrounding the business section, in a narrow zone, the Nichols Company has built large multi-family apartment buildings. The duplexes are located between the large multi-family apartments and the area zoned exclusively for single family homes.

The usual Nichols fine planning and quality in materials and workmanship are being built into these structures. Exterior appearance is sharply varied to remove any semblance of monotony or row housing, while one basic floor plan is followed for all the buildings. Separate heating plants, two-car garages, separate entrances and well insulated walls between the units assure the maximum approach to single-family unit privacy in a two-family structure.

EXTERIOR coverings vary, with brick veneer, asbestos cement shingles and wood siding all being used.
COMPACT as a watch, this house has ample space to carry on all the functions of normal living.

Three Small Houses Planned for Today's

Economy of space and design is essential to a continuance of high productivity while prices are on the increase.

It has often been said that necessity is the mother of invention. In this instance, Willard Walker, designer of Buffalo, N.Y., recognized the need of small homes that would encompass all the elements of good living by providing the necessities required by a family operating in a normal manner.

To this end he realized that compactness of plan, commensurate with ease of circulation, and rooms of a minimum size, yet large enough to perform their normal function would be the first consideration. In relation to the exterior design the need was for simplicity of expression through simple wall and roof lines, avoiding wherever possible additional breaks in these surfaces that tend to increase the costs.

The houses shown on these pages are not intended to be architectural gems or masterpieces, but rather an attempt to design houses that could be built under the existing limitations of today together with the great increase in building costs.

FOUR ROOMS in addition to the bath, utility room and garage are contained in the overall perimeter of the house shown on this page.
Building Program

PLAN of house above is shown at right. Four rooms, bath and ample closet space are provided. Additional storage space can be made available in the attic. The house shown below can be built on a forty-foot lot with room to spare. Five full-sized rooms are provided for in this arrangement, with full basement.
Cemesto system of house construction allows St. Louis builder to erect quality houses for veterans and others in his area.

**PRECISION-engineered framing fits together to build the structural skeleton.**

**PRECUT Cemesto wall panels fit into position in framing, completing wall.**

**PRE-ASSEMBLED wood casement window, including frame, is slipped into place.**

ADOPTING the Cemesto system as his answer to permanent low cost housing in Clayton, Mo., Joseph Leopold started the first house last June, and completed twelve before the end of the year. Fourteen additional houses were under way in February. Leopold, who has been in the building business in the St. Louis suburb for 24 years, formerly built houses ranging in price from $15,000 to $20,000.

**"There Is No Secret**

**JOSEPH H. LEOPOLD**

**DETAIL of exterior door opening showing relative thickness of Cemesto used for exterior walls and interior partitions.**

**COMPLETED Cemesto house. Note the clean, simple lines.**
Seeking to meet the challenge for low cost homes he produced seven of the twelve houses without basements to sell for $6,500, complete with lot. The other five, on more expensive land, have basements, and are priced at $7,750.

Leopold reports that he had to prove the stability and value of the Cemesto system to FHA. He accomplished that in the routine way, and recognizing that he had an accurately machined house, he used expert workmen selected from the crews he had trained in his war and pre-war operations.

Because of resistance to the new type of construction among city officials, the first houses were built on the outskirts of the town. With the first few ready for inspection, city officials made their inspections, and then granted permission for construction of the houses inside St. Louis.

Roof construction in the Cemesto system houses Leopold is building consists of trusses framed on the ground, then lifted into place, and set two feet apart. This eliminates the need for bearing partitions, and permits economies in the interior wall construction.

Experience through most of the cold part of the winter has shown that the houses, all of which are heated with gas furnaces, will average a season heating cost of about $65. Leopold, thoroughly sold on the principle that the Cemesto system provides rigid, lasting houses, will limit his output in 1947 to what he can construct with reliable crews of mechanics of whose abilities he is sure.

As one enters these Cemesto houses, the feeling of stability and quality is impressive. The precision of all their parts and the ingenuity of the whole assembly is evident to prospective home owners. The floor plan of these Cemesto houses has been carefully laid out so that space is utilized to the utmost. The room connections minimize traffic and make each room conveniently accessible. Ample closet space is provided, and utilities are placed to form a compact group. One and one-eighth inch Cemesto partitions are used. This gains 10 per cent in total floor area.
Office Designed for Architectural Service

HIS home office of Donovan Dean and Associates, in Lakeland, Fla., is a pleasing combination of functional architecture admirably adapted to contemporary Florida design. The walls are of concrete block, with the exterior painted a light pink color. The small structure is well set off by the natural stone retaining wall fronting on the sidewalk.

In commenting on his design, Mr. Dean says: "The primary function of any architectural office demands that the drafting room have an abundance of true intensity natural light. For that reason the bank of drafting room windows was placed to the north, thereby orienting the remainder of the building as shown by the plan in order to meet the street and property requirements."

Distinctive appointments in the interior include a fireplace in the reception room. Floors are of asphalt tile and the interior concrete block walls are painted to give a plaster-like appearance. Sash are metal casements. Fluorescent lighting was used throughout with three concealed spotlights in the circular window.

ONE-HALF inch acoustical tile was used on ceilings throughout.

NOTE large window area on side adjacent to drafting tables.
Expertly Designed to Attract Motorists

Successful drive-in coffee shop on Pacific highway is latest word in roadside eating-place architecture with advertising appeal

PIETRO BELLUSCHI
Architect

WALLE-CAMPPLAN CO.
Contractor

THE HARVEY CO.
Owner

JUST north of Portland, Ore., on Highway 99, Waddle's Drive-in does a rushing business at all hours. Below is view from the South, above from the North.

THE booming business of supplying good and quick food to the American motoring public is attracting plenty of capital and engaging the best efforts of some of this country's cleverest designers and builders. Highway restaurants for drive-in service, when properly located, are money makers; but layout, design and construction of the premises have much to do with their success, both immediate and long-term. Thus architects and builders are important in today's food purveying business.

The points essential to success in this highway vending game are (1) a location where the traffic is heavy and continuous; (2) a safe turn-in with ample parking space; (3) de-
MAIN ENTRANCE to Coffee Shop is through these double doors of glass (Herculite). Vertical T&G cedar siding and woven cedar slat sign complete the inviting picture. Below is shown the V-shaped serving counter (twenty-three stools) and side-booths to accommodate thirty-four.
"CURB SERVICE" WING flanks the east side of the Coffee Shop and extends out into the reserved parking area, which provides for 88 cars while 19 more can be receiving "curb service." Below: Details of construction, including safe framing for big sign tower.

sign and general appearance that catch the eye, are distinctive and pleasing, and (4) inside facilities and construction that, under good management, produce quick, labor-saving and sanitary food service.

All these factors have been skillfully considered and utilized in the Waddle's Coffee Shop presented here—a recent development of outstanding quick popularity and success, outside Portland, Ore. It is located on the main highway north, near the famous Jantzen Beach on the Columbia River and close enough to the north industrial district of Portland and to the busy city of Vancouver, Wash., just across the River, to draw considerable lunch time trade from the local business men there. Adjacent to this drive-in eating place there is also a large super-market, a helpful factor for trade both ways since one stop may serve a double errand.

Prominent in the design of Waddle's is the large advertising-sign tower, rearing 40 feet into the air. It is an integral part of the strictly modern lines which Architect Pietro Belluschi, an outstanding apostle of the modern school, has given to this structure.
Norgate —

The design of the 12 houses recently completed at Norgate-at-Roslyn assures the continued high character of this development.

RARELY, in the unceasing quest for examples of good housing and developments, does one come in contact with a project that elicits such a note of complete contentment, serenity and satisfaction, as when entering the road leading into Norgate-at-Roslyn, a Long Island development of fine homes.

On this wooded rolling site where every natural advantage has been retained, Gus A. Mezger, a prominent and successful builder of quality homes in this area, together with Philip Resnyk, architect, Bronx, New York, has created a community of homes ranging in size from four to five bedrooms each. All the houses follow a distinct Colonial pattern with exterior materials varying...
somewhat, in order to eliminate a possibility of sameness.

The road layouts were made to conform to the existing contours as much as possible, and also to avoid cutting any of the fine old trees which grew in abundance on this site. An irregular curving pattern of roads was thus established, adding greatly to the completed picture.

When Norgate is completed it will contain a total of 315 individual homes. Up to the present time 140 houses have been completed. Of these twelve were completed in 1946, three of which are shown on these pages. "There will be no radical departure from traditional design in the homes still to be erected," says Mezger. He has established and stuck to a policy of gradual evolution in the designs of the homes he builds. Improvements, yes; changes due to new materials, of course; but nothing new just for the sake of newness until it has been tried and proved.

In this type of policy lies much of the success of Norgate. Purchasers appreciate the stability that is thus established. They can be assured of lasting value in their investment with a minimum of depreciation because of a lack of outmoded types and styles.

The three houses illustrated on these pages represent three distinct types—a full two-story house with five bedrooms and two baths in addition to the normal compliment of rooms plus a two-car garage; a story and a half house with three bedrooms, sewing room, two bathrooms, living and dining room, kitchen, breezeway and one-car garage; a story and a half cottage type house with four bedrooms and two baths plus living and dining room, kitchen and porch. Due to the extreme temperatures prevailing in this area entrance halls are provided in each house. Complete basements are provided with all necessary heating and laundering equipment as well as recreational facilities.

The method used by the architect in creating the illusion of a cottage type with low sweeping roofs merits more than a passing glance. With a wide dormer window across the rear which permits headroom and light, additional rooms are thus made available. Wood shingles, siding and brick on side walls, with slate on roofs, generally comprise the exterior materials.
IN a woodland setting, the house is low and broad.

OPEN planning in the living section of this home gives spaciousness to an otherwise small house. Three bedrooms and two baths, plus a delightful dining space in the kitchen, make this plan especially attractive.

Home in Portland, Oregon, conceals an interior of size and character behind an outward appearance of trim simplicity. This house is located in Kings Heights Addition, and was designed jointly by Walter E. Hutchinson, owner, and Morton H. Caine, architect.
HERE is a three-bedroom house that might well serve as a postwar model, since it embodies so much of what so many families long for today in the better type home. It is neat and trim on the outside, harmonizing well with its rustic setting. And, within, the rooms are large, well arranged and full of interest and graceful charm for present-day living.

Study the plan and note the hospitable living room with entrance foyer and lightly screened dining room end, from which the kitchen opens conveniently. Two big master bedrooms with de luxe bath and a great array of closets and wardrobes are to the right, while left is the third bedroom, library or den, with its private bath, a luxury usually found only in the highest priced homes.

The utility room is centrally placed and accommodates the gas-fired furnace, automatic water heater and laundry equipment. This is a basementless house. Heating is by the radiant system from hot water pipes of wrought iron laid in the concrete underfloors. A covered porch connects the house and its two-car garage, served by an upward-acting type door.

Two wood-burning fireplaces are features of this home. Firewood storage space is provided in the centrally located utility room, accessible through bin doors placed beside each hearth, thus assuring a ready supply.
ADHESIVES

Now in use, wartime improvements of bonding techniques, adaptable to building field, show promise of effecting important economies of time, labor, weight, expense, hazard.

The use of bonding agents in building work is not new; in fact, cement, pitch and similar "adhesives" are probably among the oldest known methods of fastening building materials together. But, just as modern building materials, methods and design have progressed since the days of clay, wood and stone, so have "adhesives," as they are known today.

While no one material can properly bond the varied materials used in construction and finishing, nor meet the varied methods of application and assembly, and conditions of service, the demands of war resulted in the development of a type for almost any need. Likewise, it broadened their field of use and made them of far greater value to those engaged in all phases of building construction, alteration and modernization.

Generally speaking, adhesives fall into broad classifications. One group, which is of great interest to those engaged in the design, construction, modernization and maintenance of buildings, is possessed of certain unique characteristics. Specifically, these are that it bonds without heat or pressure; has a strong initial bond; has fast setting bonding strength; is waterproof; withstands...
and Their Part in Building

A solid member of the same weight. The technique of accelerating the setting reaction of resin adhesives with "stored-heat" is currently causing considerable discussion in the woodworking industry and among builders in the prefabrication field. For years the use of heat as an accelerator has been recognized. Steam platten presses have been standard in many plywood plants for twenty years, but it has been difficult to use heat for secondary gluing. Spaces and surfaces were too small, corners too abrupt, and special plates too expensive.

The principle of stored-heat gluing is based on the fact that wood retains heat. By pre-heating the stock to be glued, it is possible to store heat and to apply it directly at the glue line where it is needed. This can be accomplished by the means most practical and economical for a particular operation—by steam plates, electrical strip heaters, ovens, infra-red lamps, radio-frequency equipment, etc. The surface temperature and depth of penetration required are factors depending largely upon the adhesive, the nature of the work, and the time cycle desired. Maximum surface temperature will be limited only by the equipment used and the charring temperature of the wood.

It is usually most practicable to heat one of the surfaces to be joined, apply the glue to the adjacent unheated surface, and then assemble the units, applying the bonding pressure promptly before the resin has precured. In addition, heat may be applied to both members prior to glue application where ultimate in speed of set is required, although such a process requires highly specialized equipment and accurate timing.

PICTURES at right demonstrate effectively the flexibility and adaptability of adhesives on variety of everyday jobs where strong, permanent bond is required and elements of time and labor are important.
How to Make a Float for Concrete

A float can be made from an old square point shovel. Burn out the old handle, cut off blade 8 in. long with cold chisel. Punch four 4% in. holes and bolt on one ¾ in. x 10 in. bottom piece. One ¾ in. x 10 in. closer pole is to be used as handle.—J. G. CALDWELL, San Mateo, Calif.

How to Draw Large Circles With Yardstick

Cut a notch in the end of a common yardstick to receive one-half the thickness of a pencil. Fasten a rubber band around the end to hold pencil. Punch holes for each inch or fraction in the center of stick with tack which is used as pivot. Place spool at end for balance.—VICTOR H. LAMOY, Upper Jay, N.Y.

How to Cut Narrow Strip Off Wood

When a board is a trifle too long, nail a scrap piece of material on the plank and saw through both pieces. In this way the saw will be guided.—HERBERT E. FEY, New Braunfels, Texas.

How to Make a Watertight Joint

First take the bottom board or plank and stand on edge on a solid trestle or other support. Then take a wire or other metal form, lay it on the edge of board and pound in the edge and keep moving down the length of bottom material, doing same on both edges. Then plane off the edges to about the depth of the groove made by the wire. When the sides are nailed to the bottom and the finished job becomes wet, the groove expands and makes a tight joint.—CLIFFORD B. TOWNSEND, Columbus, N.J.

How to Avoid Splitting When Nailing at Board’s End

In driving a nail near the end of a board, it often causes it to split. Take head of nail, place it on wood between point of entry and end. Hit same with hammer, causing a depression crosswise to the grain of board. This will avoid splitting.—JOHN KILCOYNE, San Diego, Calif.

Western Type House Influences Style Trend

BY R. J. Alexander

FROM year to year the Western type house has grown in popularity; its charm and simplicity have influenced residential design more than any other style trend in recent years. Essentially it is a style well adapted to larger houses, but some of its design features, its feeling of solidity and straightforwardness fits the small house equally well.

A rambling floor plan with exterior elevations having low, horizontal lines will give the desired effect of spaciousness. A low-pitched hip roof with wide eaves is desirable. Wood shingles are recommended for the roof covering with thick butt asphalt shingles for the alternate.

The Western type house should be placed on a lot of generous size and is particularly well adapted to a sloping site or a lot with more than the usual elevation. The house and grounds should radiate a feeling of informality rather than the precise, orderly setting of the Colonial style.

Exterior wall coverings should be of materials suitable to the location, site and climate; wood siding of bevel pattern with wide exposure and thick butts; double coursed wood shingles laid with a wide exposure; brick or stone.

Two or more types of exterior facing may be blended harmoniously. A portion of the exterior may be of wide boards applied vertically with wood battens covering the joints. Brick or stone may be used to feature the entrance.

Native stone is admirably suited to the Western style and may also be used effectively for the chimney or fireplace which should be of generous proportions.

The use of mouldings and other exterior ornamentation should be held to a minimum. The house should get its character from its general design and correct use of appropriate materials rather than from details.

For the interior wall covering the designer will have a variety of materials to choose from, all appropriate to the style. Gypsum board or plaster may be used. Wood panelling is effective. Plywood, hardboards and other materials in sheets may be used to advantage on some of the walls.

Simplicity should be the keynote in selecting trim, doors, cabinet work and built-in features for the interior. As its name implies, the Western type house is to be lived in and with.
NEW PRODUCTS
Offered by Manufacturers

FLOOR FURNACE
The Holly Manufacturing Co., 857 South Arroyo Parkway, Pasadena, Calif., produces the Stubby line of floor furnaces. A patented shallow type furnace with removable burner pan, the Stubby design effects important savings in both installation and operation. The furnace, which measures only 25 inches from finished floor to bottom of burner pan, is installed from above the floor in a hole that can be cut to the exact furnace size. The patented Stubby burner pan contains all controls and is separately attached to the bottom of the furnace by two wing nuts. This facilitates both installation and service.

NEW PANEL SIDING
A new type Ford-V-Neer panel siding using Fiberglas as the structural base material has been added to the line of the Ford Roofing Products Co., 111 West Washington St., Chicago 2, Ill.
Because its Fiberglas base cannot rot or decay, absorb moisture or shrink in any way, the new Ford-V-Neer is completely weatherproof. Other advantages derived from its Fiberglas base are that it is fireproof, will not house termites or vermin, has high insulating qualities, and absorbs sound.
While the Fiberglas base is light in weight, it is very strong and easily cut. This permits using Ford-V-Neer in large size panels and fitting it accurately around windows and gables.
The new Ford-V-Neer retains all the advantages developed with the old type base. It is furnished in panels ½ in. thick, 24 in. by 36 in. in size, shipped on four edges. It is available in either brick or stone pattern, in a wide variety of colors.

NAILING CHANNEL
A rod around which the nail loops automatically when driven into the channel, resulting in a uniform grip or anchorage when installing sheets, panels, boards, planks, or moulding to steel, concrete, and masonry, is the exclusive feature of the Nailock nailing channel. New product of The Sanymetal Products Co., Inc., 1701 Urbana Rd., Cleveland, Ohio, it is attached to steel furring channels or structural steel members by clips, wiring, or spot welding, in vertical, horizontal, or inverted positions. Nails of different sizes are available.

NEW COLD-RUN RESIN GLUE
National Adhesives, 270 Madison Ave., New York 16, N.Y., has developed a new cold-run, fast-setting resin wood glue that can be handled and machined after 20 to 30 minutes' clamping time. A wartime development named Wood-Lok, now available to all woodworking industries; outstanding features are: a bonding quality never weakened by constant heating; a liquid which does not harden in the pot nor change characteristics during shipment, application, or use; storage and working life of months; no odor; fast setting speed shortens assembly lines and frees working space, and it produces a strong, resilient bond unaffected by humidity changes.

HOME FREEZER
An eight cubic foot home freezer with storage for 280 pounds of food is available from Hotpoint, Inc., 3600 W. Taylor St., Chicago 44, Ill. The unit, designed chest-style, is 36 in. high, 49 in. wide, and 31½ in. deep. It has four wire storage baskets near the top surface, two refrigerated shelves for fast freezing small packages at the upper left, and room below the baskets for larger items or long-period storage. As the top is lifted, the interior is automatically lighted, and when closed with the handle, the freezer locks tight. A light alarm gives warning in the event of mechanical failure.

REMOVABLE SCREEN
A shutter which closes automatically if and when the rain blows through the screen is the outstanding feature of a removable window screen being marketed by the Alliance Automatic Window Screen Co., Alliance, Ohio. Inserted under the inside window, the screen is held in place by two compression screws. It is made of aluminum, of standard height, but comes in varying widths.

(Continued to page 150)
Today's trend of building garages "up front" dictates the installation of attractive garage doors. Ro-Way Overhead Type Doors offer your clients the utmost in appearance plus security, economy and mechanical refinements.

Ro-Way Doors are "out in front," too, in the years of trouble-free service they render. In any weather, they operate smoothly and easily. Ro-Way "Tailor-Made" Power Springs, Ro-Way's Friction Reducing Track, Double-Thick-Tread Track Rollers, and "Crow's Foot" Outer Bearing Support insure extra years of service. Ro-Way Parkerized and Painted Hardware add to your client's satisfaction. So for the "other front door," specify RO-WAY—the Overhead Type Door that's "out in front" in more ways than one!

Dependable RO-WAY sales and installation service is available all over America. See classified telephone directory for principal city distributors. See our catalog in Sweet's.

ROWE MANUFACTURING COMPANY
720 HOLTON STREET
GALESBURG, ILL., U.S.A.

There's a Ro-Way for every Doorway!
NEW PRODUCTS—

(Continued from page 148)

ALUMINUM SHOWER CABINET AB4712
A rigid aluminum siding that lies flat against the sheathing has been developed by the Compo-Miracle
 Co., Toledo, Ohio. Its heavy steel plates electrically welded, walls with Thermocel insulation, and three-tumbler combination lock that controls two operating bolts in the front of the door and two interlocking bolts at the rear of the door, will protect valuables from theft and fire. It is designed for installation flush with the wall.

IMPROVED SCOOPMOBILE AB4717
The addition of power steering and an enclosed cab are now optional equipment on the standard model Scoopmobile, the Mixermobile Mfrs., 6853 N.E. Halsey, Portland 16, Ore., have announced. The Scoopmobile, a tricycle type machine, is designed to handle virtually any type of material. The addition of hydraulic power steering increases the machine's efficiency and ease of operation. The enclosed cab, which features an upholstered seat, windshield wiper and large safety plate windshield, is added for the comfort and protection of the driver.

EXTENDED SURFACE RADIATION AB4702
New postwar product of Warren Webster & Co., Camden, N. J., is their Webster Type W1 extended surface radiation for installation around walls where floor space or vertical wall space are limited. Made of specially annealed copper tubing with rubber reinforced, square pressed aluminum fins and brass female couplings, units are available in five lengths from 2 ft. to 6 ft. inclusive, and are furnished with a perforated pressed steel cover where desired. They are particularly suited to garages, rumpus rooms, shops, storerooms, and industrial plants.

CELLAR STAIR UNIT AB4709
A cellar stair unit fabricated of steel complete with side walls for the cellarway and risers and treads has been developed by The Bilco Co., 164 Hallock Ave., New Haven, Conn. For new home installation, all that is required is an opening in the ground wall with five anchor bolts on each side for fastening the side walls of the stairs. The unit can then be assembled on the ground, slid into place, and caulked along the seams. It is also used to replace existing cellar stairways.

RIGID ALUMINUM SIDING AB4732
A new plastic glazing material which admits light and provides a weather barrier has been announced by The Rich- kraft Co., 228 N. LaSalle St., Chicago, Ill. Made by laminating a lightweight cord net between two sheets of cellulose

(Continued to page 152)
CHOOSE a Thrush controlled, forced circulating, hot water system for real "solid comfort." It provides continuous radiant heat . . . without requiring continuous Circulator operation. Thrush Flow Control System automatically regulates water temperature to maintain absolutely uniform comfort regardless of outdoor weather changes. Operating cost is low because the Thrush Circulator normally operates only a few minutes out of each hour, and firing unit operating periods are shorter.

YEAR 'ROUND HEAT, HOT WATER

FORCED circulating Thrush Flow Control Hot Water Heating System is completely automatic, convenient, and economical of fuel. It also provides Summer-Winter domestic hot water from the same boiler at low cost. Heat distribution is quicker and there is no wasteful overheating. Installation costs less because forced circulation permits the use of smaller pipe, valves, and fittings. If you are not familiar with Thrush Systems, see your wholesaler or write for literature. Address Dept. G-4.

H. A. THRUSH & COMPANY
PERU * INDIANA
acetate, it is waterproof, flexible, and admits over sixty per cent of the sun's ultra-violet rays. Suitable for poultry houses, barns, or cold frames, it can also be used for closing in buildings under construction or winter-closing outside scaffolding.

COMPACT REFRIGERATOR AB4711
A compact refrigerator with a storage capacity of six cubic feet of food in a cabinet of about the same dimensions as the conventional four-cubic foot model is being manufactured by the Frigidaire Division of General Motors Corp., 300 Taylor St., Dayton, Ohio. It features a large super-freezer compartment with two ice-making trays and a freezer chest which holds fifteen pounds of frozen food. An all-aluminum cold storage and defroster tray, and a control switch with ten separate temperature adjustments are also standard equipment.

BATHROOM HEATER AB4704
An improved model of the Thermador long radiant electric bathroom heater is being manufactured by the Thermador Electrical Mfg. Co., 3119 District Blvd., Los Angeles, Calif. The heater, 48 in. high and 9 in. wide, is installed flush with the wall. Its features are a streamlined grille of highly polished aluminum which absorbs less heat and infra-red rays than more metallic grilles, and a reflector of etched aluminum which gives maximum radiation to infra-red rays. The switch, located at the top of the grille, is recessed. Easily installed, it can be used as an auxiliary heater or as a complete unit.

ALUMINUM STORM WINDOW AB4721
A combination storm window and screen of durable, extruded aluminum in a soft non-glare finish is the newest product of The Eagle-Picher Co., Cincinnati, Ohio. The sash is divided into two portions: One portion remains a permanent installation, gives year-round weather seal, and eliminates drafts and dust infiltration; the other forms interchangeable storm window panels and aluminum screen inserts. Controlled ventilation is provided through a sliding panel and louvers located at the bottom of the frame.

HAMMER TACKER AB4714
The Fastener Corporation, 888 Fletcher St., Chicago, is producing an improved automatic hammer tacker model HT-550. Increased driving power with decreased effort are the outstanding features of this tacker which weighs two pounds and loads 168 staple tacks.

BASEBOARD TRIM AB4718
Lopo-Trim, a steel quarter-round designed as baseboard trim, a low potential wiring raceway, or as a quarter-round trim above or beneath a plug-in strip, has been announced by National Electric Products Corp., Chamber of Commerce Bldg., Pittsburgh, Pa. Projecting down from the back at 3 in. intervals are steel prongs. When Lopo-Trim is installed, these prongs are pushed down behind the baseboard or the plug-in strip, and hold the quarter round in place. Nails, screws or fasteners are not needed. Available in 6 ft. lengths, it has a neutral satin grey finish which will harmonize with any color scheme or which may be painted to match baseboard, floor or walls.

NOISELESS CABINET AB4710
The elimination of metallic noise is the new construction feature of the Youngstown undersink cabinet, product of the Mullins Mig. Corp., Warren, Ohio. This is accomplished by depressing the inner steel panel so the surface meets that of the outer panel and placing between the two a highly efficient sound insulation; a strong laminated structure results.

MULTI-PURPOSE CLAMP AB4708
For clamping cabinet work for gluing operations, holding bar stock for multiple grinding operations, and forming plywood shapes prior to installation, the Marman Products Co. Inc., Inglewood, Calif., offers a new multi-purpose clamp. The clamp consists of a snap-on interchangeable stainless steel strap, 1 1/2 or 2 inches wide, of any length, a square swivel assembly, and take-up and locking screws of cold-rolled steel. By wrapping the clamp around an object and tightening the locking and take-up screws, intense pressure can be obtained. It can be instantly released by backing off locking screw one-half turn.

CHECK NUMBERS AND MAIL COUPON FOR INFORMATION

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When you address inquiries direct to manufacturer concerning a new product described here, please mention that you saw it described in American Builder.
MONARCH* UNI-POINT
radial saw is PORTABLE
—made of magnesium

—Different in 4 important ways:

LIGHTEST Move right in ready for work anywhere with the Portable Monarch Uni-Point. It’s made of magnesium—the world’s lightest, most compact 12-inch radial saw. Your big profits are where your Monarch Uni-Point is. Now you can take it with you wherever you are building.

AT LEAST 25% FASTER

The exclusive one point cutting principle of a Monarch Uni-Point, eliminates faltering and fumbling. It enables you to slash one fourth from your saw time. With a low cost Portable Monarch Uni-Point you can cut days from your building schedules and increase your profits.

ALL-PURPOSE This new portable is capable of making every imaginable cut in wood. It does them all with absolute accuracy because of its rigidity and machine tool construction. And you can change from rafter notching to stairway stringer routing in a few brief seconds. Bevel, miter, compound miter, rip, shape, rout, dado, plus all the rest— they’re easy for this versatile new Monarch Uni-Point. And its full 3 by 16-inch crosscut and 20½-inch ripping capacity is greater than any other radial saw of similar size and mobility.

SAFEST There is no menacing arm jutting in your way while you saw or lay out work on your Monarch Uni-Point. Completely covered saw teeth, one-notch fence, contour design, positive kickback preventer—these and other outstanding protection features help make this new magnesium portable a sure bet for bigger, safer production. Send today for more facts about it.

Write for your FREE copy of the MONARCH PORTABLE booklet

If you require a larger MONARCH UNI-POINT

Prompt shipment also can be made of stationary Model AJ, for heavier production. In permanent installations this popular larger sized Monarch Uni-Point has saved time and money for users everywhere. It is mounted on open steel frame table and its 16-inch blade is powered by 3 HP or 5 HP motor; crosscut capacity 4½ inches deep by 25 inches wide and 0 to 31 inches for aoe. All the famous Monarch Uni-Point advantages make this Model AJ the outstanding stationary radial saw buy. Order now for best delivery.
Portable Power Saws and Sanders are at the top of the list of equipment that builders expect to buy this year as shown by a recent survey. American builds both—with top-dependability.

All American products are Quality-built to keep your production UP and costs down. Expert maintenance service near you with American distributors in 35 principal cities.

FLOOR SANDERS

Four models including 8 and 12 inch drum widths. Smooth, uniform sanding.

SAWS

New Portable Electric Saw. Big power, easy handling. Cuts any angle. 8 inch blade.

SMALL SANDERS

Many uses for the Sanderplane, a belt sander, Speedy Spinner semi-flexible disc sander, and Floor Edger, a disc-type sander.

MAINTENANCE MACHINES

Labor-saving machines for polishing, disc sanding, steel wooling and scrubbing doors. Many models, 10 to 17 inch discs.

Write for further details

AMERICAN FLOOR SURFACING MACHINE CO.
511 So. St. Clair St., Toledo 3, Ohio

Catalogs and HOW-TO-DO-IT INFORMATION

309—CHROMTRIM ALUMINUM MOULDBINGS—and their many applications to building materials and linoleum products are treated at length in a 24-page, full color catalog issued by R. D. Werner Co., 295 Fifth Ave., New York 16, N.Y. Specifications and installation instructions are given.

310—PRESSURED STEEL FURNACE—A gas fired warm air furnace designed for the small home market is featured in a single page bulletin prepared by Morrison Steel Products, Inc., 601 Amherst St., Buffalo 7, N.Y. The mechanics and specifications of the furnace are the essential points covered.

311—ORNAMENTAL IRON—Hand-wrought, for stoop, porch, and balcony railings, for canopy brackets, and for screen door grilles, is the subject of a brochure being distributed by Wooda B. Elliott, P.O. Box 80, Winter Park, Fla. Specifications, sizes, prices, and illustrations of stock items are featured, together with pictures of actual installations.

312—CONCRETE BLOCK MACHINES—The Super Vibrator, a 2-unit machine, and the "Little George," a single-unit machine, are described and illustrated in pamphlets available from the F. C. George Machine Co., 100 S. Westmoreland Dr., Orlando, Fla. Specifications of each model are given together with detailed description of their operations and their products.

313—CUSTOM-BUILT KITCHENS—are the subject of a 16-page full color booklet titled "Your Kitchen and You." Prepared by the St. Charles Mfg. Co., St. Charles, Ill., the booklet features model kitchens, individual units designed for specific conditions, and kitchen accessories. Details of kitchen planning are given.

314—IDEAL WINDOWS AND DOORS—of Ponderosa Pine are featured in a handbook being distributed by Wm. Cameron & Co. Inc., Waco, Texas. Prepared for the convenience and use of builders, the booklet gives sizes and specifications supplemented with illustrations of a variety of doors and windows available.

315—ASBESTOS—How it is created by nature; where it is found; how it is mined; and its many important uses in modern life are graphically told in a 40-page illustrated booklet by Dr. Oliver Bowles and available from The Rubberoid Co., 500 Fifth Ave., New York 18, N.Y. This is an informative reference piece.

SERVICE COUPON—CLIP and MAIL to CHICAGO

Readers Service Department, American Builder, 105 W. Adams St., Chicago 3, Ill.

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

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Any size or shape of kitchen can be a Curtis Kitchen!

Unlimited flexibility in planning kitchens of any size or shape— that's why Curtis sectional kitchen cabinet units help you provide kitchens which fit the owner's needs exactly.

There are 21 basic unit types of Curtis wall and counter units—and a total of 75 sizes, not including special cabinet accessories. Yet all dimensions of units are standardized to fit in with other standard kitchen equipment—and all Curtis units fit together to present a modern, streamlined and handsome appearance.

Naturally, Curtis kitchen cabinet units are made of wood—for Curtis' experience with thousands of individual kitchens has shown that wood cabinets provide lasting satisfaction. All units are furnished prime coated—ready to finish in any color to suit the owner's taste and preference. Let us send you our new 24-page color book "It's Fun to Plan Your Own Kitchen"! Or see your Curtis dealer soon for your copy. Modern, beautifully styled hardware is furnished for each cabinet, to be applied on the job.

Curtis kitchen units are designed and constructed to permit installation with the minimum of labor. Expert machining and workmanship produce units which, when bolted together, are firm, square, and perfectly aligned. These cabinets are made like fine furniture—with a combination of quality features found in no other type of cabinets, but true of all Curtis Woodwork for over 80 years. The kitchen here shows a typical installation of Curtis stock wood cabinets.
DISCUSSION of the national income in terms of dollars in these days of postwar inflation is extremely misleading: of much more significance is the comparison of prewar and postwar production expressed in terms of the number of houses constructed, of production of automobiles, electric washing machines, refrigerators, radio sets, shoes, beef, wheat, and butter, and the other commodities which comprise our national income.

The Department of Commerce recently estimated 1947 national income at 173 billion dollars. The official estimate of national income for 1946 was 164 billion dollars. The estimated 1946 income was thus twice the national income of 83 billion dollars in boom 1929 and four times the national income of 40 billion dollars in depression 1932. The national income expressed in dollars did not exceed 1929 until 1941, when it was 97 billion dollars.

When we lift the veil of dollars we see that the production of commodities in 1946 was not twice 1929 production nor four times 1932 production nor will it be in 1947. Production of passenger automobiles in 1946 was less than half of 1929 production—2.1 million passenger automobiles in 1946 as compared with 4.6 millions in 1929. Motor company officials estimate that 5 million motor vehicles of all types will be produced in 1947, which will be less than the 5.4 million produced in 1929.

Production of electrical appliances in 1941 generally exceeded 1929 production. Production in 1946 in most cases equaled or was less than in 1941. In 1941 the radio industry produced 13.7 million sets, about 15 million in 1946 and expects to produce an equal number in 1947. The production of clothing and food normally keeps pace with the growth of population and a surplus of agricultural products is available for shipment abroad.

It is anticipated that the construction industry will build 750,000 or possibly one million non-farm dwelling units in 1947, as compared with 710,000 in 1941 and 510,000 in 1929. This would be a good rate of increase as compared with other important industries.

If, instead of looking at costs of house building in terms of dollars, we computed the cost in terms of commodities that would be exchanged—that is, the number of bushels of wheat, electric refrigerators, automobiles, etc., at 1929, 1932, 1941 and 1947 prices—we would have a more realistic cost comparison.

Our chart is based on average price of wheat per bushel received by farmers, and does not reflect the price of $3.00 per bushel recently quoted.

Not ONE but TWO Foundations a DAY

Patents Pending

General Const. Co. pours two of these basements with dividing wall a day.

Atlas SPEED Forms are a designed Steel Form, good for re-use indefinitely without repair. Easy to erect, strip and move. Go together with wedge bolts. Simple to assemble with a hammer. Even unskilled labor can set them. Interchangeable for walls or flat slabs. Adjustable for all conditions. Insert easily accommodated. No studs needed in wall forms—No joists in slab forms.

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Now In Use on More Than 25,000 Buildings

at 1½c per Sq. Ft.
For Form Labor

General Construction Co. of Columbus, Ohio, says—
“We have recently completed 150 basements on a housing project. With two sets of forms we have been able to pour two complete basements per 8-hour day (2,000 sq. ft. of contact surface per basement).

“After 150 uses these forms did not require repair or maintenance, and are now ready to be used on an additional project of 250 basements.

“The following crew was used throughout the entire job: 1 Crane and Operator, 1 Carpenter and 2 Laborers. Based on our wage rates, cost was $.01125 cent per Sq. Ft. of contact surface.”

L. A. Gusso, Partner (signed) 16 East Broad Street, Columbus, Ohio
When they use Stran-Steel packaged framing for the first time, architects and builders alike are surprised that steel can be so easy to work with. Consisting of only a few basic types of framing members and fittings, the Stran-Steel system is simple and efficient. Yet it allows full flexibility of design. Practically any type of framing connection is possible, and any standard collaterals can be used.

Two unique construction features make Stran-Steel packaged framing ideally suited for light-load buildings. One is the fact that members can be quickly assembled with self-threading screws. The other is the patented nailing groove, an integral part of every Stran-Steel stud and joist. By means of this groove, collaterals can be nailed directly to the frame, just as easily as to wood.

By virtue of its efficiency, Stran-Steel is economical. To prospective owners it represents a sound investment in long building life, simplified maintenance and added fire protection.
Enjoy COMET Dividends

Using a Comet is one way of assuring extra dividends on a job. Easy to understand. Comet superiority in speed and accuracy offers extra margins. Comet versatility and durability contribute further advantages. So easy to maneuver; push button operation, controlling tremendous power. It all makes one answer: Own Comets, the saws that give "more cuts per dollar." Order from your dealer or write direct.

**Ponderosa Pine Elects Officers At Optimistic Annual Meeting**

At the annual meeting of Ponderosa Pine Woodwork, held at The Drake Hotel, Chicago, Ill., officers to serve the Association for the year 1947 were elected. They are: President, M. P. McCullough, Alexander-Yawkey Lumber Co., Prineville, Ore.; vice-president, Frank Stevens, Ideal Co., Waco, Texas; treasurer, T. L. O'Gara, Weyerhaeuser Sales Co., St. Paul, Minn.; and secretary, Arthur Hansen, Huttig Mfg. Co., Muscatine, Ia.


In his annual report outlining the promotional work of the Association during 1946, General Manager Bodkin cited evidence that interest in Ponderosa Pine doors, frames, and windows has shown an unusual increase, not only among the public, but among professional men and influencing factors as well. It was also his opinion that the thousands of inquiries received from Ponderosa Pine advertising in 1946 were from better prospects than those received the preceding year.

Following his report, the advertising program for the year was presented. To meet various forms of competition, the Association has substantially increased its 1947 advertising over that of 1946.
A HOME OWNER FEELS PROUDER OF A CERTAIN-TEED ROOF

* A home owner feels proud enough of any new roof.

* But when he can tell his friends it is a new Certain-teed roof, he knows they will fully appreciate the full measure of value he has received.

* A roofing customer's extra pride in a new Certain-teed roof is an extra value to your business.

BUILD ON

CERTAIN-TEED THE WELL-KNOWN NAME

CERTAIN-TEED PRODUCTS CORPORATION • 120 S. LA SALLE STREET • CHICAGO 3, ILLINOIS
BUILDERS' CHOICE

For HEATING MODERN SMALL HOMES with Popular, Economical Oil

IDEAL UNITS FOR MODERN SMALL HOMES

One prominent builder calls the H. C. Little oil burning FLOOR FURNACE, "the best heating unit for small homes on the market today" and it's the ONLY oil burning floor furnace with Electric Ignition.

The H. C. Little oil burning FLOOR FURNACE with DUAL REGISTERS is unusually satisfactory in small homes, giving an even heat flow to both front and rear rooms at the same time.

The H. C. Little oil burning WALL FURNACE, which is installed directly in a partition wall, at floor level, is an outstanding new contribution to small-home heating.

The H. C. Little oil burning WINTER AIR CONDITIONING FURNACE is unequalled for homes with basements.

The H. C. Little oil burning UTILITY ROOM FURNACE is ideal for modern homes without basements.

WRITE FOR COMPLETE INFORMATION

H. C. LITTLE BURNER CO., San Rafael, Calif.

For over 20 years, H. C. Little Burner Co. has specialized in low-cost automatic oil heat especially designed and priced for small homes—today offers builders and the public a complete line of compact, factory-assembled units which are low in first cost and easy to install.

A REAL SALES ASSET

Low installed cost, however, is only one advantage of H. C. Little equipment. Increasing numbers of builders are learning that an H. C. Little unit is a real sales asset in a small home—because no other oil furnaces of the low-cost vaporizing type even approach H. C. Little in providing complete comfort, outstanding performance and true operating economy.

AUTOMATIC ELECTRIC IGNITION

Electric Ignition, an EXCLUSIVE H. C. Little automatic starting feature, is a terrific sales advantage. It completely eliminates the old fashioned oil-consuming pilot light (or "low fire" stage) and provides convenient, money-saving on-and-off operation, thermostatically controlled.

EXCLUSIVE BURNER DESIGN

The exclusive, patented H. C. Little vaporizing burner converts low-cost furnace oil into a rich, smokeless vapor, which burns with a clean, smokeless flame at a very high efficiency. Over 100,000 units in successful operation are proof of dependability.

(Nationally Distributed and Recognized)

H. C. LITTLE BURNER CO.
San Rafael California
WORLD BUILDER — Mrs. Matt Rieke, who bought one of Al Balch's attractive new Wedgwood homes in Seattle, recently sent Al a postal card with the following message: “Thought you might be interested in the following from our four-year-old Billy: ‘Mommie, did God make this whole world?’ I told him that that was right. Most indignantly he came back with, ‘He did not. Mr. Balch did.'” Here is a case of genius recognized on the home grounds, even if the recognition is a little overdrawn.

BALCH SELLING — In a room at the Stevens Hotel during the NAHB convention, Al told an informal audience that he never drives into the Wedgwood development without his pockets full of candy. The kids know him, like him, take pride in the community, and guess whom they will go to for homes when they have their own families.

SALES AIDS — The kids in Wedgwood do a good share of Al’s selling for him. When he brings a prospect into the community, he turns their children loose with the resident kids, and after an hour with them the new kids at least are sold. Al says that several of the homes have been sold by the kids.

POSTWAR RESEARCH HOME — The Fritz Burns project that received nationwide publicity early last year has attracted 300,000 paying guests. That was the figure at mid-February, 1947. Joe Schulte reported that attendance is on the increase, and that more people inspect the house daily than were there six months ago. The house is on Wilshire Boulevard in Los Angeles.

NEW PHRASE — George Nixon, nationally known Chicago builder, coined a phrase recently, when he referred to a home building project as “off-site preparation, and on-site fabrication.” George says that he did not coin it, and that his son did. It is an interesting combination of words to conjure with, and probably holds the key to real description of technological progress in home building.

CHAIRMEN — Most associations complain of the difficulty they have in finding competent chairmen to run their open meetings. NAHB paraded a galaxy of stars in the art of presiding, using a different one for every session at the convention. Made the meetings more interesting, and presents the possibility that expertness in presiding and in building are synonymous.

JESSE WOLCOTT — One of the best addresses made in a long time by an elected government representative was the one delivered by Jesse Wolcott at the NAHB convention banquet. The little Congressman from Port Huron, Mich., who is chairman of the House Banking and Currency Committee, left no doubt about his stand for free private enterprise, and gave a demonstration of courage and conviction that should be an example to many of his contemporaries.

TOP PERCENTAGE — Can anyone top Tecumseh, Michigan? R. H. Moore, Tecumseh builder, says that in his town, which has a population of 3,000, there were 110 houses built in 1946. Moore says that is a top percentage of houses to population for the nation in 1946.

STARR — Louis A. Starr, Commander in Chief of the Veterans of Foreign Wars, paused for a few hours after his address at the NAHB convention, chatted with a number of builders, found the Portland, Ore., delegation, his home towners, and has his feet squarely on the ground as far as seeing through the public housing crowd is concerned.

NEW EMERGENCY — The disgruntled remnants of the New Deal, together with fellow travelers, are carefully watching growing demand for new commercial and industrial buildings,expect to see them fall behind production plant and employment needs, and will be ready to declare a new emergency. The building industry, of course, will be blamed for failure to meet its responsibilities, as usual.

BUILDING COSTS — Refutation of the charge that home building costs are too high can be made easily now with cost indexes of most other commodities available. The builder, for instance, starts with his basic costs, labor, materials and real estate, averaging 37 per cent higher than they were prewar.
orienting the houses on the lots in various ways, and using approximately 80 different roof shapes, the builders expect to create a community which will not have any of the "row house" appearance. They went a step further than even most good builders go to beautify their homes. They retained the services of Millard Sheets, famous artist and head of the Art Department of Scripps College, as color consultant. Mr. Sheets has worked out color combinations on the whole project, including colors of the exteriors and interior wall colors.

The homes will be financed through Edwin A. Tomlin & Co., by the Union Central Life Insurance Company of Cincinnati. There will be an FHA insured mortgage of $7900 and a second mortgage of approximately $1800 guaranteed by the Veterans Administration. According to an interpretation of the law, this is a better deal for the vet because it does not use up his entire right to borrow $4000 with the Veterans Administration guarantor—he can still borrow the remaining $2200 at any time within 10 years. Edwin A. Tomlin & Co. are the sales agents for the property.

Power Equipment to Be Used

The construction will be done by conventional methods but all possible use of power equipment will be made. Huge cranes are moving portable forms from one foundation to another. Much of the material for the first unit is now on hand and the builders do not expect to encounter any serious shortages.

Business Section

The business section is worth a story in itself. Designed after an exhaustive study of other recent successful business centers, it will incorporate many innovations. There will be approximately 2½ feet of parking space for every foot of store space. The main parking area will be in the rear but there will be two rows of angle parking in the front, still leaving room for four lanes of traffic between. A low hedge will be planted along the front, between the sidewalk and the street.

Stores to Have Rear Show Windows Also

Stores will be built for desirable tenants and leased to them on a percentage of sales basis. Architectural features of all stores will be controlled by the builders. A unique feature being considered is a layout so arranged that all large stores can have show windows across the entire back. In order to do this, large-volume stores, such as markets, would be alternated with stores which do not require depth, such as barber shops, cleaning and dyeing establishments, etc., and this would permit the stockroom and incoming stock facilities of the large store to be placed on the side rather than in the rear, leaving the entire rear for display and entrance.

---

**Fiberglas Brings These Advantages To Famous Ford-V-Neer:**

1. Because it is made from inorganic material it cannot rot or decay.
2. It is fireproof.
3. It cannot absorb moisture.
4. Its fibers of inorganic glass are vermin and termite proof.
5. Though light weight, it is extremely strong and durable.
6. It combines high insulating qualities with excellent sound absorption.
7. It cannot shrink — it is easy to cut.

---

**FORD ROOFING PRODUCTS CO.**

111 West Washington St., Chicago 2, Ill.

**ASPHALT ROOFINGS • SHINGLES • FORD-V-NEER**

---

**NEW PANEL**

SIZE 24 x 36

**FIBERGLAS**

... an improvement in siding so sensational that it makes conventional sidings out-of-date!

By using Fiberglas in place of the usual organic fiber base, Ford has developed a new and revolutionary type of siding. It marks the greatest advance in years in the use of structural materials for the manufacture of siding.

The Fiberglas base cannot absorb moisture, will not rot or decay, will not burn, and is termite-proof. These are only a few of many outstanding features that make this new Ford-V-Neer a leader in a new era of greatly improved sidings.

This new Ford siding made with Fiberglas retains every advantage of the old type base, and adds new desirable qualities that other bases do not have. Indeed, it is hard to imagine any important quality that Ford-V-Neer does not now bring to the modernizing and weatherproofing of buildings.

**FORD-V-NEER** is a product of the Ford Roofing Products Co. A rigid panel-type exterior wall covering ½" thick, made up of five thicknesses of moistureproof material, including Fiberglas. Available in brick or stone pattern (see above) in a wide variety of colors. Panels are 24"x36", with ship lap edges on four sides. When sealed with Ford-V-Neer plastic, it makes a solid weather-tight job. Panels are perfectly matched and can be cut and fitted around windows and gables.

---

**490 Homes for Pomona's DeLuxe Subdivision—**

(Continued from page 119)
The distinctive styling, sparkling chrome finish and precision "EZE" CLOSE valve construction of the Salter-Glauber line, all combine to meet your customers' specifications for true plumbing fixture quality and value. Long range production planning, including the facilities of seven specialized plants, will soon be producing adequate quantities to supply your needs.

In addition, Salter research and design engineers have perfected many new developments which will be introduced to you during 1947 as soon as patterns, dies and production will permit. For information on the fixtures illustrated and many other items in production, please consult your plumbing goods supplier or Salter sales representative.

Masterpieces in Brass
Harman Corp. Elects Three New Directors

WALTER E. DENNIS, Harper Woodward and Alfred Lee Loomis, Jr., have been elected directors of the William H. Harman Corp., Wilmington, Del., it has been announced by William H. Harman, president.

Mr. Dennis is vice president of The Chase National Bank, with which he has been associated for twenty years. Mr. Woodward is associated with the Rockefeller interests as counsel and adviser on aviation matters to Laurance S. Rockefeller, and Mr. Loomis is associated with Smith, Barney & Co.

The William H. Harman Corp. are designers and developers of a new type low-cost home, adapted to mass production.

Data Sheets a Guide To Redwood Grading

To aid lumber dealers, architects and other specifiers to select the proper grade of redwood lumber for each specific application, two new and helpfully illustrated data sheets, "Yard Grades" and "Grade Use Guide," are currently being distributed by the California Redwood Association, 405 Montgomery St., San Francisco 4, Calif.

The publications may also be used profitably in merchandising and sales promotion.

Designed as quick and easy references, the data sheets are the convenient 8½ x 11 in. size. They are punched for ready insertion in sales or specification books.

Department of Commerce Offers Series of Booklets Dealing with Small Business

To operate a small woodworking shop, one must be a skilled mechanic, expert in the use of hand tools and an expert operator of power machines and accessories. So states a booklet, "Establishing and Operating a Small Woodworking Shop," on sale by the U.S. Department of Commerce, Washington 25, D.C.

Another booklet entitled "Manufacturing Brick and Tile to Serve Your Community" points out the need for considerable capital to start a brick and tile plant, gives an overall survey of (Continued to page 166)
There is no satisfactory substitute for wooden double hung windows equipped with Duplex adjustable sash balances

The Perfect Window Combination

**DUPLEX—**
the only adjustable
FLAT SASH BALANCE

**DOUBLE HUNG WINDOWS—MOST POPULAR**
By far the most generally used of all window types, wooden double hung windows have no satisfactory substitute. They are lowest in first cost and use inexpensive hardware. They are readily equipped with standard storm sash, screens and weather-stripping. Ventilation, light control and curtaining are simple and easy.

**BUILDERS LIKE DUPLEX ADJUSTABLE BALANCES**
Because—**they cut installation costs four ways:**

1. They do not require special framing for overhead balance space or stud mortises at sides, being installed about midway between sill and head jamb, in virtually the pulley stile thickness.

2. They entirely eliminate cords, weights and weight boxes, permitting a simple, sturdy plank frame.

3. They enable a good workman to hang from 65 to 75 windows a day when the sash have been fitted, or fit the sash and hang 30 to 35 a day.

4. Just two sizes meet 98% of all residential building needs—an important advantage which simplifies ordering, stocking and installing.

Consult Sweet's Files—Builders or Architects
(Sold through jobbers and dealers only)

**NOW THE ULTIMATE IN DOUBLE HUNG WINDOWS**
Duplex—the only adjustable flat sash balance—has brought to double hung windows the ultimate in beauty, economy and utility. Duplex adjustable balances permit modern, attractive, narrow mullions; provide noiseless, finger-tip sash control and are guaranteed against mechanical defects for the life of the building.

628 No. LaPeer Dr., Los Angeles 46, Calif.
Please send data on Duplex Sash Balances
NOW FOR THE FIRST TIME
STOCK BASIC PLANS
EACH WITH MANY EXTERIORS
FOR OPERATIVE BUILDERS

Cut your costs by using this proven service. My experience of 20 years serving operative builders—architecturally—in the Pacific Northwest are NOW offered to you. Wollander Better Builder Plans give a complete selection of basic plans for operative builders. Each plan has from 10 to 12 different exteriors, obtained by changes on the front only. This individuality costs nothing extra.

Our home designs show a simplification in size and in interior arrangement which results in a real saving for the builder all along the line from his initial material estimate to the actual sale of the home. It results in a smooth flow of production by carpenters, plumbers, electricians and every other workman on the job.

It is a well known fact that home buyers are now critical of home styles. They pass by the awkward, poorly designed houses, especially when our smart-looking, cozy homes are available at no greater cost.

Write today for complete details. Be the first in your locality to profit from this new wholesale planning service. Because these plans are stock we can furnish them to you at substantial savings.

W. A. WOLLANDER
Wollander Better Builder Plans
Tacoma Building
Tacoma 2, Washington

(Continued from page 164)

expected postwar markets, and outlines procedures for determining whether a plant will be profitable in a particular community.

Still another book entitled "Small Business Problems" deals with the problems of record-keeping, describing what records are needed and how these may be kept with a minimum of time and effort.

These are but three of a series of booklets the U.S. Department of Commerce has for sale bearing on the problems of small business. Copies can be obtained from the Superintendent of Documents, Washington 25, D.C., or from any of the Field Offices of the Department of Commerce.

Stamping Firms Merge
TWO of the oldest and most reliable stamping firms in the country were merged under one management when the Precision Metal Workers of Chicago was purchased by the Milwaukee Stamping Co., Milwaukee, early this year.

RALPH ROBINSON
In announcing the purchase, Ralph Robinson, president of the Milwaukee Stamping Co. said, "For the last two years we have wanted to augment our production and when the opportunity presented itself, we took it."

The Precision Metal Workers Co. is at 3100 Carroll Ave., Chicago, Ill. Occupying a 62,000 square foot floor area, it manufactures special stampings to customer specifications, as well as a variety of other metal items.

Although the Precision Metal Workers will become a division of the Milwaukee Stamping Co., its personnel and line of products will remain unchanged, Mr. Robinson pointed out. "We feel that the accumulation of 35 years of consumer good will earned by the Precision Metal Workers is an asset well worth preserving, and so we are going to maintain the plant as a separate unit with its products and personnel intact."

Resume Production of Plastic Wood in Colors
PLASTIC Wood in colors is back in production, Boyle-Midway Inc., New York, has announced. Off the market since early 1942, it is now available in
Note the true lines, literally "straight as a die," and the attractive corner-cap finish in this small home re-siding job.

RE-SIDING JOBS PROVE THE EXTRA VALUES OF REYNOLDS Lifetime ALUMINUM CLAPBOARD SIDING

The beauty of this aluminum clapboard gives a house important selling advantages...with new perfection in Colonial lines, never warping, never sagging.

And under the paint are still greater sales points...lifetime permanence that defies fire, rust, rot and termites...structural strength combined with light weight...and reflective insulation from the inside aluminum surface, facing an air space 13/16-in. deep at butt.

Your carpenters will like the fast, easy application of this light-weight, self-aligning clapboard...precision-made for a snug, weathertight fit. 12-ft. length with 8-in. exposed surface weighs only about 5 lbs. Easy to cut and fit with simple butt joint that's practically invisible. Both corner caps and corner posts available for handsome corner finish. Less danger of damage in handling and on-site storage.

Current Reynolds national advertising shows interesting applications of this modern building material, including unpainted aluminum for contrasting surfaces. Detailed application information is included in the descriptive literature available on all Reynolds Lifetime Aluminum Building Products. Write today.

Reynolds Metals Company, Building Products Division, Louisville 1, Kentucky.

Speed up the slow part of remodeling jobs with a STANLEY ELECTRIC HAMMER

Take the drag out of remodeling jobs...cellar modernizations, porch and step jobs, and additions. Punch through the heavy foundation drudgery with a Stanley Electric Hammer and get into the construction that impresses the customers and makes you the most money.

No auxiliary equipment needed...convertors or control boxes. Just plug into house current, A.C. or D.C. Easy to use, tough and dependable as all Stanley Electric Tools. Extra strong duralumin housings and heavy coil spring to take up shock.

The Stanley Electric Hammer drills, chips and channels in concrete, stone or brick, chisels wood; vibrates concrete forms; scales rust; tamps concrete...carries through on the tough jobs. Write for information: Stanley Electric Tools, New Britain, Conn.

Group Planning and -
Building Pay Out—
(Continued from page 117)
In organizing the construction work on these houses, the logical “engineering method” was to start about ten houses at once and then have the workmen grouped in “teams” to follow each other right down the street through the successive operations of foundation forms and pouring, setting up the house frames, roofing, inside finish, etc. Each gang thus became really expert in handling its part of each job. Regardless of the number of exteriors used with each basic plan the interior partitions, both ends and the rears (according to the Wollander plan) are always the same. All plans can be used with or without fireplaces, with or without basements, and provision has been made for the installation of various types of heating. Foundations are standardized as to the size so that the use of stock forms is an added economy.

All this simplification in size and interior design results in a real savings for the builder all along the line from his initial material estimate to the actual sale of the home. It results in a smooth flow of production by carpenters, plumbers, electricians and every other workman on the job.

One of the strikingly new architectural features of these “View Ridge” homes is the big glass panel window from floor to ceiling, used effectively as part of the front entrance.

BUY BEARCAT!

You’ll finish jobs faster with a Bearcat! Speedy foot-pedal swing cut-off . . . Rip, cut-off at all angles . . . Portable from job-to-job . . . Rugged welded steel frame and top . . . Heavy-duty ball bearings. Two sizes: XJR for home builders, XCO for heaviest jobs. QUICK DELIVERY.

Write TODAY for Literature-
THE PAXSON CO.
47 "A" Ave., Traverse City, Michigan
BUILDING BEARCATS FOR 25 YEARS
for more savings on every cut

Get a SKILSAW RADIAL SUPPORT and don't just saw it...

SKILSAW IT!

...Cut pre-cut lumber with SKILSAW and SKILSAW Radial Support and yet gain extra profits from the extra speed and accuracy. You'll save time on layout. You'll save money cutting random lengths into usable pieces. You'll cut costs on every cut. And you'll still have portal SKILSAW with all its wonderful advantages. Ask your distributor today about demonstration SKILSAW and SKILSAW Radial Support.

SKILSAW, INC.
5033 Slocum Ave., Chicago 30, Illinois
Factory Branches in Principal Cities
NIAGARA Winter Air Conditioning and Gravity Furnaces for Any Size Home

For the compact house... the rambling ranch-type house... or houses of any size... you can assure lasting heating comfort and satisfaction with a Niagara heating unit.

Be sure to get the facts about the Series 20 Niagara Gas-Fired Winter Air Conditioner (illustrated above), with the famous cast-iron heat exchanger that brings heating economy and lasting satisfaction to any size house.

And if it's compact houses you're building, learn how ideally the heating needs can be met with the new Niagara Model 10-75 VAC Gas-Fired Winter Air Conditioner illustrated at the left—designed for installation in utility rooms, apartments or basements. The overall width and depth dimensions of Model 10-75 VAC are only 28¾" x 32½". Shipped as a package unit, completely assembled.

The complete Niagara line includes gas-fired and coal-fired furnaces in an extensive variety of types and capacities—backed by 55 years' experience in building residential heating equipment. See your Niagara dealer or write for detailed information.

NIAGARA FURNACE DIVISION
THE FOREST CITY FOUNDRIES COMPANY
2500 WEST 27TH STREET • CLEVELAND 12, OHIO

NIAGARA
GRAVITY AND WINTER AIR CONDITIONING UNITS

"Heated by NIAGARA" means economically heated

See Your Niagara Dealer or Write
for detailed information about the heat that will enhance the value of the houses you build.

Series 20
Gas-Fired
Winter Air Conditioner

Second Lowell Plant Purchased By G. E.

THE General Electric Company Ap- pliance and Merchandise Depart- ment has purchased a 437,000 square foot factory at Lowell, Mass., from the War Assets Administration, H. L. Andrews, vice president, has announced.

The new plant, formerly occupied by the U. S. Rubber Co., is located on Marginal Street. It is the second Lowell plant to be acquired by the department within six months, and will be used for the manufacture of building wire and other electrical construction materials.

Production is scheduled to begin as soon as the necessary manpower and raw materials have been secured, Mr. Andrews said. Employment is expected to exceed 600 persons.

10-75VAC
Gas-Fired
Winter Air Conditioner

Here's a big repeat item of top quality

Diamond Points are packed in a new package which prevents breaking of "sticks." They are made by an exclusive Red Devil process from especially hard metal, treated against cor- rosion. Come stacked in strong sticks of 100 points each to fit driver.

Two SIZES
No. 1 Diamond Points 3/8" long for No. 1 Red Devil Diamond Point Driver. 5,000 points (50 sticks) in a package.
No. 2 Diamond Points 1/2" long for No. 2 Red Devil Diamond Point Driver. 4,000 points (40 sticks) in a package.

RED DEVIL TOOLS.
Irvington 11, N. J., U. S. A.

Rapid-Fire Glazing

American Builder, April 1947.

(Continued from page 168)

oak, walnut, dark mahogany, light ma- hogany, white, cedar, ebony and gum- wood. The colors are packaged in one- quarter pound and one-pound cans, and it is hoped in the near future to market them in 25-cent tubes also.

Natural Plastic Wood, whose produc- tion was uninterrupted by the war, is available in all three sizes and in 10-cent tubes.

Prior to the war, Plastic Wood in colors was a popular item for carpenters, home craftsmen, and boat owners, enabling them to obtain accurate matches in repairing wood finishes.

* * *
Because of the speed and ease with which the blade can be positioned to saw the most difficult miters and make other necessary cuts the MULTIPLEX has received enthusiastic acceptance. Facility and scope of operations are unequalled in any other saw. The Exclusive Versatile Elbow or center pivoted track arm is rotatable 360° and movable backward or forward along the rigid overarm. This provides an infinite number of possible positions and allows 100% mitering capacity. Cuts left hand as well as conventional right hand miters up to 90° with the saw in the approximate center of the table. There is no lost travel of the cutting head on the track. This greater flexibility and versatility permit more operations, greater production and lower costs.

DRILL PRESS ATTACHMENT -- The MULTIPLEX Model 30A and 40A can also be quickly and easily converted to a high speed ball bearing drill press attached to and driven by the saw motor. Valuable also for shaping, carving, routing, circle routing, sanding, planing and many other operations.

Write for full information and name of nearest dealer.

MULTIPLEX
Radial-Arm Saws

RED STAR PRODUCTS INC. 3455 VEGA AVE., CLEVELAND 13, OHIO U. S. A.
Clay Pipe Protects Highway Shoulder

To protect a highway shoulder along a river bank against washouts from floods, ordinary clay pipe was set in tiers at low water and anchored securely by filling with brick. This unusual installation with these ready-made units made quick and easy a job that might have been complicated and expensive.

Building Trades Apprentice Programs Tripled in 1946

Apprenticeship programs continue to gain in popularity and to improve. At the end of 1946 there (Continued to page 174)

Stainless Steel Sinkbowls

Legion sinkbowls are seamless drawn from one piece of solid or single clad stainless steel...No welds, rough edges, ridges or grooves to cause leaks, corrosion or cracks where dirt may lodge...Light in weight, yet rigid and long-wearing...Oblong, square, round or oval shapes.

Write for catalog sheet.

THE EAGLE-PICHER COMPANY
Cincinnati (1), Ohio
Member of the Lead Industries Association
there's only ONE INSELBRIC
THE NAME THAT BECAME AN INDUSTRY

and only INSELBRIC has COPPER-REINFORCED CORNERS

Other brick-design sidings may look like Inselbric, but only Inselbric gives the added protection of copper reinforced corners. Extra strength where it is needed most. At the corners! Just where buildings are exposed constantly to the hard blows of rain, wind, sleet and snow. Inselbric faces these realities. With it, there is always that extra measure of service. That's why hidden, built-in values are typical of Inselbric. And that's why alert dealers and leaders in the building trade insist upon Inselbric.

Write for our Inselbric Store Plan Today

MASTIC ASPHALT CORP.
MAKERS OF INSELBRIC AND INSELSTONE
SOUTH BEND, IND. · ELIZABETH, N. J.

JONES & BROWN, INC.
NATIONAL DISTRIBUTORS OF INSELBRIC AND INSELSTONE
PITTSBURGH, PA.
ABESTO COLD ROOF ADHESIVES and COATING MATERIALS USED EXCLUSIVELY on this Modern Recreation Center

A Cold Process built-up roof—constructed with Abesto materials—offer these advantages:

★ Heating equipment is unnecessary—no fire hazard.
★ Either spray or squeegee application can be used.
★ Abesto adhesive remains elastic after curing thus allowing expansion and contraction without cracking.
★ Factory-packaged materials of uniform quality eliminates processing on site—assures uniform coverage.

The ABESTO line is the result of 15 years of research and on-the-job testing conducted by an organization devoted to the development of cold process materials and methods. This specialization is assurance that when you use Abesto, you are using the best the industry has to offer.
Your office can be as much as 15° cooler . . . on the hottest days!

Summer will soon be here, and with it—blazing heat! Don’t endure another season of sweltering misery when a KoolShade installation can assure you cooler comfort all summer long. KoolShade makes sun-exposed rooms as much as 15 degrees cooler by blocking and radiating up to 90% of the sun’s heat rays outside your window! Yet vision from inside is crystal clear, and there’s an abundance of glareless light!

KoolShade is easily installed like ordinary insect screen. It requires no maintenance . . . will never rot, rust or rattle. Keeps out insects, too. Order KoolShade now to assure installation before hot weather begins. It will pay you big dividends in personal comfort and increased working efficiency!

NOTE THESE VALUABLE FEATURES
- Permanently set at 17° angle for greatest shading efficiency.
- Prevents the fading of valuable drapes and furnishings.
- Easy and inexpensive to install—will not rot, rust or rattle.
- Fits neatly and smoothly into modern architectural design.
- Durable bronze KoolShade also effective as insect screen.

MAIL THIS COUPON TODAY FOR
COOLER COMFORT ALL SUMMER!

Ingersoll
KoolShade Sun Screen

Ingersoll Steel Division
Borg-Warner Corp., Dept. B4
310 South Michigan Ave., Chicago 4, Ill.
Please send free sample and literature, also the name of my nearest KoolShade distributor.

Name

Company

Address

City

State
QUALITY FOR A HALF CENTURY ADAMS-RITE

RITE SLIDING DOOR HARDWARE WINS APPROVAL when shown. It is good-looking, substantial, functional. We manufacture a number of sizes and styles of both cast and forged brass and bronze Flush Pulls which may also be installed as window lifts. For heavy doors we make a concealed grip Edge Pull which fits flush in the leading edge of the door . . . a light spring retracts the pull when not in use. Jamb bolts, designed as locking devices, are likewise made in several types for large or small sliding doors. Be sure to recommend the RITE sliding door hardware and you’ll make friends.

RITE BALL LATCHES
Adjustable for shrinkage or warpage. Two sizes, small enough for cabinet doors, large enough for all standard doors.

RITE BRASS SURFACE BOLTS are extruded in patented girdler shape—%"—%"—%" widths. Adjustable on job for throw required.

RITE JAMB BOLTS
In two styles—of solid brass. Mount in rear stile of door to positively lock a door from inside only. Useful on windows.

American Builder, April 1947.

(Continued from page 174)
skilled masons unless this number is exceeded by a wide margin this year, says A. Shipley, president of the Structural Clay Products Institute, reports.

"Up to the present time, it has been possible to start programs about as fast as mason shortages have developed, but the training of apprentices will have to be extended rapidly in view of the increased production of brick and tile," Shipley said.

"It is estimated that a total of about 154,000 skilled masons will be needed to meet peak requirements after limitations on non-residential building are completely removed, whereas only about 91,000 experienced workers were available when peacetime construction was resumed following V-J Day."

Care of Plumbing Fixtures Explained in Folder

A FOLDER entitled "How to Take Care of This Fixture" is being pasted on all new plumbing sold by members of the Enamed Cast Iron Plumbing Fixtures Association. Offered to homeowners and other users, the folder cautions home owners against abuse of the fixtures.

Copies of the folder, about three inches by four inches in size, are available from the Technical Information Department, The Plumbing and Heating Industries Bureau, 35 East Wacker Drive, Chicago 1, Illinois.

No Weights! No Cords!

Approved for use on F. H. A. construction

Vikre Sash Holder saves $$s per opening

Every penny counts in construction these days. Costs jump when jobs are held up. Vikre Sash Holders do away with hard-to-get sash weights and cords . . . save you dollars per opening.

Tested and proved for years, Vikre Sash Holders are easily installed . . . and once adjusted require no more attention.

Again available in quantity, Vikre Sash Holders may be secured through your building supply dealer.

For full details write

J. N. VIKRE CO.
3016 14th Ave. S. - Minneapolis, Minn.
No other part of a building job requires more skill or more specialized knowledge than the selection and expert installation of the right plumbing equipment. That's why IT PAYS to work with an expert — a reliable, experienced Master Plumber who KNOWS HOW.

You'll find the advice of your Master Plumber invaluable — in securing the best of materials and meeting all code requirements. You'll find you save both time and money, by letting the plumbing contract to a competent, dependable MASTER PLUMBER!

H. B. Sherman Mfg. Co.
Battle Creek, Michigan

Sherman WATER-MASTER Ball Bearing Faucets are sold only through selected Plumbing Wholesalers, to Master Plumbers only.

GENERAL CONTROLS' compact T-80 Series

Trimtherm has set a new standard of accuracy in remote control of room temperatures. Its remarkable sensitivity insures a close temperature differential. The harmonizing dull chrome cover is the thermally responsive mechanism, unhoused and exposed to immediate radiant heat and temperature change. Extends only ¾" from wall.

A functional beauty that lives thermally in the room.

For complete specifications, request new Catalog 52C.

AVAILABLE ONLY IN B-60 ALL-GAS CONTROL PACKAGED SETS.
An Unfailing Advantage
.... in lowering costs
speeding installations
making rooms
more attractive

There are so many features for 1 3/4" Paine Rezo doors that it is hard to determine which is most important. Pre-fitted to exact size, light-in-weight with clear flush surfaces that finish fast, they work wonders in trimming down installation time to less than half of that required by common panel doors. That applies whether you're painting or staining. But this is only the beginning.

Paine Rezo doors do things for rooms, too. Entrance halls, stairways, dining rooms, bedrooms, kitchens, all appear more spacious, more livable when the smooth sweep of walls are complemented by the unbroken, flush surface of this harmonizing door. Other values you and the home-owner like, include a patented air-cell core that provides great strength while it minimizes shrinking, swelling, warping.

Because these advantages never fail, over two million Rezo doors are in service today, the choice of America's leading architects and building contractors. Ask your dealer for Paine Rezo doors*, or write for a factual builders bulletin.

*Because of production limitations, Rezo doors cannot yet be shipped to the Pacific Coast.

Manufactured by the
PAINE LUMBER CO., Ltd. Oshkosh, Wisconsin
ESTABLISHED 1853

Novel Quonset-Type Factory

YORK-SHIPLEY, Inc., of York, Pa., manufacturers of residential, commercial, and industrial oil-fired equipment, has resorted to the use of two huge quonset-type manufacturing plants to provide immediate space for increased operations until a permanent factory can be built.

These buildings, chosen because they could be easily and quickly constructed, have a combined working area of 60,000 square feet. Each has a triple dome, centrally supported by vertical steel members. The exterior consists of corrugated iron sheets on a steel-arch framework insulated with a two-inch layer of rock wool and one layer of fibre board. The floors are of concrete.

The plants are being used for the mass production of a packaged, oil-fired winter air conditioning unit for use in veterans' housing projects.

York-Shipley quonset factory.
FOR CONVECTOR
HEATING AT ITS BEST

COMFORTABLE—NEAT—ECONOMICAL

... OR, IN OTHER WORDS, A B & G HYDRO-FLO HEATING SYSTEM

This B & G Hydro-Flo Heating installation with convector is a credit to the installing contractor for his good workmanship and to the builder for his good judgment. Just as for all other kinds of radiation, convector are best served by forced hot water!

B & G Hydro-Flo Heating provides smooth, positive control of heating medium temperatures . . . automatically adjusting the heat supply to meet changes in the weather. With simple, dependable equipment, indoor temperature is maintained uniformly at whatever degree is desired.

This system is really versatile! Note the unit heater in the recreation room—it serves to quickly dry those articles of clothing every woman prefers to launder herself. Note, too, the space-saving neatness of the single main Monolfo piping... the compact boiler hook-up.

If you haven't complete information on B & G Hydro-Flo Heating Systems, write today for a B & G Sales Kit.

PLENTY OF HOT WATER, TOO

The cost of hot water for personal and household cleanliness is an important consideration for today's home owner. Remember that modern labor-saving devices, such as dish and clothes washers need plenty of hot water for satisfactory operation. The B & G Hydro-Flo Water Heater provides it—all around the clock and calendar—at so low a cost that it can be used unsparingly.

B & G Hydro-Flo Heat is the preferred system for homes, apartments and industrial buildings. Its time-tested equipment can be installed on any hot water heating boiler.

This B & G Hydro-Flo Heating installation with convector is a credit to the installing contractor for his good workmanship and to the builder for his good judgment. Just as for all other kinds of radiation, convector are best served by forced hot water!

B & G Hydro-Flo Heating provides smooth, positive control of heating medium temperatures . . . automatically adjusting the heat supply to meet changes in the weather. With simple, dependable equipment, indoor temperature is maintained uniformly at whatever degree is desired.

This system is really versatile! Note the unit heater in the recreation room—it serves to quickly dry those articles of clothing every woman prefers to launder herself. Note, too, the space-saving neatness of the single main Monolfo piping... the compact boiler hook-up.

If you haven't complete information on B & G Hydro-Flo Heating Systems, write today for a B & G Sales Kit.

PLENTY OF HOT WATER, TOO

The cost of hot water for personal and household cleanliness is an important consideration for today's home owner. Remember that modern labor-saving devices, such as dish and clothes washers need plenty of hot water for satisfactory operation. The B & G Hydro-Flo Water Heater provides it—all around the clock and calendar—at so low a cost that it can be used unsparingly.

B & G Hydro-Flo Heat is the preferred system for homes, apartments and industrial buildings. Its time-tested equipment can be installed on any hot water heating boiler.
Reliable surveys show that more than half of the families with building plans now under way will have separate showers (not just a shower over the tub) in their new homes.

There are Weisway Cabinet Showers for luxurious installations and for the simpler baths required in low cost homes. Each model embodies service-tested materials, precision fabrication and the quality craftsmanship of the pioneer in this field.

Weisway quality has been a big factor in winning acceptance of Cabinet Showers as standard bath equipment. Weisway's fine appearance is a reflection of the quality which goes clear through—the 4-way protection* which makes the cabinet leak-proof, corrosion resistant, and insures lasting satisfaction.

Write now for detailed information about the Weisway line, without obligation.

HENRY WEIS MFG. CO., INC., 401 OAK ST., ELKHART, IND.

*1. Galvanized  
2. Bonderized  
3. Baked prime coat  
4. Baked synthetic enamel

Weisway CABINET SHOWERS
Again NORGE-HEAT leads with another new feature to save time and save money for the builder. The new oil-burning winter-air-conditioning furnace has all its points of service, including all working parts and lubrication, centralized in one area... located for quick, easy access, just behind the large, easy-to-open front door.

This is just another reason why builders as well as owners prefer this new furnace. There are many such features built into all NORGE-HEAT furnaces and water heaters to enable builders to clear bigger profits with less effort.

Nationally advertised in leading magazines, beginning in April!
REZ
makes fine wood finishing easier, quicker, more economical

This ready-to-use amber-clear sealer and primer protects floors, doors, sash, millwork and plywood. It is a synthetic resin, especially formulated to penetrate the wood fibers — leaves a tough resinous deposit, thereby minimizing moisture absorption, grain raise and decay. Also, it acts to assure dimensional stability.

Rez provides an ideal base for any type of finish — paint, stain, varnish.

See Your Dealer or Jobber

If Rez is new to you, or if you want current supply information on this easy-to-apply, quick-drying sealer and primer, see your dealer or jobber today. MONSANTO CHEMICAL COMPANY, Western Division, Seattle, Wash. . . . District Sales Offices: Los Angeles, San Francisco, Portsmouth, Va.

SERVING INDUSTRY . . . WHICH SERVES MANKIND
For new construction or remodeling, you'll find it quick and easy to use Weldwood Plywood with stock sashwork.

Here are four methods selected from those illustrated in the Weldwood Installation Booklet. You'll find a host of other helpful and valuable suggestions for the many interesting structural details possible with this versatile material.

This profusely illustrated booklet is yours for the asking. Write for your free copy today.
If Mr. and Mrs. Client were building their own home, they'd be sure to "build in" two important comfort features—an Emerson-Electric Home Cooler Fan for a cool, "sleepable" house on hot summer nights—and an Emerson-Electric Kitchen Ventilator for an airy odorless kitchen.

Emerson-Electric is continuing to sell these two home-comfort ideas in more than a score of popular magazines, reaching thousands of present and prospective home builders. You're sure to please your clients and make your client-job easier, when you specify and install Emerson-Electric Kitchen Ventilating Fans and Home Cooler Fans.

For detailed specifications and complete information, write for free illustrated catalog No. 206 TODAY.
Q. What is the effective technique for insulating the narrow spaces around windows and air ducts?
A. See Balsam-Wool Application Data Sheet Section C No. 1.

Q. What are the thermal resistance values of various building materials?
A. See Balsam-Wool Data Sheet Section A No. 4.

Q. What methods can be used to ventilate flat-roofed construction effectively?
A. See Balsam-Wool Data Sheet Section B No. 5.

Quick Facts for Busy Architects...

Balsam-Wool Data Sheets

Through its twenty-five years of experience, Wood Conversion Company has collected a wealth of valuable information on applying insulation. This information is embodied in a series of Balsam-Wool Application Data Sheets. These sheets are offered to you without cost or obligation. Mail the coupon for your set!
EVIDENCE OF QUALITY

Proven by more than a Decade of Consumer Acceptance and Guaranteed Performance!

When you specify a BAR-BROOK BREEZEBUILDER Attic Fan for the homes you build or remodel, you're specifying a quality cooling appliance. For fifteen years the name BAR-BROOK has meant leadership in quality cooling appliances, and the BREEZEBUILDER trade-mark assures inexpensive comfort cooling in any homes, old or new.

Installation of the BREEZEBUILDER is speedy and inexpensive, operation is economical and trouble-free. There are four models obtainable—one to fit any home or apartment you build or improve.

Write us for complete information about specifications and installation of the BAR-BROOK BREEZEBUILDER—the attic fan backed by fifteen years of quality.

American Builder, April 1947.

(Continued from page 184)

Although aluminum for electrical conductors has been recognized and approved by the National Electrical Code for many years, the higher current carrying capacity of copper has always affected its general use for insulated wires and cables. Now, however, increased current loadings made possible through the application of modern heat-resisting rubber insulations which can withstand higher temperatures of operations have solved the problem.

A detailed technical bulletin H-407 on Aluminum Building Wire is available from the Hazard Insulated Wire Works Division.

Wood Treating Plant Opened at Baltimore

An American Lumber and Treating Co. plant, designed to alloy wood with creosote, Wolman Salts and Minalith flame-proofing salts, has been opened at Baltimore, Md., it is announced by J. F. Linthicum, company president.

Located on Chesapeake Bay in Baltimore's Fairfield industrial district, the new plant covers approximately five acres and lies adjacent to the lumber stocks of the Weyerhaeuser Sales Co. Chemical processing facilities will be operated for Weyerhaeuser and other members of the lumber industry under the company's policy of supplying a treating service to the lumber industry.

(Continued to page 188)

CONCRETE BUILDING PRODUCTS EQUIPMENT

Complete line of modern, low cost units, including:

- CONCRETE BRICK MACHINES
- CONCRETE BLOCK MACHINES
- BATCH MIXERS—12 cu. ft.
- UTILITY MIXERS—2 1/2 cu. ft.
- CONVEYORS
- HOPPERS
- PALLETS
- CURING RACKS
- ELECTRIC HAMMERS
- "PACKAGED VIBRATION"

* Immediate Delivery

For complete information and prices, check the items above that interest you, clip out and send us this ad.

R.S. Reed Corporation
410 East Hoffman Street Three Rivers, Mich
Beauty is ingrained in every foot of Western Pines. These versatile, soft-textured woods radiate charm that cheers in exteriors and interiors—in every room—in every corner.

Best of all, every dollar invested in Western Pines returns the utmost in lasting beauty. The reason being that these fine woods are carefully selected, properly seasoned, and respond to any desired finish.

Confident is the architect who specifies, and the builder who uses Western Pines. And happy is the home owner who lives with the loveliness of these distinguished woods.

**DO YOU—PLAN?—BUILD?—FINANCE?**

When talking to your clients and customers, you'll find this free literature helpful. A postcard request brings them to you. "Economy Sidings" discusses building costs and values of Western Pines for exteriors. "Weekend House" gives ideas for hunting and fishing cabins and lodges. "Painting Over Knots with Knot Sealer" describes formula and application. Address Western Pine Association, Dept. 4B, Yeon Building, Portland 4, Ore.

**These are the Western Pines**

Well-manufactured — thoroughly seasoned — rigidly graded — by all Association member mills
Build sturdy scaffolds
this easy way with
KNIFE-GRIP
BRACKETS

Save up to 70 per cent by using Knife-Grip brackets to build your scaffolding.

FLEXIBLE. With Knife-Grip steel brackets you can erect scaffolds to any height with decks and bays spaced exactly as desired.

FAST. Scaffolding goes up fast with Knife-Grip brackets. For example: two men build 2-story scaffolds, 16 feet long, in 20 minutes. Larger scaffolds can be built in comparable short time.

EASY. No nails, bolts or special tools—only Knife-Grip brackets, a hammer, and ordinary dressed 2 x 4's and 4 x 4's are required when you build scaffolds the Knife-Grip way.

MANY USES. Construction and erection contractors including carpenters, plasterers, brick masons and painters now use Knife-Grip brackets for scaffolding.

SOLID. Knife-Grip brackets lock vertical and horizontal timbers in place. Give workmen complete security.

LOW COST. Inexpensive, Knife-Grip brackets are built for long life, hard service. Same lumber can be used many times.

(Continued from page 186)

without entering into the buying or selling of treated or untreated sawn lumber products.

The plant is strategically located to treat hard and softwoods from the South and Western species shipped by boat from Columbia River and Pacific Coast ports or arriving by rail. It represents the largest wood treating facilities in the area.

Sales of the plant's treating capacity will be handled by the company's Washington office, 831 Southern Bldg., under the direction of C. D. Bird, sales manager.

Hotpoint Launches "Use-Value" Training

IN launching a training school for home economists and consultants through Hotpoint Institute to assist dealers in home freezer sales, F. M. Slasor, manager, refrigeration sales division, pointed out that while the 1947 home freezer production is not likely to meet consumer demand, strong competition should characterize the industry's future.

"This appliance," said Mr. Slasor, "is in the same situation as was the refrigerator 20 years ago, and it is not a question of whether there is a wide demand; rather, it is a question of merchandising."

Housewives, he went on, must be sold on the economy and utility of home freezers, and to implement the company's dealers for this, the Institute is placing special emphasis on (Continued to page 190)
with a Stanley-Carter R5A Router and the new sash grooving attachment

If you have a Stanley-Carter R5A Router, you can remodel window sashes to take spring type balancers, quickly and profitably with the addition of an inexpensive grooving attachment. With this simple setup each side of the window is grooved to the required depth in a single cut. Because the cutter operates at high speed (18,000 RPM) grooves are left clean and smooth—ready for the coil spring.

Cuts square or round-bottom grooves 5/8" wide...square groove 5/8" deep; curved groove, 5/16" radius. Depth of cut is adjustable. Detaching just 3 bolts removes the attachment and you have a Stanley-Carter R5A Router—a full horsepower-ful portable routing machine for an infinite variety of profitable jobs.

Write today for information on this newest Router attachment. Stanley Electric Tools, Stanley-Carter Sales Dept, New Britain, Connecticut.
VAPOR Condensation You Can See May Be Funny...

But "In-Wall" Condensation Is No Laughing Matter

The same vapor that "steams up" windows can make insulation soggy and impair its efficiency if it condenses within walls. Condensation is the deadly foe of insulation. Uncontrolled condensation can cause wall stains, paint peeling, hasten structure rot. A sure way to lick "in-wall" condensation and give life-long protection to insulation is with a separate vapor barrier. Standard with architects the country over is Bird Neponset Black Vapor Barrier. Applied on the warm side of insulation, Bird Neponset Black safely repels vapor, keeps insulation at peak efficiency. Costs only about $20. for a $10,000 building. Consult Sweet's Architectural file, 9b-2, or write Bird & Son, inc., 158 Wash. St., E. Walpole, Mass., for sample.

M-H Promotes Two

THE Minneapolis-Honeywell Regulator Co. through its vice president John E. Haines has announced the appointment of Frederick C. Brandt as sales manager of the air conditioning sales controls division in the southwestern region, with headquarters in Houston.

Simultaneously, vice president A. H. Lockrake announced the appointment of Lynn H. Johnson as sales manager of the gas controls division, with headquarters at Minneapolis.

DIGS TWO HOLES A MINUTE

Any depth up to 30 inches.
12", 18", or 24" Diameter.
Installed by one man in less than five minutes.
Operated by driver from tractor seat.
Ideal for footings, ditches and trenches.

Specifications: roll width: 120". Roll: 900; approx. wt.: 60 lbs. Asphalt saturated. Coated with heavy asphalt, metal well. Meets Federal Specifications U-C-P-265 Grade B.

Available for Ford Tractors with Ferguson System. Special model for Jeeps with hydraulic system slightly higher. Models for other tractors not available at present.

WRITE FOR DETAILS
IMMEDIATE DELIVERY
Roper Mfg. Co.
WALNUT DR., ZANESVILLE, OHIO

American Builder, April 1947.
FIREPLACE UNITS
FOR ALL YOUR CUSTOMERS

More sales—better profits for you—with the Bennett Line—Fireplace Units, Dampers (Steel and Cast-iron), Clean-outs, Ash Dumps, Lintel Bars, etc....to fit every prospect's requirement. Only Bennett builds two types of Fireplace Units, to meet all building needs.

For Camps, Cottages, Southern Homes and Play Rooms

Fresh air, from outdoors, is heated and circulated throughout the room. No loss of expensive furnace heat up the chimney...no cold, unhealthy floor drafts—and no smoke!

The unit cannot interfere with the traditional beauty of the fireplace—it's hidden within the masonry...Easier and quicker to build. Mantel may be designed with complete freedom.

EVERY FIREPLACE OWNER WANTS...

Write us for FREE FIREPLACE CATALOG at 447 Market Street.

Fleescreen
SAFETY FIREPLACE CURTAIN

BENNETT - IRELAND INC.
Chartered in 1906
NORWICH, NEW YORK

KOVEN WATERFILM BOILERS FOR Economical QUICK HEAT!

Today a boiler has to fit into the modern scheme of things. Sell your customers a heating unit that combines service with style...the KOVEN WATERFILM BOILER, scientifically developed to insure economical, efficient performance.

Its patented construction provides quick, uniform heat and a plentiful supply of domestic hot water at all times. Its trim lines and smart jacketing complement any finished basement room.

Known for low-cost operation the KOVEN WATERFILM BOILER is relied upon by home-owners, leading architects and industrial builders.

Made for automatic firing with oil, stoker or gas. Available in several models adapted to small homes, apartment houses or industrial plants. Write for detailed information.

WATERFILM BOILERS, Inc.
154 Ogden Avenue, Jersey City 7, N.J.
Plants: Jersey City, N.J. • Dover, N.J.
Listen to the WATERFILM Broadcast "Vaudeville Isn't Dead" Mon., Wed., Fri. at 7:45 P.M. and Sun. at 12:15 P.M. Station WNEW
LOW APPLIED COST — NO WASTE!

No batten strips...no rips...no tears...no time lost — that's the reason why Sisalkraft matches all other building papers in low applied cost. Whether it's a cottage or a mansion, Sisalkraft gives every home an extra measure of protection against moisture, wind, dirt and dust.

The SISALKRAFT Co., 205 W. Wacker Drive, Chicago 6, Ill.

Manufacturers of Sisalkraft for sheathing, Copper Armored Sisalkraft for all concealed flashing, Sisalation for reflective insulation and moisture barrier.

PRODUCE A TRICKLE OR A TORRENT

From the small-sized, feather-light (35 lbs.) 3MU with its powerful 1 1/2-inch suction to the mighty 90MU which controls a veritable torrent through its massive 6-inch connections, there is now a proper sized Barnes Universal Drive Automatic Centrifugal Pump for any requirement.

Eight capacities of from 3,000 to 90,000 gallons per hour, and five suction and discharge sizes of from 1 1/2 to 6 inches, fill a complete new line of Universal Drive Automatic Centrifugals that are a "must" for contractors, industrial plants, municipalities, mine operators, farmers, gardeners and wherever a power source is available. Each Barnes Universal Drive Automatic will deliver top performance when belt-driven from tractor, jeep or any other gasoline engine, or when shaft-coupled directly to electric motor. These powerful new Centrifugals have the same Automatic Prime, Barnes Super-Seal, Direct Flow Suction, Non-clogging Impeller and all other fine features found in Barnes famous "33,000 for 1" Pumps.

Yes, where the need is for rapid transfer of water there's a Barnes Universal Drive Pump to do the job from any existing power source. And, what's more, immediate orders will get prompt deliveries.
FLAME PROOFNESS is only one of the many plus values that make Cotton Insulation easy for you to sell.

Lightness in weight—permanent fluffiness that prevents packing or settling—up to 36% more insulating efficiency than any of 10 other types commercially available—these are facts that you can back up with data from U.S.D.A. tests.

Advertisements now appearing in national magazines are creating prospects and paving the way for your salesmen. Cotton Insulation is available now, ready for you to sell now.

You'll find, too, that your workmen have no reluctance to handle Cotton Insulation. It gives off no fine particles or dust to irritate the nose, throat, or skin.

FREE! Send for your copy of the new Cotton Insulation sales folder. It will give you many suggestions for building a dramatic sales story to drive home the Superior Advantages of Cotton Insulation. Write today. Address National Cotton Council, Box 18, Memphis 1, Tenn.

Look for this emblem when you buy.

COTTON INSULATION ASSOCIATION
NATIONAL COTTON COUNCIL OF AMERICA

ROLSCREENS in a house are a "trademark" of good planning. They are a year 'round advertisement for the builder who puts them in. They help to keep a house up-to-date and protect its salability over the years. A big part of your business is selling CONVENIENCE. ROLSCREENS help you do it easier and better than any other window accessories. 10-year guarantee.

CONVENIENCE OF ROLSCREENS SELLS ON SIGHT

Once in place . . . always in place. That's Rolscreens! No putting up! No taking down! No storing! No painting! No seasonal repairs! Installed and operated on the inside. For all types of windows—both old and new construction.

DEALERS WANTED
A number of choice territories are open for Building Specialty Dealers with facilities to sell and install ROLSCREENS. If interested, WRITE TODAY for details.

EASY TO INSTALL on all types old and new windows

No special mill work, no special fitting or cutting. Installation made to either of the above windows quickly and easily, due to new type guide channels.

GOOD DELIVERIES—ROLSCREEN orders are being filled and shipped with reasonable promptness. On your next job, include ROLSCREENS. WRITE for interesting free literature and measuring directions.
Plan a kitchen that has all the modern conveniences of gas even though you are building beyond the gas mains.

Specify "PYROFAX" GAS SERVICE

"Pyrofax" gas burns just like city gas—it operates the same appliances such as a Magic Chef gas range, a silent Servel refrigerator, and an automatic water heater. "Pyrofax" gas brings new economy, convenience and cleanliness to country homes—with this modern automatic gas service your clients will have no service interruptions, no dirt or odor. "Pyrofax" gas is distributed in most states east of the Rockies.

For complete information and the name of the nearest distributor, write to Dept. B, "PYROFAX" GAS DIVISION, CARBIDE AND CARBON CHEMICALS CORPORATION, 30 East 42nd St., New York 17, N.Y.

PYROFAX

SUPERIOR BOTTLED GAS SERVICE FOR OVER 25 YEARS
Product of a Unit of Union Carbide and Carbon Corporation

COOKING • WATER HEATING • REFRIGERATION
ROOM HEATING • BEYOND THE GAS MAINS

How to Build Warm, Dry CONCRETE SUBFLOORS on Ground

THREE types of concrete subfloors on ground which will remain warm, dry and comfortable in coldest weather can be built by any contractor. Scientific tests show that all three types have a very low heat loss.

Concrete subfloors add more to the strength, rigidity, long life and firesafety of a house than any other construction feature. Such floors are the ideal base for carpets, rugs, hardwood, linoleum, cork or rubber tile—any surface finish a home owner desires.

Recognition of these facts by real estate developers and financing agencies is creating a fast-growing demand for concrete subfloors in houses in all price classes.

Write for free information sheet on concrete floor construction including method of computing floor slab heat losses as worked out by the National Bureau of Standards. Distributed only in the United States and Canada.

PORTLAND CEMENT ASSOCIATION
Dept. A-4, 33 W. Grand Ave., Chicago 10, Ill.

A national organization to improve and extend the use of concrete... through scientific research and engineering field work.
Twelve billion dollars is a lot of money. Yet, that is a conservative estimate of the amount that will be spent by Americans for the more than one and a half million new homes to be built during the next three years.

Folks with that much money to spend are good customers. And as good customers, deserve the best the industry has to offer. In insulation, that means Lo-"K".

Lo-"K" flameproofed Cotton Insulation

Check these seven important facts about Lo-"K". Then mail the coupon below for the complete story of America's No. 1 insulation.

Lo-"K" gives greater insulating efficiency—thermal conductivity rate, only 0.24.
Lo-"K" is lighter in weight, only .875 lbs. per cubic foot.
Lo-"K" is easy to handle. Blanket roll cuts installation time and costs, fits snugly.

IN smart styling, distinctive beauty and top values, the No. 3000 line of Lawson Bathroom Cabinets is outstanding. Check the many important features.

- Seamless one-piece drawn steel body, rust-resistant—finished in High Lustre Baked Enamel.
- First-quality copper sealed plate glass mirror.
- Easy-to-clean, rounded inside corners.
- Square outside corners, with ½" return flange, make it easy to set cabinet in tile.
- Adjustable stainless steel shelf supports.
- Shock-absorbing bar-and-spring door stop.
- Removable stainless steel razor blade box.
- Full-length chromium-plated brass piano hinge.
- Bullet catch door.
- Patented "jifty" ratchet stainless steel mirror clips on models with frameless mirrors.

Write for Complete Catalog on Lawson Bathroom Cabinets and Accessories

Lockport Cotton Battino Co.
Dept. AB-4, Lockport, New York
Gentlemen:
Please send full details on Lo-"K" flameproofed Cotton Insulation to:
Name
Address
City Zone State

[Architect] [Dealer] [Contractor]
That's *for Me!*
decides
Mrs. Doakes

Trust a good housekeeper to know what's what in smooth-working window hardware . . .

And 134,456,000 magazine readers agree with her. Forceful advertising in leading home service magazines in now carrying the Grand Rapids “Invizable” story to millions of convenience-conscious home-planners and home-makers. (Also widely advertised in trade journals to architechts, builders and dealers.)

**She means the**

GRAND RAPIDS
Invizable
SASH BALANCE

The dependable spiral sash balance

Quickest and easiest of all balances to install—three screws do the trick. Performance-tested in the laboratory and in windows of thousands of pre-war homes. Perfect for large volume building operations because of speed and economy in installation. Simple adjustment without removing sash. Same size balance fits upper and lower sash. 10 standard sizes meet 95% of all your residential installations.

Complete data on specifications and installation

Write today for fully-illustrated, complete information on planning, sizes, installations, etc. for Grand Rapids Invisible Sash Balance.

GRAND RAPIDS HARDWARE COMPANY
Grand Rapids, Michigan

Smart, modern kitchens are finished quickly with Guiberson Steel Cabinets. Built in standard sizes, Guiberson Cabinets fit any kitchen plan. They will work around doors and windows and conform to almost any room size or shape. Beautifully finished in white baked-on enamel, Guiberson Cabinets have lifetime Formica tops—a strong sales appeal to the homemaker. They will match any color scheme ... blend in with all appliances. For low installation costs ... for cabinets built to last for years, specify Guiberson Steel Kitchen Cabinets.

MATCHED UNITS FOR ANY COMBINATIONS
Guiberson's 8 Basic Cabinet units are adaptable to almost any installation.

The Guiberson Sink Cabinet, made of extra heavy sheet steel, has lifetime Formica top. Sink is acid-resisting heavy porcelain on steel. New ledge-type faucet is a product of General Tire and Rubber Company.

See the nearest Guiberson distributor or write to

THE GUIBERSON CORPORATION
P. O. Box 1106    Dallas, Texas
The "picture window" is one of the most popular of recent developments. As executed by HOPE'S, it offers extra advantages, assuring the owner of substantial and rigid permanent framing with side ventilating casements that hold their original positive operation and weather-tightness for the life of the building.

Residence of Mr. George Jackson, Salt Lake City, Utah

HOPE'S WINDOWS, INC., Jamestown, N. Y.
THE FINEST BUILDINGS THROUGHOUT THE WORLD ARE FITTED WITH HOPE'S WINDOWS

Quality in Walls and Ceilings for Bathrooms

The desire for better things... the urge to "doll-up" the house — the joy of beauty, utility and satisfaction of remodelling with Miracle Walls by TYLAC—yes, here are the things a home owner dreams of and wants. These impulses impel the desire to specify TYLAC Wall Coverings—and, in turn, build healthy sales and profits for the TYLAC Jobber and Dealer everywhere.

The demand for TYLAC products is, today, the greatest in our history—unprecedented. We cannot make immediate deliveries but our factories are running "full tilt" in an effort to catch up with the demand.

However, we offer, for immediate shipment, TYLAC Metal Mouldings, TYLAC Adhesive Cement, TYLAC Wax Base Wall Polish and other accessories. Send for leaflets, prices and discounts on these items.
THE "IRELAND" UTILITY HOIST

Last November we asked the building trade "Can you use the 'Ireland' Utility Hoist as your 'Handy Andy' labor saver?"

The response was an overwhelming "You bet!"—from general contractors, masons, plasterers, roofers, plumbers, heating contractors and many others. They said: "It'll save time on a 'thousand and-one' lifting and hauling jobs—hoisting and hauling all kinds of construction and mason's materials ... plumbing, heating and roofing supplies."

P.S.—(It doesn't require any expensive caging or accessory equipment, either.)

So—here is the hoist for your job. It's rugged, sturdy, yet easily portable. It only weighs 290 lbs.—Extremely flexible in use, it has been a proven time and labor saver since 1911. It operates with a 3 H. P. electric motor, gas engine or tractor ... lifts 500 lbs. on a single line at 100 ft. per minute. And it costs less than $100.00, you furnish your own power.

How many uses do you have for an "Ireland" Utility Hoist? Write us at 447 Leed Street for illustrated folder describing a variety of uses, sending name of your dealer.

BENNERT-IRELAND INC.
Chartered in 1906
NORWICH, NEW YORK

Hand Pressure Can't Stall a MallDrill

On the fastest construction crews, MallDrills will not stall under pressure ... heat up under load ... nor require lubrication under continuous use. Any servicing of commutator or changing of brushes can be done without dismantling the drill. A husky 3-jaw geared chuck holds the drill bit firm—preventing slipping and chattering. A trigger switch releases more than enough torque to drill wood, metal or plastics.

Five powerful models—¼" (in two speeds), ½", 5/16" and ¾" capacities provide a size and type for every drilling job.

Ask Your Supplier or Write for Literature.
MALL TOOL COMPANY
7737 South Chicago Avenue Chicago 19, Illinois

See Our Advertisement in The Saturday Evening Post—May 10th.
CONTRACTORS and BUILDERS
Start the New Year right
WITH
THOROSEAL

THOROSEAL fills and seals cracks and all other defects in the surface, equalizes the absorption of each individual unit comprising the surface without checking or cracking.

The surface of any type of old or new stucco walls, manufactured block, brick or tile can be waterproofed and protected with THOROSEAL.

Contractors, homeowners and every type building owner have water problems, wet basements and defective exterior walls, which need sealing and protection.

An example of disintegrated stucco surface on an otherwise well-built home and how the stucco was sealed, waterproofed and interior of home made dry with one heavy application of THOROSEAL.

The above photograph shows the same stucco home after it received one heavy application of THOROSEAL, which, after being applied for one year, shows no leakage or dampness on the interior of the building.

Finish coat of SNOW WHITE QUICKSEAL will be applied during 1947.

Have your local lumber or building supply dealer order for you.

Standard Dry Wall Products, Inc.
BOX X
NEW EAGLE, PENNA.
LAPIDOLITH Liquid (patented) thoroughly hardens concrete floors for heavy-duty service without interrupting work schedules... saves the strength and safety in cavity wall construction when you use Copperweld Wall Ties to bond LAPIDOLITH penetrates quickly and deeply. reacting with the lime in the cement to form a close-grained, granite-like surface 10 times harder than untreated concrete. Dusting is eliminated: danger from alternate freezing and thawing minimized; floor protected against action of oils.

Copperweld Wall Ties give you the high strength of alloy steel—made permanent by a heavy protective covering of non-rusting copper. The two metals, inseparably united by our exclusive Molten-Welding Process, provide strength and safety in cavity wall construction when you use Copperweld Wall Ties to bond LAPIDOLITH.

These cavity wall ties are available for immediate shipment. They are packed 500 of one size to a box. Specification Bulletin mailed on request. copperwelding is just as easy as w 

No, he's not washing the floor... he's hardening it with LAPIDOLITH. Lapidolizing is just as easy as washing a floor. The first treatment is the only treatment—the first cost is the only cost. Lapidolizing is just as easy as washing a floor... saves the cost and inconvenience of patching and retopping. These cavity wall ties are available for immediate shipment. They are packed 500 of one size to a box. Specification Bulletin mailed on request. 

Copperweld Nails are the world's finest. Lapidolizing is just as easy as washing a floor... saves the cost and inconvenience of patching and retopping. These cavity wall ties are available for immediate shipment. They are packed 500 of one size to a box. Specification Bulletin mailed on request. 

COPPERWELD STEEL COMPANY

GLASSPORT, PA.

SALES OFFICES IN PRINCIPAL CITIES

SALES OFFICES IN PRINCIPAL CITIES
the modern slant...

Sager has created a "Modern" as smooth, as "gracious" as old traditional design. It is functional without fantasy. It is solid, fine, yet as practical as it is beautiful; for all Sager Builders Hardware is noted for ease of installation, for precise operation and long life.

BETTER STYLE IN BUILDERS HARDWARE BY

SAGER
NORTH CHICAGO, ILLINOIS

You have never seen so much machine at so little cost!

Here it is...

This new radial arm saw has many unique features—it is simple, easy-to-operate and light in weight. The Nall is different because it is...

New...
- In Design
- In Construction
- In Performance

You'll profit by getting all the details of the New NALL—write for a bulletin and ask to see an Equipment Engineer.

EQUIPMENT ENGINEERING CO.
Division of The NALL Corporation
ST. CHARLES, ILL.
Leonard C. Truesdell Joins Hotpoint

Hotpoint, Inc., Chicago, through its executive vice president, James J. Nance, has announced the appointment of Leonard C. Truesdell as vice president in charge of marketing.

In his new position Mr. Truesdell will be responsible for all commercial phases of the company’s operations including that of general sales management.

He is a well-known figure in the appliance industry. To accept his new post with Hotpoint, he resigned as general sales manager of the Radio Division of Bendix Aviation Corp., Baltimore, Md. Previous to joining Bendix he was associated in marketing capacities with the Frigidaire Division of General Motors Corp.

In making the announcement, Mr. Nance stated that this appointment is part of a program to build a powerful marketing organization to match the greatly increased production capacity Hotpoint has acquired.

Research Board to Be Set Up

A BUILDING Construction Research Board to serve as a clearing house of technical research information in the field of building construction is to be established by the National Research Council, John C. Stevens, chairman of the Construction Industry Advisory Council, has announced.

The new board will be patterned after the existing Highway Research Board. Its principal function will be to collect and disseminate technical research information of importance to the building industry. It will also provide a meeting (Continued to page 204)

New Answer to an Old Problem!
At one low material and labor cost, reflective Sisalation takes care of two of your most important building needs:

1. LOW COST INSULATION
SISALATION reflects radiant heat very much as a mirror reflects light. In frame or brick construction, Sisalation creates two reflective air spaces which offer amazing resistance to heat loss through the wall. Reinforcing insures speedy, intact application.

2. MOISTURE-VAPOR BARRIER
SISALATION acts as a positive moisture-vapor barrier, preventing moisture-laden air within the home from reaching the cold outer walls, where condensation of moisture would cause deterioration of structural materials. Every home can now afford its big advantages.

The SISALKRAFT Co., 205 W. WACKER DRIVE, CHICAGO 6, ILLINOIS
HEATFORM

The Superior Heat Circulating Fireplace

The HEATFORM is a double walled metal unit. A perfect guide for the masonry walls. It consists of firebox, throat, and damper. It costs but little more, because it saves labor and materials used for constructing the old time fireplace.

MORE HEAT because: larger air chambers surround firebox and throat thus more heating surface over which the air passes.

MORE HEAT, AND GREATER AIR VELOCITY, because: lower and upper heating chambers are connected by air passages at each side and also thru the throat.

MORE YEARS OF SERVICE, because: of the RIBBED construction of the boiler plate firebox.

MORE YEARS OF SERVICE, because: dead-air pockets in the rear heating chamber are eliminated by the round air flues thru the throat which draw a large portion of the air over the hottest heating surface (the lower rear sloping back wall where the most heat is generated). This prevents deterioration of metal.

MORE YEARS OF SERVICE, because: there are no exposed metal parts beneath the chimney to rust out.

Heatforms are designed and manufactured by the pioneer of the industry and are proven by 25 years of use.

Write for complete information today—and prepare to serve your customers who see our national advertising in leading home building magazines.

SUPERIOR FIREPLACE COMPANY

Manufacturers of

HEATFORMS, Form Dampers, Blade Dampers, Fuel Grates, Ash Dumps, Cleanout Doors, and Drape Screens.

1708 E. 15th St. Los Angeles 21, Calif.

ANOTHER SUCCESSFUL INSTALLATION OF AMERICAN BOWSTRING WOOD TRUSSES

This 120' x 600' addition to a factory used 29 American Bowstring Wood Trusses. Savings in building costs were achieved ... plus a gain in floor space by the elimination of center walls and posts. Building is flexibly suited for interior rearrangements ... at low cost.

Let these roof trusses help you build better, lower cost industrial, commercial, and recreational structures.

IMMEDIATE DELIVERY also write for new catalog, today.

25th Anniversary 1922-1947

AMERICAN ROOF TRUSS CO.

CHICAGO, 49 • 6852 Stony Island Avenue • Phone PLAza 1772
LOS ANGELES, 37 • 232 W. Santa Barbara Ave. • Phone ADams 1-4379

HOME BUYERS WILL APPRECIATE MAIL delivered

Inside

AMERICAN ADJUSTABLE Built-in MAIL BOX

Convenient • Pillar Proof • Beautifies Homes

Intrigues every home buyer—every prospective home builder. Sells your customers on your thoughtfulness, thoroughness and creative ability. So easy to include in your plan. So inexpensive. So worthwhile.

AMERICAN DEVICE MFG. CO.
DEPT. 6, RED BUD, ILL., U.S.A.
This valuable catalog contains a full line of the Fiers Inc—NEW IMPROVED INDIVIDUAL GLASS BLOCK VENTILATORS and various adaptations for their use in new building and remodeling. It also offers a comprehensive line of air filters and ventilators for walls, roofs and all types of formal construction.

PAGES OF REFERENCE ON DOORS FOR EVERY NEED.

Get yours today!

This helpful new book will give you latest comprehensive details on a complete range of upward-acting doors for every type of building, old or new—famous Kinnear Steel Rolling Doors with motor or manual operation, Rolling Fire Doors, sectional-type doors, and protective rolling grilles. Send for your free copy of this new Kinnear Catalog today!

THE KINNEAR MANUFACTURING CO.
Factories: 1560-80 Fields Ave. ¦ Columbus 16, Ohio
1742 Yosemite Ave. ¦ San Francisco 24, Calif.

KINNEAR ROLLING DOORS

American Builder, April 1947.

(Continued from page 202)

place at which those actively engaged in research activities will be able to exchange ideas, and a mechanism for the correlation of activities carried on simultaneously by several organizations.

The proposal to establish the Board was advanced at a meeting of the Construction Industry Advisory Council, composed of more than one hundred trade and professional associations with a direct interest in construction. The decision was reached at a conference with Dr. Frank B. Jewett, president of the National Academy of Sciences, and Dr. D. W. Bronk, chairman of the National Research Council of the Academy.

The Board will be supported by industry contributions.

Only 1.5 Million Units Needed,
Real Estate Board Reveals

To take the edge off the housing shortage only 1,500,000 dwelling units are needed, while only 1,600,000 to 1,620,000 units could be absorbed, if offered, during 1947 in the entire urban United States.

These figures, the result of the 46th semi-annual survey of the real estate market by the National Association of Real Estate Boards, indicate the small margin between barely enough and saturation of the housing market.

The survey also reveals an unprecedented call for rental housing and the need for a greater volume of new residential construction in the central cities themselves rather than on the outer rim of the cities, as is now going on.

Shortage of single-family dwellings was reported in 99 per cent of the cities, which is slightly less tight than that of May, 1946. The apartment shortage, however, has grown more general than in May, 1946, with 98 per cent recording an under-supply now as compared with 95.9 per cent then.

The major reasons listed as delaying or hampering residential construction were, in the order of their importance, lack of materials; rent control; complexities of government regulations; uncertainty as to building cost and time of com-

(Continued to page 206)
The better way to be sure that cooking grease and odors do not mar her brand new home is to install the modern BLO-FAN ceiling ventilator...in the kitchen...directly over the stove.

You'll find Blo-Fan the most appealing low cost feature you install. Its patented action combines the volume of a fan with the power of a blower.

Write us for the names of franchised Blo-Fan Distributors in your neighborhood.

CROFT offers 30 years of experience in new production methods. This background enables us to offer IMMEDIATE SHIPMENTS.

See our catalog in Sweet's or write today for your copy.

CROFT STEEL PRODUCTS, Inc.
370 Lexington Ave., New York 17, N.Y.
Johnson builds fine OIL
BURNERS
for every
HEATING
NEED!

"Packaged" heaters
that come ready to
install for use in auto-
matic steam, hot-water
and conditioned air
systems. Replacement
burners for every "con-
version" job. Heavy-
duty burners for hotels,
hospitals, skyscrapers.
Industrial burners. Au-
tomatic water heaters of
every wanted capacity.
Johnson builds them
all! And builds them
to produce more heat per dollar through years of hard usage.
Whatever your problem may be—when you need super-
efficient heating equipment, it's wise to "look to Johnson" . . .
one of the oldest and most respected names in the Oil Burner field.

Johnson Oil Burners...

S. T. JOHNSON CO.
940 Arlington Ave., Oakland 8, Calif.
401 No. Broad St., Philadelphia 8, Pa.

Provide More Home Heat With
the Majestic
CIRCULATOR
FIREPLACE

Best-laid plans of modern homes include fireplaces built
around the heat-producing Majestic Circulator a pre-
cisely-made, all-steel fireplace core that wrings maximum
heat from every pound of today's scarce fuel. It's simple to
install, saves time and labor. Circulates heat like a warm-
air furnace and is smoke-free.

In winter, it cuts fuel bills by relieving demands on the
furnace, and in chilly fall or spring, serves all heating
needs of small homes. This fireplace package unit fea-
tures smoke chamber with built-in smoke shelf, firebox,
accurate dome-damper with unique easy-to-use poker con-
trol, heat-boosting "Radiant Blades," and insulation-seal-
ing angles at side openings. For sizes and details, write.

Ask about the full line of Majestic Building Necessities including Home In-
cinerators, Coal Chutes, Underground
Garbage Receivers, etc.

The Majestic Company
624 Erie Street, Huntington, Ind.
Nationally Known and Advertised for 40 Years

(Continued from page 204)

American Builder, April 1947.

pletion because of government red tape and material shortag-
es; high cost of building materials; and price ceilings on new
residential construction (before removed by government).
While the scarcity of skilled workmen is felt in 92 per cent
of the cities, it is of major importance in about 54 per
cent. Obsolete building codes, restrictive building practices
and inability to get utility extensions continue to create bottl-
nocks but are listed as major factors by a very small percent-
age of cities.

Milocor Steel Announces Price Reduction

"W E believe that building costs are too high—that these high
costs hurt the industry as well as the new building owner.
Therefore we are taking this important step in our price pol-
icy: Substantial reduction of prices on all sizes and styles of
our side wall louver and roof louver ventilators. These
are items used in the construction of the great majority of
new homes. We are large producers."

So states an announcement by Milcor Steel Co. of what is
probably the first postwar price reduction of any product in
the building field. Mailed to 50,000 building material dealers
in all parts of the country, the statement further qualifies the
reduction by stating that while the prices of steel have gone
up from 15 per cent to 20 per cent, and labor costs have in-
creased more than 50 per cent, the company is able to reduce
prices by increasing the efficiency of its production methods
and by sacrificing a considerable portion of its profit.

Masonry Assn. Visits Concrete Block Plant

At the annual meeting of the National Concrete Masonry
Association in Chicago, Henry Buchholz, manager of the
concrete products division of the Illinois Brick Company,
Chicago, was elected president, and Hugo Filippi of the same
company was elected chairman of the Association's commit-
ttee on block plant design and operation.

(Continued to page 208)

CUSTOM BUILT
to YOUR SPECIFICATIONS

Custom fabrication is an original policy of Just
Manufacturing Company and we have maintained
that policy throughout the years. The needs of our
custom-built trade have always had preference and
always will. You design the cabinets...we build
the sinks and cabinet tops to fit your design...any
size...any shape, and they will always have that
incomparable...

Radiiluxe QUALITY
which gives you two important exclusive features:
IN-BUILT ANTI-SPASH RIM ON
BOWLS, DOUBLE-PITCH DRAIN-
BOARDS with no channels to clean, no
grooves to endanger fine glassware.

ALL WELDED, seamless construction polished to a
beautiful satin finish, radius corners in bowls,
vertically and horizontally...fully sound deadened
and many other quality features.

Other JUST LINE products are Cabineteer "Package Unit" Stainless
Steel Sinks, Stainless Steel Scullery Sinks, and Galvanized Scullery Sinks
that are hot-dip galvanized after fabrication.

Write today for bulletins and details.

Just Manufacturing Co.
4610-20 W. 21st Street, Chicago 50, Ilinois
LURIA STANDARD BUILDINGS
NOW IN PRODUCTION FOR EARLY DELIVERY

Luria Standard Buildings are permanent structures designed for maximum utility and flexibility. Large door openings, ample eave height and unobstructed clearance to the rafters make these buildings adaptable for innumerable uses. The unit system of expansion both in width and length combined with a choice in location of doors and sash provide unlimited variation in size and arrangement. These features provide a selection of combinations that are calculated to meet most individual requirements, thereby eliminating the expense of special engineering and gaining the benefit of production line economy. Simplicity of design featuring prefabricated frames of structural steel, ensures easy handling and economical erection.

UNIT WIDTHS - 40' TO 100'
LENGTH ADJUSTABLE IN INCREMENTS OF 20'
CLEARANCE AT EAVES - 12' TO 20'

WRITE FOR COMPLETE SPECIFICATIONS AND PRICES
LURIA ENGINEERING CORPORATION
500 Fifth Avenue,
New York 18, N.Y.

WORTH RECOMMENDING!!

KITCHEN-AIRE
EASILY ADAPTED TO EVERY KITCHEN

"The most versatile kitchen ventilating fan on the market!" That's what builders everywhere say about instant-action Kitchen-aire. You can install it in ceiling or side walls—inside or outside walls, with high efficiency. Installation inside calls for attractive 8½" aluminum grill, a six-inch duct extension and electric connection to a wall switch. Motor and impeller, enclosed in attractive aluminum housing, mounted on outside of home. Recommend instant-action Kitchen-aire for kitchen, bathroom and rumpus room when you build!

WRITE FOR COMPLETE INFORMATION
STEWARD MANUFACTURING COMPANY.
3209 EAST WASHINGTON STREET, INDIANAPOLIS 1, INDIANA

ENTRANCE RAILS
FROM STOCK ... SAVE MONEY, TIME

THREE DESIGNS

COME IN 5 POPULAR SIZES

4'-2" 3'-0" 2'-8" 2'-0" 1'-8"

A size for every home—a design for every taste! That's what you get in STOK-RAILS (stock size entrance rails) and at a saving of nearly 50% compared to made-to-measure rails. STOK-RAILS are standard construction: 2½" high, 1½ sq. pos., ½" sq. upright bars, ½" channel top with lamb's tongue finish. Painted black. Order from your dealer or write.

Logan STOK-RAILS
LOGAN CO., INC., 429 BUCHANAN ST., LOUISVILLE 6, KY.

MOLLY SCREW ANCHORS
MOLLY SCREW ANCHORS have proved easy, sturdy and inexpensive for installing wall fixtures and accessories. Secure without disfiguring walls. They install easily—by anyone—in any wall from solid concrete to thin fiberboard. Attach or replace wall fixtures by simply removing bolts threaded anchor stays in place.

Ask Your Building Supply or Hardware Dealer

MOLLY CORPORATION
Highlight of the meeting was a tour of the Illinois Brick Company's $500,000 concrete block plant. Located in Blue Island, a Chicago suburb, it was only recently opened and is the largest in the industry. On a one-shift basis its four machines have a production capacity of almost 25,000 blocks daily, equal to almost 300,000 building brick.

Wood Conversion Company
Announces New Officers

APPOINTMENT of E. W. Davis as president and D. M. Pattie as vice president and general manager of Wood Conversion Company, St. Paul, was announced following the annual directors meeting.

Mr. Davis, formerly executive vice-president, succeeds the late R. M. Weyerhaeuser, who was president until his death July 12, 1946. He has taken a leading part in the organization and the development of the company since its formation. His efforts have materially contributed to the growth of the company and to the leading position in its field it holds today.

D. M. Pattie, as vice-president and general manager, assumes the position left vacant by the death of P. A. Ward, August 14, 1944. At the time of his promotion, he was serving as general sales manager. He joined the company in 1923 as salesman, and introduced Balsam-Wool insulation throughout western United States.

The Wood Conversion Co. manufactures Balsam-Wool, Nu-Wood, and Tufflex products, and is one of the Weyerhaeuser forest products group.

Enduring And Good Looking

Ten years old and the lucky owner has no worries — no cupping, warping, splitting — no rot or termites — and the paint stays on.

WOODLIFE — The Original Toxic Water Repellent adds immeasurably to life, serviceability and wood beauty. Ask your dealer.

Protection Products Mfg. Co.

Mfrs of CHEMICAL PRESERVATIVES Since 1921

Research Laboratory and Plant KALAMAZOO, MICH.
Use DU-ALL Safe SCAFFOLD BRACKETS
MAKE SCAFFOLDS ON JOB, ANY HEIGHT

SAVE LABOR—TIME—LUMBER
Build scaffolds any height quickly and easily right on job, with any 2-inch lumber. Re-use lumber after disassembling scaffolds.
No waste — no nailing or bolting required. Brackets pay for themselves on the first job. Can be used over and over for many years. Used by hundreds of general contractors, bricklayers, masons, plasterers, road contractors, etc.

WRITE DEPT. "A" FOR FOLDER AND NAME OF YOUR NEAREST DEALER

DU-ALL SCAFFOLD BRACKET CO.
44 E. BROAD ST.
COLUMBUS 15, OHIO

More Square Feet of Smoother Floors Per Hour With The
REID-WAY "8"
FLOOR SANDER

Drum speed 1800 r.p.m.
Surface speed, 3,324' per min.
Fastest in the field!

Write Dept. AB for details on how the one-moving-part principle achieves a record performance for REID-WAY.

REID-WAY, INC. 2017 FIRST AVE. SE CEDAR RAPIDS, IOWA

Bigger profits are headed your way—with CER-A-SEAL doub-L-life, the nationally advertised and proved water-repellent-sealer. Every homebuilder needs CER-A-SEAL doub-L-life for treating today's unseasoned or green wood. Gives new life to old lumber too, as well as all masonry. No end of application or profit possibilities. For the proved profit experience of other dealers, write Ceraseal Chemical Corporation, 221 N. LaSalle St., Chicago 1.

CERASEAL doubl-life WATER REPELLENT PRESERVATIVE SEALER

SARAH SEAL Points the way to new Profits

BORDER PRI
LONG HANDLE • FLAT PLATES • RUGGED CASTING • FREE PIVOT

"Removed roofing worth $500 without split or break in a single board." BORDER PRI users report damage-free results on all kinds of board-removal jobs. The amazing new BORDER PRI is unmatched for speed, ease, economy, too. Try this handy, lever-action tool for more profit in razing structures and salvaging lumber for re-use. It is a proved, practical time-and-labor-saving aid.

THE MACO CORP., Huntington, Ind.
SMITH MASCOT
Modern 2-bag mixer equipped with Wisconsin air-cooled engine. No radiator to boil in summer or freeze in winter. Performs in any climate with minimum of upkeep and attention. High tension magneto and simple rope starter provide quick starting. Engine fully enclosed, easily accessible. Other features include: big, wide feed chute, "end-to-center" mixing action, fast "lift and pour" discharge.

SMITH 7-S and 11-S NON-TILTERS

THE T. L. SMITH COMPANY
2849 N. 32nd Street @ Milwaukee 10, Wisconsin

Famous for Performance on the World's Greatest Projects

Figure big or little jobs quickly and accurately the Tamblyn way for DEPENDABLE profits! Analyze current building costs. Learn the simple, easy Tamblyn System of Estimating — in your SPARE TIME!

Used by successful contractors for more than 20 years. Try it for 10 days at our expense!

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MAIL NOW
Tamblyn System, Johnson Bldg., A11, Denver 2, Colo.
Send me Tamblyn System on 10 day trial. I will pay $5 per month until $30 is paid if I keep it. If not, I will return it.
NAME
ADDRESS
CITY
STATE
SEND NO MONEY! TRY IT BEFORE YOU BUY!

Billion-Dollar Painting Spree To Restore Property Values
The paint industry is about to turn its attention to restoring the residential values of the country lost through lack of paint and labor through the war years and arrest development of slum areas, according to Grover M. Hermann, president of the American-Marietta Company. This is an obligation for which the industry is attempting heroically to equip itself by adding plant capacity and getting good basic materials for paint manufacture, he stated.

Amplifying figures compiled by a half-dozen industry and government agencies, and by his own nation-wide paint manufacturing concern, Mr. Hermann said, "The seriousness of the situation can be judged by the fact that some authorities believe the 40,000,000 residential units of the country now averaging 25 years of age have deteriorated at least an average of $100 each, or a total of $4,000,000,000."

To offset this deterioration, the paint manufacturing industry must increase its capacity and efficiency so that it can well exceed the long dreamed of but never attained goal of $1,000,000,000 manufactured output. Of this amount, a minimum of $266,848,530 must go to established residential units and new construction in 1947.

"This allocation of paint supply," Mr. Hermann continued, "would allow for painting and decorating 13,450,000 residential units or one-third of the country's total, and would add to the value of these units between $1,345,000,000 to $2,690,000,000, depending on location of the property. The cost in materials and labor would be $780,000,000. The whole painting program for dwelling units and new construction will create in excess of 100,000 new jobs, perhaps closer to 200,000."

For the last several years, the available materials constituting paint have been almost wholly used in supplying the needs of manufacturers of products painted at the factory. The homeowner is now being cut into the market, and the paint industry is doubling its efforts to make up for the wartime deficiency.

WAGNER DOOR HANGERS AND TRACKS FOR INDUSTRIAL USE!

HEAVY DUTY

Can be furnished with Ball Bearing, Roller Bearing or Hyatt Roller Bearing Trolley for doors up to 1,000 lbs. - 2¼ x 3½". Also available for 2,000 lbs. WAGNER HANGERS also available for doors up to 2,000 lbs. Ask your Jobber or Dealer.

WAGNER MANUFACTURING COMPANY
Dept. AM-477 CEDAR FALLS, IOWA
SELLS KITCHENS
SELLS HOMES

Builders say an easy, low-cost installation of a modern Vent-A-Hood Kitchen Ventilator works magic in selling kitchens to women—and SELLS HOMES FASTER.

Designed for beauty with glistening white baked enamel finish, all chrome trim, splash panel to protect walls and utility light. Engineered for efficiency with patented centrifugal exhaust unit and grease-trap to remove food odors and greasy vapors. Venting is direct to flue or through simple metal ducts. Investigate Vent-A-Hood for homes you're building or planning.

Write for descriptive literature, quotations.

THE MODERN KITCHEN VENTILATOR
The Vent-A-Hood Co., Plantation Drive-Hines Boulevard, Dallas, Texas

NEW TIME-SAVING DEVICE
FOR MORTISING HINGES ON DOORS

$5.00 POST PAID

Eliminate slow, back-breaking work with

Whiteman RODDING MACHINES
The Lightweight Rooding Machine produces better concrete... saves time and money. Rods the slab to a perfect level, compacted... ready for floating and finishing. For slabs 9 to 10 feet wide. Also in Model 44, for slabs 10 to 20 feet wide.

Write or wire for details of Rooding Machines and Floating-Finishing Machines.

Clamps on door, adjusts to mortise depth required, enabling anyone to chisel perfect mortise quickly and simply for any hinge. Saves time, saves labor, saves errors. Simple, durable, inexpensive. A perfectly mortised hinge means a perfectly hanging door.

THE EVERYDAY ESTIMATING KIT
This handy kit contains complete forms for estimating ten repair, maintenance, modernization or other small jobs. Each form consists of a permanent stub on which the contractor makes out his estimate, and a detachable Letter of Proposal which is given to the prospect. On the back of the stub, which is securely stapled to the 4½ x 8½-inch folder cover, is a form for recording the actual costs of the job. The stiff paper will stand erasures and the folder keeps it clean. Does away with messy carbons and facilitates quick estimates on all kinds of small jobs.

Single Kit, $.35; Four for $1.00; Dozen for $3.00
Book Department

AMERICAN BUILDER and BUILDING AGE
30 Church Street
New York 7, N. Y.

SANDS... Coarse or fine
Use the Sterling Portable Electric Sander on wood or metal... does the job in 1/3 the time! Sands dry wall construction, cabinet work, window and door trim, undercoats, primers and finished coats. Lightweight, well-balanced, vibrationless, easy to operate.

SEND COUPON FOR FOLDER!
STERLING TOOL PRODUCTS CO.
370-C E. OHIO ST. CHICAGO 11, ILL.

NAME
ADDRESS
CITY & STATE

STERLING MODEL 1000 SANDER PORTABLE ELECTRIC
SPOT CORD
—the most durable material for hanging windows
SAMSON CORDAGE WORKS
BOSTON 10, MASS.

Saw CORD

CALCIUM CHLORIDE
with All Portland Cement Concrete
for ACCELERATION — CURING —
COLD WEATHER PROTECTION
Solvay Sales Corporation 40 Rector Street New York 6, N. Y.

SOLVAY
CALCIUM CHLORIDE
with All Portland Cement Concrete
for ACCELERATION — CURING —
COLD WEATHER PROTECTION
Solvay Sales Corporation 40 Rector Street New York 6, N. Y.

Wm. Buckles 726-26th. Street, South Bend, Ind.

PAINE STEEL ANCHORS
Fasten machines and heavy fixtures to concrete, brick, tile, marble or stone with Paine Steel Anchors. Their large gripping area resists vibration and stress. They hold effectively in bottomless or exact depth holes and can be re-used with same security by bending jaws back in position.

WESTERN RESERVE MFG. CO.
3708 E. 93rd St.
Cleveland 5, Ohio

THE PAINE COMPANY
2959 CARROLL AVENUE
CHICAGO 12, ILLINOIS

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